

**Feasibility and Effectiveness of Consciousness, Relaxation,
Attention, Fulfillment, and Transcendence (CRAFT) in
Enhancing Tertiary Student Musicians' Well-Being and
Academic Experience**

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Abstract

Tertiary student musicians experience complex well-being concerns and challenges (music performance anxiety, psychological distress, musculoskeletal disorders) as they navigate through higher education and attempt to meet their highly physical, emotional, and cognitive music-making demands. Yoga, mindfulness, positive psychology, and emotional intelligence offer various practices and principles that may help tertiary student musicians prevent and self-regulate these stressors while satisfying elite performance levels. Grounded in these four disciplines and/or fields of knowledge, Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT) is a newly developed program for self-actualization, happiness, and well-being, that could comprehensively address this population's demands. Building on previous limitations and gaps of prior yoga and mindfulness-based research conducted in music contexts, the purpose of the current PhD investigation was to examine the feasibility and effectiveness of CRAFT to enhance tertiary student musicians' well-being and academic experience.

This investigation involved two phases including studies conducted during the COVID-19 pandemic (Phase 1; Studies 1-3) and studies undertaken before and after the pandemic (Phase 2; Studies 4-6). In both phases, participants were tertiary student musicians at two higher conservatories in Spain who followed either CRAFT, Alexander Technique, or music curricular instruction, once a week for 60-90 min during 2017-2023. In a quasi-experimental controlled trial (Study 1) and qualitative investigation (Study 2), the applicability and perceived benefits of CRAFT to improve tertiary student musicians' well-being during the lockdown were explored. Subsequently, the potential occurrence of a CRAFT-induced response shift phenomenon and the extent to which it could bias participants' self-reported changes in mindfulness was examined through the *then-test* (Study 3). Through a single-arm pre-post trial (Study 4) and mixed-methods investigation (Study 5), a comprehensive assessment of the feasibility of CRAFT in terms of its applicability, perceived benefits, and preliminary effectiveness to improve tertiary student musicians' well-being and academic experience was conducted. Lastly, a three-arm non-randomized controlled trial comparing CRAFT participants with active and inactive controls (Study 6), was implemented to examine the effectiveness of CRAFT in improving tertiary student musicians' dispositional mindfulness, music performance anxiety, emotional regulation, psychological distress, well-being, as well as lower body flexibility and balance.

Phase 1 results indicated that CRAFT was perceived by participants as an applicable, beneficial, and transformative program, while Phase 2 findings substantiated those from Phase 1 and supported CRAFT as a feasible and effective program to holistically improve tertiary student musicians' well-being and academic experience. This was evidenced by CRAFT participants' higher levels of proactivity and perceived benefits than controls in terms of implementing practices to improve their well-being during the lockdown (Studies 1 & 2); positive evaluations of the program's practicality, implementation, integration, and viability (Studies 4 & 5); significant improvements in dispositional mindfulness, music performance anxiety, emotional regulation, psychological distress, well-being, as well as lower body flexibility and balance (Studies 4 & 6); larger enhancements in mindfulness after adjusting for response shift (Study 3); and multidimensional well-being-, humanistic-, and music- related benefits mirroring CRAFT's theoretical framework that confirmed, clarified, and expanded the aforementioned results (Studies 2 & 5). Notwithstanding some limitations, this PhD investigation afforded relevant contributions to the field of yoga- and mindfulness-based research conducted

with the target population by bolstering CRAFT as a feasible and effective intervention to comprehensively enhance tertiary student musicians' well-being and academic experience. Large multi-arm mixed methods investigations with a higher frequency of delivery are recommended to substantiate these findings and extend them to other settings and populations.

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Commonly Used Abbreviations

CRAFT	Consciousness, Relaxation, Attention, Fulfillment, and Transcendence
DASS-21	Depression, Anxiety, and Stress Scales
ERQ	Emotional Regulation Questionnaire
ESs	Effect Sizes
FFMQ	Five Facet Mindfulness Questionnaire
KMPAIR	Kenny Music Performance Anxiety Inventory-Revised
MBCT	Mindfulness-Based Cognitive Therapy
MBIs	Mindfulness-Based Interventions
MBSR	Mindfulness-Based Stress Reduction
MPA	Music performance anxiety
PRMDs	Performance-related musculoskeletal disorders
SBT	Stork Balance Test
SBTL	Stork Balance Test (performed on the left leg)
SBTR	Stork Balance Test (performed on the right leg)
SPWS	Subjective Psychological Well-Being Subscale
SRT	Sit and Reach Test

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor used artificial intelligence tools or generative artificial intelligence tools (unless it is clearly stated, and referenced, along with the purpose of use), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signature:

Name: Luis Javier Bartos Pérez

Date: 20/07/2024

Co-Authored Works

The investigation presented within the present thesis with its respective six research studies has been conducted with the invaluable support, advice, and contribution of various researchers. Professor Chris Krägeloh has provided primary supervision for all the research outputs herein reported, whereas the studies described in Chapters 6-8 also counted with the guidance of Course Leader and Senior Research Fellow Wendy Wrapson. Both Chris and Wendy have been highly available to hold regular meetings to discuss all the relevant aspects related to each of the different studies in which they were involved as part of this thesis and the additional chapters that did not exclusively focus on a particular study. This also included excellent guidance and assistance in the process of developing a research proposal, designing the studies, preparing an ethics application, collecting and analyzing the data, interpreting the results, as well as reviewing and proofreading in detail the multiple drafts preceding the completion of each chapter, manuscript, responses to reviewers, and ethics application developed by the thesis author.

In addition to the thesis author's Vice Chancellor's Doctoral Scholarship from Auckland University of Technology and the doctoral research project stemming from it, all the studies carried out as part of this thesis have been linked to research projects funded by the Regional Government of the South of Spain (PIV-52/18; PIV-033/19; PIV-036/21). These projects, in which the thesis author was involved prior to undertaking his PhD journey, have been coordinated by M. Pilar Posadas, professor at the Department of Pedagogy and Singing of the Royal Conservatory of Music Victoria Eugenia—the institution where the studies were conducted. As the grant holder and coordinator of the aforementioned projects, Pilar has been the main responsible person for providing further financial support for all the studies described in the current thesis and facilitating communication between the members of the royal conservatories (faculty, board of directors, and students) where they were conducted and the thesis author. Moreover, Pilar is the developer of Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT)—the program the impact of which among tertiary student musicians' well-being has been investigated in this dissertation—and has been the deliverer of it in all the studies being conducted. Along these lines, Pilar provided the draft of the supplementary materials reported in the studies in Chapters 3 and 6 (Appendixes E1 & E2) outlining the practical and theoretical CRAFT content that was delivered in all studies of this PhD investigation.

Furthermore, two investigators ascribed to two of the larger research projects coordinated by Pilar, Professor María J. Funes Molina and Tenured Lecturer Marc Ouellet from the Department of Experimental Psychology of the University of Granada (Spain), afforded their contribution to the studies within Chapters 3 and 6. María J. Funes Molina was in charge of developing and submitting the ethics application related to the study in Chapter 6, the latest amendments of which, performed by the thesis author, were used to obtain ethics approval to conduct the studies in Chapters 3, 4, 5, and 7 (see Ethics section). She also assisted with the data collection and final draft revision of the study in Chapter 6 and contributed to the data analysis process and final draft revision of the study in Chapter 3. Marc Ouellet participated in the phases of data analysis and final draft revision in the study in Chapter 3 and data collection in the study in Chapter 6. The study featured in Chapter 6 counted also with the international participation of Associate Professor Maarten A. Immink from the College of Nursing and Health Sciences of Flinders University (Adelaide, Australia) who lent supervisory assistance by reviewing the different drafts developed for this research work. Lastly, this thesis included also the collaboration

of Senior Lecturer Oleg N. Medvedev from the School of Psychology of the University of Waikato (Hamilton, New Zealand) who procured assistance and advice in the phases of data analysis and original draft review carried out for the study in Chapter 8.

As the producer of the present dissertation, the thesis author has developed the main research tasks ensuring the contribution of at least 80% of the work required for the completion of the six research studies ascribed to it. This included the role of elaborating and submitting a research proposal and ethics application, obtaining their approval, designing and conceptualizing the studies, developing hypotheses, collecting and analyzing the data, writing the original draft, creating the various figures and tables, preparing the manuscript for submission, amending the manuscript considering reviewers' and editors' suggestions, and elaborating the pertinent responses to the specific reviewers' and editor's comments. The following section illustrates the percentage of contribution of the different researchers across the different studies included in the current thesis.

Declaration of Collaboration

Student and Supervisor Approvals

By signing you are confirming that the co-author contributions stated in the table(s) below are accurate.

Student Name Javier Bartos **Signature**  **Date** 6/09/24

Supervisor Name Christian U. Krägeloh **Signature**  **Date** 6/09/24

Chapter Number:	3
Manuscript Title:	Developing Resilience during the COVID-19 Pandemic: Yoga and Mindfulness for the Well-Being of Student Musicians in Spain
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L. Javier Bartos	Conceptualization/design; data acquisition; knowledge contribution; analysis/interpretation; writing main draft; and writing, review, and editing
María J. Funes	knowledge contribution; analysis/interpretation; and writing, review, and editing
Marc Ouellet	knowledge contribution; analysis/interpretation; and writing, review, and editing
M. Pilar Posadas	knowledge contribution; and writing, review, and editing
Christian U. Krägeloh	Conceptualization/design; knowledge contribution; analysis/interpretation; and writing, review, and editing

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Christian U. Krägeloh	Conceptualization/design; knowledge contribution; analysis/interpretation; and writing, review, and editing

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Oleg N. Medvedev	Knowledge contribution; analysis/interpretation; and writing, review, and editing
Christian U. Krägeloh	Conceptualization/design; knowledge contribution; analysis/interpretation; and writing, review, and editing

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Intellectual Property Rights

There are no intellectual property rights to be declared for this thesis

Ethics Approval

All studies conducted as part of this PhD investigation were also linked to research projects funded by the Regional Government of Andalusia (RGA), Spain, and ethics approval for the studies in Chapters 3-7 was obtained in the context of these projects in which researchers from the University of Granada were also involved. The studies reported in Chapters 3-5 were linked to the research project PIV-033/19 funded by the RGA entitled “Psycho-Physical Well-Being in Conservatory Students: The CRAFT Program based on Neuroscience, Mindfulness, Yoga, and Emotional Intelligence.” Furthermore, the studies disseminated in Chapters 6 and 7 were part of the research project PIV-52/18 funded by RGA named “Application and Effects of the Educational Program CRAFT, based on Mindfulness, Yoga, and Positive Psychology in Artistic Higher Music Education.” These studies, which were conducted under the scope of these projects and PhD investigation, received ethics approval by the University of Granada Ethics Committee (Appendix A1 and A2) on February 20th, 2018 (477/CEIH/2018) including further amendments approved on 9th January, 2020 (1009/CEIH/2019) and 26th May, 2020 (1468/CEIH/2020). Professor María J. Funes Molina, from the Department of Experimental Psychology of the University of Granada, Spain, was the primary researcher in charge of developing and submitting the ethics application related to these studies. Additionally, the latest amendments approved in May 2020 (1468/CEIH/2020) were carried out by the thesis author to conduct the studies featured in Chapters 3,4,5, and 7.

The study reported in Chapter 8 received also funding from RGA under the research project PIV-064/23 entitled “Developing Resilience and Health in Higher Conservatory and University Students during Post-Pandemic Times through the CRAFT Program: Comparative Study with other European Well-being Programs Applied in Different Academic Contexts.” The ethics application for this study was developed and submitted by the thesis author, under the supervision of his supervisors, to the Auckland University of Technology Ethics Committee and approved by this institution (Appendix A3) on December 10th, 2024 (AUTEC, 21/421).

Chapter 1. Yoga, Mindfulness, Positive Psychology, and Emotional Intelligence for Tertiary Student Musicians' Well-Being

In the current music education system, in which there is a major focus on incentivizing cognitive faculties, skill achievement, error correction, and goal-oriented behaviors, a shift into a different type of educational approach that also considers the cultivation of self-caring attitudes, health-promoting habits, well-being skills, strengths, happiness, process-oriented learning, as well as social and emotional abilities, is highly encouraged (Murnak & Kirsner, 2023; Posadas & Bartos, 2022; Seligman et al., 2011). The ancestral mind-body disciplines of yoga and mindfulness and the fields of positive psychology and emotional intelligence afford a comprehensive set of theories, principles, and practices the implementation of which could play a fundamental role in manifesting this change of perspective and enhancing tertiary students' learning and well-being processes (Posadas & Bartos, 2022). By integrating these resources into their daily lives, student musicians may be better equipped to synergistically regulate their physical, psychological, cognitive, and emotional processes, and in this manner, increase their capacity to cope with their multifaceted well-being concerns and academic demands (Chiesa et al., 2013; Gard et al., 2014; Goleman, 1998; Kaleńska-Rodzaj et al., 2023; Posadas & Bartos, 2022; Seligman et al., 2004). In the ensuing chapter, these disciplines and/or fields of knowledge will be conceptualized and critically reviewed in terms of their suitability to effectively improve tertiary students' well-being, ill-health conditions, and academic experience. To begin with, the different challenges and well-being issues affecting higher education students, in general, will be first reviewed followed by those specifically experienced by tertiary student musicians.

Issues of Health and Well-Being in Tertiary Education

The health and well-being of university students has gained significant relevance during the past few decades due to the multiple and increasing challenges this type of population is exposed to (Buchanan, 2012; Ghrouz et al., 2019; Hernández-Torrano, 2020). Examples of these challenges, which are inherent to the naturally occurring transition they navigate from adolescence to adulthood and high school to university (Arnett et al., 2014), are the lack of parental support, the increase in academic workloads, financial problems, and the need to develop autonomous behaviors (Jääskeläinen et al., 2023; Thompson et al., 2021; Tran et al., 2018). For many young adults, the university period might be the first time they take full charge of their own health (Ridner et al., 2016) and it is during these years that various health-related habits and attitudes might be adopted and persevere in later stages of their lives (Hussain et al., 2013). Particularly concerning are those pertaining to unhealthy practices such as smoking, drug, and alcohol consumption (Jao et al., 2019; Molina et al., 2012) as well as poor sleep, diet, and physical activity (Ghrouz et al., 2019; Hernández-Torrano, 2020; Zhang et al., 2016), the establishment of which may lead to the development of serious diseases (e.g., cancer, diabetes, obesity, and major psychological conditions) across the life span (Lee & Loke, 2005).

Although university students might be regarded as a healthy population at the summit of their faculties, they are not exempt from experiencing various physical and mental problems such as musculoskeletal (Can & Karaca, 2019; Rodriguez-Romero et al., 2016) and psycho-emotional (Henning et al., 2018) disturbances. Psychological ill health concerns such as stress, anxiety, and depression appear to be more prevalent among tertiary students than in the general population, and are seemingly the issues accounting for the greatest negative influence on their academic performance (Auerbach et al., 2018; Granieri et al., 2021; Ibrahim et al., 2013;

Stallman et al., 2010). The findings from a global survey administered to 13,984 university students from eight countries and 19 higher education providers showed that 31% of the sample had experienced mental health concerns at some point during their past year, with the largest prevalence rates reported for depression, 19%, and anxiety, 17% (Auerbach et al., 2018). Similarly, evidence from an epidemiological study followed by 2,118 first-year university students from Spain showed an almost identical 12-month prevalence rate of mental disorders, 36%, as well as depression, 19%, and anxiety, 17% (Ballester et al., 2020) to that reported by Auerbach et al. (2018). Additionally, more alarming figures were reported in the comparative associate investigation conducted by Ruiz-Hernández (2022), in which even 33% and 45% of the respondents—represented by 1,405 Spanish students from various higher education levels—screened positive for severe depression and anxiety, respectively. A number of stressors have been linked to depression, stress, and anxiety such as high academic demands, pressure to obtain a degree, plans after graduation, and financial problems (Beiter et al., 2015). Additionally, other relevant concerns that have been associated with psychological distress among university students are the increment of reduced quality of life (Ribeiro et al., 2018), rumination (Felton et al., 2022), difficulties in managing intrusive thoughts (Field et al., 2012), and suicidal thinking (Blasco et al., 2018). Noteworthy, rates of suicidal ideation in Spain in the past two years among university students—ranging from 15% (Ramos-Martín et al., 2023) to even 29% (Reina-Aguilar et al., 2023)—raise grave concerns for taking urgent steps to address the generalized mental health problem affecting this population.

Moreover, it appears that the prevalence of the various well-being concerns affecting tertiary students has been generally exacerbated worldwide with the emergence of the COVID-19 pandemic and ensuing lockdowns. This includes the worsening of health-related issues such as psychological distress, negative affect, sedentarism, loneliness, sleep quality, and worries about family and finances among Italian, Greek, Chinese, Swiss, and American university students amidst the COVID-19 pandemic (Gallè, Sabella, Ferracuti, et al., 2020; Gallè, Sabella, Da Molin, et al., 2020; Elmer et al., 2020; Huckins et al., 2020; Kaparounaki et al., 2020; Li et al., 2020; Liu et al., 2020). Findings from a survey completed by 3,707 participants, of whom 77% were Spanish university students, showed that 34%, 28%, and 21% of the respondents presented moderate to extremely severe symptoms of depression, stress, and anxiety, respectively, during pandemic times (Odrizola-González et al., 2020). Notably, Odrizola-González et al. (2020) found that the highest rates of psychological distress were reported by students of Arts and Humanities studies, a trend which has been previously and subsequently documented (Lipson et al., 2016; Ruiz-Hernández et al., 2022; Vaag et al., 2021) for this discipline to which the target population of the present thesis—tertiary student musicians—belongs.

Health and Well-being Stressors Experienced by Tertiary Student Musicians

As with the general population of higher education students, the life and academic experience of tertiary student musicians is also impacted by the various health and well-being stressors conveyed in the previous section. However, evidence suggests that student musicians appear to have less inclination to adopt self-health care behaviors and coping mechanisms, lower quality of sleep and general health condition, and higher propensity to experience psychological distress and musculoskeletal problems than students from other disciplines (Araújo et al., 2017; Ballenberger et al., 2023; Ginsborg et al., 2009; Matei & Ginsborg, 2024; Robson & Kenny, 2017; Vaag et al., 2021). Additionally, tertiary student musicians face specific health and well-being concerns that spring from the multidimensional professional and academic demands required to satisfy optimal levels of music-making and performance (Matei & Ginsborg, 2024; Matei et al., 2018).

One of the most prevalent concerns experienced by musicians and tertiary student musicians are playing-related musculoskeletal disorders (PRMDs) defined as those symptoms such as pain, tingling, numbness, and deficit of control that disrupt their capacity to perform at their usual level (Zaza et al., 1988). Prevalence rates of PRMDs among music students appear to range between 36-87% (Brandfonbrener, 2009; Cruder et al., 2020; Ling et al., 2018; Steinmetz et al., 2012), with evidence signaling higher musculoskeletal complaints among this type of students compared to those involved in other disciplines (Ballenberger et al., 2023; Kok et al., 2013). Several risk factors have been noted as plausible forerunners for the development of PRMDs such as inadequate fitness levels, deficient posture, heavy practice workloads, excessive perfectionism, competitiveness, and psychological distress (Ballenberger et al., 2023; Cruder et al., 2020, 2023; Rodríguez-Romero et al., 2016). Another relevant precursor of PRMDs and well-documented concern widely affecting tertiary student musicians is music performance anxiety (MPA; Kenny, 2011; Kenny & Ackerman, 2015). Not surprisingly, with seemingly higher MPA levels than expert musicians (Biasutti & Concina, 2014; Steptoe & Fidler, 1987), prevalence rates of MPA amongst student musicians have reached figures as high as 65% in second- and third- year conservatory singers (Kokotsaki & Davidson, 2003), and even 96% in diploma and degree undergraduate music majors (Zakaria et al., 2013).

MPA is a multifaceted stressor influenced by a series of genetic, environmental, psycho-emotional, autonomic, and behavioral aspects encompassing the inner experience of the performer (Kenny, 2011). These components are typically synthesized in the music research literature into a three-factor interactive model including symptoms related to cognition, autonomic nervous system activation, and behavioral responses (Kenny, 2005). Examples of MPA symptoms commonly affecting student musicians before, during, and/or after a public performance situation are low self-confidence, an increase of muscle tension, panicking, trembling, rumination, feelings of sickness, worrying about making mistakes and other people's evaluations, negative self-scrutiny, poor sleep, and inability to concentrate and satisfy optimal levels of performance (Kenny et al., 2011).

The Relevance of Health-Promoting Behaviors and Adaptive Coping Strategies for Student Musicians

To effectively cope with these stressors, prevent their occurrence, and meet high academic music demands, it is crucial that student musicians are capable of reaching and sustaining adequate levels of emotional, psychological, and physical well-being (Kenny, 2011; Williamon, 2004). In this regard, the coping strategies student musicians may adopt to self-regulate their physical, mental, and emotional processes might play a determinant role in determining the degree to which such stressors could influence their well-being and academic experience (Kaleńska-Rodzaj et al., 2023; Osborne et al., 2014). For instance, using adaptive emotional regulation strategies (e.g., cognitive reappraisal, acceptance, mindfulness) instead of maladaptive ones (e.g., rumination, expressive suppression) may help student musicians reconstrue undesired events such as potential performance-related mistakes, musculoskeletal injuries, and/or negative reactions from the audience as a possibility to develop one's technique, physical fitness, and resilience. Contrary to expressive suppression and rumination, cognitive reappraisal has been linked to increased self-esteem, life satisfaction, and positive emotions as well as reduced psychological distress (Gross & John, 2003; Megías-Robles et al., 2019; Moore et al., 2008). Moreover, the deployment of cognitive reappraisal strategies among student musicians could have broader implications in terms of positively impacting their learning and academic experience, for this type of emotional regulation strategy—as opposed to expressive suppression, rumination, and repression—has been associated with increased self-regulated learning among professional musicians (Peistaraitė & Clark, 2020).

Particularly regarding MPA, common strategies to counteract this stressor among musicians are the consumption of beta blockers, alcohol, anxiolytics, and antidepressants (Kenny et al., 2014), which in addition to generating unwanted side effects that may interfere with their performance (Matei & Ginsborg, 2017), do not address the root cause of the problem. Alternatively, engagement in physical activity may be an effective buffer to regulate not only MPA (Matei & Ginsborg, 2020) but also PRMDs. In support of this contention, physically active musicians and student musicians who may also participate in physical activity programs appear to be at lower risk of experiencing MPA (Burin & Osorio, 2016; Rocha et al., 2014; Wasley et al., 2012) and PRMDs (Lundborg & Grooten, 2018; Matei & Ginsborg, 2020; Roos & Roy, 2018). Notwithstanding this, student musicians' physical activity levels and involvement in health-promoting behaviors seem to be scant (Araújo et al., 2017; Panebianco-Warrens et al., 2015). This is surprising considering the diverse physically demanding functions and abilities (e.g., cardiovascular, energy expenditure, flexibility, postural balance, and pulmonary functions) required to satisfy high levels of music performance (Araújo et al., 2020; Kim & Kim, 2023). In a cross-sectional study, Araújo et al. (2020) evaluated the physical condition of 483 higher education student musicians using different standardized tests. Although an overall satisfactory level of physical activity was reported by 79% of the sample, Araújo et al. (2020) found that participants' scores in the lower back and hamstring flexibility, upper body strength, and endurance tests were lower than normative values.

In light of the aforementioned evidence, researchers have called for the need to implement comprehensive well-being approaches that could foster among this population the adoption of health-promoting attitudes and adaptive coping mechanisms to effectively self-regulate the physical, psychological, cognitive, and emotional processes underlying their multifaceted concerns and demands (Araújo et al., 2020; Matei et al., 2020). The following two sections will focus on describing two types of holistic disciplines—yoga and mindfulness—and fields of knowledge—positive psychology and emotional intelligence—the theories, practices, and components of which could be comprehensively leveraged to satisfy this need (Posadas & Bartos, 2022).

Mind-Body Approaches for Enhancing Tertiary Student Musicians' Well-Being and Academic Experience: Yoga and Mindfulness

Complementary and alternative therapies such as yoga and mindfulness propose a holistic, unique, and self-care system that places major emphasis on one's mind-body approach to overcome illness through the implementation of numerous practices that synergistically target various dimensions of well-being (Curtis, 2004; Desikachar et al., 2005). Particularly, yoga and mindfulness may afford tertiary student musicians a wide range of principles as well as postural, breathing, meditative, and ethical practices to help them cope with their physical, emotional, cognitive, and psychological demands affecting their lives and academic performance. As part of this section, these two mind-body disciplines will be first contextualized and conceptualized from their ancestral origins to further explain how tertiary student musicians may benefit from their application. Subsequently, the discourse will be centered on outlining the most relevant benefits reported from the application of yoga- and mindfulness-based interventions among higher education students, in general, and a brief explanation of the most relevant mechanisms underlying these effects. Lastly, a thorough description of the extant yoga and mindfulness-based research conducted with tertiary student musicians will be provided.

Conceptualizing Yoga and Mindfulness for Tertiary Student Musicians' Health and Well-Being

Yoga as an ancient philosophical system emerged in India over 2,500 years ago with the spiritual pursuit of attaining self-realization through a unified state of consciousness (Lidell et al., 1983; Muktibodhananda, 1993). The term *yoga* derives from the Sanskrit root *yug*, which is commonly translated as to yoke or to join, and refers to the union of mind and body with an unchanging reality or universal consciousness (Muktibodhananda, 1993; Raub, 2002). The *Hatha Yoga Pradipika* (Vishnudevananda, 1987) and the *Yoga Sutras of Patanjali* (Satyananda, 2013) are two of the most well-known ancient yoga treatises that prescribe numerous practices with the aim of attaining this union between mind, body, and spirit. Most of these practices sprang from a path, named *raja yoga*, comprising the following eight limbs or steps (Satyananda, 2013): *yamas* and *niyamas* (i.e., ethical precepts), *asanas* (i.e., yoga poses), *pranayama* (i.e., breathing techniques), *pratyahara* (i.e., withdrawal from the senses), *dharana* (i.e., one-pointedness or concentration), *dhyana* (i.e., meditation), and *samadhi* (i.e., the blissful experience of union with everything). Through the aforementioned path, yoga practitioners pursue mastery over the mind-body complex to ultimately transcend it and realize their everlasting Self in communion with a universal consciousness (Lidell et al., 1983). As conveyed by Lidell et al. (1983), other paths emerged to realize the purpose and essence of yoga including *hatha* yoga, a branch of *raja* yoga dealing mainly but not exclusively with asanas and pranayama; *bhakti* yoga, or the path of transmuting one's emotions through unconditional love and devotion; *karma* yoga, or the path of selfless action without expecting its fruits; and *jnana* yoga or the path of wisdom through intellectual inquiry and discrimination.

Along with yoga's highest spiritual purpose of self-realization, the method of yoga was delivered since ancient times to release human beings from suffering, or *dis-ease* (Iyengar, 1995). To that end, yoga has also become worldwide available to be used for health and well-being purposes in various settings and populations through its several well-known styles such as Iyengar, Ashtanga, Kundalini, Ananda, and Sivananda yoga, which stemmed from the contributions of the prominent Indian gurus Bellur Krishnamachar Sundararaja Iyengar, Pattabhi Jois, Yogi Bhasan, Swami Kriyananda, and Swami Sivananda, respectively (Feuerstein 2003). In this vein, the method of yoga lends numerous practices and principles that could synergically influence various bodily systems and dimensions of well-being, which makes it suitable to be used by tertiary student musicians to target their multiple well-being and academic problems (Gard et al., 2014; Khalsa & Cope, 2006). Drawing from Desikachar et al. (2005), yoga provides a unique and holistic self-care approach to well-being through which student musicians would be encouraged to find the root of their problems, be actively engaged in their own health, and conceive of themselves as entities formed of inseparable and interrelated elements that in turn reflect the whole Self within. In contraposition with the commonly unhealthy habits adopted by tertiary student musicians (e.g., poor sleep, diet, smoking, binge drinking), the multifaceted method of yoga was synthesized by Swami Vishnudevananda into the following principles of adequate exercise, diet, breathing, and relaxation, as well as positive thinking and meditation (Vishnudevananda, 2011), to be cultivated through the application of distinct practices.

The vast array of physical postures and breathing techniques implemented in hatha yoga fosters the development of multiple physical qualities, skills, and functions such as strength, flexibility, range of motion, balance, adequate musculoskeletal alignment, as well as pulmonary and cardiovascular functions (McCall, 2013; Raub, 2002). Accordingly, in addition to potentially preventing the occurrence of musculoskeletal problems, these practices of yoga may help tertiary student musicians achieve and maintain the optimal level of fitness

required to successfully meet the high physical demands of their music-making and performance. Additionally, yoga-based practices have been associated with the stimulation of different brain networks and a generalized relaxation response of parasympathetic nervous system activation (Gard et al., 2014; McCall, 2013; Sullivan, Erb, et al., 2018), which may assist the target population to counteract their levels of psychological distress and MPA while enhancing their cognitive functions. Moreover, as conveyed by Sullivan, Moonaz, et al. (2018), the different meditative practices of yoga develop the non-judgmental and acceptance-based witness attitude that is essential to nurture discernment between *prakriti* (i.e., changing reality) and *purusha* (i.e., everlasting reality or real Self). Through such practices, student musicians not only may become aware of their maladaptive behaviors (e.g., automated responses, poor posture, unhealthy habits) but also progressively disidentify with their *prakriti*-related concerns (e.g., MPA, PRMDs, and negatively valenced thoughts and emotions) and move closer towards the realization of *purusha*. A similar shift in one's perception of reality is cultivated through mindfulness-based practices which prescribe a methodology for self-realization based on the cultivation of an acceptance-, non-judgmental-, and equanimous-based attitude towards the everchanging phenomena (Kabat-Zinn, 1994; Gunaratana, 2012).

The establishments, aims, and methodology of mindfulness were already disseminated by Siddhartha Gautama around 2,500 years ago, as outlined in the *Satipatthana Sutta* (i.e., discourse on the foundations of Mindfulness). Here, Buddha revealed that the path to *nibbana* (Sanskrit: *nirvana*) and the end of suffering lies within the process of perfecting the four foundations of mindfulness: contemplation of the body, feelings, mind, and phenomena (Bodhi, 2011). Not surprisingly, mindfulness represents a key component within important categories of early Buddhism, standing as the third of the five faculties and powers, the seventh of the eight noble paths, and the first of the seven awakening factors (Anālayo, 2003). The term *mindfulness* originates from the Pali word *sati*, the translations, qualities, and/or aspects of which have been associated with the ensuing meanings: “memory” in the sense of remembering Buddha’s teachings, or with the notion of remembering the present moment (Anālayo, 2003, pp. 46-48); “detached and calm observation” (Anālayo, 2003, p. 53); a two-phase process involving “sustained bare attention” and “introspective awareness” (Rapgay & Bystrisky, 2009, p. 153); “lucid awareness of present happenings” (Bodhi, 2011, p. 25). As explained by Bodhi (2011), *sati* often appears closely related to *sampajana* (e.g., right understanding), which in further stages of the mindfulness practice might evolve into *panna* (i.e., wisdom) and *vipassana* (i.e., direct insight).

A wide range of mindfulness meditative practices sprang from the philosophical underpinnings and spiritual purposes of the three foremost Buddhist traditions of Theravada, Mahayana, and Vajrayana (Amihai & Kozhevnikov, 2015). For instance, *shamatha*, which involves sustained attention to an object of concentration, and *vipassana*, the method of gaining insight by seeing reality as is through the non-judgmental- and equanimous-based observation of the impermanent psycho-physical phenomena, are the most prominent meditation techniques from the Theravada tradition (Amihai & Kozhevnikov, 2015). Meditative practices from the Mahayana tradition, which are also largely grounded in *shamatha* and *vipassana*, include Zen meditations that, in a similar fashion to *shamatha*, require maintaining one's attention to a particular target such as the breath, counting of breaths, and *chakras*—subtle energy centers attributed to a specific bodily location (Amihai & Kozhevnikov, 2015). Examples of meditative techniques from the Vajrayana tradition include breathing exercises and certain visualization practices that involve envisioning certain images, such as deities and flames (Amihai & Kozhevnikov, 2015). Moreover, common to all Buddhist traditions are Loving-kindness and

Compassion meditations (Amihai & Kozhevnikov, 2015), which nurture the four *brahma-viharas* (e.g., the four immeasurables), namely, loving-kindness, compassion, sympathetic joy, and equanimity (Hofmann et al., 2011).

In modern times, Jon Kabat-Zinn can be considered as one of the most renowned exponents of Mindfulness, who inspired by classical Buddhist teachings and practices, integrated this ancestral discipline into clinical settings (Boddi, 2011; Chiesa & Malinowski, 2011). Kabat-Zinn (1994) defined mindfulness as “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (p. 4). In 1979, Kabat-Zinn conceived Mindfulness-Based Stress Reduction (MBSR), a program originally designed to address stress and chronic conditions combining principles and practices from Theravada and Mahayana Buddhist traditions—mainly from vipassana and Zen meditations—and yoga with a secular approach (Kabat-Zinn, 2011). MBSR is generally imparted over 8 weeks, once per week for 2.5-3.5 hr with 45 min of home-based practice 6 days per week including a 7.5-hr day retreat in the sixth week (Santorelli, 2014). The main components covered in a typical MBSR training are as follows (Kabat-Zinn, 1990; Santorelli, 2014): body scan, which involves moving the attention progressively throughout the different bodily parts; sitting meditations with a focused-attention (e.g., breath awareness) and an open-monitoring (e.g., choiceless observation of arising thoughts and emotions non-judgmentally) approach; hatha yoga including breathing techniques and postures for musculoskeletal health and well-being; walking meditation; and various informal meditative practices for cultivating awareness of daily life activities such as eating, driving, breathing, and socializing (Santorelli, 2014; Kabat-Zinn, 1990). In addition to MBSR, other modern mindfulness-based interventions were developed in conjunction with distinct psychological theories for their application in various clinical settings and populations. Examples of these are Mindfulness-Based Cognitive Therapy (MBCT), based on MBSR and cognitive behavioral therapy (Segal et al., 2002), and Acceptance Commitment Therapy (ACT), based on relation frame theory and mindfulness-based skills to enhance cognitive flexibility by replacing avoidance for acceptance coping strategies (Hayes et al., 1999).

The relevance of implementing mindfulness-based interventions such as MBSR, MBCT, and ACT has been specifically emphasized for their potential to improve student musicians’ well-being, and particularly, their cognitive and emotional regulation abilities as well as MPA symptoms (Kaleńska-Rodzaj, 2021, 2023). Along these lines, mindfulness practice could enable student musicians to develop the necessary attentional skills as well as cognitive and framing abilities—in terms of accepting and positively reappraising their fears, mistakes, failures, and self/other scrutinies—to better cope with their high academic and life demands. Based on the metacognitive mechanism of *reperceiving* (Shapiro et al., 2006), the practice of developing sustained attention to the present moment experience—which may include thoughts, emotions, feelings, and sensations related to MPA symptoms or other well-being issues—with a non-judgmental and acceptance-based attitude may help student musicians dissociate with such content. Following the mindful coping model (Garland et al., 2009, 2015), such disidentification encompasses a new perception of reality in which student musicians’ attention would no longer be narrowly constricted to their stressors. Instead, their awareness may broaden to allow, in addition to the stressors, the emergence of new perspectives, insights, as well as positively valenced states (e.g., inner peace, joy, compassion), thoughts, and emotions that they could leverage to re-construe their primary appraisals as facilitating (Garland et al., 2009, 2015).

Health and Well-Being Benefits of Mindfulness and Yoga Among Tertiary Students

Over the past two decades, researchers investigating the effectiveness of yoga- and mindfulness-based interventions to enhance tertiary student's health and well-being have reported a wide range of physical, psychological, cognitive, neurological, and emotional benefits. Hatha yoga interventions including postural, breathing, relaxation, and meditative components have yielded several physical function-related benefits such as increased flexibility, strength, and balance, as well as cardiovascular and pulmonary functions among tertiary students (Birkel & Edgren, 2000; Park et al., 2017; Smith et al., 2011; Tran et al., 2001). Furthermore, both yoga- and mindfulness-based interventions have been effective in ameliorating higher education students' awareness, neuroplasticity, and cognitive and emotional self-regulation and functioning (Brunner et al., 2017; Gothe & McAuley, 2015; Tang et al., 2015); improving well-being (De Vibe et al., 2013; Jarry et al., 2017; Tang et al., 2020); reducing psychological distress (Breedvelt et al., 2019; Halladay et al., 2019; McConville et al., 2017); and alleviating MPA (Chang et al., 2003; Lin et al., 2008; Stern et al., 2012).

The above-mentioned benefits of yoga and mindfulness have been explained through various models in which the practices of yoga and mindfulness have been proposed to promote health, well-being, and resilience through enhanced self-regulation of cognitive, physical, and emotional processes that synergistically instigate a variety of brain networks and systems (Chiesa et al., 2013; Gard et al., 2014; Sullivan, Erb, et al., 2018). For instance, on the one hand, the viscerosomatic, interoceptive, and embodied experience developed through the different physical postures and breathing techniques of yoga has been linked to the stimulation of the striatopallidal-thalamocortical and dorsal attention networks as well as the parasympathetic nervous system. In such a way, these practices may reduce the activation of the hypothalamic-pituitary-adrenal axis typically triggered during the sympathetic *fight or flight* response and increase gamma-aminobutyric acid (GABA) levels through vagal nerve stimulation (Uebelacker & Broughton, 2016). In turn, activation of the vagal nerve has been associated with a reduction of cortisol, proinflammatory cytokines, blood pressure, and heart rate (McCall, 2013). Concomitantly, the physical postures and breathing techniques of yoga promote an enhancement of various markers of physical fitness and musculoskeletal health such as strength, flexibility, balance, muscular tension, and pain, as well as pulmonary and cardiovascular functions (McCall, 2013; Raub 2002).

On the other hand, the selective intentional attention, non-judgmental attitude, and re-perceiving process elicited by the different yoga and mindfulness meditative techniques have been linked to the activation of brain regions within the executive and frontoparietal control network (e.g., dorsolateral prefrontal cortex, dorsal anterior cingulate cortex, and premotor cortex), and reduction of emotional reactivity, rumination, and negative reappraisal (Chiesa et al., 2013; Fox et al., 2016; Gard et al., 2014; Gotink et al., 2016; Guendelman et al., 2017). Interestingly, despite some commonalities, (e.g., activation of the insula, frontopolar cortex, and anterior cingulate cortex), it appears that different types of meditation (e.g., focused attention, open monitoring, and loving-kindness and compassion meditations) may induce diverse patterns of brain stimulation and deactivation (Fox et al., 2016). For example, activation in areas commonly associated with cognitive control, volitional attention regulation, behavioral engagement, and executive functions (e.g., dorsal anterior cingulate cortex, dorsolateral prefrontal cortex) has been reported following the practice of focused attention meditation. By contrast, loving-kindness and compassion meditations appear to stimulate brain areas related to empathy and pain perception (e.g., right somatosensory cortices and the postcentral gyrus in the parietal lobe), which is

consistent with the emphasis this type of meditation places on developing feelings of empathy and compassion towards the pain of others (Fox et al., 2016).

Yoga- and Mindfulness-Based Interventions Among Musicians and Tertiary Student Musicians

Despite the determinant role that yoga and mindfulness practices may play in effectively targeting the multiple well-being issues and academic demands experienced by tertiary student musicians, the research evidence in this particular field remains scarce. Regarding the application of yoga-based interventions to music settings, it appears that the extant literature only shows a few exploratory studies in which various researchers examined the well-being impact of different training formats of Kripalu yoga—a type of hatha yoga that comprehensively work on postural, breathing, and meditative components—among young professional (Khalsa & Cope, 2006; Khalsa et al., 2009), adolescents (Khalsa et al., 2013), and student (Stern et al., 2012) musicians. The main dependent variables examined by researchers across their different pre-post study designs were MPA, which for all studies was measured by the Performance Anxiety Questionnaire (PAQ; Cox & Kenardy, 1993) and in the study by Khalsa et al. (2013) through also the use of the Music Performance Anxiety Inventory for Adolescents (MPAI-A; Osborne & Kenny, 2005); as well as PRMDs, as measured by the Performance-related Musculoskeletal Disorders Questionnaire (PRMD-Q; Ackermann et al., 2002) in the studies by Khalsa and Cope (2006) and Khalsa et al. (2009, 2013). Other self-reported instruments employed were the T-Anxiety Scale, Form Y-2 (STAI-T; Spielberger et al., 1983), the Profile of Mood States (POMS; McNair, 1992), and the Dispositional Flow Scale (DFS-2; Jackson & Eklund, 2002). Additionally, an end-program evaluation questionnaire was used to assess participants' level of satisfaction with their Kripalu yoga training experience (Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Stern et al., 2012).

In the first study, Khalsa and Cope (2006) employed a non-randomized controlled study design in which young professional musicians following an 8-week Kripalu yoga training ($n=10$) reported within-group improvements in MPA as well as the dispositional flow subscales of Sense of Control and Loss of Self-Consciousness relative to their control counterparts ($n=8$), as measured by the PAQ and DFS-2, respectively. In a subsequent investigation building on the study by Khalsa and Cope (2006), Khalsa et al. (2009) reported also significant within-group improvements in the PAQ among young adult professional musicians randomly assigned to either a regular ($n=15$) or lifestyle (i.e., higher dosage; $n=15$) 8-week Kripalu yoga intervention, thrice a week, compared to an additional group of recruited controls ($n=15$). The authors also found that the combined group of regular and lifestyle yoga participants reported significantly lower scores in the POMS subscales of Anger/Hostility and Tension/Anxiety post-intervention than controls. Similarly, in a single-arm study conducted with a sample of higher music conservatory students ($n=24$) following a 9-week Kripalu yoga intervention, twice a week, for one hour, Stern et al. (2012) found significant within-group decreases in MPA and general anxiety, as measured by the PAQ and STAI-T, respectively. Additionally, a further investigation was conducted with the aim to replicate and extend the findings obtained in the studies by Khalsa and Cope (2006) as well as Khalsa et al. (2006, 2009) to adolescent musicians (Khalsa et al., 2013). Compared to a control group ($n=51$), adolescent musicians ($n=84$) following a 6-week Kripalu yoga training for a minimum of three 60-min sessions per week significantly reduced their MPA, as measured by both the PAQ and MPAI-A (Khalsa et al., 2013).

Regarding PRMDs, no within- nor between-group effects were found across the three studies using the PRMD-Q (Khalsa & Cope, 2006; Khalsa et al., 2009, 2013), a null effect that may have been impacted, as

argued by Khalsa et al. (2009), by a floor effect due to participants' low pre-tests scores in the PRMD-Q. Overall, participants' responses to the end-program evaluation questionnaire across all four studies revealed a high level of satisfaction with their Kripalu training, finding it useful for their lives and music profession and willing to continue practicing it in the future (Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Stern et al., 2012). Although no specific qualitative analyses were conducted in any of the four studies, researchers documented a series of benefits reported by participants from their comments to the end-program evaluation questionnaire, such as improvements in fatigue, physical tension, flexibility, strength, stamina, MPA symptoms from the application of breathing techniques, and greater contentment from playing.

With regard to mindfulness-based research applied to higher music education contexts, the evidence in the field is also in its early infancy and constraint to a limited number of studies conducted with tertiary student musicians (Chan et al., 2003; Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Steyn et al., 2016). In three of these investigations, researchers implemented 7- or 8-week hybrid interventions resulting from the amalgamation of theory and practice derived from mindfulness and sport-related psychological training (Steyn et al., 2016) and MBSR and MBCT (Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022), whereas in the other two studies, an 8-week training based on Chan meditation was applied (Chan et al., 2003; Lin et al., 2008). Key findings reported in these studies were improvements in dispositional mindfulness (Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Steyn et al., 2016), MPA (Chan et al., 2003) as well as competitive state anxiety, self-confidence, and motivation (Steyn et al., 2016). Further details about these mindfulness-based investigations can be consulted in the review of literature presented in the introductory sections of Chapters 5 and 8.

Overall, the findings reported in these yoga- and mindfulness-based interventions conducted with tertiary student musicians are promising, with reductions in MPA being the most consistently observed result (Chan et al., 2016; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Stern et al., 2012). Other relevant outcomes found by researchers of these investigations were improvements in tertiary students' levels of anxiety (Stern et al., 2012; Khalsa et al., 2009), mindfulness (Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Steyn et al., 2016), and dispositional flow (Khalsa & Cope, 2006). Although these results are encouraging, several limitations can be identified across these studies.

First, in addition to the prevailing use of small sample sizes and limited statistical power, there was no reporting of power analysis and effect sizes. Second, most significant findings revealed within-group changes, except for Khalsa et al. (2009), Khalsa et al. (2013), and Czajkowski et al. (2021) who found between-group differences for mood (i.e., Anger/Hostility and Tension/Anxiety), MPA, and dispositional mindfulness, respectively. Third, apart from Khalsa et al. (2009), none of the studies included an active control group as a further layer to ensure that the findings reported may have been mainly due to exposure to the particular yoga- and/or mindfulness-based training implemented. Fourth, while Lin et al. (2008) and Steyn et al. (2016) did not apparently use qualitative methods, among the eight studies in which qualitative findings were reported (Chan et al., 2003; Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Stern et al., 2012), only those of Czajkowski and Greasley (2015) and Czajkowski et al. (2021, 2022) sprang from the conduction of qualitative analysis (i.e., thematic analysis, Braun & Clarke, 2006). By contrast, the qualitative results provided by the other researchers (Chan et al., 2003; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Stern et al., 2012) were limited to a brief summary of participants' most relevant

perceptions. In this regard, implementing qualitative methods within future yoga- and mindfulness-based interventions may allow researchers not only to gain a wider understanding of the findings they may derive quantitatively, but also explore conceivable lived experiences of transformative nature—potentially evoked by the training—arguably inaccessible through materialistic lenses (Slife, 1998). Fifth, in none of these studies, there was any field test or self-reported measure to examine the extent to which these interventions may have impacted tertiary student musicians' emotional regulation (e.g., cognitive reappraisal) and physical abilities (e.g., strength, flexibility, balance). Considering the fundamental role that developing these types of skills among student musicians may play in preventing and/or coping with their symptoms of MPA, PRMDs, psychological distress, as well as enhancing their well-being, music performance, and learning experience (Araújo et al., 2020; Kaleńska-Rodzaj et al., 2023; Matei & Ginsborg, 2020; Peistaraite & Clark, 2020), further research incorporating emotional regulation and physical outcome measures is highly encouraged.

As can be learned from this review, the aforementioned gaps and/or limitations highlight the need to expand the embryotic literature examining the effects of yoga and mindfulness-based interventions on student musicians' well-being with various recommendations. Accordingly, researchers conducting future investigations in this field are encouraged to recruit larger samples as part of either an experimental, inactive, or active control group, conduct power analysis, report effect sizes, incorporate emotional regulation and physical outcome measures, as well as integrate qualitative methods in their research designs.

Positive Psychology and Emotional Intelligence for Tertiary Student Musicians' Well-Being

In addition to yoga and mindfulness, the emerging fields of emotional intelligence and positive psychology offer valuable theories, practices and tools that student musicians could use to manage their health, well-being, and academic demands. Through such resources, positive psychology and emotional intelligence encourage a shift into a positive education that could broaden the traditional music teaching-learning process beyond its prevailing focus on promoting cognitive skill development, error detection, skill achievement, and self-scrutiny (Goleman, 1998; Murnak & Kirsner, 2023; Seligman et al., 2011). In this regard, training towards acknowledging and cultivating positive psychology qualities such as one's strengths, virtues, good aspects in life, gratitude, and kindness (Seligman et al., 2004), as well as social, emotional, and empathetic aspects of intelligence (Goleman, 1998), may also contribute to improving student musicians' well-being, academic experience, and ill-health concerns. In the following two subsections, these two disciplines and/or fields of knowledge will be described in detail establishing connections with the way their theoretical foundations and practices may benefit tertiary student musicians. In this milieu, relevant scientific studies examining the well-being effects of positive psychology and emotional intelligence interventions will be described.

Positive Psychology

Positive psychology emphasizes the positive aspects of people's lives by fostering values, abilities, and states that promote well-being, such as empathy, flow, gratitude, hope, kindness, meaning, optimism, savoring, and strengths (Peterson, 2006; Peterson & Seligman, 2004). As explained by Martin Seligman and Mihaly Csikszentmihalyi (2000), two of its most relevant exponents, positive psychology aims to change the predominant psychological focus that has prevailed during most of the 20th century from exclusively attending to mend what is wrong in life to also potentiate positive attributes. As Peterson (2006) contended, such a shift in perspective could be fostered by the cultivation of positive subjective experiences (e.g., happiness, vitality,

flow), traits (e.g., one's virtues, character strengths, and interests), relationships (e.g., love, trust), and institutions (e.g., family, work environment, educational providers). Among this list of positive components, the development of which could play a determinant role in enhancing the well-being and academic experience of tertiary student musicians, particularly interesting for this population is the concept of *flow* raised by Csikszentmihalyi (1997).

As conveyed by Csikszentmihalyi (1997), flow refers to a state typically occurring when individuals execute intrinsically motivating activities and that is characterized by the experience of a complete control, absorption, and self-awareness through which performance becomes effortless and sense of time fades away. Under such an optimal state of heightened attention in which awareness merges with the action being performed, a peak performance and feelings of intense happiness are likely to emerge (Abuhamdeh, 2020; Csikszentmihalyi, 1997; Spahn et al., 2021). Particularly, the self-rewarding, enjoyable, and autotelic nature of certain activities, such as those carried out in sports and music appear to make them more suitable than others for facilitating flow states (Chirico et al. 2015; Csikszentmihalyi, 1997). As evidenced in reviews examining the effects of flow on diverse general (Peifer et al., 2022) and musician (Tan & Sin, 2021) population, this optimal state has been linked to a wide range of potential benefits particularly relevant for tertiary student musicians experiencing high performance and well-being stressors. Examples of these benefits, seemingly highly congruous with those implicit within the operationalization and conceptualization of flow (Csikszentmihalyi, 1997), are higher self-determination, self-efficacy, emotional and psychological well-being, life satisfaction, happiness, enjoyment, hope, optimism, positive affect, attention, performance, music practice efficiency, presence, as well as reduced MPA (Peifer et al., 2022; Tan & Sin, 2021).

The concept of flow was subsequently equated by Martin Seligman with the term *engagement*—“engagement, is about flow: being one with the music, time stopping, and the loss of self-consciousness during an absorbing activity” (Seligman, 2011, p. 11)—a key construct in his PERMA model of well-being that reconciles cognitive, hedonic and eudaimonic perspectives of happiness (Seligman, 2011). The acronym PERMA stands for the following five components that seemingly operationalize, predict, and majorly contribute to well-being (Seligman, 2011; Kovich et al., 2023): Positive Emotions (e.g., nurturing and savoring feelings of contentment, gratefulness, happiness, and joy), Engagement (e.g., developing flow states, involvement with life); Relationships (e.g., cultivating a sense of integration with colleagues, family, friends, etc., caring for and being supported by the community); Meaning (searching meaning and purpose in life, being part of and contributing to something higher than oneself); and Accomplishment (e.g., striving to achieve one's objectives, improving, mastering, feeling competent). PERMA-based positive psychology interventions have shown effectiveness in improving symptoms of depression and psychological distress among a clinical sample (Furchtlehner et al., 2020); and adaptive coping, happiness, life satisfaction, meaning to life, and positive emotions (Qingfang Tan, 2023) as well as anxiety and subjective well-being (Yang et al., 2024) among vocational college students. Although to the best of the thesis author's knowledge, the health effects of PERMA-based positive psychology interventions seem to be unexplored among tertiary music students, the application of this model within higher music education settings for well-being purposes has been specifically recommended (Bernhard, 2023).

Another fundamental contribution to the field of positive psychology, with pivotal application to support tertiary student musicians' well-being, is the classification of the so-called character strengths developed

by Peterson and Seligman (2004). In this work, Peterson and Seligman (2004) categorized a set of 24 positive human values or traits into the ensuing six core virtues: *wisdom and knowledge* (e.g., creativity, curiosity, open-mindedness, love of learning, perspective); *courage* (e.g., authenticity, bravery, persistence, zest); *humanity* (e.g., kindness, love, social intelligence); *justice* (e.g., fairness, leadership, teamwork); *temperance* (e.g., forgiveness, modesty, prudence, self-regulation), and *transcendence* (appreciation of beauty and excellence, gratitude, hope, humor, spirituality). Drawing from the character strengths by Peterson and Seligman (2004) and the fundamental positive psychology purpose of focusing on the positive aspects of one's life, Seligman et al. (2005) designed a series of positive psychology-based activities that were implemented in the context of internet-based randomized controlled interventions. In these exercises designed by Seligman et al. (2005), individuals are prompted for one week to note their five most prominent character strengths and apply them more often daily (i.e., *identifying signature strengths*) or in a different manner (i.e., *using signature strengths in a new way*); writing a gratitude letter and delivering it personally to somebody (i.e., *gratitude visit*); and jotting down each day three positive things and their reasons for it (*three good things in life*). Compared to controls ($n=70$), participants involved in practicing *using signature strengths in a new way* ($n=66$) and *three good things in life* ($n=59$) reported higher happiness and lower symptoms of depression for six months, whereas those trained in the *gratitude visit* ($n=80$) also improved these outcomes but only for one month (Seligman et al., 2005).

In a similar fashion to the study conducted by Seligman et al. (2005), other researchers tested the effect of character strengths activities focusing on promoting gratitude, kindness, signature strengths, and the ability to savor positive experiences among higher education students (Bryant et al., 2005; Emmons & McCullough, 2003; Hobbs et al., 2022; Hurley & Kwon, 2012; Lyubomirsky et al., 2005; Martínez-Martí et al., 2010; McMakin et al., 2011). For example, Interventions in which tertiary students were instructed to list aspects of their lives they were grateful for (i.e., *counting blessings*) or acts of kindness they accomplished during the day have shown improvements in gratitude, positive affect, and well-being (Emmons & McCullough, 2003; Lyubomirsky et al., 2005; Martínez-Martí et al., 2010). Additionally, interventions designed for developing *savoring*—the ability to fully attend, appreciate, and enhance one's positive experiences and that may be stimulated through grateful thinking—have been found effective in increasing happiness as well as reducing depression and negative affect among college students (Bryant et al., 2005; Hurley & Kwon, 2012; McMakin et al., 2011). Interestingly, analogous and further benefits have been reported by researchers conducting interventions that included the application, though not exclusively, of similar positive psychology-based components (e.g., character strengths, gratitude, kindness, and savoring) followed by university students, such as increased happiness, hope, life satisfaction, positive mood, psychological well-being, and eudaimonic well-being (Hobbs et al., 2022).

Notwithstanding it appears that the current literature does not portray any intervention examining the well-being effects of character strengths-based exercises among tertiary student musicians, the usefulness of such activities has been specifically recognized for their application within music settings (Bernhard, 2023; Murnak & Kirsner, 2023; Patson & Waters, 2015; Seligman et al., 2011). For instance, in the Positive Instruction in Music Studios Model (PIMS, Patson & Waters, 2015), music students are encouraged to recall and discuss what went well in their previous class, begin the lesson by performing a piece that they relish, deploy their signature strengths, as well as being stopped if they do something well to examine it closely.

Particularly with regard to the application of character strengths, Murnak and Kirsner (2023) provide a thorough description of various ways in which this positive psychology component could be implemented with student musicians mixing the previously mentioned activities designed by Seligman et al. (2005), the Aware-Explore-Apply Strengths model (Niemic, 2014), and other strategies to identify strengths in oneself and others (Linley, 2008). In addition, Bernhard (2023) recommends music students to intentionally remember and ponder on the positive physical and emotional sensations experienced during their past peak performances and practices as well as writing grateful messages to music mentors, teachers, and supervisors.

The character strengths and virtues by Peterson and Seligman (2004) have been connected by Arguís et al. (2012) with various aspects of the Spanish educational curriculum (e.g., basic competencies, tutorial action, and education in democratic values) and the theory of eight multiple intelligences (e.g., verbal-linguistic, logical-mathematical, interpersonal, intrapersonal, naturalistic) by Gardner (1983). For instance, Arguís et al. (2012) linked the basic educational competency named *cultural and artistic* with the character strengths within the virtue *transcendence* (Peterson & Seligman, 2004) as well as with the musical, spatial, and bodily-kinesthetic intelligence (Gardner, 1983). Gardner's (1983) theory of multiple intelligences has gained prominence in education for its relevance to broadening the traditional and narrow IQ concept of intelligence based on cognitive skills. Gardner (2000) argued that intelligence is not a fixed or innate capacity, involves a wide spectrum of skills and brain areas for problem resolution, and can be conceived as a "biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture" (p. 28). Besides Gardner's multiple intelligences, another type of intelligence called emotional intelligence is increasingly recognized in education due to its link to learning and personal and social well-being.

Emotional Intelligence

According to Ramos et al. (2012), the concept of emotional intelligence was first introduced in an article written by Peter Salovey and John Mayer (Salovey & Mayer, 1990) and continued the work of earlier researchers like Gardner (1983) and Bar-On (1988) in the 1980s. These scholars valued a kind of intelligence related to well-being and emotional regulation that emphasizes non-cognitive components such as affective, social, emotional, and personality factors (Ramos et al., 2012). Salovey and Mayer (1990) defined emotional intelligence as "the subset of social intelligence that involves the ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (p. 189). From 1995, the term emotional intelligence started to gain wider popularity through the work of Daniel Goleman, who drawing from Salovey and Mayer (1990) defined it as "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and our relationships" (Goleman 1998, p. 317).

Based on Salovey and Mayer (1990), Goleman (1998) identified five components of emotional intelligence involving a series of personal and social skills. The first component, named Self-Awareness, involves one's observation, recognition, and knowledge of one's internal states and their effects through developing emotional awareness, self-confidence, and accurate examination of one's strengths and weaknesses. The second component or Self-Regulation refers to the capacity to monitor one's internal states through nurturing self-control of intrusive emotions, maintenance of integrity and honesty, self-responsibility of one's performance, flexibility to deal with change, and comfortability towards novelty. The third component called

Motivation alludes to the emotional inclinations facilitating or guiding one's goal achievements through pursuing improvement and excellence, commitment to the group objectives, promptness to take initiatives, and an optimistic attitude. The fourth component coined Empathy describes the ability to be aware of other's emotional states, problems, and needs by noticing, understanding, and being actively interested in their feelings and issues, potentiating their skills, foreseeing and acknowledging their needs, creating opportunities through interactions with diverse individuals, and understanding a group's emotional dynamics and power structure. Lastly, the fifth component labeled as Social Skills includes a set of abilities to effectively interact and work with others through active listening, sending clear messages, collaborating towards a common objective, preventing and resolving disputes, leadership skills, team building action, and identifying the necessity to change and taking actions to manage it.

Goleman's (1995) five components of emotional intelligence can assist tertiary student musicians in better comprehending and expressing their feelings and emotions, self-regulate their psychological distress and MPA, enhance their social and empathy-related skills when performing with others (e.g., chamber music, orchestra, choir, group rehearsals). Evidence from correlational studies indicates that emotional intelligence is associated with increased happiness, life satisfaction, positive emotions, well-being, and reduced stress (Mayer et al., 2008; Ruiz-Aranda et al., 2014); as well as increased academic performance (Lanciano & Curci, 2014) and cognitive reappraisal (Megías-Robles, 2019) among higher education students. Additionally, results from the application of emotional intelligence interventions underpin their effectiveness in enhancing tertiary students' emotional intelligence (Gilar-Corbi et al., 2018; Mattingly & Kraiger, 2019; Schoeps et al., 2020), interpersonal emotional regulation abilities (Nelis et al., 2019), and well-being (Schoeps et al., 2020). Noteworthy among these studies are the outcomes reported by Schoeps et al. (2020), which appear to be the only evidence in the literature revealing outcome effects other than those related to increased emotional intelligence. In their randomized controlled trial, Schoeps et al. (2020) examined the well-being effects of a 2-month emotional intelligence intervention, including 7 sessions lasting 2 hr, followed by a sample of university students ($n=250$). Compared to a control group ($n=187$), participants in the experimental group ($n=63$) reported higher scores in self-reported measures of emotional intelligence, empathy, mood (positive affect and happiness), and life satisfaction after the intervention, yet no effects were found at 3-months follow up (Schoeps et al., 2020).

Evidence regarding the implementation of emotional intelligence interventions in higher music education settings appears to be very sparse, limited only to a few studies examining their effects on tertiary student musicians' levels of emotional intelligence. Using a single-arm pre-post study design, McGinnis (2018) found that a convenience sample of undergraduate music students ($n=10$) following emotional intelligence instruction, as part of a 6-month music education course, improved their levels of emotional intelligence after the training. Similarly, in a recent study, Liang (2024) examined the effects of a 12-month emotional intelligence course, delivered fortnightly for 1.5 hr, on tertiary student musicians' levels of emotional intelligence. Liang (2024) randomly assigned participants to receive instruction in either a lecture format (static group, $n=108$) or lecture plus online interactive activities and discussions (interactive group, $n=108$). Following the training, participants in the interactive group reported higher emotional intelligence scores than participants in the static group (Liang, 2024).

Summary and Conclusion

As has been conveyed in this review of literature, higher education student musicians experience a wide range of physical, psychological, and emotional well-being concerns (e.g., MPA, PRMDs, psychological distress) springing from their high academic demands (Matei et al., 2018; Matei & Ginsborg, 2024). Therefore, they are required to maintain an optimal level of holistic well-being and self-regulation to prevent and/or counteract these issues while satisfying high levels of academic performance and music-making (Kenny, 2011; Williamson, 2004). In this regard, the adoption of adaptive coping strategies such as cognitive reappraisal and engagement in physical activity could lead to higher self-regulation of the negatively valenced physical, psychological, and emotional processes underlining the target population's concerns (Araújo et al., 2020; Kaleńska-Rodzaj et al., 2023; Matei & Ginsborg, 2020).

To address these problems, researchers have raised awareness of the need to implement comprehensive well-being approaches to help tertiary student musicians cope with the stressors affecting their lives and academic performance (Araújo et al., 2020; Matei et al., 2020). Along these lines, the mind-body disciplines of yoga and mindfulness as well as the fields of positive psychology and emotional intelligence provide numerous theories, principles, practices, and components that could synergistically target tertiary student musicians' stressors and multidimensionally enhance their well-being (Posadas & Bartos, 2022). As reviewed in this chapter, a growing body of research supports the efficacy that each of these disciplines and/or fields of knowledge implemented under the framework of distinct programs or interventions may have in improving multiple physical, emotional, cognitive, psychological, and neurological outcomes among tertiary students (Breedvelt et al., 2019; Halladay et al., 2019; Hobbs et al., 2022; Park et al., 2017; Schoeps et al., 2020; Smith et al., 2011; Tang et al., 2020). Yet, investigations specifically devised to examine the effects of such programs on tertiary student musicians' well-being appear to be very scant, and only restricted to a small number of exploratory yoga or mindfulness-based interventions with promising results (Chan et al., 2003; Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Lin et al., 2008; Stern et al., 2012; Steyn et al., 2016). In reviewing these investigations carefully, relevant areas of unexplored research and/or limitations, such as the lack of studies examining the effects of these mind-body disciplines on tertiary student musicians' emotional regulation abilities and physical fitness levels, the sparse utilization of qualitative analysis, and the absence of an active control comparison, have been identified.

The next chapter will focus on explaining how further research in the field could be conducted to potentially address some of these gaps and/or limitations in the literature and possibly lead to higher effects than previous studies. Such proposed research, reflected in the present dissertation, examines the feasibility and effectiveness of the newly developed Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT) program (Posadas, 2019), based on yoga, mindfulness, positive psychology, and emotional intelligence, in enhancing tertiary student musicians' well-being and academic experience.

Chapter 2. CRAFT and Rationale for the Current Thesis

As outlined in Chapter 1, a plethora of interventions based on either yoga, mindfulness, positive psychology, and emotional intelligence have shown effectiveness in enhancing several physical, psychological, cognitive, and emotional well-being outcomes among tertiary students. In addition, encouraging evidence from similar studies conducted with tertiary student musicians further supports the positive role that programs based on either of these four disciplines and/or fields of knowledge may have to effectively address their well-being concerns and music performance demands. Although each of these disciplines includes a variety of components that seemingly make them suitable to synergistically target multiple challenges and concerns experienced by tertiary student musicians, it could be upheld that they may also have limitations. For instance, the theories and methods of positive psychology and emotional intelligence do not apparently prescribe specific physical practices, and those of mindfulness, such as in the MBSR, seem to provide only a few physical elements. By contrast, the path of hatha yoga supplies a myriad of physical and breathing techniques, rendering yoga potentially more effective than positive psychology, emotional intelligence, and mindfulness in improving tertiary students' musculoskeletal problems and physical fitness. On the other hand, while yoga offers a variety of meditative, breathing, physical, and relaxation practices that indirectly may promote emotional self-regulation, it could be contended that the work related to managing one's emotions may be more emphasized or explicitly addressed through mindfulness and emotional intelligence training. Similarly, although both yoga and mindfulness practice may naturally foster flow states as well as character strengths and virtues, positive psychology instruction devotes a major focus to developing these components.

Drawing from the above-mentioned examples, it can be argued that although these four disciplines may present limitations, they also complement one another, as the shortcomings of one discipline could be offset by the components of another. Therefore, this rationale supports the proposition that, to comprehensively address tertiary student musicians' well-being concerns and academic demands, a program based on a careful combination of theories and practices from all four disciplines might be more effective than one that relies on the components of a single discipline. The following section introduces and describes a newly developed program conceived under this foundational idea of consciously merging relevant components from yoga, mindfulness, positive psychology, and emotional intelligence into a single framework.

The CRAFT Program: A Comprehensive Well-Being Approach

Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT) is a newly developed neuroeducational program for self-actualization, happiness, and well-being, based on yoga, mindfulness, positive psychology, and emotional intelligence (Posadas, 2019; Posadas & Bartos, 2022). CRAFT was created by Dr. Pilar Posadas, a professor of singing and pedagogy and advanced yoga and mindfulness certified teacher with long-running experience in the practice, teaching, and academic implementation of such practices alongside modern psychological approaches (Posadas, 2019; Posadas & Bartos, 2022). This includes over 30 years of regular yoga and mindfulness practice and 15 years of teaching these mind-body disciplines in conjunction with other resources learned mainly from the fields of emotional intelligence and positive psychology (Posadas & Bartos, 2022). Although CRAFT was initially devised to attend to the needs of tertiary students of specialized disciplines including fine arts, languages, sports, and especially music, CRAFT is a

versatile program that can be implemented in a variety of contexts and settings (e.g., educational, clinical, managerial settings; Posadas, 2019; Posadas & Bartos, 2022).

The main purpose of CRAFT is to nurture individuals' own *inner technology*, bolstering the skills and abilities that are naturally present within themselves. As underlined by Posadas (2019), CRAFT is an *art of being*, specifically the art of edifying ourselves towards actualizing and expressing our best version and inherent human potentials so that we can realize the conscious expression of who we already are. This core principle of CRAFT was inspired by the manner in which the renowned artist Michelangelo Buonarroti (1475-1564) would approach sculpting, based on his realization that the actual piece of art is already within the stone, and all that is required is to remove from the block that which conceals the ideal sculpture (Posadas, 2019; Rusbult et al., 2009). Similarly, CRAFT provides a series of tools that individuals can leverage to shape their thoughts, emotions, and body to chisel away that which do not allow them to realize the masterpiece they already are, paving the way towards a self-actualization journey of self-awareness, self-discovery, inner peace, well-being, and self-transformation promotion (Posadas, 2019). Along these lines, the essence and purpose of CRAFT is also reflected within its own etymology and ascribed meanings. Accordingly, the term *CRAFT*, which springs from *craft*—an old English word meaning knowledge, resourcefulness, skill, strength, and wisdom (Langlands, 2018; Mark, 2011)—includes various other senses, such as skill in action, activity, a vehicle for traveling (e.g., boat, aircraft), ability in arts, and handmade occupation (Merriam-Webster, n.d.).

CRAFT sprang from Pilar Posadas' multifaceted formation and experience in yoga, mindfulness, positive psychology, and emotional intelligence, as a result of conducting a conscious selection and/or adaptation of the different practices, theories, philosophies, and most recent findings of these four disciplines and/or fields of knowledge. Such four disciplines, which have been described in detail in Chapter 1, constitute the four foundations of the program. The four CRAFT foundations, in turn, inspired the creation of the acronym *CRAFT*, which stands for the five Spanish terms revealing the five elements of the program, namely, *Consciencia* (i.e., Consciousness), *Relajación* (i.e., Relaxation), *Atención* (i.e., Attention), *Felicidad* (i.e., Happiness/Fulfillment), and *Transcendencia* (i.e., Transcendence). These five elements have been described by the program developer (Posadas, 2019) and in further work where its theoretical and practical foundations were established (Posadas & Bartos, 2022). Due to their importance for the current thesis, the following section will be centered on explaining in detail, drawing from Posadas (2019) and Posadas and Bartos (2022), the five CRAFT elements.

Elements of the CRAFT Program

The five CRAFT elements are related to intrinsic capacities of human beings as part of one's inner technology that is developed to realize and manifest the best version of oneself at a physical, psychological, emotional, behavioral, and cognitive level. It is contended that as individuals progressively gain mastery over the five CRAFT elements, they would also become more capable of coping with the different challenges and well-being concerns affecting their lives (Posadas, 2022). Therefore, the usefulness of CRAFT, as a method for well-being and self-actualization, is contingent on nurturing these five elements through the work of various practices derived from, inspired by, and/or adapted from the CRAFT four foundations. In the ensuing subsections, these five elements will be described.

Consciousness. The cultivation of the element Consciousness is highly rooted in the CRAFT foundations of yoga and mindfulness but also in the utilization of a few components of positive psychology and

emotional intelligence to comprehensively promote a deeper awareness and knowledge of oneself, others, and the world. In this element, key concepts, including self-awareness, awareness of others, and both internal and external consciousness are explained. The first step is developing *witness consciousness*, through yoga- and mindfulness-based techniques (Goenka, 2000; Kabat-Zinn, 1990; Satyananda, 2013, 1967), such as the body scan and the physical, emotional, and mental (PEM) meditation, a practice developed by the creator of the program where individuals learn to impartially witness their physical, mental, and emotional states with a non-judgmental-, acceptance-, and compassionate-based attitude. This process is also facilitated through the CRAFT psycho-emotional protocol, in which practitioners mindfully engage in various coordinated movements and hatha yoga poses using the emergent bodily sensations to understand the connection between their physical, mental, and emotional states. Additionally, these physical exercises and yoga postures are associated with specific psycho-emotional attitudes to be consciously applied in their daily life. Lastly, the use of components drawn from the fields of emotional intelligence (e.g., cultivating awareness of one's internal states and those of others, Goleman, 1998) and positive psychology (e.g., recognition of one's character strengths and virtues; Seligman et al., 2005) contribute to a more comprehensive understanding of this element.

Relaxation. The *R* in CRAFT not only stands for Relaxation but also for Respiration and particularly Regulation, for as practitioners increasingly become more aware of their physical, mental, and emotional states, the logical subsequent step is to learn how to regulate them, if applicable. To that end, adequate relaxation at a physical, emotional, mental, and emotional level as well as proper respiration/breathing is highly encouraged through the use of different self-regulatory techniques and methods mainly drawn from and/or inspired by yoga and mindfulness practice (Lidell, 1983; Satyananda, 1967, 2002; Wallace, 2011). These include relaxation techniques (e.g., progressive muscle relaxation, autosuggestion, creative activities, and especially yoga *nidra*), pranayamas (i.e., yoga breathing techniques such as *sitali* and *bhramari*), meditation practices (e.g., visualizations, *shamatha*), and postural exercises (i.e., invigorating body-mind postures, hatha yoga, CRAFT psycho-emotional protocol). Therefore, methodologically, the three Rs (i.e., Relaxation-Respiration-Regulation) protocol is followed so that once individuals have identified through the work of the first element (i.e., Consciousness) any disharmony within the body-mind-emotion triad, they will momentarily pause their activities to focus on their breathing, and deploy the self-regulatory technique they consider most appropriate to regain their mental, physical, and emotional relaxation state. Moreover, emphasis is also placed on developing this element through delving into Goleman's (1998) second component of emotional intelligence (i.e., self-regulation) and one's strengths and virtues (Peterson & Seligman, 2004) for not just being aware of them but also using them effectively to cope with real-life challenges.

Attention. This element refers to human beings' intrinsic ability to *be present* and live from a state of full attention, focusing on one's present-moment experiences with an openness and non-evaluative approach. Along these lines, attention is worked through practical and theoretical instruction in previously described axioms of mindfulness—Intention, Attention, and Attitude (Shapiro et al., 2006)—with the latter, Attitude, being specifically fostered through the nine mindful attitudes (i.e., non-judging, beginner's mind, trust, non-striving, accepting, letting go, gratitude, and generosity) identified by Kabat-Zinn (1990). Meditative practices derived from mindfulness ancient traditions (e.g., *shamatha* from Theravada, Zen meditation from Mahayana, and visualizations from Vajrayana; Amihai & Kozhevnikov, 2015) and modern approaches, mainly MBSR (e.g., open-monitoring meditation, body scan; Kabat-Zinn, 1990; Santorelli, 2014) are highly emphasized in this third

element. Other resources employed to foster attention involve the practice of *kinhin* (i.e., walking Zen meditation; Heine & Wright, 2008), *nada* yoga (i.e., sound meditation; Yogatirthananda, 2023), as well as informal meditations in daily life activities (i.e., eating, having a shower; Santorelli, 2014). Additionally, different types of yoga breathing techniques or *pranayamas* (e.g., *nadi shodhana*, *bhramari*, *kapalabhati*; Satyananda, 1967) are regularly practiced as a pathway to foster the three meditative stages of *raja* yoga (Satyananda, 2013), namely, *dharana* (i.e., concentration), *dhyana* (i.e., attention), and *samadhi* (i.e., or the blissful experience of union with everything), which are particularly reviewed and discussed as part of this element. In cultivating Attention, practitioners are also encouraged to focus not only on sustaining their concentration as a mere cognitive ability but also on fully attending or paying attention with care, affection, and love, to promote a comprehensive attentional process conducive to Happiness.

Happiness/Fulfillment. The training developed through the first three elements (Consciousness, Relaxation, and Attention) is conceived as a stepping stone to gradually facilitate the experience of inner peace and happiness. Noteworthy, in CRAFT, happiness is primarily explained and promoted from a eudaimonic perspective, and therefore, as a state of inner peace, calm, and tranquility independent of the ever-changing life phenomena, as well as in terms of cultivating one's virtues and living a meaningful life. This learning process is facilitated through reflections on yoga and Buddhist philosophy; positive psychology-based activities to promote flow states (e.g., mindful concerts), positive aspects in life (i.e., *three good things in life*, Seligman et al., 2005), gratitude (i.e., *counting blessings*; Emmons & McCullough, 2003) kindness (i.e., performing acts of kindness, Martínez-Martí et al., 2010), and one's character strengths and virtues (i.e., signature strengths, Seligman et al., 2005); role-play activities to delve into Goleman's (1998) five components of emotional intelligence; as well as loving-kindness and compassion meditations to cultivate the four immeasurables (i.e., loving-kindness, compassion, sympathetic joy, and equanimity, Hofmann et al., 2011). Moreover, the CRAFT psycho-emotional protocol is also imparted with an emphasis on how it can be leveraged to resolve conflictive situations. Lastly, the use of *savoring* (Bryant & Veroff, 2017), in the sense of appreciating, valuing, and enhancing one's positive experiences is also promoted as part of this element.

Transcendence. This fifth element is nourished by the contributions of authors such as Seligman (2011) and Frankl (1985), who underline the importance of leaving a meaningful life for intrapersonal development and growth. In this element, the *transcendent* aspect plays a determinant role to facilitate a meaningful integration and optimization of knowledge and live life to the fullest. As also highly grounded in yoga and mindfulness philosophy, theory, and practice, through the work of this element individuals are encouraged to detach from their everyday concerns, view them from different perspectives as facilitators of new learning, as well as reframe them through a creative and self-transforming attitude leading to new possibilities. To that end, different yoga- and mindfulness-based meditations, engagement in selfless service-related actions (i.e., *karma* yoga), as well as reflected debates on how to integrate these practices into students' daily lives are consistently promoted as tools to develop Transcendence. In addition, this training is also complemented through further instruction in positive psychology with an emphasis on nurturing the character strengths classified within the virtue *Transcendence* (i.e., appreciation of beauty and excellence, gratitude, hope, humor, and spirituality; Peterson & Seligman, 2004); as well as Goleman's (1998) five components of emotional intelligence, specifically worked, in this case, through interactive role-play activities.

First Applications and Preliminary Research of CRAFT

CRAFT was first delivered at the Royal Conservatory of Music of Granada Victoria Eugenia, Spain, during the academic year 2016-2017 as the *CRAFT's 7 mindful minutes*, once a week for 7 min, in the courses English for Musicians and Chamber Music (Posadas & Bartos, 2022). Using the CRAFT's 7 mindful minutes in conjunction with *suggestopedic* techniques (e.g., autosuggestion, classical music, dialogues, games, pranayama, and role-play activities; Bancroft, 2005), Rull et al. (2019) developed the new methodology *Learn English to the Rhythm of Bach*, and conducted a study to explore its efficacy in enhancing students' English learning skills. The authors found that tertiary student musicians ($n=15$) following this novel methodology, which was implemented in the course English for Musicians once a week for 60 min over six weeks, reported an overall 58.2% improvement in an English vocabulary learning task requiring grammar, translation, and word-definition abilities. Additionally, participants' responses to a Likert survey suggested they were highly satisfied with their training experience, and that the new methodology helped them promote their focus and awareness, being more enjoyable and beneficial than other types of English learning instruction to make them feel relaxed (Rull et al., 2019).

Moreover, in the same academic year, Posadas and Bartos (2022) conducted a preliminary study to examine the potentiality of the CRAFT's 7 mindful minutes to promote a series of hypothesized benefits related to the five CRAFT elements and be applicable within students' daily life and other settings. To that end, Posadas and Bartos (2022) designed a CRAFT evaluation survey (CES), comprising 36 5-point Likert items and one open-ended question, that was completed by 17 student musicians who had followed the CRAFT's 7 mindful minutes for 9 months in the subjects English for musicians and Chamber Music. The analysis of the CES showed that the CRAFT's 7 mindful minutes was perceived by the participants as a valuable tool to promote their skills and abilities related to the five elements of the program. This was supported by their strong level of agreement regarding the program's contribution to engendering various well-being benefits, such as improved mental, physical, and emotional awareness (Consciousness); mental, physical, and emotional relaxation, music performance anxiety, and psychological distress (Relaxation); attention, concentration, and memory (Attention); happiness, vitality, confidence, and quality of life (Happiness/Fulfillment); and resilience, meaningful learning, and creativity. In addition, responses to the open-ended question revealed additional benefits in aspects not contemplated in the survey including enhancements in participants' self-connection, self-responsibility in terms of regulating one's internal events, capacity to see the beauty in every situation realizing the positive in the negative, and intrapersonal development. Lastly, responses to the Likert items and the open-ended question regarding the applicability of the program suggested that participants perceived the CRAFT's 7 mindful minutes as highly viable, used it to enhance their academic performance and daily life experience, and encouraged its application to other subjects.

Despite the positive results reported in the studies by Rull et al. (2019) and Posadas and Bartos (2022) regarding the implementation of the CRAFT's 7 mindful minutes, there were important limitations that refrained researchers from raising any rigorous claim or potential causal inferences to explain their findings as majorly due to the intervention. In addition to the small sample size and absence of a control group, except for the pre-post English vocabulary and grammar acquisition task employed by Rull et al. (2019), Rull et al. (2019) and Posadas and Bartos (2022) derived their findings from the cross-sectional administration of Likert-type surveys. Therefore, they did not longitudinally evaluate the well-being effects of the program at a multidimensional level

(i.e., physical, psychological, emotional, cognitive) using any psychometric and/or objective-based measures. Drawing from the review of literature presented in Chapter 1, it would be recommended that further CRAFT research incorporate pre-post self-reported and objective-based measures of mindfulness, emotional regulation, physical fitness, well-being, psychological distress, and music performance anxiety. Moreover, although Posadas and Bartos (2022) reported also a short account of participants' responses to the open-ended question, they did not use any qualitative analysis to conduct a detailed exploration of their reported perceptions and experiences with the program. As underlined in Chapter 1 when discussing the shortcomings of previous yoga- and mindfulness-based interventions conducted with tertiary student musicians, the use of qualitative methods in this field is highly encouraged. On the one hand, these methods can allow researchers to clarify, expand, and overall widen the understanding of the results they may obtain quantitatively (Creswell, 2014). On the other hand, considering the transcendental and spiritual aspect that is ingrained and naturally promoted in yoga and mindfulness practice, these mind-body disciplines are typically associated with transformative and invaluable lived experiences that could be carefully examined through qualitative methods (Ekici et al., 2020; Leledaky, 2014; Morley, 2008; Poletti et al., 2021; Shaner et al., 2017; Smith, 2007). Therefore, although these two initial studies targeting the first implementation and delivery format of CRAFT furnished encouraging results, it can only be considered as a research prelude from which further investigations could be conducted to more comprehensively and rigorously evaluate CRAFT's potential well-being effects.

The successful application of the CRAFT's 7 mindful minutes motivated CRAFT's inclusion within the curriculum of the music conservatory through the creation of the CRAFT-based elective subjects of Mindfulness (2017/2018) and Emotional Intelligence (2018/2019), heretofore being imparted face-to-face once a week for 1 hr. However, in the midst of the 2019/2020 academic year, the emergence of the COVID-19 pandemic and ensuing lockdown restrictions imposed in Spain on March 14th, 2020, led to an adaptation of the program to be implemented in an online format keeping the same frequency and duration of delivery. Subsequently, as the post-COVID-19 situation of *new normality* was progressively unfolding, CRAFT was again implemented in person at the music conservatory from the academic year 2020/2021 up until now. It was in the context of these unprecedented COVID-19 circumstances and new CRAFT applications—with a higher dose of delivery and implemented both online and face-to-face within a higher music education curriculum—that the idea of pursuing the present PhD investigation emerged. Along these lines, the current PhD work was conceived to build on the previously described CRAFT studies (Posadas & Bartos, 2022; Rull et al., 2019) as well as prior yoga- and mindfulness-based research conducted with tertiary student musicians (Chan et al., 2003; Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Lin et al., 2008; Stern et al., 2012; Steyn et al., 2016). In the next section, the rationale and purpose of the current thesis will be explained. In addition, Appendix F2 describes the most relevant aspects of the preliminary journey and positionality of the thesis author, up until the rise of the COVID-19 pandemic, as a reflexivity section to better understand and contextualize the rationale and significance of the present PhD investigation.

Purpose and Rationale of the Present Thesis

As indicated in the previous section, this PhD work aimed not only to advance research in relation to CRAFT and its impact on tertiary student musicians' well-being but also within the wider yet embryotic field examining the efficacy of yoga- and mindfulness-based interventions in improving this population's health and academic demands. Therefore, the current PhD investigation attempted to address some of the limitations and/or

gaps identified in Chapter 1 and in the present chapter relative to such former body of research (Chan et al., 2003; Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Lin et al., 2008; Posadas & Bartos, 2022; Rull et al., 2019; Stern et al., 2012; Steyn et al., 2016). To that end, through the six studies designed as part of this PhD investigation, it was intended to increase the sample size and power relative to previous studies, report measures of effect size, include an inactive and active control group, use qualitative methods, and employ physical and emotional regulation outcome measures. In addition, it was planned to provide enough coverage of relevant outcomes in close alignment with determinant tertiary student musicians' well-being concerns (e.g., psychological distress, music performance anxiety) and self-regulation abilities (e.g., mindfulness, cognitive reappraisal, physical abilities). Accordingly, the studies featured in Chapters 6 and 8 incorporated a wide range of pre-post measures, including surveys of mindfulness, emotional regulation, well-being, psychological distress, and music performance anxiety, as well as field tests of flexibility and balance.

Considering the above-mentioned aspects drawn from the review of literature provided in Chapter 1, the overarching purpose of the current PhD investigation was to examine the feasibility and effectiveness of an 8-month CRAFT intervention followed by tertiary student musicians, once a week for 60 min, in enhancing their well-being and academic experience. In addition, as stressed in the previous section, this PhD work was conceived in the midst of the COVID-19 pandemic and lockdown. Such an unprecedented event stimulated the creation of an additional layer of PhD research, yet circumscribed to the main aforementioned purpose, to examine the usefulness and perceived benefits of CRAFT in terms of its implementation to enhance tertiary student musicians' health and well-being during the lockdown.

In an attempt to fulfill the overarching PhD purpose, this doctoral investigation was subdivided into two distinct phases of research encompassing three studies each. The first phase comprised the studies described in Chapters 3, 4, and 5, designed and conducted during the COVID-19 pandemic, whereas the second phase involved two pre-pandemic studies featured in Chapters 6 and 7, and a post-pandemic one presented in Chapter 8. All studies except for the study in Chapter 8 were entirely conducted at the Royal Conservatory of Music Victory Eugenia, Granada, Spain, with tertiary student musicians enrolled at this institution and following CRAFT-based elective subjects, once a week for 1 hr for the entire academic year, as well as other courses. In addition, the study reported in Chapter 8 was conducted with tertiary student musicians enrolled not only at the former institution but also at the Higher Conservatory of Music of Málaga, Spain. The main purpose of each study within their respective research phases is explained in the next subsections. In addition, Table 2.1 below illustrates the flow of these six studies throughout the identified two research phases outlining their most relevant aspects.

Table 2.1

Flow of the PhD Studies across Research Phases and Academic Years of CRAFT Implementation as CRAFT-Based Elective Subjects

Phase	Chapter (Study)	Academic year	Purpose	Sample	Research Design
1	3 (Bartos et al., 2021)	2019/2020	To explore the applicability and potential perceived benefits of CRAFT to improve tertiary student musicians' well-being during the lockdown compared to controls.	CRAFT Group ($n=40$) Control Group ($n=53$)	Quasi-Experimental
1	4 (Bartos, Posadas, et al., 2023)	2019/2020	To gain a greater understanding of tertiary student musicians' experience with the CRAFT-based practices they implemented to enhance their well-being during the lockdown and their perceived benefits associated with it.	$n=26$	Qualitative
1	5 (Bartos, Posadas, Wrapson, et al., 2023)	2019/2020	To explore the utility of the then-test to detect a potential CRAFT-based response shift occurrence among tertiary student musicians following CRAFT, and to ascertain to what extent effect sizes may differ when adjusting for it.	$n=31$	Single-arm pre-post design
2	6 (Bartos et al., 2022)	2018/2019	To examine the feasibility and preliminary effectiveness of CRAFT to improve tertiary student musicians' mindfulness skills, emotional regulation, psychological distress, well-being, as well as physical flexibility and balance.	$n=25$	Single-arm pre-post design
2	7 (Bartos, Posadas, Wrapson, et al., 2024)	2017-2019	To gain a wider understanding of CRAFT participants' overall experience and perceived benefits from following CRAFT, as well as how they implemented the techniques learned to enhance their well-being, daily life, and academic experience.	$n=37$	Mixed-methods
2	8 (Bartos, Posadas, Wrapson, Medvedev, et al., 2024)	2022/2023	To examine the effectiveness of CRAFT in enhancing tertiary student musicians' mindfulness skills, music performance anxiety, psychological well-being, psychological distress, emotional regulation, as well as physical flexibility and balance, compared to active and inactive controls.	CRAFT group ($n=28$) Active control group ($n=32$) Inactive control group ($n=33$)	Three-arm non-randomized controlled trial

Phase 1

In the first study (Chapter 3; Bartos et al., 2021) as part of Phase 1, a quasi-experimental design was employed to test whether tertiary student musicians following CRAFT ($n=40$) would report a higher level of engagement and more perceived benefits than controls ($n=53$) in terms of implementing practices (e.g., CRAFT-based practices, exercise, and other activities) to improve their well-being during the lockdown. In this study, Bartos et al. (2021) intended to explore the usefulness and applicability of CRAFT to be implemented by tertiary student musicians to improve their well-being and cope with the stressful conditions elicited by the pandemic. The next study within Phase 1 was a qualitative investigation (Chapter 4; Bartos, Posadas, et al., 2023) devised to expand the breadth of the quantitative findings reported in the first study (Chapter 3; Bartos et al., 2021). The purpose of this qualitative investigation was to capture a wider comprehension of the CRAFT-based practice implementation experience and ensuing perceived benefits among tertiary student musicians ($n=26$) following CRAFT (Bartos, Posadas, et al., 2023). In this second study, particular emphasis was placed on exploring participants' overall experience with CRAFT, the potential benefits they derived from the practices learned in the program, the types of CRAFT-based practices they deployed, and how all these elements aligned with the CRAFT five elements and four foundations (Bartos, Posadas, et al., 2023). In the third study (Chapter 5; Bartos, Posadas, Wrapson, et al., 2023), which signified the conclusion of Phase 1, CRAFT's potentiality to induce a response shift phenomenon in terms of possibly changing tertiary student musicians' ($n=31$) internal standards, meanings, and values/priorities, as reflected in changes in their pre-post self-reported levels of mindfulness, was explored. To that end, the applicability of the so-called technique *then-test* to quantitatively identify such potential CRAFT-based induce occurrence of transformative nature was examined, inferring the extent to which participants' pre-post self-reported changes in their mindfulness scores could differ when adjusting for it (Bartos, Posadas, Wrapson, et al., 2023).

Phase 2

In the first study of Phase 2 (Chapter 6; Bartos et al., 2022), a single-arm ($n=25$) pre-post design was utilized to examine the feasibility of CRAFT to improve tertiary student musicians' levels of mindfulness, emotional regulation, psychological distress, well-being, as well as physical flexibility and balance. Through the evaluation of a series of feasibility domains (Bowen et al., 2009) and the longitudinal assessment of physical, cognitive, and emotional skills, states, and/or conditions relevant to tertiary student musicians, Bartos et al. (2022) attempted to explore the suitability of CRAFT to be implemented within larger investigations. In a similar fashion to the second study conducted in Phase 1, the second study within Phase 2 (Chapter 7; Bartos, Posadas, Wrapson, et al., 2024) was designed to expand on the quantitative findings reported in the first study (Chapter 6; Bartos et al., 2022). The purpose of this second study was to complete the feasibility phase of CRAFT by exploring tertiary student musicians' experiences and perceived benefits from participating in CRAFT-based elective subjects and the impact this instruction may have on their lives, well-being, and academic demands (Bartos, Posadas, Wrapson, et al., 2024). Lastly, the third study within Phase 2 (Chapter 8; Bartos, Posadas, Wrapson, Medvedev, et al., 2024), which arguably represents the capstone project of this PhD research, was devised to build on the previous work that established and completed the feasibility phase of CRAFT as well as to address relevant limitations identified in the current literature. In close alignment with the overarching PhD purpose, this study attempted to test the effectiveness of CRAFT in improving relevant abilities, conditions, and/or states relative to tertiary student musicians' well-being and academic experience

(Bartos, Posadas, Wrapson, Medvedev, et al., 2024). Using a combination of pre-post self-reported instruments and field tests, in this study researchers tested whether tertiary student musicians ($n=28$) following an eight-month CRAFT intervention, once a week for 1 hr, would report higher improvements in their levels of mindfulness skills, music performance anxiety, psychological well-being, psychological distress, emotional regulation, as well as physical flexibility and balance than active ($n=32$) and inactive ($n=33$) controls.

Prelude. Chapter 3

Chapter 2 introduced the Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT) program, based on yoga, mindfulness, positive psychology, and emotional intelligence, as a comprehensive well-being approach to effectively address tertiary student musicians' concerns and academic demands. Thereafter, a detailed description of how the program was conceived, its theoretical framework, its first applications and preliminary research as *CRAFT's 7 mindful minutes* at a higher music conservatory, and its subsequent curricular implementation at the same institution as CRAFT-based elective subjects was provided. As further revealed through Chapter 2, this PhD investigation was designed to examine the feasibility and effectiveness of CRAFT to enhance tertiary student musicians' well-being and academic experience in the context of this second application of the program. However, the unexpected emergence of the COVID-19 pandemic and ensuing lockdown imposed in Spain on March 14th, 2020, mid-way through the CRAFT-based elective subjects, led to an additional serendipitous research stage (Phase 1). While aligning with the main PhD purpose, the focus of this initial phase was to explore through three different studies the applicability, perceived benefits, and even potential transformative effect of CRAFT to enhance tertiary student musicians' well-being during the lockdown. The first of these three studies within Phase 1 will be described in detail in the next chapter through a manuscript published in *Frontiers in Psychology* (Bartos et al., 2021) as part of a special issue free of publication charges to promote COVID-19-related research, entitled "Covid-19 and Beyond: From (Forced) Remote Teaching and Learning to 'The New Normal' in Higher Education" (Scherman et al., 2023).

Chapter 3. Developing Resilience during the COVID-19 Pandemic: Yoga and Mindfulness for the Well-being of Student Musicians in Spain

Introduction

The COVID-19 pandemic has had a detrimental global impact on the health and well-being of a wide range of populations beyond the elderly and other vulnerable people (Aristovnik et al., 2020; Goldman, 2020). Apart from the direct effects due to the viral infection, the lockdown implemented to counter the spread of the disease and the economic crisis triggered by it has also generated further concerns such as decreased physical activity (Ammar et al., 2020), sleep disturbances (Gualano et al., 2020; Altea et al., 2020), and psychological distress (Vicario-Merino & Muñoz-Agustín, 2020; Ozarnitz-Etxebarria et al., 2020; Rajkumar, 2020; Rodríguez-Rey et al., 2020; Wang et al., 2020).

In this milieu, it appears that the prevalence of the aforementioned health and well-being concerns has also spread further among young adults undertaking tertiary education worldwide, a type of population that, prior to the onset of the pandemic, already had well-documented issues related to both psychological distresses (Auerbach et al., 2016; Bayram & Bilgel, 2008; Bruffaerts et al., 2018; Hunt & Eisenberg, 2010) and physical problems (Hussain et al., 2013). For instance, significant reductions in physical activity of up to 49% coupled with significant increases in sedentary behaviors have been reported among Italian undergraduate students during the lockdown (Gallè, Sabella, Ferracuti, et al., 2020; Gallè, Sabella, Da Molin, et al., 2020). Moreover, worsening of various conditions such as stress, depression, anxiety, negative affect, sedentarism, loneliness, sleep quality, and concerns about family and finances have been found among Greek, Chinese, Swiss, and American university students, either as compared to previous normative data (Kaparounaki et al., 2020; Liu et al., 2020), prior longitudinal data between both the same and different student cohorts (Elmer et al., 2020; Huckins et al., 2020), or even longitudinally (Li et al., 2020). In Spain, a survey completed by 3707 respondents, among which 77% were university students, revealed that 21%, 28%, and 34% of the sample reported moderate to extremely severe symptoms of anxiety, stress, and depression, respectively (Odriozola-González et al., 2020). Interestingly, the authors found that the highest prevalence of moderate to severe symptoms was scored by students involved in Arts and Humanities studies, a trend which has been previously documented (Lipson et al., 2016) for this discipline to which the sample of our current study—higher education student musicians—belongs.

Under these circumstances, it is reasonable to assume that for higher education student musicians who were already affected by mental and physical disturbances, this unprecedented event and its multifactorial consequences might have aggravated such conditions, impacting in turn negatively on their lives and academic performance. As it happened with most higher education providers around the world, the onset of the lockdown disrupted the function, management, and structure of all higher conservatories of music in Spain, which following the Spanish Government declaration of the state of emergency on March 14th started shifting into what has been called emergency remote education (Bozkurt et al., 2020). This adaptation to an online-teaching-and-learning process has added extra challenges and difficulties overburdening the psychological and emotional pressure of both teachers—who were forced to manage dual parenting-teaching roles—and students. Therefore, if before the pandemic there was already a clear need of designing specific interventions to support higher education students' health and well-being, the emergence of the COVID-19 and its association with the

exacerbation of their pre-existing physical and psychosocial issues signified an even clearer rationale for developing such interventions. In line with this, a further inquiry regarding this claim would pose the question as to whether pre-existing health and well-being programs disrupted by the pandemic, yet tailored to be delivered online, have been effective in helping higher education students cope with the severe ensuing demands elicited by the lockdown. The current study partially addresses this research question in the context of higher education student musicians following a health and well-being program—*The CRAFT program*—as part of their curriculum at a Royal Conservatory of Music in the midst of a global pandemic and state of emergency remote education.

The recently developed CRAFT program was specifically devised to promote a holistic education that concurrently considers students' emotional, cognitive, and physical processes to facilitate their learning experience, happiness, health, and well-being (Posadas, 2019). Though applicable to any educational context, the program was originally designed to meet the needs of students involved in specialized higher educational fields such as music, fine arts, languages, and sports. Since its creation in 2016, the program has been implemented in various educational settings and populations, being higher education student musicians at higher conservatories of music the predominant targets. The program was first applied at the Royal Conservatory of Music of Granada Victoria Eugenia in its preliminary version called *the CRAFT's 7 mindful minutes* in the subjects English for Musicians and Chamber Music during the academic year 2016/2017 (Posadas & Bartos, 2022; Rull et al., 2019). In 2017/2018, the program was implemented as part of the academic coursework at the same institution as a CRAFT-based elective subject of Mindfulness, and the following year the CRAFT-based elective subject of Emotional Intelligence was also added to the curriculum. The program springs from the theories, philosophical underpinnings, practices, and state-of-the-art neuroscientific findings of yoga, mindfulness, positive psychology, and emotional intelligence. These four disciplines constitute the four foundations of the program and inspired, in turn, the creation of the acronym *CRAFT*, which stands for the following Spanish terms that synthesize the five elements of the program: *Consciencia* (i.e., consciousness), *Relajación* (i.e., relaxation), *Atención* (i.e., attention), *Felicidad* (i.e., happiness), and *Transcendencia* (i.e., transcendence). Therefore, both the four foundations and the five elements represent the framework guiding the practical and theoretical content delivered as part of any syllabus designed for its implementation. In the following paragraphs, we will briefly review some of the latest findings relative to the four foundations of the CRAFT program and their potential beneficial effect for assisting higher education students to cope with the various health and well-being challenges elicited by the lockdown.

There is a growing body of research supporting the effectiveness of mind-body therapies such as yoga and mindfulness to improve various physical, mental, and emotional health-related concerns amongst higher education students. Not only yoga-based practices (e.g., yoga poses, breathing, and relaxation techniques) might counterbalance the stress response by vagal nerve stimulation and consequent reduction of cortisol and pro-inflammatory cytokines, but they could also enhance markers of psychophysiological health (e.g., blood pressure, heart rate, flexibility, balance, strength, pulmonary functions, and musculoskeletal conditions, McCall, 2013; Raub, 2002; Sullivan, Erb, et al., 2018). Moreover, yoga and mindfulness meditative practices might improve cognitive and emotional self-regulation and awareness by encouraging selective intentional attention, a non-judgmental attitude, and a decentering process that might reduce negative reappraisal, emotional reactivity, and rumination (Gard et al. 2014; Guendelman et al., 2017; Tang et al., 2015). In support of the above-

hypothesized benefits and underlying mechanisms, researchers investigating the influence of yoga and mindfulness-based interventions on the health and well-being of university students have shown reductions in stress, depression, and anxiety (Breedvelt et al, 2019; Falsafi, 2016; Halladay et al. 2019; McConville et al., 2017; Smith et al., 2011); increased awareness, attention, memory, executive function, neuroplasticity, and overall cognitive and emotional functioning and self-regulation (Bruner et al., 2017; Gothe & McAuley., 2015; Tang et al, 2007; Tang et al., 2010; Tang et al, 2015; Zeidan et al., 2010); and the alleviation of specific concerns related to higher education student musicians such as music performance anxiety (Chang et al., 2003; Khalsa et al., 2013; Stern et al., 2012). In addition, interventions incorporating hatha yoga have shown effectiveness amongst higher education students in ameliorating physical abilities such as flexibility, strength, and balance (Park et al. 2017; Tran et al., 2001); and cardiovascular (Ray et al., 2001; Smith et al., 2011; Tran et al, 2001) and pulmonary functions (Birkel & Edgren, 2000; Godoy et al., 2006). Beyond these health and well-being benefits, the ancient spiritual and philosophical foundations of both yoga and mindfulness might provide higher education students with a useful asset for coping in the face of a pandemic. An explanation of how such principles can be applied to real-life situations to alleviate suffering can be found in the yoga model for self-regulation and resilience proposed by Sullivan, Moonaz, et al. (2018). The authors highlighted the importance of developing discrimination between *prakriti* (i.e., changing reality) and *purusha* (i.e., everlasting reality) by cultivating the witness attitude that brings the practitioner closer to *purusha* and the real self. Through this attitude, students might become more aware of their maladaptive behaviors and nurture their resilience by dis-identifying and creating distance from their *prakriti* related concerns. A similar procedure equally derived from the experience and understanding of higher spiritual processes and pursuits is the mindful metacognitive mechanism of “reperceiving” (Shapiro et al., 2006). The potential relevance of the spiritual dimension amidst the COVID-19 pandemic has been recently underlined in a recent Spanish survey completed by 3480 participants, whereby the highest protective factor in predictive models for depression, anxiety, and stress-related symptoms was spiritual well-being (González-Sanguino et al., 2020).

In addition to yoga and mindfulness, the field of positive psychology and literature on emotional intelligence bring also valuable tools and practices to cope with the lockdown demands and difficulties. Positive psychology is majorly concerned with what goes right in people’s lives and thus focuses on cultivating positive values such as happiness, well-being, hope, gratitude, and developing one’s strengths such as courage, honesty, and resilience (Peterson, 2006; Peterson & Seligman, 2004). Positive psychology interventions encompass a series of practices based on components such as savoring, gratitude, kindness, empathy, optimism, strengths, and meaning. The cultivation of these attitudes and values might have an essential role in assisting with the various challenges elicited by the pandemic and the corresponding lockdown situation. Positive psychology interventions including components of gratitude and strengths have resulted in an increase of happiness, well-being, and decrease of depressive symptoms (Sin & Lyubomirsky, 2009). For instance, positive psychology interventions instructing participants to list grateful things per day have led to improvements in positive affect (Martínez-Martí et al., 2010), life satisfaction (Manthey et al., 2016), happiness (Mongrain & Anselmo-Matthews, 2012), and stress (Kerr et al., 2015). In addition, savoring, or the ability to be engaged in the appreciation of one’s activities and experiences has been found to increase resilience and happiness and reduce depressive symptoms (Smith & Hanni, 2019). Lastly, knowledge about emotional intelligence provides an additional tool to face the emotional and psychological consequences of the lockdown with compassion,

empathy, and care in the build-up of intrapersonal and interpersonal intelligence. Emotional intelligence places a major emphasis on monitoring one's emotions and those of others to employ this output efficiently to support one's behaviors effectively (Salovey & Mayer, 1990). To that end, the employment of Goleman's (1998) five components of emotional intelligence—self-awareness, self-regulation, motivation, empathy, and social skills—might play a crucial role to offset the emotional outburst experienced by higher education students due to the lockdown. There is evidence supporting the efficacy of emotional intelligence for the promotion of positive emotions, life satisfaction, happiness, stress reduction, and well-being (Mayer et al., 2008; Ruiz-Aranda et al., 2014).

As can be drawn from this review of literature, the four foundations of the CRAFT program prescribe a series of practices and components that have been found effective for bestowing a variety of physical, mental, emotional, and spiritual health and well-being benefits amongst their practitioners. Therefore, a careful selection of these practices and components, tailored to suit the specific needs of higher education students within the framework of a single program, could provide them with a more complete and valuable set of coping strategies than each of these four foundations could offer alone to concurrently address their various lockdown demands and difficulties independently. The rationale supporting this supposition is based on the premise that a potential limitation of a given foundation could be strengthened by another. For instance, the theories and methods underlying both positive psychology and the research field of emotional intelligence do not make direct references to specific physical practices for health and well-being purposes, and those of mindfulness-based interventions such as the modern Mindfulness-Based Stress Reduction program (MBSR; Kabat-Zinn, 1990) include only a few postural elements drawn from *hatha* yoga. By contrast, a myriad of physical practices has been prescribed in the various styles of *hatha* yoga that sprang from the ancient yoga treatises, supporting thus, the greater versatility of yoga to potentially induce physical changes and address musculoskeletal concerns than the other three foundations of the CRAFT program. In addition, though all four CRAFT foundations could offer a distinct way for developing emotional self-regulation related skills, mindfulness and emotional intelligence components and practices place a direct emphasis and focus to train these abilities. Further details and supporting evidence about the particular practices and components drawn from, adapted from, or inspired by each foundation as part of the CRAFT program can be consulted elsewhere (Posadas, 2019; Posadas & Bartos, 2022). Along these notions, a primary objective of the CRAFT program is to raise students' consciousness of their inner responsibility to be actively engaged in their health and well-being processes encouraging the application of the different learned techniques to real-life situations with full awareness. This is a path that places a major emphasis on the self—far away from selfishness but rather for the common benefit of developing more conscious communities—through the promotion of a self-inquiry, self-knowledge, self-responsibility, self-caring, and autonomous problem-solving attitude, whereby self-engagement stands as the driving common ground. Such a self-rooted paradigm finds also expression in the four foundations of the CRAFT program, being highly integrated into the philosophy of yoga and mindfulness-based practices. For instance, Desikachar et al. (2005) explained how yoga drives their practitioners to develop self-caring, self-responsibility, and self-inquiry health and well-being attitudes and demeanors by actively self-engaging in the different practices of yoga with a conscious disposition for finding the root of their health and well-being concerns.

The purpose of the current study was to explore the applicability and potential perceived benefits of the CRAFT program, administered during the lockdown at a higher conservatory of music, to improve student

musicians' health and well-being in comparison to a control group. Based on the above-mentioned evidence supporting the effectiveness of the four foundations of the CRAFT program for improving a variety of health and well-being concerns and their emphasis on nurturing self-promoting attitudes and behaviors, we postulated the following hypotheses: The first hypothesis was that there would be a higher proportion of participants in a CRAFT program group (i.e., participants enrolled in CRAFT based elective subjects) than in a control group (i.e., participants enrolled in other elective subjects) that would be proactive in terms of implementing practices as coping strategies to improve their health and well-being during the lockdown. This may be because participants in a CRAFT program group might have developed a higher level of self-engagement for taking care of their own health independently than participants in a control group. Subsequently, we also expected that amongst proactive participants in a CRAFT program group, there would be a higher proportion of participants implementing CRAFT based-practices than other types of practices as coping strategies to improve their health and well-being during the lockdown. The second hypothesis was that the proportion of proactive participants perceiving benefits from their practices implemented would be higher in a CRAFT program group than in a control group. This may be because participants in the CRAFT program group may have acquired new skills and learned health-practices that may have provided them with an early foundation that they can now draw on effectively during stressful times brought about by the pandemic. Subsequently, we also expected that amongst proactive participants in a CRAFT program group, there would be a higher proportion of participants perceiving benefits from CRAFT-based practice implementation than from other types of practices.

Method

Study Design, Setting, Participants, and Procedure

The present study was designed in response to a naturally occurring life event of unprecedented dimensions within the context of an ongoing longitudinal investigation, which is still in progress and will be reported elsewhere. As such, various aspects of the present study derived from the pre-existing longitudinal design and the unexpected emergence of the COVID-19 pandemic. Below we describe this procedure in detail within its pertinent context and timeline.

Current Study Context: Longitudinal Study. Each year since the curricular application of the CRAFT program in 2017 at the Royal Conservatory of Music of Granada Victoria Eugenia, a longitudinal research project, approved and funded by the Regional Government of Andalusia, was conducted to examine the influence of the program on student musicians' physical, cognitive, and psychological abilities, health, and well-being. In the academic year 2019/2020, the application of the program in the CRAFT-based elective subjects of Mindfulness and Emotional Intelligence started on November 6th, 2019. As in all elective subjects, instruction occurred once a week for one hour over the course of the entire teaching phase of the academic year that ended on May 13th, 2020. After obtaining ethical approval from the Institutional Review Board of the University of Granada (n° 1009/CEIH/2019), the third longitudinal study was advertised to the students by the conservatory's website, fliers, and announcements given by different faculty members. From January 13th-29th, 2020, student musicians were recruited through brief presentations of the study objectives and requirements held at the music conservatory. It was during these presentations that prospective participants were informed that their participation was voluntary, anonymous, not linked to the marks of any of their subjects, and that they could withdraw from the investigation at any time and with no consequences for their studies. Therein, 197 interested

student musicians signed a consent form and completed the baseline assessments. In order to safeguard their anonymity, they were instructed to assign themselves an alpha numeric code, to be provided in all tests and surveys related to the study. In the same recruitment session, students were informed of the possibility to enroll in an extracurricular workshop related to the investigation in exchange for credits towards their studies.

Group allocation was based on student musicians' enrolment in pre-existing elective subjects. As a result, participants enrolled in the CRAFT-based elective subjects of Mindfulness and Emotional intelligence formed the CRAFT program group (n=82), whereas participants enrolled in elective subjects, not including the CRAFT-based ones such as history of Spanish music, ergonomics, ethnomusicology, ensemble, foundations of direction, German, and English served as a control group (n=115). The intervention designed for the longitudinal study continued as planned until the emergence of the COVID-19 pandemic and the commencement of the national lockdown.

The Emergence of COVID-19 Gives Rise to the Current Study. The onset of the lockdown elicited by the COVID-19 pandemic occurred on March 14th, 2020, halfway through the longitudinal study, time at which the program had already been running for 16 weeks. As a result, both the program and the study were adapted to continue in an online format for the ensuing weeks. At this crucial stage, we considered that the particular implications of such an unprecedented event relative to student musicians' participation in a pre-existing health and well-being program were worthy of investigation as a separate study. This led us to formulate a new set of hypotheses, driving the design and purposes of the current study reported herein, to explore the applicability and potential perceived benefits of the CRAFT program to improve student musicians' health and well-being during the lockdown in comparison to a control group. To that end, we developed an online questionnaire specifically tailored to examine these hypotheses. Following approval of this procedure by the same University Institutional Review Board (n° 1468/CEIH/2020), participants were contacted by email on June 1st, 2020, one week after they concluded their final exams, and were invited to complete the aforementioned survey no later than June 15th, 2020. As a further incentive, two tablets were raffled amongst all participants who completed their participation in the entire longitudinal investigation. The online questionnaire included a preliminary note informing participants that any of their potential responses to the questions were optional and not contingent on receiving any of the incentives that they had been offered. From the initial sample of 197 participants, a total of 97 participants, 44 participants from the CRAFT program group and 53 participants from the control group, filled in the online survey.

Setting and Participants. Participants were higher education student musicians of the Royal Conservatory of Music Victoria Eugenia, a public institution located in Granada, Spain, providing an advanced four-year higher education music curriculum equivalent to a bachelor's degree. Inclusion criteria required participants to be full-time student musicians aged 18 years or older enrolled at the Royal Conservatory of Music Victoria Eugenia during the academic year 2019/2020. Students were excluded from the study if they received any psychological, psychiatric, and/or psychopharmacological help during the lockdown. Four participants in the CRAFT program group were excluded from the study following this criterion. Thus, the final total sample for the current study consisted of 93 participants—40 participants in the CRAFT program group and 53 participants in the control group—age range 18-39 years, of whom 55 were females.

The CRAFT Program Protocol. Participants in the CRAFT program group received a total of 23 hours of instruction in the program, which corresponded to the total curriculum time allotted for each one of the

CRAFT-based elective subjects (Mindfulness and Emotional Intelligence). The first 16 classes were taught in a multi-purpose and spacious classroom well-equipped with yoga mats, blocks, and other materials to facilitate the performance of the different practices implemented. Due to the lockdown, the last seven hours were completed through the online platform *Zoom*. The entire instruction was administered by the creator of the CRAFT program at a frequency of delivery of once a week for one hour per subject. Beyond her academic formation as a professional musician, translator, and Ph.D. in phonetics applied to singing, the founder of the program is an advanced certified yoga teacher who holds a postgraduate degree in Expert on Mindfulness in the Educational Context. Her mind-body related background encompasses over 30 years of meditative practice from both ancient Buddhist and yogic traditions, 26 years as a yoga practitioner, and over 15 years of both independently teaching these practices and integrating them within her academic area of professional expertise as a professor of the Royal Conservatory (i.e., music and language higher education). The developer of the program (author MPP) was blind to the study hypotheses, measures, and participants' recruitment.

Though the program was applied in both elective subjects, there was a preponderance of yoga and mindfulness content in the CRAFT-based elective subject of mindfulness, whereas a prevalence of emotional intelligence, compassion, and positive psychology theory and practice was at the core of the CRAFT-based elective subject of Emotional Intelligence. Another notable difference was that the 15-minute physical protocol based on *hatha* yoga was only applied in the CRAFT-based elective subject of mindfulness. Despite these differences, both the five elements of the program and the four foundations were taught in both subjects. During the first 13 classes, there was a focus on working on the first, second, and third elements of the program (e.g., consciousness, relaxation, and attention), whereas for the remaining 10 classes all elements of the program were taught and practiced.

The five elements of the program are worked through different practices based on its four foundations and adapted to the specific needs of student musicians. Therefore, particular emphasis is given through reflective group discussions and debates on how to specifically integrate them within their daily lives to address their academic, professional, and life demands. For instance, the first element *Consciousness* is first developed through the cultivation of observing one's body, mind, and emotions with openness, compassion, and a non-judgmental attitude. One of the main goals of *Consciousness* is that student musicians become more aware of their physical, mental, and emotional states so that they can self-regulate them appropriately to meet their particular needs. This is trained through both *hatha* yoga and mindfulness-based practices such as *antar mouna*, breath awareness, RAIN (i.e., recognize, accept, investigate, non-identification), yoga postures, meditation, and other related practices created by the developer of the program such as the FEM meditation (i.e., meditation based on the impartial observation of physical sensations, emotions, and thoughts). Hence, student musicians are taught how to implement such practices not only to increase their awareness but also to integrate them in their daily lives to self-regulate their posture, music performance anxiety, perfectionism, musculoskeletal problems, and other health and well-being concerns. This fusion of both mindfulness and yoga leads to a CRAFT mindful yoga that is also applied in the remaining elements of the program. Thus, the second element *Relaxation* was developed through various *pranayamas* (e.g., *sitali*, *sitkari*, *bhramari*, alternate nostril breathing, full yogic breathing), visualization techniques, yoga *nidra*, *shamatha* meditation, and other *hatha* yoga-based relaxation practices including progressive-muscle relaxation and autosuggestion components. The third element *Attention* was mainly worked through different meditation techniques (e.g., mantra meditation, open monitoring

meditations, breath awareness meditation, and attention-based exercises and games), and specific *pranayama* practices. The path of *raja* yoga, with a focus on its last three meditative components (*dharana*, *dhyana*, and *samadhi*), are discussed and practiced along with other mindfulness-based meditations and practices such as *shamatha* meditation from ancient Buddhist traditions and the body scan from the modern MBSR program. The development of consciousness, relaxation, and attention through these practices paves the way to the fourth element *Happiness*, fostering, in turn, a meditative state of “flow experience”, or the so-called “engagement” component from positive psychology, whereby an optimal music performance might emerge. This is also worked in the classroom through group-meditative improvisations and mindful concerts to tune student musicians into a state of full absorption, self-control, and happiness. In addition to the practices of mindfulness and yoga, which share the profound purpose of bringing everlasting happiness amongst its practitioners, the teaching of the fourth element *Happiness* added intrinsic components from both positive psychology and emotional intelligence. Some of these were gratefulness (e.g., listing grateful things and events), engagement (e.g., flow experiences through meditative improvisations), and emphasizing one’s strengths and values from positive psychology; or the cultivation of empathy from emotional intelligence. Under the four foundations, happiness was studied from both the Hedonic and the Eudemonic perspectives, giving more emphasis on the latter. Moreover, other specific mindfulness practices such as loving-kindness meditation (e.g., *metta* meditation and *tonglen*) were used to teach self-compassion, compassion, and unconditional love as a pathway to develop happiness. Lastly, in close connection with the first and fourth elements *Consciousness* and *Happiness*, but also relying on the lead-up work to develop *Relaxation* and *Attention*, students received instruction in the fifth element *Transcendence*. Thus, the understanding of transcendence at an experiential level requires the mastery of all previous elements to be able to tune into the ultimate transcendental pursuits of self-knowledge and self-inquiry. It is a journey of finding meaning to life and true happiness rooted in the self rather than on the fleeting external reality. Through this element students learn the ability to see things from various perspectives, dis-identifying themselves from their immediate ever-changing realities and concerns, and ultimately transcend them through a self-transforming attitude. This fifth element fosters creativity—as a crucial mechanism for transforming and generating new perspectives, possibilities, situations, and realities—as well as the four strengths of positive psychology related to transcendence: the appreciation of excellence and beauty, gratitude, hope, sense of humor and spirituality (i.e., finding meaning to life). Other important aspects worked through transcendence are the promotion of intention setting, harmonious passion, and *karma* yoga (i.e., selfless service) as key instruments to flourish as individuals and as a society. Practices from all four foundations, with a focus on meditative practices based on both yoga and mindfulness, as well as reflective group discussions on their various philosophical underpinnings and real-life applications were used to teach this element.

A CRAFT program protocol, adapted to and implemented with higher education language students enrolled at the Faculty of Translation and Interpretation of the University of Granada, Spain, has been registered in Clinical Trials (NCT04392869). A further detailed description of the course outline for the CRAFT-based elective subjects of mindfulness and emotional intelligence during the academic year 2019/2020 including objectives, content, practices, and other program procedures per session can be accessed in the supplementary material file linked to the current study (Table App. 1 in Appendix E1). In addition, further specifications of the foundations, elements, and practices of the program can be found elsewhere (Posadas, 2019; Posadas & Bartos, 2022). All participants in the CRAFT program group were encouraged to complete at least two hours of home-

based practice weekly. This included practicing at least three times a week the following components: the physical protocol, only in the CRAFT-based subject of mindfulness; both formal and informal meditation; and keeping a journal to document their own experiences with the practice of the program. A compulsory attendance rate of 80% was required to complete their instruction in the CRAFT-based elective subjects of mindfulness and emotional intelligence. In the sample for the present survey administered during the lockdown, all participants in the CRAFT program group had met this minimum attendance requirement and can thus be said to have successfully completed the program.

Measures

Online Questionnaire. The online questionnaire included seven questions (Appendix D2). The first question asked participants whether they received any psychological, psychiatric, and/or psychopharmacological help. The second question asked participants whether they experienced any severe setback due to the COVID-19 pandemic and lockdown situation. The third question asked participants whether they had experienced relevant changes in their health and well-being due to the exceptional COVID-19 situation, while the fourth question invited participants to indicate those changes in case of reporting an affirmative answer to the third question. The fifth question included three separate statements asking participants how they would rate on a 10-point visual analogue scale their physical, psychological, and sleep quality during the lockdown. The sixth and seventh questions were specifically related to the current study hypotheses. The sixth question asked participants whether they had implemented any particular practice or activity learned throughout the academic year to improve their physical, mental, and emotional state during the lockdown. Lastly, the seventh question invited participants to indicate, in case of reporting an affirmative answer to the sixth question, which particular practice or practices they implemented, where they learned it, and briefly describe their own experience with it and the impact they had on their physical, mental, and emotional state.

Data Analysis

Data were analyzed using IBM SPSS v. 25.0 (Armonk, NY: IBM Corp. 2017). Descriptive statistics were used to summarize all variables using means, standard deviations, counts, proportions, and frequencies. To determine differences between groups, separate two-way chi-square tests of independence and one-way ANOVAs were conducted for all categorical and continuous variables, respectively.

Results

To hone the rigor of these results in terms of addressing the current study hypotheses, we conducted analyses for both the total sample and a filtered sample after excluding those participants that reported previous experience with yoga and/or meditation other than in the CRAFT program before the onset of the lockdown and/or in the CRAFT program during the academic years 2017-2019. This was to ensure any potential effects of prior familiarization were considered. The participants' demographic characteristics for both samples across the experimental and control groups are displayed side by side in Table 3.1. As can be observed from the total sample, the filtered sample was the result of excluding 31 participants who reported previous yoga and/or meditation experience, 9 participants (22%) from the CRAFT program group, and 22 participants (41%) from the control group. The evidence of a marginally significant association of previous yoga/meditation experience by group, emphasized by a higher observed frequency of controls, supported further the need of controlling for such potential influence by presenting additional analyses conducted on a filtered sample. There were no

significant differences for any of the other demographic variables between groups within both samples, except for grade year, whereby the highest proportion of participants in the control group were distributed amongst the first and second-grade year, as opposed to the predominance of third-grade year participants in the CRAFT Program group.

Table 3.1
Participants' Demographic Characteristics

Variables	Total Sample			Filtered Sample ^a		
	CRAFT Program Group (n = 40)	Control Group (n = 53)	p	CRAFT Program Group (n = 31)	Control Group (n = 31)	p
Age	22.55 ± 3.79	22.38 ± 4.64	.85	22.71 ± 3.94	22.81 ± 5.12	.93
Years of Musical Practice	13.80 ± 3.30	13.26 ± 3.74	.41	13.98 ± 3.59	12.95 ± 3.57	.26
Gender						
Females	23 (57%)	32 (60%)	.78	17 (55%)	17 (55%)	1
Level of Education			.49			.28
High School	31 (77%)	46 (87%)		24 (77%)	27 (87%)	
Bachelor's Degree	8 (20%)	5 (9%)		6 (19%)	2 (6%)	
Master's Degree	1 (2%)	2 (4%)		1 (3%)	2 (6%)	
Grade Year			.003			.022
First	5 (12%)	20 (38%)		4 (13%)	12 (39%)	
Second	9 (22%)	18 (34%)		7 (23%)	10 (32%)	
Third	18 (45%)	9 (17%)		15 (48%)	5 (16%)	
Fourth	8 (20%)	6 (11%)		5 (16%)	4 (13%)	
Yoga/Meditation experience	9 (22%)	22 (41%)	.05	NA	NA	
CRAFT (2017-19)	1 (2%)	7 (13%)	.07	NA	NA	
Other Yoga/Meditation	8 (20%)	15 (28%)	.36	NA	NA	

Note. Values are mean ± SD with respective *p*-values computed with one-way ANOVA, or n (%) with respective *p*-values computed with chi-square. Bold font denotes significance. ^a Filtered sample after excluding participants that reported previous exposure with yoga/Meditation other than in the CRAFT program before the lockdown and in the CRAFT program during the academic years 2017-20119. NA = Not applicable.

The results for the health and well-being online questionnaire by groups within both samples are displayed in Table 3.2. No significant differences between groups were found in terms of severe COVID-19 setbacks, and health and well-being changes, within both samples. A large number of participants in both samples, 72% and 60% in the CRAFT program and control groups, respectively, within the total sample, and 71% and 74% in the filtered sample, reported having experienced relevant changes in their health and well-being. Among these, mental-emotional problems were the most frequently reported. Within the total sample, 52% and 51% of participants in the CRAFT program and control groups respectively suffered from these disturbances, while in the filtered sample these proportions were slightly higher, 55% and 64%, respectively. In this domain, it appears that stress and anxiety were the most common concerns across both groups. In addition, 35% and 19% of participants in the CRAFT program and control groups, respectively, within the total sample, and 35% and 19% within the filtered sample, indicated affection from physical disturbances. Lastly, for this section of health and well-being-related variables, separate one-way ANOVAs analyses revealed that there were

no significant differences between groups across samples for quality of sleep and physical and mental-emotional health states.

Table 3.2

Health and Well-being Self-reported Changes and Behaviors across Groups during the Lockdown

Perceived Outcomes	Total Sample			Filtered Sample ^a		
	CRAFT Program Group (n = 40)	Control Group (n = 53)	p	CRAFT Program Group (n = 31)	Control Group (n = 31)	p
Severe COVID-19 Setbacks	4 (10%)	5 (9%)	.93	5 (16%)	2 (7%)	.23
Health and Well-being Changes	29 (72%)	32 (61%)	.22	22 (71%)	23 (74%)	.78
Positive Changes	6 (15%) ^b	3 (6%) ^b	.13	4 (13%) ^b	3 (10%) ^b	.69
Mental-emotional Issues	21 (52%) ^b	27 (51%) ^b	.88	17 (55%) ^b	20 (64%) ^b	.43
Anxiety	13 (32%) ^b	10 (19%) ^b	.13	10 (32%) ^b	9 (29%) ^b	.78
Stress	13 (32%) ^b	14 (26%) ^b	.52	10 (32%) ^b	12 (39%) ^b	.60
Fear, worry, despondency	6 (15%) ^b	6 (11%) ^b	.60	6 (19%) ^b	5 (16%) ^b	.74
Physical Issues	14 (35%) ^b	10 (19%) ^b	.08	11 (35%) ^b	6 (19%) ^b	.15
Tiredness	6 (15%) ^b	3 (6%) ^b	.13	6 (19%) ^b	2 (6%) ^b	.13
Sleep disturbances	4 (10%) ^b	3 (6%) ^b	.43	3 (10%) ^b	2 (6%) ^b	.64
10-Point VAS health states (1-10)						
Physical State	6.80 ± 1.83	6.92 ± 1.97	.76	6.97 ± 1.83	6.90 ± 2.02	.90
Mental and Emotional State	6.23 ± 1.69	5.98 ± 2.2	.55	6.03 ± 1.68	5.87 ± 2.41	.76
Sleep Quality	5.93 ± 2.4	5.91 ± 2.50	.97	6.06 ± 2.46	6.00 ± 2.57	.92
Engagement in health practices	37 (92%)	31 (58%)	<.001	29 (93%)	17 (55%)	<.001
Yoga/Meditation Practices	35 (95%) ^b	6 (19%) ^b	<.001	27 (93%) ^b	2 (12%) ^b	<.001
CRAFT	25 (68%) ^b	0 (0%) ^b	NA	21 (72%) ^b	0 (0%) ^b	NA
Other Yoga/Meditation	13 (35%) ^b	6 (19%) ^b	.15	7 (24%) ^b	2 (12%) ^b	.31
Other Practices	18 (49%) ^b	29 (93%) ^b	<.001	15 (52%) ^b	15 (88%) ^b	.012
Alexander Technique	2 (5%) ^b	8 (26%) ^b	.018	2 (7%) ^b	4 (23%) ^b	.11
Exercise	17 (46%) ^b	23 (74%) ^b	.018	14 (48%) ^b	12 (71%) ^b	.141
Unspecified	0 (0%) ^b	1 (3%) ^b	.27	0 (0%) ^b	0 (0%) ^b	NA
Perceived Benefits from Practices	29 (78%)	16 (52%)	.020	23 (79%)	7 (41%)	<.01
Yoga/Meditation	26 (70%) ^b	1 (3%) ^b	<.001	20 (69%) ^b	0 (0%) ^b	<.001
CRAFT	19 (51%) ^b	0 (0%) ^b	NA	16 (55%) ^b	0 (0%) ^b	NA
Other Yoga/Meditation	10 (27%) ^b	1 (3%) ^b	.008	5 (17%) ^b	0 (0%) ^b	.07
Other Practices	12 (32%) ^b	15 (48%) ^b	.18	10 (34%) ^b	6 (35%) ^b	.96
Alexander Technique	0 (0%) ^b	5 (16%) ^b	.011	0 (0%) ^b	3 (18%) ^b	.02
Exercise	12 (32%) ^b	9 (29%) ^b	.76	10 (34%) ^b	3 (18%) ^b	.22
Unspecified	0 (0%) ^b	1 (3%) ^b	.27	0 (0%) ^b	0 (0%) ^b	NA

Note. Values are mean ± SD with respective *p*-values computed with one-way ANOVA, or n (%) with respective *p*-values computed with chi-square. Bold font denotes significance. All displayed percentages refer to the total number of participants within group except for the variables related to the practices implemented and their perceived benefits whereby they refer to the total number of proactive participants within group; ^a Filtered sample after excluding participants that reported previous exposure with yoga/Meditation other than in the CRAFT program before the lockdown and in the CRAFT program during the academic years 2017-20119. ^b Percentages from non-mutually exclusive categories. NA = Not applicable.

Our first hypothesis was that there would be a higher proportion of participants in a CRAFT program group than in a control group that would be proactive in terms of implementing practices as coping strategies to improve their health and well-being during the lockdown. The two-way chi-square analyses revealed that there

was a significant association between participants' group (experimental versus control) and their activity in terms of implementing practices to improve their health and well-being, in both the total sample, $\chi^2(1) = 13.41$, $p < .001$, and the filtered sample, $\chi^2(1) = 12.13$, $p < .001$. The significance level in this association was evident by the high proportion of proactive participants in the CRAFT program group, 92%, and 93%, in contrast to the 58% and 55% of their counterpart controls in the total and filtered samples, respectively.

As can be observed from the last section of table 3.2, proactive participants across both groups and samples engaged in the following four types of practices—either exclusively to one or concurrently to more than one—to improve their health and well-being during the lockdown: Yoga and/or meditation practices learned in the CRAFT program, other Yoga and/or meditation practices either identified as different from the CRAFT program or not linked to it, exercise of different types, and Alexander Technique-based practices learned in the elective subject ergonomics. Additional separate chi-squared analyses showed that, except for exercise and Alexander Technique-based practices in the filtered sample and other yoga/meditation in both samples, participants' engagement in each of the different types of practices was not independent of their group participation. Consistently across both samples, there was a higher proportion of participants applying yoga and/or meditation practices (CRAFT and other yoga/meditation) in the CRAFT program group than in the control group, while the proportion of participants employing other practices (exercise and Alexander technique-based practices together) in the control group was higher compared to the CRAFT program group.

As expected, there was a higher proportion of CRAFT based-practice implementation than other types of practices in the CRAFT program group. In the total sample, yoga and/or meditation practices from the CRAFT program were implemented by 68% of participants, followed by exercise, 46%, other yoga/meditation, 35%, and Alexander technique-based practices, 5%. In the filtered sample, a similar pattern of results was observed as yoga and/or meditation CRAFT-based practices were implemented by 72% of participants, whereas exercise and Alexander technique-based practices by 48 and 7% of participants respectively. Therefore, these findings notably support the applicability of the CRAFT program during the lockdown. Conversely, exercise-based activities were distinctly the most utilized practices amongst participants in the control group, in both the total and filtered samples respectively, 74% and 71%, though some participation in other yoga/meditation and alexander technique-based practices was also evident.

The second hypothesis was that the proportion of proactive participants perceiving benefits from their practices implemented would be higher in a CRAFT program group than in a control group. The two-way chi-square analyses showed that there was a significant association between participants' acknowledgment of perceived benefits from their practices implemented and their group (experimental versus control), in both the total sample, $\chi^2(1) = 5.399$, $p = .020$, and the filtered sample, $\chi^2(1) = 6.870$, $p = .009$. Notably, 78% and 79% of the proactive participants in the CRAFT program group reported perceived benefits as compared to the 52% and 41% of their counterpart controls in the total and filtered samples, respectively.

As evidenced by separate chi-square analyses conducted in both samples, participants' perceived benefits from their practices implemented were not independent of their group participation, except for other yoga/meditation practices in the filtered sample, and exercise and other practices (exercise and Alexander technique-based practices) in both the total and filtered sample. The most noticeable difference was that the proportion of participants acknowledging perceived benefits from yoga and/or meditation practices was higher in the CRAFT program group than in the control group. By contrast, the proportion of participants perceiving

benefits from the Alexander technique-based practices was higher in the control group than in the CRAFT program group, though this analysis was conducted on a very limited number of responses. Interestingly, despite there was a higher proportion of proactive participants exercising in the control group than in the CRAFT program group, there was no difference in the proportion of participants perceiving benefits from it between both groups within both samples. This result raises questions as to whether participation in the CRAFT program group was influential for those participants in this group who implemented exercise practices, either in conjunction with practices learned in the program or not, in terms of how they were applied, valued, and/or perceived.

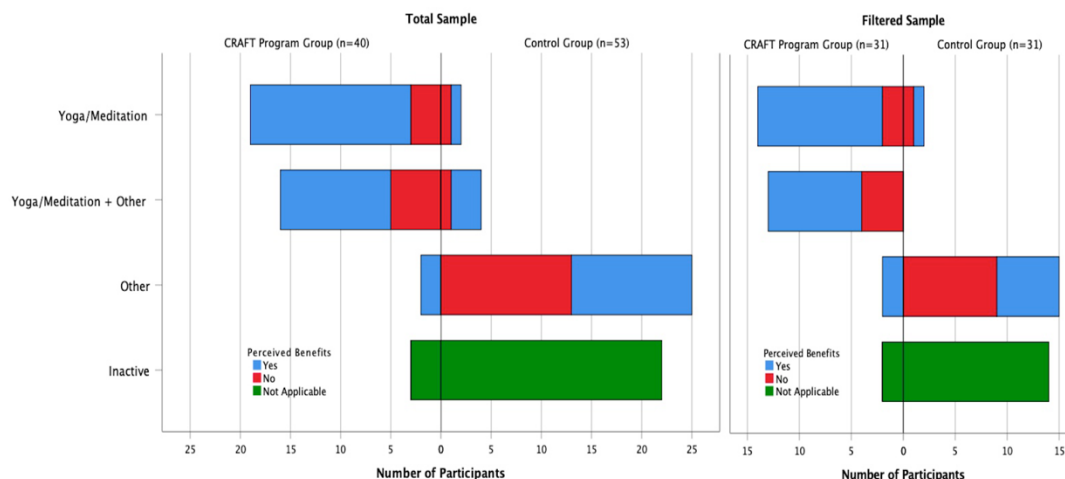
As expected, there was a higher proportion of proactive participants in the CRAFT program group perceiving benefits from their engagement in CRAFT based-practices than from other types of practices. In the total sample, 51% of the proactive participants in the CRAFT program group acknowledged perceived benefits from implementing yoga and/or meditation practices learned in the program, followed by 32% from exercise activities, and 27% from other yoga and/or meditation practices. Similarly, in the filtered sample 55% of proactive participants perceived benefits from implementing CRAFT-based practices, 34% from exercising, and only 17% from other yoga and/or meditation practices. By contrast, among proactive participants in the control group, 29% and 16% of participants in the total sample reported perceived benefits from the application of exercise and Alexander techniques-based practices respectively, whereas an equal distribution relative to such proportions was observed in the filtered sample (18% from exercising and 18% from the application of Alexander techniques-based practices).

In the manner in which the aforementioned results are presented, i.e., through non-mutually exclusive representation, the proportion of participants who relied on implementing just one type of practice alone cannot be discerned, nor how many participants opted for a particular combination of practices. To satisfy the provision of such perspective, Figure 3.1 illustrates the results of this study in a mutually exclusive representation, involving overarching practice categories (Panel A) and subcategories yielded from the various combinations of the four types of practices implemented (Panel B) along with their perceived benefits. Again, a clear pattern emerged illustrating that participants in the CRAFT program were more likely to engage in yoga/meditation practices and more likely to report perceived benefits from those practices. When excluding participants who had reported prior experience with yoga and meditation (filtered sample on right-hand side), a very similar pattern was evident.

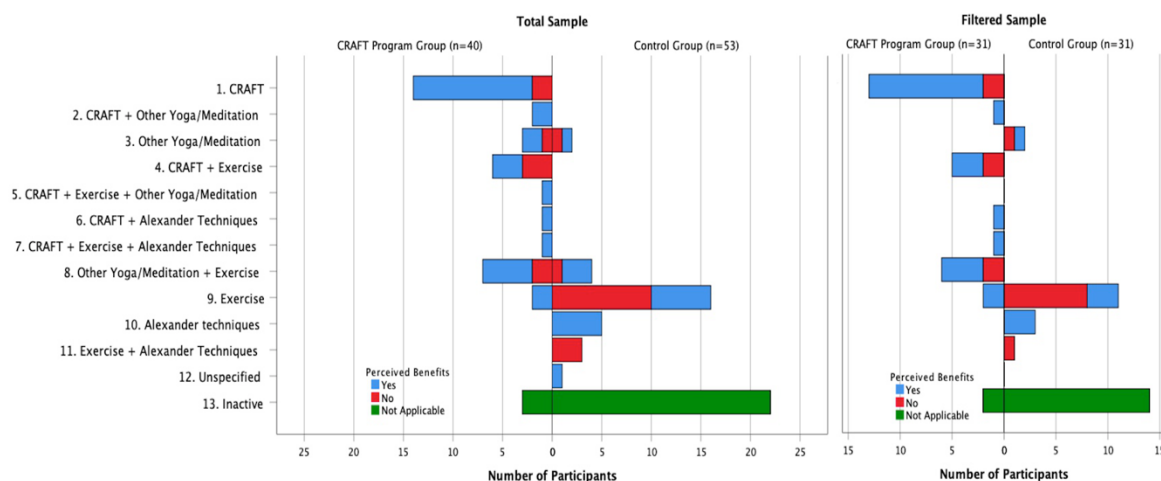
Figure 3.1

Participants' Engagement in Overarching Categories and Subcategories of Practices During the Lockdown and their Perceived Benefits across Groups and Samples

A Overarching Practice Categories



B Practice Subcategories



Note. Panel A shows overarching practice categories, whereas Panel B illustrates practice subcategories. In the filtered sample, those participants that reported previous experience with yoga and/or meditation other than in the CRAFT program before the onset of the lockdown and/or in the CRAFT program during the academic years 2017-2019 were excluded. Subcategories 1, 2, and 3 belong to the overarching category ‘Yoga/Meditation’; Subcategories 4, 5, 6, 7, and 8 belong to the overarching category ‘Yoga/Meditation + Other’; Subcategories 9, 10, 11, and 12 belong to the overarching category ‘Other’.

Table 3.3 includes some of the quotes illustrating some of the perceived benefits underlined by participants within their respective groups from the various categories of practices they had implemented. Answers by those students in the CRAFT program who had practiced yoga/meditation referred to the fact that they had learned skills in the CRAFT program, while some participants in the control group were drawn to audiovisual material sourced from the Internet. Some other practices by the control group overlapped to some degree with meditation, although they appeared to have been conducted without the systematic structure that formalized mindfulness and meditation practices typically have.

Table 3.3*Participants' Perceived Benefits from Practices Implemented to Improve their Health and Well-Being during the Lockdown across Groups and Samples*

Practices Implemented	Exemplar responses from proactive participants	Beneficial effect		Beneficial effect	
		Craft program group ($N_{TS} = 37$; $N_{FS} = 29$)		Control group ($N_{TS} = 31$; $N_{FS} = 17$)	
		$N_{TS} (%)$	$N_{FS} (%)$	$N_{TS} (%)$	$N_{FS} (%)$
Yoga/Meditation	"I have practiced Meditation. I have learnt it in the Emotional intelligence class and it has been an important element to bear the situation. The changes have been relevant. Management of anxiety, stress, interfamily relationships, time management. It has been an essential help in multiple aspects." "The various techniques learnt in the Mindfulness subject such as the physical Protocol, Meditations, breath control helped me live with the current situation and see it with a neutral perspective."	16 (43)	12 (41)	"Yoga learnt through video lessons on YouTube. Honestly, I have noticed certain improvement from the first practice though I have been doing it for not a long time to feel more important beneficial effects."	1 (3.2) 1 (6)
Yoga/Meditation + Other	"Sports made me liberate accumulated tensions and feel much better with myself. I meditated a lot and thanks to the subjects of Mindfulness and Emotional intelligence I am able to manage and self-regulate my emotions, I am more conscious of my thoughts, and my sate in general." "Every day I did physical activity that helps me to relax/calm down physically, mentally, and emotionally. I also practiced meditation but not as much as I would have liked. It was difficult as it requires a prior state of concentration and calmness. However, when I applied it I have noticed outstanding changes."	11 (30)	9 (31)	"Guided meditations that helped me relax during anxious moments. Sports helped me feel my body stronger." "Meditation (audio from authorized courses), cardio, push-ups, abs, squats. All of this has helped me bear the effects I have described but I also believe that in a lockdown state like this there is no one who can be healthy regardless of what they do."	3 (9.7) 0 (0)
Other	"Online training with a personal training through Instagram. It has been very positive because it was helping me to unleash my energy and to put my body in operation." "Sports five times a week and I am very proud. I have not experienced a lot of change but it makes me feel well."	2 (5)	2 (7)	"Only doing sports has helped me keep active, feel more energic and be more positive about looking at things." "I used the 'conscious rest' practice from the Ergonomics subject when I was overwhelmed and could not take it anymore. Resting for 5-10 minutes and let myself go without thinking of anything gave me tranquility and relaxation, which I needed it."	12 (38.7) 6 (40)

Note. N_{TS} = Number of proactive participants in the total sample; N_{FS} = Number of proactive participants in the filtered sample after excluding participants that reported previous exposure with yoga/Meditation other than in the CRAFT program before the lockdown and/or in the CRAFT program during the academic years 2017-20119.

Discussion

The current study explored the applicability and perceived impact of the CRAFT program to improve higher education student musicians' physical, mental, and emotional health and well-being during the lockdown in comparison to a control group. To increase the accuracy and breadth of this exploration, data analyses were conducted on both the total sample and a filtered sample excluding those participants who had reported previous experience with any yoga and/or meditation training other than in the CRAFT program before the onset of the lockdown, and/or in the CRAFT program during the academic years 2017-2019.

Our results showed that student musicians' participation in a CRAFT program group was associated with higher engagement in terms of implementing practices to improve their health and well-being than in a control group. This significant association was met for both the total and filtered sample and indicated that participants following the CRAFT program training showed a more proactive attitude than participants in the control group in terms of applying strategies to improve their health and well-being. The most conspicuous observation to emerge from this analysis was that almost half of the participants in the control group were non-proactive, whereas all but just three participants were proactive during the lockdown in the CRAFT program group. A meaningful comprehension of these results requires further consideration of the type of practices implemented and whether these align with the CRAFT program procedures and foundations. Remarkably, the vast majority of the proactive participants in the CRAFT program group, 95%, utilized yoga and/or meditation practices as opposed to the 19% of their counterpart controls. Furthermore, we found from the filtered sample that for up to 20 participants of the CRAFT program group their yoga and/or meditation practices were those learned in the CRAFT program, while 13 participants relied exclusively on this exposure to improve their health and well-being. Therefore, these figures clearly show not only the preponderance of yoga and/or meditation practices as coping strategies in the CRAFT program group in comparison to the control group, but also the influence that the exposure to the CRAFT program made in terms of making such a difference. One of the key foundations of the CRAFT program is yoga. As underlined by Desikachar et al. (2005), an important characteristic of yoga is that it promotes a self-caring attitude by encouraging the practitioners to be actively involved and responsible of their own health. In addition, the authors explained that yoga's approach to the health-ill conundrum is unique by attempting to find the root of the problem within and potentially addressing each individual's needs through specific practices. These two principles engrained in the yoga lifestyle, which are also fostered as part of the CRAFT instruction, might have raised student musicians' consciousness of their inner responsibility—to a greater extent than those not attending the program—for taking actions towards improving their health and well-being during the lockdown.

In addition, amongst proactive participants in both the total and filtered samples, participation in a CRAFT program group was associated with higher rates of perceived benefits from the practices implemented in comparison to a control group. This result was highlighted not only by the acknowledgment of a beneficial effect from most of the participants in both the total (19 out of 25) and filtered sample (16 out of 21) implementing yoga and/or meditation practices learned in the CRAFT program, but also by the absence of significant differences between groups in the proportion of participants who indicated perceived benefits from exercising. Remarkably, in the CRAFT program group, most participants exercising in both the total (12 out of 17) and filtered (10 out of 14) samples stated perceived benefits from it, while such indication was only acknowledged by some participants in the control group in the total sample (9 out of 23) and just a few in the

filtered sample (3 out of 12). Thus, it could be arguably postulated that participation in a CRAFT program might not only have been valued and applied meaningfully to real-life situations, but it could also have had an effect on how these practitioners engaged in, lived, perceived, and appreciated their experience with other practices they implemented, which might also have led to a series of unexpected benefits. The aforementioned rationale finds intrinsic alignment with the four foundations of the CRAFT program and their respective investigated and hypothesized benefits. For instance, components of positive psychology such as gratitude and savoring encourage people to appreciate and value the activities they engage in, which subsequently has been linked to further benefits such as increased happiness, well-being, resilience, positive affect, and psychological well-being (Martínez-Martí et al., 2010; Mongrain & Anselmo-Matthews, 2012; Smith & Hanni, 2019; Sin & Lyubomirsky, 2009). In addition, the concept of savoring mirrors to a great extent the concept of engagement from the PERMA model of positive psychology (Seligman, 2011) and Csikszentmihalyi's (1990) construct of flow, which are related to the development of a heightened state of awareness, and higher self-control and meaningfulness of one's experiences (Csikszentmihalyi, 1990). Similarly, both yoga and mindfulness based-practices, which are highly grounded on cultivating awareness of one's inner physical, mental, and emotional states and developing a mindful and attentive attitude in one's actions and behaviors (Gard et al., 2014; Guendelman et al., 2017; Tang et al., 2015), have been associated to the promotion of flow states, gratitude, and meaningful living (Ivtzan & Papantoniou, 2014). Therefore, such abilities, if practiced and developed under proper and experienced guidance could automatically be transferred to other activities, potentially enhancing not only their original effects but also the way these could be perceived and valued.

Moreover, the proportion of participants perceiving benefits from CRAFT-based practice implementation was higher than the proportion of participants perceiving benefits from other types of practices. Likewise, the proportion of participants engaging in CRAFT-based practices was higher than the proportion of participants engaging in other types of practices to improve their health and well-being during the lockdown. These results, taken together with those reported for the main hypotheses of the current study, were further replicated in the filtered sample after controlling for previous yoga and/or meditation experience. Thus, our findings suggest that participants acknowledged the usefulness and effectiveness of the yoga and/or meditation components of the CRAFT program out of their formal academic instruction and, potentially, to a greater extent than other types of practices they implemented, during stressful circumstances elicited by the pandemic. Some of the main benefits outlined by participants involved in the CRAFT-based elective subjects of mindfulness and emotional intelligence were that the practices helped them relax, clear their minds, relieve from stress and anxiety, cope with the lockdown situation, feel better, self-regulate their emotions, deal with their family relationships, being more conscious, achieve greater concentration, develop a positive attitude, manage their time, and see things from another perspective. These perceived benefits are in close connection with the five elements of the CRAFT program (i.e., consciousness, relaxation, attention, happiness, and transcendence) and concur well with the investigated benefits of the four foundations they emerge from (i.e., yoga, mindfulness, positive psychology, and emotional intelligence). However, proactive participants in the control group also cited positive effects from their engagement in exercise or the Alexander technique-based practices learned in the elective subject 'ergonomics', which suggested that these activities might have also played an important role in helping them cope with the lockdown demands and related health and well-being concerns.

In this study, the impact of the COVID-19 lockdown on the health and well-being of music conservatory students was associated with a prevalence of mental-emotional concerns such as stress and anxiety. This was in conformity with recent studies reporting a high incidence of such disturbances amongst confined higher education students (Elmer et al., 2020; Huckins et al., 2020; Kaparounaki et al., 2020; Li et al., 2020; Liu et al., 2020; Odriozola-González et al., 2020). Moreover, physical problems were also prevalent in our sample. However, the occurrence of health and well-being concerns did not differ amongst groups, nor how participants rated their physical, mental-emotional, and quality of sleep states. Hence, these results were unexpected and raised concerns as to whether the higher engagement observed from the implementation of the CRAFT program to improve these states was efficacious in comparison to a control group. Notwithstanding, although the cross-sectional design of this lockdown-specific study did not allow us to determine whether any between-group differences happened due to the program, it should be acknowledged that the low dosage of program delivery of 50 minutes per week and the emerging difficulties from adapting it to a remote learning education might have compromised its actual effect and application. In addition, as mentioned above, the control group also included proactive participants who reported perceived benefits from practicing exercise and Alexander techniques-based activities to improve their health and well-being and their potential influence cannot be underestimated.

Limitations, Strengths, and Further Research

Despite partially meeting our initial hypotheses, these findings should be taken with caution due to the existence of several limitations, some of which have been already outlined at the end of the preceding paragraph. First and foremost, the results of the current study are interpreted from the analyses of self-reported responses collected at just one point in time. Therefore, they remained at a perceptual level and no causation could be established from their cross-sectional examination. This, in turn, outlines a further limitation for the absence of any objective measure to substantiate these findings. Another limitation was that participants' allocation to groups was based on their own enrolment choices and preferences. This is often stressed as a source of bias as it contemplates the possibility that participants are already familiar with or naturally gifted for the abilities imparted in the programs they enrolled in. Although we acknowledged such possibility and attempted to partially control for it by including a filtered sample, we also underlined that self-selection is what normally happens in the community, having thus a value on its own for it represents reality as it is. Therefore, further studies should also consider this type of naturalistic research, along with traditional randomized control trials, to examine the effectiveness of wellness programs for the health and well-being of our communities, and specifically with higher education students and student musicians. Furthermore, given the holistic approach of the CRAFT program, the use of expanded qualitative methods such as semi-structured interviews could have added further insights into the lived experience and perceived benefits of participants following a health and well-being program during the lockdown. Along these lines, one of the unique aspects underlying the creation of the CRAFT program, from both a programmatic and a research perspective, lies on the basis that combining a careful selection, adaptation, and/or creation of practices and components derived from or inspired by its four foundations—yoga, mindfulness, positive psychology, and emotional intelligence—within a single program, could be more complete and effective than a program based on one of them alone. To the best of our knowledge, CRAFT is the first program synthesizing the theories, practices, and philosophical underpinnings of these four disciplines. In this study, we showed how higher education student musicians' experience with the program was linked to a meaningful real-life application to improve their health and well-being during highly demanding and

stressful circumstances (lockdown), even to a greater extent than those not attending the program, in terms of their proactivity and their perceived benefits associated with it. Though these results are promising and provide converging evidence for the social validity of the program, further research is needed to examine the effects of the CRAFT program in comparison with other programs, based on just one of its foundations, within longitudinal pre-post mixed methods designs on various health and well-being domains. Although there were various limitations, this study was strengthened by the addition of a filtered sample that allowed us to control for the potential influence of previous yoga and/or meditation experience; blinding the instructor/developer of the program to the study hypotheses, measures, and participants' recruitment; the inclusion of incentives; and a detailed description of the program components, practices, and procedures, the specification of which has been repeatedly claimed as a need to be addressed in greater detail when conducting and reporting yoga-based research studies (Elvy et al., 2014; Groessl et al., 2015; Sherman, 2012). We also remind the reader that the purpose of this quasi-experimental study was not to test the efficacy of the CRAFT program but to utilize the opportunity brought about by the COVID-19 pandemic to explore to what extent participants independently perceive the skills taught by the program as beneficial to their health and thus apply them to improve their well-being during the lockdown; and this goal was achieved.

Relevance to Higher Education and Student Musicians

The results of the current study have important implications, at both educational and health prevention levels, for higher education students of any discipline and specifically for those involved in music studies. Since the COVID-19 pandemic is nowhere near over, and there may be similar pandemics in the future, we urge higher education providers to make the necessary efforts for the promotion of health and well-being programs of this kind, to be implemented within students' curriculum, to help them cope with the ensuing health and well-being demands. In light of our findings, we encourage that these programs have an emphasis on raising higher education students' consciousness of the importance of being actively involved in their own health and well-being processes. Particularly, the CRAFT program, as a multifaceted health and well-being program—integrating the theory, practice, and investigated effects of ancient mind-body therapies and modern psychological approaches—offers a variety of practices that seem to be meaningfully applied and transferred to real-life situations with potential benefits. Although much research is still needed, such techniques seem promising to be used by higher education students of any discipline for empowering themselves towards their own life and health and well-being processes, and, as a consequence, as coping or even therapeutic strategies for alleviating various health-related concerns and emotional letdowns; for replacing maladaptive unhealthy behaviors; for preventative care, with the aim of reducing the odds of developing further or more complicated illnesses at later stages of their lives; and for an overall betterment of their daily life and academic needs and performances. Moreover, the high heterogeneity and versatility of the CRAFT program practices and components, targeting various dimensions of health and well-being (e.g., physical, emotional, cognitive, psychological, and spiritual), make it largely accessible to accommodate and embrace diversity amongst individuals, and hence, potentially suiting the personal needs and/or preferences of higher education students. Specifically, we also endorse the continued application and investigation of the effectiveness of the CRAFT program with higher education student musicians, a population often affected by high levels of perfectionism, musculoskeletal injuries, and music-performance anxiety, and for whom, a harmonious interplay between body, mind, and emotions—through the work of the four foundations and five elements of the program—could be

conducive to both maximizing their music performances and improving such aforementioned music-specific concerns (Posadas & Bartos, 2022).

Conclusion

The present study showed how higher education student musicians applied at their own will yoga and/or meditation-based learned skills from the CRAFT program as coping strategies in response to the lockdown demands elicited by the COVID-19 pandemic. Despite not being able to determine health and well-being differences attributable to exposure to the program, our findings indicate that curricular participation in a CRAFT program at a music conservatory was associated with greater health and well-being engagement and perceived benefits than controls during the COVID-19 lockdown. This evidence made an even more compelling case for taking preventive measures and implementing more wellness programs including yoga and/or mindfulness components to help higher education students cope with their physical, mental, and emotional health and well-being needs. Therefore, we endorse the continued application of the CRAFT program with higher dosages and frequency of delivery within longitudinal studies conducted on higher education students in the midst of a global pandemic of unprecedented impact. Due to the holistic nature and heterogeneity of the program, further research investigating its influence on the health and well-being of higher education students should incorporate qualitative methods and objective measures within the framework of a robust pre-post mixed methods design with various arms.

Prelude. Chapter 4

The first study of this PhD investigation within Phase 1, which was described in Chapter 3 (Study 1; Bartos et al., 2021), explored whether Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT), imparted as CRAFT-based elective subjects, could be an applicable and beneficial program among tertiary student musicians to improve their well-being during the lockdown. The findings of this quasi-experimental study suggested that tertiary student musicians' exposure to CRAFT instruction may have bestowed upon them a series of well-being benefits, and most importantly, a sense of inner responsibility to take care of themselves by meaningfully deploying the techniques learned therein within stressful circumstances. This was supported by the fact that participation in CRAFT-based elective subjects was associated with more proactivity and perceived benefits—in terms of implementing practices to improve their well-being during the lockdown—than in other types of subjects imparted at a music conservatory. In addition, among proactive participants following the CRAFT-based elective subjects, CRAFT-based practices were the most utilized and the ones from which more participants perceived benefits. Despite Bartos et al. (2021) reported a brief account of these benefits, it was beyond the scope of the authors to conduct qualitative methods to delve into the nuances of participants' perceptions. In acknowledging the meaningfulness of exploring these voices through qualitative lenses, the second study of this PhD within Phase 1 was conceived to gain a wider understanding of tertiary student musicians' experiences and perceived benefits from implementing CRAFT-based practices during the lockdown. The following chapter reveals in detail the most important aspects of this second study through a manuscript published in the journal *Humanistic Psychologist* (Bartos, Posadas, et al., 2023).

Chapter 4. Perceived Benefits of a Remote Yoga and Mindfulness Program for Student Musicians during COVID-19

Introduction

Slightly more than a year after the World Health Organization (WHO) declared the coronavirus disease 2019 (COVID-19) outbreak a global pandemic in January 2020, the disease continues to take lives and pose significant challenges to healthcare systems around the world (Jun et al., 2021). To contain the spread of COVID-19 and to avoid overload of healthcare facilities, governments around the world implemented unprecedented measures such as lockdowns, border control, and contact tracking. Apart from the financial and economic impact of COVID-19 (Al-Awadhi et al., 2020), the pandemic resulted in increased psychological distress for many people worldwide (Salari et al., 2020).

In higher education settings, prolonged or repeated lockdowns required the shift from face-to-face contact to the use of online methods for course delivery (Dhawan, 2020). Certainly, the so-called e-learning is not new, and the challenges have been well recognized (Yan et al., 2003). However, the sudden onset and the scale of the COVID-19 pandemic led to an exponential acceleration in the adoption of this approach – all within a climate of uncertainty, fear, and difficulties adapting to pandemic-related lifestyle changes. These subsequent developments and challenges have increased the need to investigate the effectiveness of well-being programs, either in relation to pre-existing face-to-face ones tailored to be delivered remotely or specifically new online based-designed ones. Particularly, if COVID-19 will result in a so-called new normal where remote course delivery becomes commonplace (Seymour-Walsh et al., 2020), it is necessary to investigate to what extent such alternatives can be considered equivalent to traditional in-person approaches. Additionally, as lifestyles continue to be changed as a result of such events, well-being interventions may also increasingly need to focus on the development of relevant resilience skills to help higher education students cope with the ensuing health and well-being demands.

Even before the emergence of the COVID-19 pandemic, higher education students were already afflicted by numerous health and well-being concerns such as psychological distress (Henning et al., 2018), musculoskeletal conditions (Can & Karaca, 2019; Rodriguez-Romero et al., 2016), and unhealthy habits (Jao et al., 2019; Molina et al., 2012). Along the lines of addressing such previous concerns, the recently developed CRAFT program was designed to foster a holistic educational experience synergistically considering physical, psychological, cognitive, emotional, and spiritual aspects of well-being (Posadas, 2019). The program is based on the complementary and alternative therapies of yoga and mindfulness as well as the modern psychological approaches of positive psychology and emotional intelligence. Such four disciplines constitute the four foundations of the program, and ignited the development of the acronym CRAFT, comprehensively standing for the following Spanish terms that represent its five elements: *Consciencia* (i.e., Consciousness), *Relajación* (i.e., Relaxation), *Atención* (i.e., Attention), *Felicidad* (i.e., Happiness), *Transcendencia* (i.e., transcendence).

Over the last two decades, researchers investigating the influence of complementary and alternative therapies such as yoga and mindfulness have reported numerous benefits across multiple health and well-being dimensions including improvements in psychological distress (Breedvelt et al., 2019; Falsafi, 2016; McConville et al., 2017); chronic and musculoskeletal symptoms (Chang et al., 2016); cognitive abilities such as memory, executive functions, attention, and awareness (Gothe & McAuley, 2015; Tang et al., 2015);

functional and structural neuroplasticity (Fox et al., 2016; Hariprasad et al., 2013; Tang et al., 2010); and particularly through hatha yoga, physical abilities such as flexibility, balance, and strength (Tran et al., 2001), as well as pulmonary (Godoy et al., 2006) and cardiovascular functions (Smith et al., 2011).

To explain these health and well-being benefits, investigators have proposed a series of mechanisms through which the practices of yoga and mindfulness influence higher and lower brain order networks within top-down and bottom-up processes. For instance, the selective attention, intention-setting, and non-judgmental metacognitive awareness elicited by the meditative practices of yoga and mindfulness have been referenced as top-down processes stimulating the executive and frontoparietal control brain networks, and potentially downregulating the hypothalamic-pituitary-adrenal axis and sympathetic nervous system activation, emotional rumination, reactivity, and negative reappraisal (Chiesa et al., 2013; Fox et al., 2016; Gard et al., 2014; Sullivan, Erb, et al., 2018). Conversely, the wide range of hatha yoga postural-movement related practices and breathing techniques have been linked to bottom-up processes that not only may trigger the relaxation response through vagal nerve activation, but also might result in improved immune, musculoskeletal, and cardiovascular functions (Gard et al., 2014; Raub, 2002, Sullivan, Erb, et al., 2018). In addition, both yoga and mindfulness philosophy encourage the development of an everlasting happiness ultimately free from the attachments to the fleeting external reality circumscribed to the mind-body-environment relationship (Sullivan, Moonaz, et al., 2018). To that end, the cultivation of a witness attitude, a metacognitive mindful process often referred to as decentering or re-perceiving (Garland et al., 2009; Shapiro et al., 2006), could be essential to develop heightened awareness, equanimity, and clarity to ultimately transcend transient pain and pleasure towards the realization of eudaimonic happiness and higher levels of consciousness.

Moreover, scholars examining the effectiveness of positive psychology and emotional intelligence have also documented relevant health and well-being benefits. Positive psychology encourages a shift of perspective from the traditional psychological approach of examining the problem to focusing on the positive aspects of life and developing well-being-promoting attributes such as strengths, flow, savoring, gratitude, kindness, empathy, optimism, hope, and meaning (Peterson, 2006; Peterson & Seligman, 2004). Amongst these constructs, a key component for its potential relevance to foster happiness and meaningful lived experiences amongst tertiary students is Csikszentmihalyi (1990)'s concept of flow—a state characterized by complete absorption, self-awareness, self-control, and a harmoniously ordered consciousness typically occurring while performing intrinsically motivating tasks. Positive psychology interventions focusing on developing gratitude have led to improvements in positive affect (Martínez-Martí et al., 2010), life satisfaction (Manthey et al., 2016), and stress (Kerr et al., 2015); whereas those promoting savoring of one's experiences have resulted in higher resilience, happiness, and lessening of depressive symptoms (Smith & Hanni, 2019). Similarly, research evidence has linked emotional intelligence with physical and psychological well-being (Mayer et al., 2008). In connection with this, the importance of emotional intelligence for developing self-regulation and resilience skills is conceptualized within Goleman (1998)'s five components of emotional intelligence—self-awareness, self-regulation, motivation, empathy, and social skills—the mastery of which might be essential for maximizing higher education students' management of their emotions at both interpersonal and intrapersonal levels.

As can be inferred from this review of the literature, programs based on either of these four foundations alone (i.e., yoga, mindfulness, positive psychology, and emotional intelligence) could be

potentially effective in a distinct manner for enhancing higher education students' health and well-being during the current pandemic times. However, taken them together within the framework of a single program, the limitations of one or various foundations could be offset and/or enhanced by the assets of another or other ones (Bartos et al., 2021). Therefore, it could be surmised, that the CRAFT program, which was the result of a careful and unique combination of theories, components, and practices based on these four foundations, could be more effective than a program based exclusively on either of them alone. To our knowledge, this is the first program springing from such a multifaceted integration.

Though applicable to any educational context, the CRAFT program was initially conceived to address the well-being and academic demands of students undertaking tertiary education in specialized disciplines such as fine arts, sports science, languages, and most specifically music. Since 2016, the program has been curricularly implemented at the Royal Conservatory of Music of Granada Victoria Eugenia, firstly, during 2016/2017 in its reduced version called the *CRAFT's 7 mindful minutes* (Posadas & Bartos, 2022; Rull et al., 2019); the following year as a CRAFT-based elective subject of mindfulness; and subsequently, since 2018, as CRAFT-based elective subjects of mindfulness and emotional intelligence, till the onset of the COVID-19 pandemic and ensuing lockdowns, as on March 14th, 2020, led to the adaptation of these two subjects to be delivered in an online format. Within these unprecedented COVID-19 circumstances, we conducted a quasi-experimental study to explore the applicability and perceived benefits of the CRAFT program to enhance the physical, mental, and emotional well-being of higher education student musicians during the lockdown (Bartos et al., 2021). The analyses of participants' responses to a seven-question online survey showed that in comparison to a control group, participants in a CRAFT program group reported significantly higher proactivity in terms of implementing practices to improve their health and well-being during the lockdown. In addition, amongst proactive participants, participation in a CRAFT program group was associated with higher perceived benefits than in a control group.

Taken together, these results suggested that participants' experience with the program was highly useful insofar as they independently drew on a set of yoga and/or meditation CRAFT-based learned skills to effectively cope with their lockdown well-being challenges. We contended that this outcome could have been influenced by participants' development of a generic sense of agency and empowerment, and particularly, towards their own health—as these attitudes are highly ingrained in the philosophy of yoga and mindfulness. Furthermore, participants commented on a series of perceived benefits across various health and well-being domains derived from their experiences with the practices learned in the program. Although we offered a brief description of such benefits, it was out of the scope of that study to conduct qualitative analyses to capture further insights into the nuances of this phenomenon. To that end, the purpose of the current study was to gain a greater understanding of participants' experience with the CRAFT-based practices they implemented to enhance their well-being during the lockdown and their perceived benefits associated with it through the lenses of qualitative methods. We were particularly interested in exploring the overall program experience from participants' point of view, as well as obtaining a deeper comprehension of the nature of their benefits, the practices implemented, and how they interplayed within the context of the COVID-19 and the programmatic framework provided by the five elements and four foundations of the program.

Method

Design, Participants, and Procedures

The current qualitative study reported on higher education student musicians' responses relative to their experiences with the practices they learned in the two CRAFT-based elective subjects of Mindfulness and Emotional Intelligence to improve their health and well-being during the lockdown. These responses were collected through an online questionnaire designed to explore the applicability and perceived benefits of the CRAFT program. Participants' answers to the entire questionnaire were quantitatively analyzed vis-à-vis a CRAFT program group and a control group in a previous quasi-experimental study circumscribed to a larger funded longitudinal investigation (Bartos et al., 2021). In the current study, we examined through qualitative methods the responses provided by proactive CRAFT participants that reported about their CRAFT practice implementation experience and/or their perceived benefits derived from it during the lockdown. As opposed to our previous quasi-experimental investigation, in the current study we did not exclude participants who had turned to any psychological, psychiatric, and/or psychopharmacological help during the lockdown. This was to ensure that all CRAFT participants' accounts related to their experiences with the practices of the program were considered. The online questionnaire was completed by 44 CRAFT participants, of whom, 18 were excluded for the following reasons: not acknowledging proactivity in terms of implementing practices to improve their health and well-being during the lockdown ($n=3$), not describing any experience or perceived benefits related to their proactivity ($n=12$), and informing of a practice implementation experience entirely unrelated to the CRAFT program ($n=3$). Therefore, a total of 26 CRAFT participants, who acknowledged both proactivity and perceived benefits that could be associated with a CRAFT-based practice implementation to improve their well-being during the lockdown, formed the sample for the present qualitative study. Ethical approval had been granted by the Institutional Review Board of the University of Granada prior to recruitment. All participants, whose anonymity was safeguarded by the self-assignment of an alpha-numeric code, provided written informed consent before enrolling in this study. Further details about the current study procedures can be consulted elsewhere (Bartos et al., 2021).

Participants and Settings. The sample for the current study consisted of 26 CRAFT proactive participants who were full-time higher education student musicians, 18 years or older, studying at the Royal Conservatory of Music Victoria Eugenia. This public educational provider, located in Granada—a mid-size city in the south of Spain—offers an advanced four-year higher education music curriculum tantamount to a Bachelor's degree. Table 4.1 displays participants' demographic characteristics. A preponderance of participants were third-year higher education student musicians, 50%, with a high school diploma, 81%, and no experience with other yoga/meditation training different from the CRAFT program, 77%. In terms of their curricular exposure with the CRAFT program, most participants, 62%, were exclusively enrolled in the CRAFT-based elective subject of Mindfulness, accounting this subject for the greatest participation overall, 81%; followed by the CRAFT-based elective subject of Emotional Intelligence, 38%; and the simultaneous participation in both elective subjects, 19%. In addition, we also examined the extent to which these demographic data were comparable to those from participants who were excluded from the current study analysis. The results from this examination have been presented in Appendix E2 (Table App. 2). Except for enrolment in CRAFT-based elective subjects—where significantly more excluded than included participants attended the Emotional

Intelligence class—no other significant differences were found for any of these demographic variables between the two groups.

Table 4.1

CRAFT Participants' Demographic Characteristics

Variables	
<i>n</i>	26
Age	22.35 $\pm$ 4.17
Years of Musical Practice	14.19 $\pm$ 3.56
Gender	
Females	15 (58%)
Level of Education	
High School	21 (81%)
Bachelor's Degree	4 (15%)
Master's Degree	1 (4%)
Grade Year	
First	4 (15%)
Second	4 (15%)
Third	13 (50%)
Fourth	5 (19%)
CRAFT-based Elective Subjects Enrollment	
Mindfulness	16 (62%)
Emotional Intelligence	5 (19%)
Mindfulness and Emotional Intelligence	5 (19%)
Yoga/Meditation Experience	6 (23%)
CRAFT (2017-19)	1 (3.8%)
Other Yoga/Meditation	5 (19%)

Note. Values are mean $\pm$ *SD* or *n* (%). Percentages reported are mutually exclusive.

The CRAFT Program. The CRAFT program was curricularly implemented once a week for one hour in the CRAFT-based elective subjects of Mindfulness and Emotional Intelligence throughout the entire academic year 2019/2020. This comprises a total of 23 hours of program instruction, of which the first 16 sessions were delivered face to face in a well-equipped and multipurpose spacious classroom, while the remaining seven classes were facilitated in an online format through the platform *Zoom*. All the program classes were delivered by the developer of the program (author MPP who was blinded to the study hypotheses, measures, data collection, and recruitment), a professor of singing and pedagogy at the same institution with an advanced accredited formation and extensive experience as a mindfulness and yoga teacher (Posadas, 2019). Completion of two hours of weekly home-based practice was encouraged amongst all CRAFT participants, which involved practicing thrice a week the CRAFT-physical protocol (only for those enrolled in the CRAFT-based elective subject of Mindfulness), formal and informal meditation, and journaling of their practice implementation experience. All foundations and elements of the program guided the practical and theoretical

instruction of both CRAFT-based elective subjects. However, there was a preponderance of yoga and mindfulness components in the CRAFT-based elective subject of Mindfulness, as opposed to the prevalence of emotional intelligence, compassion, and positive psychology theory and practice facilitated in the subject of Emotional Intelligence. Detailed descriptions about the elements and foundations of the program can be consulted elsewhere (Bartos et al., 2021; Posadas, 2019; Posadas & Bartos, 2022). In addition, a brief course outline specifying the objectives, contents, and practices implemented in both subjects of Mindfulness and Emotional Intelligence can be openly accessed in the supplementary material of our previous quasi-experimental study (Bartos et al., 2021; Table App. 1 in Appendix E1). All CRAFT participants met the minimum 80% attendance rate required to successfully complete their instruction in either of the CRAFT-based elective subjects they enrolled in

Data Analysis

In the current study we focused on examining through qualitative methods the responses provided by proactive CRAFT participants to an open-ended question in an online questionnaire (Bartos et al., 2021; Appendix D2). This question asked which particular practice or practices participants had implemented, where they learned it, and briefly describe their own experience with it and the impact they had on their physical, mental, and emotional state. Data were content analyzed following a deductive approach because it was grounded on a pre-existing conceptual framework (i.e., the five CRAFT elements) as a pathway to socially validate the CRAFT program (Elo & Kyngäs, 2008; Kleinheksel et al., 2020). As part of the preparatory phase, we determined our unit of analysis to be either a word, a sentence, or a series of sentences since any of these three options could potentially be representative of a given participant's response with meaningful content (i.e., meaning unit). This was also to ensure the possibility of either avoiding fragmentation from narrow units of meaning (e.g., a single word) or too much complexity from larger textual fragments that could contain various meaning units (Elo & Kyngäs, 2008; Weber, 1990). In addition, we mainly employed a qualitative manifest approach to content analysis to describe the observable patterns with minimum meddling (Kleinheksel et al., 2020). However, a latent approach was also used as we also acknowledged the importance of adding context to certain responses for its potential implications to unveil hidden meanings (Graneheim & Lundman, 2004). Insofar as no observable reality can be completely separated from researchers' lived experiences (Slife, 1998), it could be arguably contended that any content analysis implies a latent approach. Lastly, in this preparatory phase, participants' responses were read through various times for a global understanding and familiarization with the data, thereafter, translated from Spanish into English.

The following step in this deductive content analysis was to develop a categorization matrix (Elo & Kyngäs, 2008), based on the pre-existing conceptual framework represented by the five elements of the CRAFT program. Subsequently, we reviewed and identified meaning units in the data for its correspondence with the categorization matrix, which consisted of five CRAFT overarching themes—each one representative of a distinct element of the CRAFT program—and an extra unspecified one labeled 'other'. First, each meaning unit was coded into a particular overarching theme of the matrix and afterward further coded into additional sub-categories and categories so that the data were clustered at various levels of abstraction. To that end, the conceptual explanation of each of the five CRAFT elements (Bartos et al., 2021; Posadas, 2019; Posadas & Bartos, 2022) guided our coding decisions. As defended by Graneheim and Lundman (2004) for ensuring credibility and validity of the content analysis, those decisions were also made based on dialogue and consensus

between co-researchers. Although coding procedures followed a mutually exclusive criterion (Weber, 1990), we acknowledge that in some instances a meaning unit could be assigned to more than one category or arguably to a different one. In recognizing such possibility, our ensuing results' presentation will allow the readers to make their own interpretations, a guideline that has been also recommended to increase trustworthiness (Graneheim & Lundman, 2004). Moreover, condensation was applied to synthesize some meaning units while preserving their actual meanings (Kleinheksel et al., 2020). Lastly, we also revealed for each overarching theme both the number of meaning units and the number of participants from whose responses those meaning units were derived.

In addition, descriptive statistics were used to analyze the demographic characteristics of the sample by the computation of means and standard deviations for all continuous variables, whereas frequencies and percentages were calculated for all categorical variables.

Results and Discussion

The purpose of the current qualitative study was to gain a greater understanding of participants' experiences with the CRAFT-based practices they implemented to improve their health and well-being during the lockdown. Beyond delving into how overall such experience was, our main lines of inquiry were directed into shedding light on the nature of participants' perceived benefits and practices implemented, and how they intertwined within the COVID-19 lockdown situation and the framework provided by the CRAFT five elements and four foundations. Particularly to socially validate the program, we were mainly interested in exploring the degree to which participants' perceived benefits were associated with the five CRAFT elements. To that end, we conducted a deductive content analysis guided by the conceptual tenets of these elements, which were *a priori* established as overarching themes to which the different meaning units extracted from participants' responses could be related. Table 4.2 shows the results of this association with each meaning unit representative or inclusive of a CRAFT-based specific perceived benefit and/or experience. In the ensuing paragraphs, we report and discuss the results of this study within the context of each overarching theme.

Table 4.2*CRAFT Participants' Perceived Benefits from Practices Implemented during the Lockdown in relation to the Five Elements of the CRAFT Program (n=26)*

Elements	Categories	Meaning units from participants comments: perceived benefits and practices implemented	n (%)
C	• Developing and maintaining holistic awareness	1. "I meditated a lot and thanks to Mindfulness and Emotional Intelligence ..., I am more conscious of my thoughts and my state in general..."	5 (19)
	• Developing intentional metacognitive awareness of the present moment	2. "Exercise-based activities and Meditation. They have helped me maintain lucidity, ..."	
		3. "Being very conscious of the reality and not get carried away by the emergent emotions that might take me off balance, above all, in a context of lockdown like this."	
	• Self-knowledge	4. "..., being conscious of the present moment to avoid worry about the uncertain future."	
		5. "..., Self-knowledge, ..."	
R	• Developing holistic self-regulation	1. "I meditated a lot and thanks to Mindfulness and Emotional intelligence I am able to manage and self-regulate my emotions, ..."	12 (46)
		2. "Yoga, meditation, and relaxation helped me disconnect, stop thinking on that situation and see everything with another perspective"	
		3. "Meditations from Mindfulness and Emotional Intelligence helped me relieve mental stress and anxiety."	
		4. "Meditation, yoga, dance helped me deal with stress..."	
		5. "Dance and meditation through online courses were helpful to..., and decrease anxiety."	
		6. "Meditation. I have learned it in the Emotional Intelligence class..., management of anxiety and stress."	
		7. "Meditations from Mindfulness teacher helped me clear my mind."	
		8. "Meditation, yoga, dance. I've learned some of them in the Conservatory... They helped me..., and clear my mind."	
		9. "Exercise-based activities, yoga, and Emotional Intelligence classes with weekly meditation and reflection. All of these activities have helped me...clear my mind..."	
		10. "Meditation according to what I have learned in Mindfulness, and yoga through smartphone applications. It has enabled me to clear my mind from my daily concerns broadcasted through the media."	
		11. "Dance and meditation through online courses were helpful to improve my posture, contractures, aches, ..."	
		12. Meditation. I have learned it in the Emotional Intelligence class...Management of interfamily relationships..."	
		13. "...meditations to get positive thoughts..."	
		14. "..., Relaxation, ..."	
		15. "...meditations to get mental calmness..."	
		16. "Meditation and other exercise-based activities. They have helped me maintain..., and above all, calmness."	
A	• Developing attention	1. "Body scan; physical, mental, and emotional meditation; and physical protocol. It helped me mainly concentrate more..."	3 (12)
		2. "Meditation and other exercise-based activities. They have helped me maintain..., concentration, ..."	
		3. "Yoga and meditation learned in class and out of class give me tranquility and concentration... for performing the best as possible."	

(continued)

Table 4.2 (continued)*CRAFT Participants' Perceived Benefits from Practices Implemented during the Lockdown in relation to the Five Elements of the CRAFT Program (n=26)*

Elements	Categories	Meaning units from participants comments: perceived benefits and practices implemented	n (%)
F	Psychologically, physically, and overall feeling better and energized after the practice	1. "I have been doing meditations made by my Mindfulness teacher, the CRAFT physical protocol and yoga practice. After the practice I have felt much better, with a clearer mind, and a relieved body"	9 (35)
		2. "Gym and meditation helped me feel well."	
		3. "Yoga and meditation in and out of class they made me feel out of my worries, relaxed, and unburdened."	
		4. "Yoga and Meditation in class and out of class give me energy to do tasks..."	
		5. "Meditation, yoga, dance. I've learned some of them in the Conservatory ...It made me feel revitalized."	
	Hope	6. "Meditation and other exercise-based activities. They have helped me maintain..., hope, ..."	
	Holistic satisfaction with practice implementation experience	7. "Physical protocol, meditation (in class). It has been a good experience at a physical, emotional, and mental level."	
		8. "Meditations learned in the Emotional Intelligence subject. My experience was very beneficial."	
		9. "CRAFT physical protocol and different types of meditations learned in the Mindfulness and Emotional Intelligence classes with very satisfactory results."	
T	Developing self-transforming attitudes and perspectives through adversity to transcend adversity	1. "Body scan; physical, mental, and emotional meditation; and physical protocol. They helped me mainly to visualize that everything can improve through a positive attitude depending on how we take adversities."	7 (27)
		2. "...take things with humor..."	
		3. "...withdraw severity from difficult situations."	
		4. "Yoga, meditation, and relaxation...helped me see everything with another perspective."	
		5. "Physical protocol, meditations, breath control, other techniques learned in the Mindfulness subject that helped me see the current situation with a neutral perspective."	
	Holistic meaningful changes	6. "Meditation. I have learned it in the Emotional Intelligence class...The changes have been relevant."	
		7. "... I also practiced meditation...when I applied it, I have noticed outstanding changes."	
		8. "Yoga (self-taught), meditation (learned through my psychologist and in EI class), mixed exercises. All of them had a synergistic effect that every day develops an improved version of myself."	
	Developing resilience through practice	9. Meditation. I have learned it in the Emotional Intelligence class...It has been an essential help in multiple aspects."	
		10. "Physical protocol, meditations, breath control, and other techniques learned in the Mindfulness subject that help me live with the current situation."	
		11. "Exercise-based activities, yoga, and Emotional Intelligence classes with weekly meditation and reflection. All of this has helped me keep going, clearing my mind, and preparing the mind for the long study and working sessions."	
		12. "Meditation. I have learned it in the Emotional Intelligence class. It has been an important element to bear the situation."	
Other	- Appealing practice - Challenges	1. "...I also did the meditation practices but not as much as I would have liked..."	2 (8)
		2. "...I also did the meditation practices...It was difficult as it requires a prior state of concentration and calmness..."	
		3. "The different meditations from the Mindfulness subject helped when I did not feel very bad but when feeling very bad did not help."	

Note. C = *Consciencia* (i.e., Consciousness); R = *Relajación* (i.e., Relaxation); A = *Atención* (i.e., Attention); F = *Felicidad* (i.e., Happiness); and T = *Transcendencia* (i.e., Transcendence). Percentages reported are non-mutually exclusive.

Overarching Theme One—Consciousness. Raising one’s Consciousness through Holistic Metacognitive Awareness with Implications for Self-Regulation Purposes

This theme consisted of five different meaning units selected from the responses of five different participants. Two participants linked their meditation practice to their benefits, while the remaining three participants referred to an attitude, state, or ability. In examining these meaning units, a common pattern observed involved the notion of ‘being aware of one’s current realities and states’, either as an instrument to intentionally avoid being entangled with the content of potential negative emotions or thoughts, or as an outcome from direct exposure to the CRAFT program and meditation. In line with this, the following meaning units drawn from different participants revealed the following:

“Being very conscious of the reality and not get carried away by the emergent emotions that might take me off balance, above all, in a context of lockdown like this.”

“I meditated a lot and thanks to Mindfulness and Emotional Intelligence...I am more conscious of my thoughts, and my state in general.”

It could be maintained that the first response above could implicitly approach somehow the metacognitive mechanism of re-perceiving or decentering (Shapiro et al., 2006). Under such mechanism, pure non-judgmental observation or awareness of reality could eventuate itself into a dis-identification with the content of one’s consciousness (e.g., emergent thoughts and emotions) from which new valuable perspectives and insights could arise to ultimately be used to re-construe stressful primary appraisals with a positive valence (Garland et al., 2009). The relevance of promoting this metacognitive awareness and witness attitude has been highlighted as inherently fostered through both yoga (Gard et al., 2014; Sullivan, Moonaz, et al., 2018) and mindfulness meditative practices (Chiesa et al., 2013; Garland et al., 2009; Shapiro et al., 2006) for its potential role in enhancing holistic self-regulation and resilience.

In the second quote, the recognition of a high frequency of meditative practice and a heightened holistic state of awareness across multiple well-being states (e.g., mental, general) as a by-product of participant’s experience with the CRAFT program is explicitly mentioned. This aligns with the findings reported in previous studies relative to improvements in self-reported measures of awareness of young adults following *hatha* yoga interventions (Gard et al., 2012; Park et al., 2017) and higher education student musicians involved in mindfulness base-programs tailored for musicians (Czajkowski & Greasley, 2015; Czajkowski et al., 2020). In addition, converging evidence from brain imaging studies suggests that the practice of different types of mindfulness and yoga meditations (e.g., focused attention, open monitoring, self-compassion, and mantra meditations) stimulates and might engender structural changes across various brain regions such as the insular cortex, an area widely underscored for its essential role in modulating human conscious awareness of interoceptive (e.g., bodily and viscerosomatic), empathetic, and even metacognitive processes (Farb et al., 2013; Fox et al., 2016; Hölzel et al., 2011).

Therefore, as has been referenced along with the exemplar responses quoted above, both yoga and mindfulness practices are widely recognized and empirically supported for the promotion of various types of awareness. Accordingly, in the CRAFT program, the element *Consciousness* is mainly developed drawing from the theories, practices, and components of these two disciplines. Although the recognition of strengths and virtues as well as intrapersonal feelings from both positive psychology and emotional intelligence, respectively,

were also practiced for cultivating a broader level of conscious awareness, participants did not acknowledge it in their responses.

Moreover, as can be seen within the content of the remaining meaning units assigned to *Consciousness*, there were allusions to other potential perceived benefits such as the acquisition of self-knowledge and sustained lucidity, both of them highly emphasized in both yoga and mindfulness philosophy in the quest for attaining clarity, discernment, wisdom, and ultimately self-realization (Devananda, 2011; Gunaratana, 2010). However, any generalizations to explain how their self-knowledge and lucidity experience was related to the four foundations of the program can only remain at a suppositional level as no further context was provided by participants.

Overarching Theme Two: Relaxation, Regulation. Towards Relaxation and Holistic Self-Regulation

In this overarching theme, there were 16 meaning units derived from the comments of 12 different participants. The theme was further subdivided into two categories (two of the three 'Rs' implicit in the second element), one for 'self-regulation', comprising 13 meaning units extracted from 10 participants, and another for 'relaxation', containing three meaning units from three participants. Regarding the first category entitled 'developing holistic self-regulation', the meaning units revealed an overarching benefit related to the potential development of self-regulation strategies across various dimensions of well-being. Therefore, participants commented on multiple perceived benefits implying self-regulation of cognitive, psychological, physical, and social processes. All ten participants whose comments were assigned to this category related to 'self-regulation' implemented meditation techniques, of whom seven participants explicitly indicated that they had learned it in CRAFT-based elective subjects, whereas the remaining three did not specify the origin of their meditation practice. Other activities implemented by participants under this category were yoga practice (three participants), dance (two participants), relaxation (one participant), and exercise-based activities (one participant). In terms of psychological distress, participants notified that meditation helped them relieve, decrease, and regulate stress and anxiety. Such perceived benefits concur well with those reported in previous hatha yoga and mindfulness-based interventions followed by higher education students (Breedvelt et al., 2019; Falsafi, 2016; McConville et al., 2017). In the emotional domain, the acknowledgment of self-regulation of emotional processes was observed either forthrightly mentioned, or implicitly revealing the occurrence of cognitive reappraisal strategies. The following two excerpts from two different participants exemplify these perceived benefits relative to emotional self-regulation:

"I meditated a lot and thanks to Mindfulness and Emotional intelligence I am able to manage and self-regulate my emotions, ..."

"Yoga, meditation, and relaxation helped me disconnect, stop thinking on that situation, and see everything with another perspective."

In examining closely the content within the second quote, it could be argued that it implies the actualization of what we discussed regarding the first extract presented in the overarching theme *Consciousness*. In this case, the disconnection from the content of one's emotional and mental events springing from a given situation through yoga, meditation, and relaxation practices allows the practitioner to dis-identify from it. Concomitantly, such dis-identification enables the participant to perceive everything that was linked to the primary situation through a different lens. According to Garland et al. (2009), the ability to re-appraise is contingent on such disconnection as it is during this process whereby an expanded state of consciousness or

meta-awareness could arise and new creative insights and perspectives may emerge from. The authors, who also found mindfulness skills positively correlated with positive reappraisal in a further study (Garland et al., 2011), highlighted the relevant implications of mindfulness training for promoting positive re-appraisal based on the aforementioned mechanism of re-perceiving.

In addition, various participants documented that practicing meditation as learned from their CRAFT training helped them clear their minds, a perceived benefit that could be also related to the expanded state of conscious awareness emphasized in the preceding paragraph and also underlined in the broaden-and-build theory for its further potential implications of upward spiraling with positive emotions (Fredrickson, 2004). Also, in connection with such a positive feedback loop and the theories of positive psychology, one participant stated having implemented meditation for attaining positive thinking. Positive thinking based on meditation stands as the fifth essential point of yoga synthesized by Swami Vishnudevananda (2011). Essentially, in recapping from the content herein assigned to 'self-regulation' as far as cognitive and emotional processes are concerned through the lenses of yoga philosophy, it can be surmised that participants' responses might be intertwined fundamentally with the path of *raja* yoga (Satyananda, 2013). This approach, which is predominantly meditation-based, cognitive, and psychological, places a major emphasis on attaining *yoga* as defined by Patanjali's second yoga sutra as the process of stilling the mind from its various ruminations and oscillations (Gard et al., 2014; Satyananda, 2013). However, through the pathway of *raja* yoga, the practitioner, besides meditation, delves also into a series of ethical, postural, breathing, and sense withdrawal components, some of which (e.g., postural and breathing) are highly developed through the different practices prescribed in the path of *hatha* yoga (Vishnudevananda, 1987). In the CRAFT program, both *hatha* and *raja* approaches to yoga are considered in terms of providing students with a comprehensive range of practices and components for holistic health and well-being promotion. Notwithstanding, based on the predominance of meditative activities and mental-related perceived benefits over other types of practices and effects, it could be arguably reasoned that participants' tendency to yoga skewed towards the lines of *raja* yoga.

Lastly, within the 'self-regulation category', one participant also mentioned social benefits from having practiced meditation as learned in the CRAFT-based elective subject of Emotional Intelligence to manage interfamily relationships. This benefit finds correspondence with the theories and methods drawn from both positive psychology and emotional intelligence that were imparted as part of the program syllabus. Particularly in this context, Goleman (1998)'s fifth component of emotional intelligence and the third one from the PERMA model of positive psychology (e.g., positive relationships; Seligman, 2011) were dealt with for the development of self-regulation abilities relative to social processes.

In the category 'Relaxation', meditation techniques were implemented by two participants, of whom, one of them leveraged it for accomplishing a state of mental relaxation or tranquility, while the other one highlighted that the most beneficial effect derived from practicing meditation was keeping that state of calmness throughout. An essential objective in the CRAFT program within the element *Relaxation* is to foster a holistic state of physical, mental, and emotional relaxation through the interplay of the different practices and components selected to that end. Although few meaning units were documented as part of this second category, those ones relative to reducing and dealing with stress and anxiety through meditation and yoga ascribed to the 'self-regulation' category suggest that these practices might have triggered the stimulation of relaxation mechanisms to downregulate participants' level of arousal. The different types of yoga and mindfulness

meditations—through top-down processes—as well as the various postural and movement-based *hatha* yoga practices—through bottom-up processes—have been associated with the promotion of relaxation responses mediated by vagal nerve activation and hypothalamic-pituitary-adrenal axis downregulation (Chiesa et al., 2013; Gard et al., 2014; Sullivan, Erb, et al., 2018).

Overarching Theme three: Attention. Developing Attention and Concentration

This overarching theme contained three meaning units extracted from three different participants. The practice of both yoga and meditation was consistent across all three participants whose comments explicitly appointed such practices as catalysts for the development of greater concentration. The following exemplar meaning units illustrate these perceived benefits:

“Body scan; physical, mental, and emotional meditation; and physical protocol. It helped me mainly concentrate more...”

“Yoga and Meditation learned in class and out of class give me tranquility and concentration... for performing the best as possible.”

In the first quote, the participant mentioned various techniques that are commonly practiced specifically in the CRAFT-based elective subject of Mindfulness, either directly selected from (e.g., body scan), created (e.g., physical protocol; physical, mental, and emotional meditation), or inspired by the theories and practices of both mindfulness and yoga. The most fundamental benefit highlighted by the participant was a heightened state of concentration directly linked to their CRAFT-based practice implementation experience.

In the second quote, both meditation and yoga were mentioned with reference to being learned through exposure to the CRAFT program and outside of it. Beyond agreeing with the former quote, insofar as both yoga and meditation practice help to engender greater concentration, the participant aggregates to it the benefit of tranquility, all-in-one with the instrumental purpose of maximizing their performance. In this meaning unit, the latter textual fragment provides evidence undergirding the potential applicability of the CRAFT program—through both yoga and meditation—to real-life situations, in this particular case, for optimizing one’s performance. With regard to the first part of the meaning unit, in the CRAFT program, a harmonious interplay between attention and relaxation is paramount for developing meditative states, being these two constructs addressed together throughout the teaching-learning process of meditation. The relevance of this fusion becomes apparent in the experiential understanding of meditation as being contingent on both experiencing alertness and tranquility in one’s mind, and as Swami Rama (1998) states in defining the subject of meditation, “Meditation is a precise technique for resting the mind and attaining a state of consciousness that is totally different from the normal waking state. In meditation, you are fully awake and alert...Neither is your mind asleep, dreaming, or fantasizing. Instead, it is clear, relaxed, and inwardly focused.” (p.1).

The perceived benefits described by participants within this overarching theme can be aligned with those reported by researchers that examined the influence of yoga and mindfulness meditative practices on various cognitive abilities, including, for instance, improvements in executive, selective, and sustained attention through mindfulness-based interventions (Tang et al., 2012; Tang, 2017); and increased executive function, attention, and processing speed following *hatha* yoga interventions (Gothe & McAuley, 2015).

Overarching Theme Four: Happiness. Holistic Subjective Satisfaction and Well-being Improvement with CRAFT Practice Implementation Experience.

This theme included nine meaning units collected from nine different participants. All of them informed of having practiced meditation during the lockdown to improve their health and well-being, of whom, six participants stated having learned it in CRAFT-based elective subjects. Furthermore, five participants acknowledged having practiced yoga with reference to the program, of whom three as per allusion to the implementation of the CRAFT physical protocol. Participants commented on a series of perceived benefits related to aspects of well-being, quality of life, and happiness. They were placed into three interrelated categories (see Table 4.2). Below we display two exemplar responses in relation to the first and third category respectively:

“I have been doing meditations made by my Mindfulness teacher, the CRAFT physical protocol, and yoga practice. After the practice, I have felt much better, with a clearer mind, and a relieved body.”

“Physical protocol, meditation (in class). It has been a good experience at a physical, emotional, and mental level.”

In this first quote, various meaningful insights can be highlighted. Firstly, the notion of holism is implied in terms of not only the participant’s variety of practices implemented, but also the perceived benefits derived from it, which in either case was related to physical, emotional, and mental dimensions of well-being. This multifaceted perspective is at the core of the CRAFT program, which as being based on a careful combination of the theories and practices of four foundations, might distinctly operate at a higher level of synergy than other disciplines could accomplish alone to concurrently influence various well-being dimensions. Along these lines, several researchers have hypothesized that mind-body disciplines may be more effective than traditional modes of exercise for engendering well-being benefits by virtue of their holistic approach (Cheung et al., 2017; Smith et al., 2011; Schmid et al. 2010).

A second relevant aspect to be emphasized within the first quote is the experience of immediate or acute physical and mental perceived benefits after the practice, which in this specific case appeared to refer to an overall greater feeling of wellness coupled with a heightened mind-body restorative and symptoms withdrawal experience. Such sentiment of holistic wellness reprieve is commonly voiced as an outcome from participation in yoga practice and even when simultaneously facing stressful health and well-being situations (Kidd & Eatough, 2017; Mackenzie et al., 2016). Moreover, in agreement with these inner experiences, evidence from quantitative studies bolsters the effectiveness of both yoga and mindfulness practice for inducing acute well-being effects on young adults and/or university students, suggesting also differential and putatively more complete effects as compared to exercise-based activities. For instance, a 10-minute bout of mindfulness meditation has been found to significantly improve overall mood state and fatigue, whereas a 10-minute fast walk only incurred reduced fatigue (Edwards & Loprinzi, 2018). Similarly, a 30-minute meditative *hatha* yoga bout involving breathing, focused attention, and relaxation components significantly reduced anxiety and cortisol levels, but these effects were not observed following a 30-minute exercise-based power yoga session (Marshall et al., 2020). Other acute significant changes reported amongst university students following single bouts of integrative *hatha* yoga styles include improvements in feelings of tranquility, positive and negative affect, and vitality (Smith et al., 2011; Gaskins et al., 2014). Likewise, in the current study, participants commented on having felt a series of similar sentiments as a result of both yoga and meditation practice as

learned in the CRAFT program and outside of it such as feeling revitalized, energized, worry-free, and relaxed. These are all aspects associated with subjective well-being and quality of life, which in turn, represent two relevant broader constructs highly interrelated to happiness (Delle Fave et al., 2011; Ryan & Deci, 2001; Veenhoven, 2012).

In the second quote, again a holistic approach can be evidenced, not only with reference to a multifaceted physical and mental CRAFT-based practice implementation as in the first quote, but also to an overall experience of goodness across various dimensions of well-being. As part of this third category, two other participants provided conclusory statements that expressed a positive global evaluation of their program practice implementation experience for being very beneficial and filled with satisfactory outcomes. Therefore, these responses are supportive of a generic contentment and satisfaction experience with the CRAFT program experience as a whole, and specifically, in terms of the CRAFT programmatic procedures and outcomes with potential implications to help them cope with stressful situations such as the lockdown.

Accordingly, it can be upheld that participants' satisfaction with their CRAFT program experience, which signifies a portion of their lived experience, might have transcended also to other aspects of their lives, all-in-one, potentially promoting, in turn, their overall satisfaction with life as a whole, and therefore, their happiness. Satisfaction with one's life as a whole, which has also been equated with subjective well-being (Veenhoven, 2012), conforms in itself a generic definition of happiness mainly epistemically contextualized within hedonic perspectives of well-being (Delle Fave et al., 2011; Veenhoven, 2012). Though with a minimum representation, these meaning units herein displayed showed some evidence underpinning that a curricular CRAFT program exposure might have led to a holistic wellness experience that participants drew on effectively to cope with their lockdown concerns and improve their overall quality of life and happiness. In the CRAFT program—drawing from positive psychology (Delle Fave et al., 2011)—happiness is conceptualized and approached through both hedonic and eudaimonic perspectives of well-being, though a greater emphasis is placed on the latter—in accordance with both yoga and mindfulness philosophy (Sullivan, Moonaz, et al., 2018).

In our previous study (Bartos et al., 2021), we found that significantly more CRAFT participants than controls reported both proactivity and perceived benefits relative to implementing practices for well-being promotion during the lockdown. In discussing these results, we postulated that the program's focus on invoking a sense of agency and self-responsibility—drawing from both yoga and mindfulness—might have raised students' consciousness to self-engage in meaningful actions for independently taking care of their own health. Such a proactive attitude and demeanor align also with an eudaimonic approach to happiness and well-being based on righteous and purposeful deeds for self-realization (Ryff & Singer, 2008). As voiced by Norton (1976), the term eudaimonia refers to “meaningful living conditioned upon self-truth and self-responsibility” (p. xi). Nonetheless, in the current study, the briefness of participants' responses did not allow us to elucidate any definite conclusions as to whether CRAFT participants conceived, approached, and/or lived happiness and well-being from either a eudaimonic, hedonic, or a combination of both perspectives.

Overarching Theme Five: Transcendence. Developing Resilience and Self-Transforming Attitudes to Transcend Adversity

This overarching theme was composed of 12 meaning units extracted from seven different participants. Meditation techniques were implemented by all seven participants, of whom six of them straightforwardly

acknowledged having learned them through exposure to the CRAFT-based elective subjects. Three participants reported a multifaceted yoga and/or mindfulness approach to practice implementation, of whom one participant did not specify the source of his/her practice, whereas two of them added to meditation practice the application of the physical protocol and other CRAFT-based practices with reference to both yoga and/or mindfulness techniques (e.g., breath control, body scan) in a differential combination. Three main categories emerged upon close examination of the 12 meaning units (see Table 4.2). In the first category, the assemblance of the five different meaning units—extracted from the accounts of four different participants—informed of a series of putatively CRAFT-based perceived benefits relative to the creation of new perspectives through the development of positive, equanimous, and humorous self-transforming attitudes towards adversity to potentially transcend adversity. The following exemplar response illustrates some of the content defining this category:

“Body scan; physical, mental, and emotional meditation; and physical protocol. They helped me mainly to visualize that everything can improve through a positive attitude depending on how we take adversities.”

In this quote, the participant underscored that the holistic application of the program—in terms of leveraging multiple and diverse CRAFT-based practices—was essential for realizing that any lived experience can be approached and maximized through a positive demeanor. In addition, the participant also placed the optimistic standpoint contingent on how one approaches or appraises hardships rather than on the degree of challenge within them, which further implies in turn, the participant's acknowledgment that any adverse event can be seen, felt, and/or interpret differently. However, most importantly beyond how one can primarily construe a given challenging situation is the notion—as implicitly stressed by the participant—of agency and self-responsibility towards making it better, how? “Through a positive attitude”, and considering the remaining part of their statement—“depending on how we take adversities”—this may imply the dualistic recognition that one can always interpret any particular situation through a positive lens, or in other words, see the beauty within the so commonly called “negative events”. This process, in a nutshell, could entail the development of a self-transforming attitude contingent on the realization that one's experience of any event happens within oneself as a mere perception that, as such, one is responsible for dealing with and can attribute any valence to. To that end, meditative practices such as those quoted above may constitute initially a vehicle for raising one's consciousness towards such realization experientially and, as part of it subsequently, a method that can be leveraged to help determine, choose, and/or transform the way one's inner experiences are lived.

In meditative practices, practitioners learn to observe and accept their perceptions without interfering with them, either for instance by returning to a pre-determined meditative object of concentration upon realizing them (e.g., focused attention, mantra meditation), or by witnessing them nonjudgmentally (open-monitoring meditation)—(Chiesa et al., 2011; Fox et al., 2016). Throughout such a process, one becomes aware that any perception (e.g., mental, emotional events), including those elicited by demanding situations, constitutes an ever-changing or impermanent reality (i.e., *anicca*) that as naturally arises is also bound to subside if one follows the outlined meditative instructions (Goenka, 2000). As has been previously explained, this activity appears to instigate the development of a metacognitive mechanism of dis-identification (i.e., re-perceiving) and broader cognition from which new valuable and creative perspectives and insights might arise to potentially reconstrue one's primary appraisals positively (Garland et al., 2009; Garland et al., 2011). In the CRAFT program, this metacognitive process is facilitated, conceived, and worked through various types of yoga and mindfulness

meditations (e.g., focused attention, mantra meditation, open-monitoring meditation, and loving-kindness and compassion meditations; Fox et al., 2016) as a pathway for developing meta-creativity, wisdom and knowledge, and a self-transforming-creative attitude that might give rise to new perspectives, opportunities, and possibilities. Moreover, other resources that were integrated as part of the CRAFT-based elective subjects to develop *Transcendence* and could be aligned with some of the participants' responses included positive psychology-based components such as focusing on the positive aspects of one's life, the appreciation of beauty and excellence, gratitude, hope, and humor (Peterson, 2006; Peterson & Seligman, 2004).

Therefore, in accordance with what has been discussed above, there might not be a by-product of chance that other participants' responses circumscribed to this first category alluded to CRAFT-based yoga/meditation practices as assistive devices to "see everything with another perspective", "take things with humor", and "see the current situation (Covid-19, lockdown) with a neutral perspective". In the latter quote, even the sense of an equanimous attitude could be discerned in the 'neutral' quality ascribed to the term 'perspective'. As conveyed by Bodhi (2000), the heightened spiritual attribute of equanimity—translated in Pali language as *upekkhasahagata*—is adopted from the term *upekkha*, conceived as "the state of mind that cannot be swayed by biases or preferences." (p.34). The author continues defining *upekkha* as a "neutral feeling...a mental feeling which leans neither towards gladness nor dejection. In contrast to pleasant and painful feelings, which experience the object in diametrically opposed ways, *upekkha* experiences the object in a neutral manner." (p.34).

Equanimity is one of the most relevant attitudes fostered through mindfulness meditation and specifically through the practice of *vipassana* meditation. The process of developing equanimity through meditation fundamentally consists of nurturing the nonjudgmental attitude of observing one's mental, physical, and emotional states neither reacting or developing attachment to the emergent pleasant sensations nor aversion towards the unpleasant ones (Desbordes et al., 2015; Zeng et al., 2015). The significance of the construct is highlighted by Goenka (2000) insofar as one's spiritual progress through the practice of *vipassana* meditation is only measured by the degree of equanimity one is able to acquire, in turn, dependent on one's level of awareness. In the CRAFT program, the development of an equanimous attitude is highly encouraged through both the learning process of meditation and further debates and discussions—drawing from the experiences associated with the former—for real-life applications.

Another aspect we have considered in resonance with this fifth overarching theme is the quality of resilience as an ability to adapt to and even transcend stressful situations. Three different meaning units extracted from three different participants were allocated to this third category entitled 'developing resilience through practice'. Taken together, participants shared the view that the practices learned in the CRAFT-based elective subjects were helpful to cope with the lockdown situation and carry on with their lives. A similar re-perceiving process to the mindful meta-cognitive mechanism describe earlier is informed by yoga philosophy and discussed in a recent yoga model for self-regulation and resilience (Sullivan, Moonaz, et al., 2018). The authors underlined the importance of cultivating the witness attitude to dis-identify with *prakriti* (e.g., nature or changing reality) and eventually realize *purusha* (e.g., true self, everlasting reality, pure consciousness). Through this attitude, participants might have become increasingly more aware of their ever-changing *prakriti* related concerns and nurture their resilience by dis-identifying and creating distance from them. In addition,

improvements in self-reported measures of resilience have been found following Hatha yoga (Karmalkar et al., 2017), mindfulness (Hwang et al., 2018), and positive psychology interventions (Smith & Hanni, 2019).

Lastly within this overarching theme, we included a category labeled ‘holistic meaningful changes’ representative of those participants’ meaning units informing of a sense of relevancy within the change or that could transcend to other aspects. As can be seen from the four meaning units extracted from four different participants, all of them practiced meditation, of whom three indicated having learned it in the CRAFT-based electives subjects. Overall, participants highlighted that the changes perceived as a result of their practice implementation experience were substantial or even beyond significant in singular ways.

Overarching Theme Six: Other

This overarching theme included three meaning units drawn from two participants who mainly informed of challenges experienced with meditation practice. As illustrated by the following exemplar responses, the barriers they encountered were related to the quality of their well-being states prior to approaching the practice of meditation:

“... I also did the meditation practices but not as much as I would have liked. It was difficult as it requires a prior state of concentration and calmness. However, when I applied them, I have noticed outstanding changes”.

“The different Meditations from the mindfulness subject helped when I did not feel very bad but when feeling very bad did not help.”

In the first quote, the participant mentioned the two elements—“concentration” and “calmness”—the integration and interdependence of which are essential for merging into meditative states (Rama, 1998) and are highly emphasized as part of the CRAFT program. This aligns also with the eight-fold path of Raja yoga, whereby mastery over the five first limbs is encouraged as a preparatory practice before embarking upon the three last steps involving higher meditative processes (Satyananda, 1969). Similarly, in the CRAFT program, mastery over the elements *Consciousness*, *Relaxation* (including regulation and respiration) and *Attention* is fundamental for developing meditation. In addition, meditation requires a disconnection or dis-identification with the content of one’s mental and emotional events (i.e., re-perceiving), which in itself has been described as an emotional regulation strategy of difficult accomplishment (Chambers et al., 2009). Therefore, the obstacle perceived by the participant makes sense, aligning also with other accounts and challenges (e.g., difficulty to concentrate) experienced by meditation practitioners reported elsewhere (Lomas et al., 2015). However, meditation abilities are modifiable irrespective of one’s pre-existing talent or level of skill, and as such, susceptible to being improved through practice. In this particular case, the participant acknowledged, despite the hindrances, not only having perceived remarkable effects from practicing meditation but also a regret for not having engaged in it more frequently.

In examining the second quote, it is reasonable to assume that one is bound to experience higher difficulties to achieve a harmonious state of mental relaxation and attention when being afflicted by severe health and well-being setbacks than when being exempt from them. This aligns with previous accounts of meditation practitioners who struggled with the implementation of meditative practices while affected by acute depression or anxiety symptoms (Lomas et al., 2015). Under these circumstances, at the programmatic level, further professional assistance into how specifically apply and integrate meditative practices into participants’ daily life and concerns might be needed. From the research perspective, the examination of

various factors—through both in-depth qualitative and quantitative methods—such as the participants' level of meditative expertise, fidelity and frequency of practice, guidance and support received, and harshness of the psychological distress being subjected to could be relevant to elucidate further insights into this issue.

Limitations and Further Research

The current study presents various limitations. First, besides the low sample size, participants' responses to the open-ended question of the online questionnaire were limited to brief comments, devoid of both sufficient context and context, the examination of which did not allow us to thoroughly address our research questions nor drawing consistent generalizations from our findings. Therefore, further research should consider the incorporation of well-designed semi-structured interviews with follow-up questions that would facilitate the necessary interactive activity to capture a greater breadth and understanding of participants' CRAFT program lived experiences, in general, and particularly, their perceived benefits derived from it. Nevertheless, we have shown herein that even succinct comments can provide valuable insights with potential programmatic and research implications across various educational, philosophical, and well-being domains. In addition, though our applied methods were restrictive in terms of accessing to specific nuances relative to participants' experience with the program practices and perceived benefits, they permitted us to capture the gist of that experience, and hence, the essence, highlights, and global picture of it synthetically presented.

Second, the open-ended survey question was broadly formulated as it was originally designed for and administered to both a control and a CRAFT program group (Bartos et al., 2020). Therefore, there was no specificity nor directed queries relative to participants' experiences with the CRAFT-based practices implemented and their perceived benefits derived from it. An underlying caveat of this was that CRAFT participants' responses were, in some instances, very heterogeneous insofar as they referred to a combined effect springing from both CRAFT-based and non-CRAFT-based (e.g., exercise) practice implementation. Though we acknowledge that such responses were representative of participants' naturalistic realities and perceptions, specific follow-up questions relative to the program's goals, procedures, and outcomes could have potentially afforded singular CRAFT-based experiential insights devoid of the aforementioned heterogeneity. To that end, not only the adoption of semi-structured interviews could serve this purpose, but also the inclusion of various goal-directed open-ended questions and analysis of their practice logs.

Third, as shown in Appendix E2 (Table App. 2), there was a higher proportion of excluded participants, compared to those included in the analysis, who were attending the CRAFT-based elective subject of Emotional Intelligence. Although it remains unclear to what extent this difference may explain why these participants did not perceive and/or voice benefits related to their CRAFT-based practice implementation experience, questions arise as to whether instruction in the Mindfulness subject was perceived as more beneficial, useful, applicable and engaging among CRAFT participants to improve their well-being under stressful circumstances than in Emotional Intelligence. Further mixed-methods research should explore differences in terms of how CRAFT participants' exposure to each of these two CRAFT-based subjects impacts their well-being and academic experience.

Conclusion

The current qualitative study was conducted to gain a greater understanding of participants' CRAFT-based practice implementation experience and their perceived benefits associated with it to improve their health and well-being during the lockdown. Undergirding the social validity of the program, the deductive content analysis revealed that participants acknowledged that their CRAFT-based practice implementation experience helped them promote a series of physical, emotional, psychological, cognitive, and social well-being abilities, states, and conditions across the five CRAFT elements. In addition, participants' responses aligned with the tenets of the four foundations of the program, though majorly with yoga/mindfulness-based theories, methods, and practices, being meditation the most implemented technique. Despite the results of the current study suggest that curricular exposure with the CRAFT program was beneficial amongst higher education student musicians to cope with their health and well-being lockdown demands, the heterogeneity of their practice implementation experience and the low sample size of responses to a single and broad open-ended question warrants further caution to any generalization of these findings. Notwithstanding, these results have relevant multidisciplinary implications across educational, clinical, and neuro-educational providers for higher education students, and specifically student musicians, endorsing the continued application of the CRAFT program for health and well-being promotion, support, and prevention during stressful pandemic times.

Prelude. Chapter 5

The second study of this PhD investigation within Phase 1, which was reported in Chapter 4 (Study 2; Bartos, Posadas, et al., 2023), explored through qualitative lenses the potential beneficial effect of the Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT) program, as it was independently applied by tertiary student musicians to improve their well-being during the lockdown. Results indicated that CRAFT participants perceived a wide range of multidimensional benefits (e.g., improved awareness, metacognition, self-regulation, anxiety, relaxation, attention, wellness, vitality, perspective-taking, and positive attitude) from their CRAFT-based practice implementation experience in relation to the theoretical framework of the program. These findings suggested that CRAFT exposure may have promoted among CRAFT participants a holistic well-being development of transformative nature potentially inducing changes in their internal standards, conceptions, as well as values and priorities. The possible occurrence of such a potential CRAFT-based transformative effect and the extent to which it could bias tertiary student musicians' self-reported levels of mindfulness—as a response shift phenomenon—is examined through quantitative lenses with the so-called technique *then-test* in the next chapter. This examination, which is detailed in Chapter 5 through a manuscript published in the journal *Mindfulness* (Bartos, Posadas, Wrapson, et al., 2023), was conducted as part of the third study that completed the first phase of the current PhD investigation.

Chapter 5. Increased Effect Sizes in a Mindfulness- and Yoga-Based Intervention after Adjusting for Response Shift with Then-Test

Introduction

The theoretical foundations of response shift can be traced back nearly 50 years to researchers questioning the validity of pre-post self-reported instruments to measure the effects of interventions in educational training (Howard & Dailey, 1979, Howard et al., 1979) and organization development (Golembiewski et al., 1975). Howard et al. (1979) conceptualized response shift as pre-post self-reported changes in participants' internal standards of measurement of a particular measured construct from training. Howard et al. (1979) also highlighted that such a response shift effect could be potentially intensified if the aim of the intervention is to modify participants' conception or awareness of the construct being measured. Earlier, Golembiewski et al. (1975) had posited similar ideas relating to plausible levels of intra-subject variation masking the actual outcome and/or interpretation derived from pre-post self-reported instruments.

While the so-called Alpha change (Golembiewski et al., 1975), is understood as the theoretical intervention effect (i.e., post-test minus pre-test scores), this effect is often confounded by the presence of other types of change. Golembiewski et al. (1975) explained Beta change as an internal recalibration effect in response to a certain experience (e.g., exposure to organizational development interventions). As a result of this experience, an individual's psychological distance between the rating scale intervals used to measure a given construct domain may have changed, thus affecting how the construct is assessed by the self-reported instrument. For instance, a participant's self-reported score in teamwork skills of "Good" before a teambuilding intervention may remain "Good" after it, despite experiencing an actual improvement in teamwork skills. This effect may occur because the intervention might make the participant recalibrate their notion of good teambuilding skills. The initial rating of "Good" was in actuality anchored at a lesser level from the perspective of the new internal standard.

Another relevant bias described by Golembiewski et al. (1975) was Gamma change, defined as a substantial shift in an individual's perceptual frame of reference, also induced by a certain experience, entailing the reconceptualization of certain dimensions of reality. As explained by the authors, Gamma change would involve a profound change of perspective that could be reflected in an out-of-the-scale outcome that self-reported instruments would fail to register and even confound (Golembiewski et al., 1975). For example, a participant following a holistic well-being intervention with an emphasis on spiritual development (e.g., yoga and mindfulness programs) might experience a major change in the way they conceive disease: from an initial understanding of it as a problem or negative event to a rather positive process and opportunity to grow. Similarly, their conception and approach to health, well-being, and quality of life might be drastically changed from participating in such interventions (Desikachar et al., 2005; Sullivan et al., 2018). In contrast to both Beta and Gamma change, either occurrence of which could be representative of response shift, in Alpha change (i.e., the traditionally recognized pre-post change) it is assumed that the individual's frame of reference and psychological distance between the rating scale intervals remain constant from pre-to post-intervention (Golembiewski et al., 1975).

Over the last two decades, the response shift phenomenon has been particularly investigated in health-related quality of life and clinical intervention studies to shed light on unexpected self-reported outcomes, such

as chronically ill patients reporting the same or higher quality of life than healthier individuals (Albrecht & Devlieger, 1999; Breetvelt & Van Dam, 1991; Rapkin & Schwartz, 2004). Schwartz and Sprangers (1999) and Sprangers and Schwartz (1999), inspired by Howard et al. (1979) and Golembiewski et al. (1975), explained the response shift phenomenon based on recalibration (i.e., change in internal standards or Beta change) and reconceptualization (i.e., Gamma change), to which they added a third component, namely reprioritization. Reprioritization, which was already implicit within the Gamma change conception of Golembiewski et al. (1975), was explained as a change in one's values and priorities in terms of how the relevance of aspects of one's life relative to others varies after particular events (Schwartz & Sprangers, 1999; Sprangers & Schwartz, 1999). For instance, after being diagnosed with a major disease, an individual, whose main priorities may have been on accruing professional accomplishments, may diametrically shift to nurturing core human values (e.g., altruism, love, compassion, respect, sympathy). Thus, as a result of such values becoming more salient to the individual, they may experience an equal or even greater quality-of-life experience than before diagnosis, contrary to what normally would be expected if no information about the person's behavior according to their reprioritization was furnished. Therefore, with the inclusion of reprioritization, Schwartz and Sprangers (1999) and Sprangers and Schwartz (1999) provided the first multifactorial definition of response shift. According to the authors, response shift refers to variations in the conception of one's self-assessment at different times due to changes in one's internal standards of measurement (i.e., recalibration), values (i.e., reprioritization), and meanings (i.e., reconceptualization) of a construct when confronted with particular catalysts (e.g., individual health-related changes due to disease or treatment).

In recent years, mindfulness- and yoga-based interventions have increased in popularity with numerous studies evidencing the efficacy of these two approaches for bestowing a broad spectrum of physical, emotional, cognitive, and health and well-being benefits in a large range of populations, settings, and contexts (Breedvelt et al., 2019; Corbally & Wilkinson, 2021; Cieszar-Andersen et al., 2021; Field, 2016; Garrote-Caparrós et al., 2021; Gothe et al., 2019; Halladay et al., 2019; Liu et al., 2021; Mercado et al., 2021; Sivaramakrishnan et al., 2019). Although many of the outcomes yielded from mindfulness- and yoga-based interventions, either significant or not, have been gathered through performance-based measures, the employment of self-reported instruments has frequently been the predominant method for many others (e.g., health-related quality of life, psychological distress, and dispositional mindfulness; Medvedev et al., 2022), which tend to be susceptible to response shift (Sauer et al., 2013). Particularly with reference to self-evaluation of mindfulness, for which psychometric scales have been the gold standard instruments, various authors have identified response shift as a potential bias limiting the validity of these methods (Grossman, 2008; Krägeloh et al., 2018; Sauer et al., 2013). These authors surmised that participants' frame of reference for their mindfulness understanding and skill when responding to a mindfulness inventory might differ from pre-to post-intervention as a result of mindfulness training. According to Sprangers and Schwartz's (1999) response shift definition, provided it were extrapolated to a mindfulness context where a mindfulness intervention functioned as a catalyst, such changes could translate into a potential recalibration and reconceptualization mindfulness-induced response shift occurrence.

The following hypothetical case illustrates how such a mindfulness-based response shift effect may occur: A female participant with no previous mindfulness experience rates the fourth item of the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006)—“I perceive my feelings and emotions without having to react to them”—before and after a mindfulness-based intervention. It could be argued that, before the

intervention, she might not have had a clear experiential understanding of what a feeling or an emotion is, nor the difference between the two, nor her awareness of their perception, nor the ability of non-reacting to them upon realizing them. From such a beginner's frame of reference and internal standards, it could be contended that, due to her inexperience with the practical and conceptual implications of the item, she could overestimate her rating by answering, for instance, "sometimes true". However, during the mindfulness training—embarking upon a somewhat reconceptualization-based learning process—she experientially develops her awareness and understanding of emotions and feelings as well as her capacity for perceiving them without reacting. Additionally, she realizes not only that her non-reactivity skills were lower than she initially thought—for she is more aware of her emotional reactions—but also that she is enhancing them over time. Therefore, the participant's internal standards would have changed to a more experienced frame of reference from which more stringent self-evaluations might occur (i.e., higher standards). Accordingly, when asked to rate the same item again after the intervention, she might gauge it as equal or even lower than before the training. As a result, such a potential recalibration and/or even reconceptualization mindfulness-based response shift occurrence would veil the actual pre-post improvement that the participant might have both perceived and gone through. In turn, it could be contended that this concealed enhancement could be the expression of what in signal detection theory is designated as a *miss* response (Lynn & Barrett, 2014) insofar as there was a stimulus (i.e., an improvement) but it could not be detected through the participant-instrument interaction due to response shift.

Thus, if the above-mentioned particular case could be generalizable to other FFMQ items (or even other self-reported outcome measures completed before and after a mindfulness-based intervention), the following two scenarios could be postulated in the context of a *miss* response due to response shift: No effect detectable by the outcome measure, when there was actually an underlying effect; some limited effect detected by the measure, although the underlying effect was larger. In this vein, in the extant literature of mindfulness-based interventions, there have been researchers who have found either improvements in mindfulness scores but no changes in other outcome measures (Simons, 2014; Hopkins & Proeve, 2013), improvements in other outcome measures but no effect or inconsistent results in mindfulness (Ainsworth et al., 2013; De Vibe et al., 2013; Gockel et al., 2013; Himelstein et al., 2015), or even a null effect in both (Damião et al., 2019; Horner et al., 2014; Kaplan et al., 2022; Spragg, 2011). Could this contradictory, mixed, and/or unexpected findings be hinging to a certain degree on the response shift phenomenon?

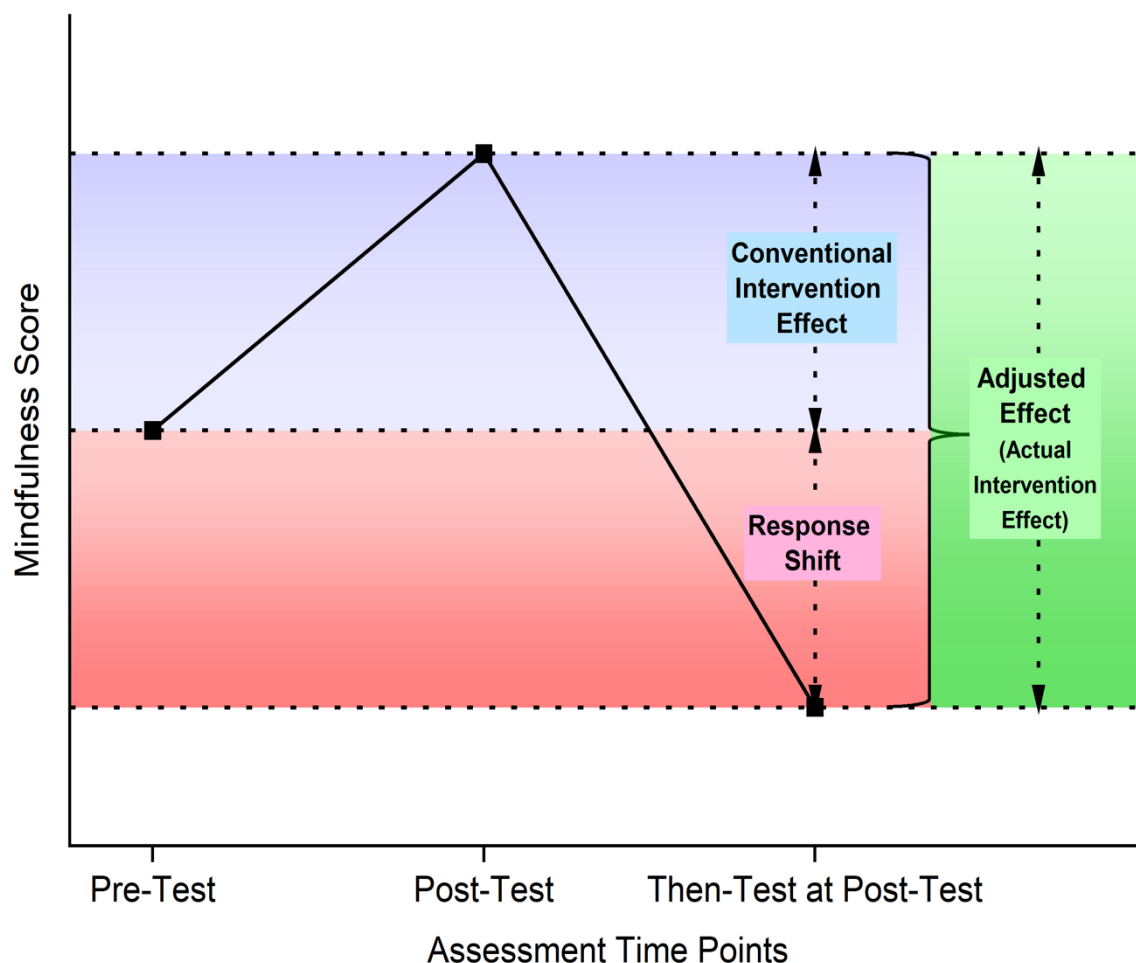
Considering the aforementioned evidence and plausible outcome-related scenarios potentially affected by a response shift occurrence, it is not surprising that previous researchers in the field had already underlined the need to investigate this phenomenon for its potentiality to drive measurement error, and in doing so, look for solutions to correct or minimize it (Grossman, 2008; Krägeloh et al., 2018; Sauer et al., 2013). In this regard, though still from a field in its early infancy, previous work using measurement invariance testing (Krägeloh et al., 2018) suggests that response shift may indeed be a potential bias for confounding mindfulness measurement. However, further research relying on other methods has been recommended, particularly considering the shortcomings of former approaches, such as requiring intricate statistical analysis and large sample sizes (Finkelstein et al., 2014; Krägeloh et al., 2018). One of such recommended methods is the so-called *then-test* (Finkelstein et al., 2014; Howard et al., 1979; Sprangers et al., 1999). The then-test, or retrospective pre-test/post-test design, has been the most typically employed method to detect response shift over the years by the primary developers of the field, comprising educational (Howard et al., 1979; Howard & Dailey, 1979) and

quality-of-life (Finkelstein et al., 2014; Schwartz & Sprangers, 2010; Sprangers et al., 1999; Visser et al., 2005) researchers.

A then-test questionnaire is typically administered immediately after participants complete its counterpart post-test survey, with instructions for participants to re-evaluate the same post-test items retrospectively, that is to say, thinking back at how the content of those items was applicable to them at the time of the pre-test (Schwartz & Sprangers, 2010). In such a way, the then-test would be the equivalent of completing a pre-test again but at the time of the post-test. Therefore, this procedure would allow participants to rate their tendencies or level of functioning about a particular construct domain with reference to both the pre- and post- at the same time, and hence from the standpoint of the unique and current frame of reference, internal standards, and values they have at a such single point in time, rather than at different times (i.e., conventional pre-test/post-test approach). Thus, the primary premise supporting this method is that, in a relatively easy fashion, it could quantify the confounding response shift bias that may occur from measuring participants experiencing different frames of reference, internal standards, and values from pre-to post-intervention. Following this approach, the presence and extent of response shift could be estimated by calculating the difference between the pre-test and then-test scores (response shift score calculation); the conventional intervention effect as the difference between the post-test and the pre-test scores (i.e., conventional score calculation); while the adjusted effect, which in plain words could be conceived as the global actual effect derived from adding response shift to the conventional intervention effect, would be operationalized as the difference between the post-test and the then-test scores (i.e., adjusted score calculation). Figure 5.1 illustrates the operationalization of these three types of effects (i.e., response shift, conventional, and adjusted) in the context of participants assessing their mindfulness levels at pre-test, post-test, and immediately after the post-test through the then-test.

Figure 5.1

Operationalization of Response Shift in Self-reported Mindfulness Measurement through the Then-Test



Note. The retrospective technique *then-test* implemented in a mindfulness inventory would ask respondents, immediately after completing the post-test, to reassess the same mindfulness items retrospectively at the time of the pre-test (before the mindfulness intervention), and therefore, with the same frame of reference, internal standards, and values. Response shift would be operationalized as pre-test minus then-test scores, the conventional intervention effect as post-test minus pre-test scores, and the adjusted or actual intervention effect as the post-test minus then-test scores

Preliminary evidence in support of the validity of the then-test springs from a series of educational intervention studies triangulating self-reported results derived from the aforementioned score calculations (i.e., conventional, response shift, and adjusted score calculation) with those obtained from qualitative interviews, objective assessment, observational rating, and recall bias testing (Howard et al., 1979; Howard & Dailey, 1979). The results of these triangulations appear to support the contention that participants' internal standards before and after an intervention may change and hence, conventional effects may be confounded by response shift (Howard et al., 1979; Howard & Dailey, 1979). Overall, Howard and colleagues' findings seemed to underpin their original hypothesis that, when using self-report instruments of change, results gathered through the retrospective then-test design (i.e., adjusted score calculation), may have greater internal validity than those yielded through the traditional approach (i.e., conventional score calculation). From the field of quality-of-life research, additional supporting evidence for the validity of the then-test has also been reported (Schwartz &

Rapkin, 2012; Visser et al., 2005) and a set of guidelines for its adequate implementation have been recommended (Schwartz & Sprangers, 2010).

Despite its feasibility and easiness of application, the then-test is not exempt from relevant shortcomings (e.g., recall bias and implicit theories of change, Finkelstein et al., 2014). Notwithstanding its limitations, this method appears to have been the most widespread and accessible technique to examine response shift effects in studies with low and medium sample sizes (Schwartz & Sprangers, 2010; Finkelstein et al., 2014). In the extant literature on quality of life, significant response shift effects through the then-test have been documented in a broad range of studies investigating the potential occurrence of this phenomenon in patients suffering from serious health-related conditions such as cancer (Andrykowski et al., 2009; Dabakuyo et al., 2012; Ilie et al., 2019; Korfage et al., 2007), stroke (Ahmed et al., 2004), and multiple sclerosis (Schwartz et al., 2004). However, it appears that the existing literature does not show any studies using the then-test to determine whether response shift may have occurred and therefore confounded mindfulness measurement following mindfulness-based interventions.

A recent field study about the effects of hiking the Camino Francés on self-compassion (Steininger et al., 2023) used the then-test approach for parts of their sample as a supplementary analysis, albeit without the corresponding actual pre-test rating. Research on concepts such as self-compassion and mindfulness has thus far not been able to demonstrate the extent to which scores derived from the adjusted score calculation (i.e., adjusted scores) may differ from those obtained from the conventional score calculation (i.e., conventional scores). The current study addressed this research aim in the context of student musicians receiving curricular instruction in a mindfulness- and yoga-based program—*The CRAFT program*—at a Royal Conservatory of Music (Posadas & Bartos, 2022; Posadas, 2019).

The newly developed CRAFT program was conceived as an art of being and holistic neuroeducational method for self-actualization, fulfillment, and well-being to address the highly cognitive, emotional, and physical demands affecting higher education students involved in specialized educational fields such as music, fine arts, languages, and sports (Posadas, 2019). The program is grounded in the theories, practices, philosophical underpinnings, and state-of-the-art neuroscientific findings of mindfulness, yoga, emotional intelligence, and positive psychology. The acronym *CRAFT* stands for the following Spanish terms representing the five CRAFT elements: *Consciencia* (i.e., consciousness), *Relajación* (i.e., relaxation), *Atención* (i.e., attention), *Felicidad* (i.e., happiness), and *Transcendencia* (i.e., transcendence). Since 2017, the CRAFT program has been imparted at the Royal Conservatory of Music of Granada as a CRAFT-based elective subject of mindfulness, and from 2017 onwards as both CRAFT-based elective subjects of Mindfulness and Emotional Intelligence (Bartos et al., 2021; Bartos et al., 2022, 2023; Posadas & Bartos, 2022).

The purpose of the present study was to explore the utility of the then-test to detect the presence of a potential mindfulness-based response shift occurrence during a mindfulness-and yoga-based intervention and to ascertain to what extent effect sizes may differ when adjusting for any response shift that may have occurred. To that end, we examined whether student musicians following the CRAFT program reported response shift associated with their mindfulness skills—as measured by the FFMQ—when evaluated retrospectively on such skills through a specifically developed then-test FFMQ. Additionally, we examined the extent to which participants' FFMQ effect sizes derived from a conventional score calculation could change after being adjusted for response shift.

Method

Participants

Participants were higher education student musicians, aged 18 years or older, officially enrolled in CRAFT-based elective subjects at the Royal Conservatory of Music Victoria Eugenia during the academic year 2019/2020. Participants were excluded from the study if they had received any psychological, psychiatric, and/or psychopharmacological help and if they had had previous experience with other yoga and/or meditation practices other than those learned in the CRAFT program. Following these exclusion criteria, 13 participants were excluded from the study. Thus, the final sample for the current study consisted of 31 participants, age range 19-39 years, of whom 17 were females. As can be seen in Table 5.1, which displays participants' demographic characteristics, a preponderance of participants were third-year students, enrolled in the CRAFT-based elective subject of Mindfulness, and had completed their high school diploma.

Table 5.1
Participants' Demographic Characteristics

Variables	
<i>n</i>	31
Age	22.71 $\pm$ 3.94
Years of Musical Practice	13.98 $\pm$ 3.59
Gender	
Females	17 (55%)
Males	14 (45%)
Elective Subjects enrolment ^a	
CRAFT-based Mindfulness	23 (74%)
CRAFT-based Emotional Intelligence	15 (48%)
Both CRAFT-based subjects	7 (23%)
Ergonomics	3 (10%)
Music and Movement	4 (13%)
English	2 (6%)
German	1 (3%)
History of Spanish Music	1 (3%)
History of Opera	0 (0%)
Level of Education	
High School	24 (77%)
Bachelor's Degree	6 (19%)
Master's Degree	1 (3%)
Grade Year	
First	4 (13%)
Second	7 (23%)
Third	15 (48%)
Fourth	5 (16%)

Note. Values are mean $\pm$ *SD* or *n* (%).^a Participants' enrolment in elective subjects was not mutually exclusive.

Procedure

The feasibility and preliminary effectiveness of the CRAFT program (conducted during the academic year 2018/2019) have previously been examined (Bartos et al., 2022), and the present study reports on a subsequent implementation of the CRAFT program (conducted during the academic year 2019/2020). This longitudinal investigation was affected by the emergence of the COVID-19 pandemic, which led to a serendipitous quasi-experimental study on the applicability and perceived benefits of the program during the COVID-19 lockdown (Bartos et al., 2021). The context of this longitudinal investigation has been outlined in detail previously (Bartos et al., 2021), and here we only describe those aspects that are relevant to the present study.

Instruction in the CRAFT program began on November 6th, 2019, and was completed at the end of the teaching phase that ended on May 13th, 2020. As in all other elective subjects, CRAFT-based elective classes run for 60 min, once a week, over the entire academic year. Recruitment took place at the music conservatory from January 13th-29th, 2020 via short presentations of the study objectives and requirements. Therein, 82 participants enrolled in CRAFT-based elective subjects completed Time 1 assessments which included the Time 1 FFMQ and other outcome measures as part of the longitudinal study. Due to logistical issues and delays in receiving the necessary approvals for this study, Time 1 did not constitute a true pre-test baseline assessment period but instead occurred 9 weeks into the 23-week intervention.

On March 14th, 2020, after 16 weeks of program completion, both the program and the study were adapted to be continued in an online format for the remaining teaching phase due to the COVID-19 pandemic and ensuing lockdown. On June 1st, 2020, 1 week after students' final exams, participants were contacted by email and were invited to complete Time 2 evaluations online, comprising the Time 2 FFMQ, the then-test FFMQ, and other outcome measures planned for the longitudinal study. The then-test-FFMQ, which was filled in by participants immediately after completing the Time 2 FFMQ, asked participants to assess their FFMQ mindfulness levels retrospectively for the Time 1 point evaluation (see "Measures" section). From the initial sample of 82 participants, 44 participants completed both the Time 2 FFMQ and the then-test FFMQ, of whom 13 participants were excluded from the analysis because they acknowledged previous yoga and/or meditation experience. For the purposes of the present response shift investigation, no appropriate control group was available. This is because Time 1 was approximately halfway through the intervention, and there was no way to ascertain that the non-CRAFT participants entered the academic year with similar levels of FFMQ scores as the CRAFT program group.

The CRAFT Program. The CRAFT program was implemented as part of the student's curriculum as CRAFT-based elective subjects of Mindfulness and Emotional Intelligence during the academic year 2019/2020 at the Royal Conservatory of Music Victoria Eugenia. The dosage of delivery comprised 23 sessions of program instruction administered once a week for 60 min over the entire academic year. The first 16 sessions were imparted in a multipurpose spacious classroom at the royal conservatory, while the last seven sessions were conducted in an online format through the platform *Zoom*. The program developer (author MPP who was blinded to the study hypotheses, measures, data collection, and recruitment), a singing and pedagogy professor at the royal conservatory holding certification as an advanced mindfulness and yoga teacher (Posadas, 2019), taught all the program classes. Completion of 2 hr of weekly home-based practice was encouraged amongst all participants in the experimental group. Instruction in both CRAFT-based elective subjects was guided by the

four foundations and five elements of the program, with a preponderance of yoga and mindfulness content in the mindfulness subject, while components of emotional intelligence, compassion, and positive psychology theory and practice were more prevalent in the Emotional Intelligence subject. Further descriptions regarding the theoretical framework of the CRAFT program can be found elsewhere (Posadas, 2019; Posadas & Bartos, 2022). Additional information with reference to the current study program procedures including an outline of the objectives, content, and practices implemented in both CRAFT-based subjects can be openly accessed in our previous quasi-experimental study (Bartos et al., 2021). By the end of the program instruction, all participants achieved the minimum 80% attendance rate required in both CRAFT-based elective subjects.

Measures

Five Facet Mindfulness Questionnaire (FFMQ). Mindfulness disposition was measured through the FFMQ (Baer et al., 2006; Appendix D3), a 39-item survey factored into the following five subscales, each denoting a particular mindfulness-related skill: Observe (8 items; e.g., “I pay attention to sensations, such as the wind in my hair or sun on my face”), Describe (8 items; e.g., “I have trouble thinking of the right words to express how I feel about things”), Act Aware (8 reversed items; e.g., “I don’t pay attention to what I’m doing because I’m daydreaming, worrying, or otherwise distracted”), Non-Judge (8 reversed items; e.g., “I think some of my emotions are bad or inappropriate and I shouldn’t feel them”), Non-React (7 items; e.g., “When I have distressing thoughts or images I am able just to notice them without reacting”). Participants’ level of agreement with each item is rated through a 5-point Likert scale oscillating between 1 (*never or very rarely true*) to 5 (*very often or always true*). Higher scores in either the total scale or a specific subscale are indicative of a higher tendency for being mindful generically or regarding a specific mindful skill respectively. The Spanish version of the FFMQ validated by Cebolla et al. (2012) with a Spanish sample was utilized. High internal consistency was reported across subscales in the present study sample (α ranging between 0.76 and 0.92 at pre-test).

The Retrospective Five Facet Mindfulness Questionnaire (Then-Test-FFMQ). The FFMQ was adapted into a then-test-FFMQ (Appendix D4) following prescribed guidelines for then-test construction for determining response shift (Schwartz & Sprangers, 2010). In this way, the then-test FFMQ included preliminary written instructions to prompt respondents to think back to the moment just before they completed the FFMQ at Time 1, take a few seconds to recall it, and retrospectively rate their level of agreement with the then-test FFMQ items using the same FFMQ 5-point Likert scale. The then-test FFMQ items were the same as those within the FFMQ but reworded so that participants could easily refer back to the Time 1 timeframe of reference. For instance, item number eight within the Act Aware subscale was modified as follows: “approximately four months ago, in January, I wouldn’t pay attention to what I was doing because I was daydreaming, worrying, or otherwise distracted.”

Data Analysis

Descriptive statistics were conducted to summarise participants’ demographic characteristics and the Time 1, Time 2, and then-test FFMQ scores. Means with respective standard deviations and frequencies and percentages were computed for the continuous and categorical variables respectively.

Normality was checked through the Shapiro-Wilk Test for the Time 1, Time 2, and then-test FFMQ scores. Within group statistical significance across the conventional (i.e., Time 2-FFMQ minus Time 1-FFMQ), response shift (i.e., Time1-FFMQ minus then-test-FFMQ), and adjusted (i.e., Time 2-FFMQ minus then-test-FFMQ) score calculations was tested through two-tailed paired sample *t*-tests if both paired dependent variables

were normally distributed and by two-tailed Wilcoxon's signed-rank tests if normality was not met by either of them at Time 1, Time 2, and then-test.

Furthermore, practical significance for each score calculation was determined through paired sample design effect size (ES) computation with respective 95% Confidence Interval (CI). The so-called unbiased Cohen's d or Hedges' g was calculated using the average standard deviation from each paired sample being compared, $\frac{M_2 - M_1}{SD_T + SD_T/2}$, (Lakens, 2013), multiplied by a correction factor formula for reducing bias, $1 - \frac{3}{8(n-1)-1}$ (Hedges & Olkin, 1985). The upper and lower ends of the 95% CIs were computed following the central t -distribution method (Cumming et al., 2007; Goulet-Pelletier & Cousineau, 2018; Nakagawa & Cuthill, 2007); $CI = g \pm 1.96 \times SE$, whereby the SE of the CI was calculated using Becker's (1988) formula for paired samples, $SE = \sqrt{\frac{2(1-r_{1,2})}{n} + \frac{g^2}{2(n-1)}}$, being r the correlation coefficient between a given paired sample. Practical significance was achieved when the 95% CIs did not include the null value (Coe, 2002) and the magnitude of the effect was interpreted following Cohen's d (1988) ES benchmarks of small ($0.20 \leq d < 0.50$), medium ($0.50 \leq d < 0.80$), and large ($d \geq 0.80$).

Descriptive statistics and normality analyses were computed with IBM SPSS v. 25.0 (Armonk, NY: IBM Corp. 2017) while Excel 2020 software was employed to conduct paired sample t -tests and calculate the ESs with respective 95% CIs. Figures 5.1 and 5.2 were created using Origin (Pro), Version 2022 (OriginLab Corporation, Northampton, MA, USA).

Results

Table 5.2 shows the FFMQ results including descriptive statistics and both statistical and practical significance across the conventional, response shift, and adjusted score calculations. Data were normally distributed for all FFMQ subscales and total scale at Time 1, Time 2, and then-test except for the Observe subscale at Time 1.

Table 5.2*Descriptive Statistics and Practical and Statistical Significance across Three FFMQ Score Calculations*

Conventional Score Calculation (Time 2-FFMQ minus Time 1-FFMQ)										
FFMQ	Time 1		Time 2		t/z^d	p	g	$SE(g)$	95% CI (g)	
	M	SD	M	SD					LL	UL
Observe	28.16 ^d	4.55 ^d	28.94	6.26	1.16 ^d	0.24 ^d	0.14	0.10	-0.06	0.34
Describe	27.68	6.42	29.00	6.90	1.74	0.09	0.20	0.12	-0.03	0.42
Act Aware	25.52	5.61	26.84	6.74	2.11	0.04	0.21	0.10	0.01	0.41
Non-Judge	26.23	6.62	26.81	7.26	0.48	0.63	0.08	0.17	-0.26	0.42
Non-React	21.42	4.65	22.97	3.95	2.26	0.03	0.36	0.16	0.04	0.68
Total	129.00	17.74	134.55	20.78	3.10	0.004	0.28	0.10	0.10	0.47
Response Shift Score Calculation (Time 1-FFMQ minus then-test-FFMQ)										
FFMQ	Time 1		Then-Test		t/z^d	p	g	$SE(g)$	95% CI (g)	
	M	SD	M	SD					LL	UP
Observe	28.16 ^d	4.55 ^d	25.42	8.51	2.50 ^d	0.013^d	0.41	0.13	0.16	0.67
Describe	27.68	6.42	27.26	6.61	0.60	0.55	0.06	0.11	-0.15	0.28
Act Aware	25.52	5.61	24.13	6.61	1.66	0.11	0.22	0.14	-0.04	0.49
Non-Judge	26.23	6.62	24.68	7.92	1.23	0.23	0.21	0.17	-0.13	0.55
Non-React	21.42	4.65	20.32	5.29	1.47	0.15	0.22	0.15	-0.08	0.52
Total	129.00	17.74	121.81	21.13	3.06	0.005	0.37	0.13	0.12	0.61
Adjusted Score Calculation (Time 2-FFMQ minus then-test-FFMQ)										
FFMQ	Time 2		Then-Test		t	p	g	$SE(g)$	95% CI (g)	
	M	SD	M	SD					LL	UP
Observe	28.94	6.26	25.42	8.51	3.51	<0.01	0.47	0.14	0.20	0.74
Describe	29.00	6.90	27.26	6.61	2.70	<0.05	0.25	0.10	0.06	0.45
Act Aware	26.84	6.74	24.13	6.61	3.25	<0.01	0.40	0.14	0.14	0.67
Non-Judge	26.81	7.26	24.68	7.92	2.50	<0.05	0.28	0.12	0.05	0.51
Non-React	22.97	3.95	20.32	5.29	3.44	<0.01	0.57	0.18	0.22	0.91
Total	28.94	6.26	121.81	21.13	4.92	<0.001	0.60	0.15	0.31	0.89

Note. FFMQ=Five Facet Mindfulness Questionnaire; g =Hedges' g =Cohen's d corrected for bias. $SE(g)$ =Standard Error of g ; CI =Confidence interval of g ; LL =Lower Limit; UL =Upper Limit; Bold font denotes significance. ^d M , SD , z -score, and p -value involving a non-normally distributed variable.

Statistical significance is achieved if $p < 0.05$ and was derived from a two-tailed paired t -test if normality was met or a Wilcoxon's signed-rank test when a non-normally distributed variable was entered in the score computation; Practical significance is determined through effect sizes (Hedges' g), achieved if CI s do not include the null value of zero, and interpreted following Cohen's (1988) d benchmarks: small ($0.20 \leq d < 0.50$), medium ($0.50 \leq d < 0.80$), and large ($d \geq 0.80$).

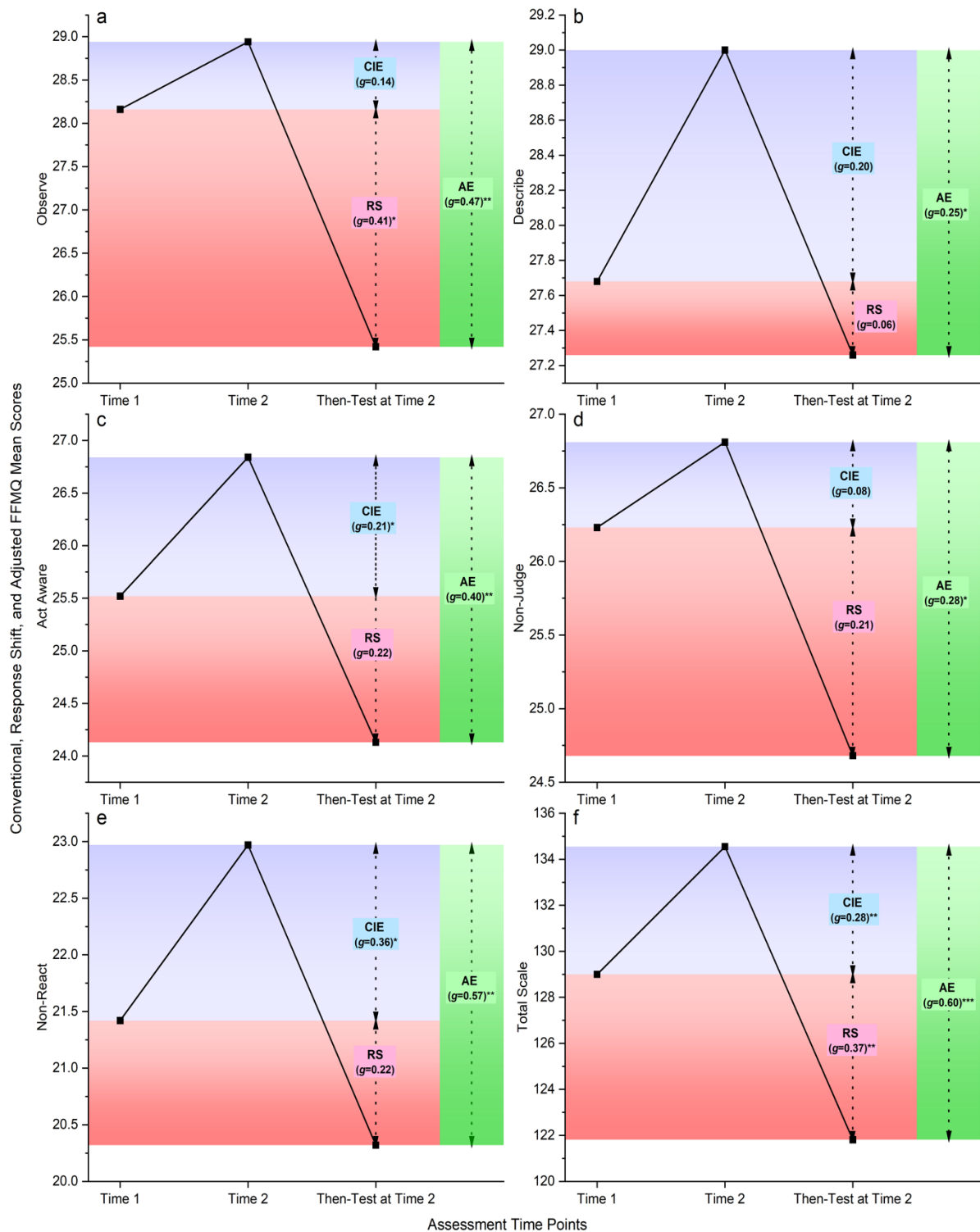
To test whether student musicians following the CRAFT program would report a mindfulness-based response shift occurrence, we examined whether the within-group difference between the Time 1-FFMQ and then-test-FFMQ mean scores (i.e., response shift score calculation) for each subscale and total scale was statistically and practically significant. For the response shift score calculation, statistically and practically significant response shift trending towards a medium effect was found for the Observe FFMQ subscale, $z=2.50$, $p=0.013$, $g=0.41$, 95% CI (0.16, 0.67) and total FFMQ Scale, $t(31)=3.07$, $p < 0.01$, $g=0.37$, 95% CI (0.12, 0.61). However, response shift was neither statistically nor practically significant for the FFMQ subscales of Describe, Act Aware, Non-Judge, and Non-React.

In the conventional score calculation, there were statistically and practically significant increases for the Act Aware, $t(31)=2.11$, $p=0.04$, $g=0.21$, 95% CI (0.01, 0.41) and Non-React, $t(31)=2.26$, $p=0.03$, $g=0.36$, 95% CI (0.04, 0.68) FFMQ subscales as well as the total FFMQ scale, $t(31)=3.11$, $p<0.01$, $g=0.28$, 95% CI (0.10, 0.47) with a small effect size. No significant conventional scores were found for the Observe, Describe, and Non-Judge FFMQ subscales.

To determine the extent to which participants' conventional scores could change after being adjusted for a potential mindfulness-based response shift occurrence, practical and statistical significance was examined for the within-group difference between the Time 2-FFMQ and then-test-FFMQ mean scores (i.e., adjusted score calculation) for each subscale and total scale. In the adjusted score calculation, statistical and practical significance was reported for all subscales and total scale of the FFMQ with a medium effect size for the Non-React, $t(31)=3.44$, $p<0.01$, $g=0.57$, 95% CI (0.22, 0.91) FFMQ subscale and total FFMQ scale, $t(31)=4.92$, $p<0.001$, $g=0.60$, 95% CI (0.31, 0.89); a close to a medium effect for the Observe, $t(31)=3.51$, $p<0.01$, $g=0.47$, 95% CI (0.20, 0.74) and Act Aware, $t(31)=3.26$, $p<0.01$, $g=0.40$, 95% CI (0.14, 0.67) FFMQ subscales; and a small effect size for the Describe, $t(31)=2.70$, $p=0.01$, $g=0.25$, 95% CI (0.06, 0.45) and Non-Judge, $t(31)=2.50$, $p=0.02$, $g=0.28$, 95% CI (0.05, 0.51) FFMQ subscales. Figure 5.2 summarizes the current study results through the same schema that was utilized in Figure 5.1 to illustrate the operationalization of the response shift, conventional, and adjusted effects. After adjusting for a potential mindfulness-based response shift occurrence, the reported effect sizes increased for all FFMQ subscales and the total scale. In comparison to the effect sizes derived from the conventional score calculation, those computed through the adjusted score calculation appear to be nearly two times greater for the total FFMQ scale and the FFMQ Non-React and Act Aware subscales, and over three times higher for the FFMQ Observe and Non-Judge subscales.

Figure 5.2

Summary of the Response Shift, Conventional, and Adjusted Results Including Effect Sizes and Statistical Significance within each FFMQ Subscale and Total scale



Note. CIE=conventional intervention effect=Time 2-FFMQ minus Time 1-FFMQ scores; RS=response shift=Time 1-FFMQ minus then-test-FFMQ scores; AE=adjusted effect (actual intervention effect)=Time 2-FFMQ minus then-test FFMQ scores. g =Hedges' g =Cohen's d corrected for bias. * $p<0.05$; ** $p<0.01$; *** $p<0.001$.

Discussion

The current study explored the utility of the then-test to determine whether there was a mindfulness-based response shift occurrence in participants of a mindfulness- and yoga-based intervention (e.g., the CRAFT program), and to what extent effect sizes in mindfulness might change when making the pertinent response shift adjustments. The results provided evidence of a significant response shift effect for the FFMQ Observe subscale and total scale score but not for the Describe, Act Aware, Non-Judge, and Non-React subscales. The Adjusted scores in all FFMQ subscales and total FFMQ scale achieved significance and higher effect sizes than the Conventional results, for which only the FFMQ Act Aware and Non-React subscales and the total scale were significant.

In alignment with the conventional and adjusted results of the current study, significant improvements in dispositional mindfulness as measured by the FFMQ were also found in previous studies examining the effectiveness of the CRAFT program for enhancing the well-being of higher education translation students (Casedas et al., 2022) and student musicians (Bartos et al., 2022) as well as other mindfulness-based interventions conducted with student musicians (Czajkowski et al., 2022; Steyn et al., 2016). However, these findings were mixed in terms of the FFMQ subscales that achieved significance, which may be explained by the differential weekly dosage of program delivery administered in each study. For instance, with 1 hr of program delivery per week, significant within-group improvements were reported for the subscales of Act Aware and Non-React in the conventional results of the current study, Observe and Describe in the feasibility study of Bartos et al. (2022), and Observe and Non-Judge in the study of Steyn et al. (2016). By contrast, in the studies of Casedas et al. (2022) and Czajkowski et al. (2022), where the weekly dose of program delivery was 2 and 2-2.5 hr respectively, significant improvements were found for all FFMQ subscales. The findings from these latter studies align with the adjusted results reported in the current study as all FFMQ subscales turned out to be significant and showed greater effect sizes compared to those conventionally calculated. For instance, after adjusting for the potential response shift that may have occurred, the effect sizes for the FFMQ subscales of Observe and Non-React, as well as the total FFMQ scale, increased from small to medium. These adjusted scores, in turn, raise questions as to whether the actual effect in mindfulness, or even in other self-reported outcome measures that may have been engendered by the aforementioned mindfulness-based programs and other similar interventions using equivalent measures, may have been in actuality greater than what was reported. In order to answer these questions, it is necessary to find out whether and to what extent mindfulness-based interventions in the first place may induce response shift.

As indicated above, the findings of the current study are partially supportive of a potential mindfulness-based response shift occurrence specifically detected through the then-test for the total FFMQ scale and the FFMQ Observe subscale. In addition, despite the FFMQ mean scores in the response shift score calculation for the other subscales not being significant, they exhibited a downward Time 1–then-test pattern (i.e., lower then-test FFMQ scores than Time 1-FFMQ scores) leaning towards the response shift direction. Explanatory reasons for the potential presence of response shift bias in the current study may require further inquiry on the axial and most prominent components characterizing both response shift and yoga and mindfulness theory and practice as well as their interconnections. Drawing from their definition of response shift, Sprangers and Schwartz (1999) proposed a theoretical response shift model whereby perceived quality of life could be influenced by the occurrence of response shift's recalibration, reprioritization, and reconceptualization from individual health-

related changes (i.e., *catalysts*). In this model, one's response shift experience, and hence ultimately one's perception of quality of life, could be also directly or indirectly influenced by a series of individual traits or *antecedents* (e.g., sociodemographic characteristics, spiritual lineage) and the types of *mechanisms* (e.g., coping strategies that could also in turn act as *catalysts*) adopted to adapt to the *catalyst*. The most relevant adjustment to this original model was the inclusion of changes in cognitive appraisal (Rapkin et al., 2017; Rapkin & Schwartz, 2004, 2019) as a key underlying factor influencing both response shift and perceived quality of life. The authors contended that, in any self-reported quality of life process, response shift could be conceptualized as a change in one's cognitive appraisal depending upon reconceptualization, recalibration, and reprioritization. If we were first to extrapolate the initial response shift model of Sprangers and Schwartz (1999) to the context of a mindfulness- and yoga-based intervention, replacing quality of life for dispositional mindfulness, it could be argued that this intervention could function as both the *catalyst* and the *mechanism* that may influence response shift from changes in internal standards, values, and meanings, ultimately affecting, in turn, perceived mindfulness. In this milieu, a relevant underlying reflection may be whether response shift would not necessarily be only a nuisance for measurement but actually an intended aspect of the intervention, or essentially, the transformative phenomenological lived experience that may occur from following such an intervention. In one of the first publications examining the response shift bias, Collins et al. (1985) referred to the subject in the following terms:

The response shift bias affects pretest-posttest designs in which a treatment group receives an intervention intended to alter behavior. When a behavioral intervention alters not only the treatment subjects' behavior, but also their awareness of the behavior and their judgment about their own level of skill, the treatment subjects may undergo a change in their interpretation of the anchors of a response (p.301).

It could thus be argued that the first two plausible response shift-based contingencies, implied by Collins et al. (1985) as a change in both participants' behavior and their awareness of it due to the intervention, are in close alignment with the typical effects experienced by mindfulness and yoga practitioners. For instance, the method of yoga through its different paths (e.g., *Raja*, *Bhakti*, *Karma*, *Jnana*; Lidell et al., 1983) prescribes a wide range of ethical, postural, breathing, meditative, devotional, self-less, and self-inquiry practices for self-realization that might bring about a change in an individual's awareness, behavior, perspective, meaning, and values (Sullivan et al., 2018), a shift that also transversally mirrors, by definition, the main response shift components identified by Sprangers and Schwartz (1999). By following this method, yoga practitioners might progressively learn to dis-identify with the ever-changing reality from which the dual experience of suffering and pleasure emerges (Lidell et al., 1983; Satyananda, 2013; Sullivan et al., 2018). This entails the cultivation of higher values, virtues, capabilities, and states such as heightened awareness, equanimity, unconditional love, truthfulness, non-violence, selfless service detached from the outcome, eudaimonic happiness, and living a meaningful and purposeful life for the ultimate purpose of realizing an ever-lasting reality or pure consciousness (Lidell et al., 1983; Satyananda, 2013; Sullivan et al., 2018). In the CRAFT program, the development of these attributes for progressively becoming less identified with the changing reality along the path of self-actualization is a crucial aspect that is nurtured through both yoga and mindfulness practices within the learning experience of the five CRAFT elements (i.e., consciousness, relaxation, attention, happiness, and transcendence), and specifically, through meditation techniques (Bartos et al., 2021; Bartos et al., 2022, 2023;

Posadas & Bartos, 2022). In the modern mindfulness literature, such a dis-identification process, particularly with the changing phenomena of thoughts and emotions, has been explained through the lenses of a mindful metacognitive mechanism of re-perceiving or decentering (Shapiro et al., 2006) triggered by mindful meditative practices.

Through re-perceiving, yoga and mindfulness practitioners may learn to dis-identify with the content of their consciousness (e.g., raising thoughts and emotions) by observing them non-judgmentally (Chiesa et al., 2013; Gard et al., 2014; Garland et al., 2009; Shapiro et al., 2006; Sullivan et al., 2018). Concomitantly, under such a state of meta-awareness, new creative insights and perspectives might emerge and eventually serve for re-construing one's primary appraisals with a more adaptive approach (Garland et al., 2009; 2011). Therefore, the re-perceiving process could represent in itself not only a change in one's cognitive appraisal, paradoxically, by virtue of a non-judgmental observation or witnessing, but also a substantial shift in terms of the frame of reference or perspective from which the subject perceives or identifies themselves, and ultimately the actual conception of themselves. As Shapiro et al. (2006) indicates with reference to re-perceiving, "[t]hrough this change in perspective, identity begins to shift from the contents of awareness to awareness itself" (p. 379). In this process, the non-judgmental attitude of witnessing is key so that full attention without conditioning is given to the object of concentration. As Krishnamurti (2019) posits, such full attention ultimately gives rise to the unity between the observer and the observed, or in other words, the observer becomes the observed, being such realization the beginning of freedom and the end of duality, conflict, and division. Thus, in reconciling these reasonings with the above-mentioned response shift theoretical frameworks (Rapkin et al., 2004, 2017, 2019; Sprangers & Schwartz, 1999), it could be postulated that, if mindfulness- and yoga-based meditative practices stimulate re-perceiving, and this, in turn may result in changes in one's cognitive appraisal and frame of reference, then such mindfulness- and yoga-based experiences may in itself constitute a response shift phenomenon.

Another possible explanation for the occurrence of response shift in the current study may be found in the context of the Dunning-Kruger effect and its emergent paradox (Kruger & Dunning, 1999). According to this well-known effect, new learners of a particular skill would tend to overestimate their levels of competence during the early phase of skill acquisition, followed by a re-adjustment toward accurate skill estimation or even to the point where there may be a period of underrating their level of expertise as it continues to increase (Bradley et al., 2022; Dunning, 2011; Kruger & Dunning, 1999). Through the original set of experiments that shed light on the potential existence of this effect, Kruger and Dunning (1999) systematically found a *miscalibration* between the actual and perceived performance results reported by low- and high-scoring participants undergoing tests of humor, reasoning, and grammar. Such a miscalibration was revealed by the fact that participants scoring in the lowest quartile believed their level of competence was higher than 62% of their peers, despite actually only being higher than 12% of them. By contrast, participants scoring in the highest quartile tended to underestimate their abilities relative to the other participants, yet the magnitude of their miscalibration was reported to be nearly four times lower than those scoring in the lowest quartile.

In explaining the high miscalibration of the least competent participants, the authors argued that unskilled individuals may lack the necessary metacognitive abilities to self-realize their own incompetence and consequently self-appraise their level of skill accurately. In support of their reasoning, Dunning (2011) highlighted that the metacognitive process of judging one's level of ability in a particular task is dependent on

the very same skills required to accomplish the actual task. Thus, on the basis of their findings and subsequent explanatory premises, it might be possible that the novice mindfulness and/or yoga participants of the current study may have overestimated their mindfulness skills at Time 1, while moving toward more accurate estimation or potentially underestimating their skill level at Time 2 (end of the intervention). Therefore, the miscalibration found by Kruger and Dunning (1999) may explain and align to a certain extent with the possible recalibration-based response shift occurrence that participants in the current study may have experienced in terms of their mindfulness skills.

Moreover, as Kruger and Dunning (1999) and Dunning (2011) underlined, individuals' enhancements in a particular skill through training, along with its accompanied metacognitive development, would help them realize their initial limited competency they might have been unaware of. On the one hand, this argument appears to support the relevant role that mindfulness and/or yoga-based interventions – which have been conceptualized as sound instigators of a metacognitively enhanced experience (Garland et al., 2009; 2011; Shapiro et al., 2006) – may play in promoting such realization. On the other hand, it would also further bolster the consideration of the Dunning-Kruger effect as a potential mechanism influencing, underlying, and/or explaining response shift, particularly as far as its recalibration component is concerned. This may be because the training process involved in learning a particular ability, in turn, could somewhat signify in itself a catalyst for changing learners' internal standards relative to the specific construct domains of that particular ability they are trained for. In other words, could it in actuality constitute a recalibration response shift experience that would calibrate what was in the early stages miscalibrated within and beyond the boundaries of self-reported response biases versus actual objective reports?

Although the results of the present study appear to bolster the potential occurrence of response shift from mindfulness and yoga exposure (e.g., the CRAFT program) amongst student musicians, we did not statistically uncover such a possibility for the Describe, Act Aware, Non-Judge, and Non-React subscales. The absence of significant response shift in these FFMQ subscales could be due to various reasons. First, the Time 1 assessment for the FFMQ was not an actual pre-test, for it occurred halfway through the intervention after participants had already received 3 months of program instruction. For this reason, the FFMQ Time 1 may have been a more challenging period to recall for participants than the period immediately before embarking upon the intervention. This may be because the intervention itself may remain within participants' memory as the actual catalyzer highlighting the beginning of a contrast, within which and as a result of which, participants' frame of reference, meanings, and values in relation to their mindfulness skills may have changed. Concomitantly, this absence of an actual pre-test may have limited the ability to find significant results for all FFMQ subscales in the conventional score calculation of the current study because it is unknown what participants' FFMQ conventional scores would have been at pre-test, 3 months before Time 1 assessments. Moreover, as indicated above, the CRAFT program dosage of delivery did not exceed 1 hr per week, which in addition to possibly affecting the conventional scores, may have also hampered the occurrence and/or magnitude of the current study potential response shift effect. As underlined by Howard et al. (1979) and further supported by Collins (1985; see aforementioned quotation), response shift could be intensified if the aim of the intervention is to change participants' conception or awareness of the construct being measured, which for a mindfulness intervention may soundly revolve, though arguably not exclusively, around mindfulness. Nonetheless, 1 hr of CRAFT instruction per week may not have been enough to modify participants' awareness and understanding of

mindfulness, and therefore engender and/or potentiate a mindfulness-based response shift occurrence. Furthermore, the lack of significant response shift and conventional results in some subscales could be also related to the differential emphasis given to some mindfulness and yoga practices, concepts, and attitudes relative to other ones; and misalignments of the actual program delivery and/or participants' home-based practice with the originally planned CRAFT program content and objectives (Bartos et al., 2022). However, even if response shift itself was not significant for some of the facets, their effect sizes after adjusting for it were higher than when conventionally computed.

Limitations and Further Research

There are various limitations that can be identified in this study. First, soliciting participants to undertake a retrospective assessment through the then-test could be subject, in turn, to a possible recall bias (Finkelstein et al., 2014; Schwartz et al. 2004), which may lead to a scanty recollection of their pre-intervention states. According to implicit theories of change (Finkelstein et al., 2014; Norman, 2003), the inability to remember or deficiently recollect such an initial state may prompt participants to make erroneous assumptions about how this state actually was through a backwards extrapolation from their current state (e.g., "I received mindfulness instruction and I feel my ability to concentrate has improved, thus, before the training, my attention skills must have been at a lower level"). In the current study, this plausible recall bias may have been further complicated by the fact that there was not an actual pre-test but a Time 1-FFMQ assessment occurring halfway through the intervention. Second, the low dosage of CRAFT program delivery per week appears to be a critical limitation affecting the conventional, response shift, and adjusted effects estimated in the current investigation. Therefore, based on previous discussion (see above), it would be recommended that further research should incorporate higher doses of program delivery of at least 2 hr of instruction per week. The third shortcoming relates to the low sample size of this study, as previous researchers have required a high sample size for examining response shift through different methods relying on psychometrics and measurement invariance testing (Krägeloh et al., 2018). However, the then-test has been distinguished as a recommended method applicable for examining response shift within the low to medium sample size range (Finkelstein et al., 2014; Howard et al., 1979; Sprangers et al., 1999) to which the current study sample belongs.

A fourth relevant limitation was the lack of availability of an effective control group uninvolved in any mindfulness- and/or yoga-related activities that had undergone an actual pre-test assessment. This would have enabled meaningful between-group comparisons related to the three types of score calculations (i.e., response shift, conventional, and adjusted) and requires further examination through experimental controlled longitudinal studies. Fifth, in the current study, out of the 31 participants enrolled in CRAFT-based elective subjects, eight participants were exclusively attending the CRAFT-based elective subject of emotional intelligence that emphasizes positive psychology and emotional intelligence components. Although both yoga and mindfulness were also taught as part of the curriculum of this elective subject, for these eight participants, their exposure to these practices and underlying theories may have been lower compared to the other participants. Whether such a differential emphasis in program component instruction between the two CRAFT-based elective subjects could result in diverse response shift effects among participants following the mindfulness, emotional intelligence, or both CRAFT-based subjects simultaneously may deserve additional examination in future investigations. Sixth, due to the unavailability of ordinal-to-interval conversion algorithms for the Spanish version of the FFMQ, score calculations were implemented using ordinal summary scores, which would have diminished measurement

precision (Medvedev & Krägeloh, 2022). For the English-language version of the instrument, conversion tables have been published previously (Medvedev et al., 2017), which need to be generated for other versions of the instrument as well. Seventh, the inclusion of qualitative methods such as semi-structured interviews could have been an additional asset to either clarify, confirm, or call into question the quantitative results derived from the then-test. This procedure would allow researchers to capture a greater understanding of the potential response shift that participants may have experienced in relation to their mindfulness- and/or yoga-based lived experience through the program in addition to their conventional, adjusted, and response shift mindfulness scores. Moreover, the incorporation of a qualitative component could serve to explore whether recall bias or conflicting assumptions from participants not remembering their initial pre-intervention state may occur. Furthermore, the current study was disrupted by the emergence of the COVID-19 pandemic and ensuing national lockdown. Therefore, it is uncertain whether and to what extent this unprecedented event loaded with highly demanding and stressful circumstances may have incurred some form of reconceptualization, reprioritization, and recalibration in relation to the FFMQ items and therefore further confounded measurement. Lastly, it appears that within the extant literature on response shift and particularly mindfulness, there are no studies examining the potential implications of the Dunning-Kruger effect (Kruger & Dunning, 1999) in the context of subjective self-reported assessment and response bias with regard to mindfulness. As has been discussed, it seems that this effect may be contributing to some response shift effects. However, to what extent it applies to the present study is unclear without more detailed data and therefore further research is needed to ascertain this.

Despite these limitations, this study revealed the utility of the then-test to potentially detect and quantify a mindfulness-induced response shift occurrence in participants following a mindfulness- and yoga-based intervention. In the current study, response shift was significant for the total FFMQ scale and the Observe subscale but not for the remaining FFMQ subscales. After adjusting the conventional intervention results for response shift, the effect sizes for all FFMQ subscales and total scale were amplified. Although these findings show partial evidence of response shift within participants following mindfulness- and yoga-based training, whether response shift may have actually occurred or not as a result of receiving such instruction requires further examination. To that end, future mindfulness- and/or yoga-based interventions using the then-test as part of an experimental controlled design are needed. In light of the limitations of the current study, we also encourage that these interventions administer a weekly dose of program delivery of at least 2 hr and include a qualitative component of retrospective inquiry to either confirm, clarify, or dispute then-test findings of dispositional mindfulness. In addition, we endorse that the then-test be extended to other health and well-being instruments, other than those measuring dispositional mindfulness, to explore in a systematic fashion whether response shift may occur in other relevant outcome variables as a result of mindfulness- and yoga-based interventions.

Prelude. Chapter 6

The third study of this PhD investigation within Phase 1, which was disseminated in Chapter 5 (Bartos, Posadas, Wrapson, et al., 2023), examined the usefulness of the *then-test* to identify a potential response shift occurrence among tertiary student musicians from following the Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT) program during the pandemic. Results suggested that CRAFT participants may have been impacted by a CRAFT-based response shift effect that masked their actual self-reported levels of improved mindfulness due to changes in their internal standards, meanings, and values/priorities. This was supported by CRAFT participants' significant response shift effects in their mindfulness levels (i.e., overall mindfulness and observe) and larger improvements in all measured mindfulness abilities (i.e., overall mindfulness, observe, describe, act with awareness, non-react, and non-judge) when adjustments for response shift were applied. The findings of this study supported the utility of the *then-test* to quantitatively detect a response shift occurrence biasing self-reported measurement, and the proposition that such phenomenon could be the expression of the holistic change experienced by participants following a yoga and mindfulness-based intervention. This study concluded the first phase of this PhD, overall supporting CRAFT as an applicable, beneficial, and potentially transformative program to help tertiary student musicians cope with the stressful situations elicited by the pandemic. The ensuing chapter embarks upon the second phase of the current PhD investigation to examine the feasibility and preliminary effectiveness of CRAFT to enhance tertiary student musicians' well-being and academic experience through its fourth study (Bartos et al., 2022), as described in a manuscript published in the journal *Mindfulness*.

Chapter 6. A Feasibility Study of a Program Integrating Mindfulness, Yoga, Positive Psychology, and Emotional Intelligence in Tertiary-Level Student Musicians

Introduction

Young adults undertaking tertiary education might be regarded as a population at the peak of their physical and mental faculties, and hence not given worldwide preference for health promotion (Lee & Loke, 2005). However, as shown by various epidemiological studies conducted in the last decade across different countries, tertiary education students have well-documented issues with reference to health and well-being (Henning et al., 2018), and among these, emotional and mental disturbances such as psychological distress have been reported as highly prevalent (Auerbach et al., 2016; Hunt & Eisenberg, 2010); even with higher rates than in the general population (Ibrahim et al., 2013; Stallman, 2010) and associated with a negative impact on their lives and academic performance (Bruffaerts et al., 2018). More specifically between disciplines, a large survey conducted at 81 tertiary institutions completed by 64,519 higher education students revealed that the greatest likelihood of having mental health problems, up to 44.4%, was reported amongst undergraduate and graduate students involved in art and design studies (Lipson et al., 2016).

Particularly in the field of music, the highly demanding challenges that higher education student musicians face associated with their musical practice and performance can be detrimental to their health, and consequently, to their academic and professional development (Antonini et al., 2019, Osborne et al., 2014). Regarding their physical health, higher education student musicians are commonly affected by performance-related musculoskeletal disorders (PRMD), a problem that has been attributed to various risks factors such as excessive practice, instrument-related postural needs, lack of adequate physical condition, muscular tiredness, and competitiveness (Cruder et al., 2020; Rodriguez-Romero et al., 2016). The prevalence of PRMD amongst student musicians has reached figures of up to 80% (Cruder et al., 2019; Zaza, 1998), while their physical pain is reportedly higher than tertiary education students of other disciplines (Kok et al., 2013). In terms of their mental health, there have been reported rates as high as 65% of professional and higher education student musicians afflicted by music performance anxiety (MPA; Fernholz et al., 2019; Kokotsaki & Davidson, 2003), an issue that has been also associated with high levels of PRMD (Steinmetz et al., 2014).

Drawing from the aforementioned concerns affecting student musicians, maintaining an optimal level of physical, psychological, and emotional well-being is of paramount importance, if not a requirement (Kenny, 2011; Williamon, 2004), if they are to perform to the best of their abilities. For instance, in the emotional domain, different well-being outcomes would be expected if a given performance-related mistake, injury, and/or critique is reappraised as an opportunity to hone one's skills and physical fitness, or, by contrast, it is self-regulated through inhibition and/or rumination over one's despondency or inability to perform. While cognitive reappraisal is considered as one of the most effective strategies for managing negative emotions and is associated with experiencing higher self-esteem, life satisfaction, and positive emotions (Megías-Robles et al., 2019), expressive suppression and rumination are related to lower self-esteem and higher experience of negative emotions and depressive symptoms (Gross & John, 2003). Moreover, engaging in musical practice to achieve an optimal level of performance can be a physically demanding activity in terms of energy expenditure, flexibility, range of motion, and cardiovascular and pulmonary functioning (Araújo et al., 2020). Previous research has suggested that musicians' involvement in health-promoting attitudes and behaviors, including physical activity

is scarce (Araújo et al., 2017; Panebianco-Warrens et al., 2015) and that musicians' lack of physical fitness is a risk factor for developing PRMD (Cruder et al., 2020). In a recent cross-sectional study conducted to gain a greater understanding of the relationship between physical fitness and music-making, Araújo et al. (2020) evaluated the level of physical fitness of 483 higher education student musicians on various standardized physical measures. The authors found that, except for 21% of the sample, there was an overall self-reported satisfactory level of physical activity as compared to their age-matched higher education peers. However, the scores for the field tests of lower back and lower body flexibility, upper body strength, and endurance were lower than normative values, overall raising questions as to whether student musicians' fitness levels fall short to meet their highly challenging performance-related demands.

Mind-body interventions such as mindfulness and yoga could be a good fit not only to synergistically improve higher education student musicians' physical, mental, emotional, and spiritual health and well-being but also to help them cope with their various academic and life demands. In terms of psychological well-being, a number of interventions conducted on higher education students support the effectiveness of these two practices for reducing stress, depression, and anxiety (Breedvelt et al., 2019; Halladay et al., 2019; McConville et al., 2017); increasing awareness, attention, memory, executive function, neuroplasticity, and overall cognitive and emotional functioning and self-regulation (Brunner et al., 2017; Gothe & McAuley, 2015; Tang et al., 2015); enhancing psychological well-being (De Vibe et al., 2013; Jarry et al., 2017; Tang et al., 2020) and alleviating particular concerns affecting higher education student musicians such as music performance anxiety (Chang et al., 2003; Stern et al., 2012). In terms of physical health, a growing body of research including *Hatha* yoga-based interventions has pointed to a range of physiological benefits for higher education students such as gains in flexibility, strength, balance, as well as cardiovascular and pulmonary functions (Birkel & Edgren, 2000; Park et al., 2017; Smith et al., 2011; Tran et al., 2001).

In attempting to explain these outcomes, researchers have proposed various underlying mechanisms of both top-down and bottom-up processes through which the skills developed within yoga and mindfulness practices constitute a linchpin that integrates the engagement of high and low brain networks to enhance cognitive, physical, and emotional self-regulation for health and well-being promotion. For instance, the viscerosomatic, interoceptive, and embodied experience elicited by the physical yoga postures and breathing techniques has been linked to the activation of bottom-up brain networks and systems such as the low striatopallidal-thalamocortical network and the parasympathetic nervous system (Gard et al., 2014). Accordingly, yoga-based practices may counterbalance the stress responses by vagal nerve stimulation and hypothalamic–pituitary–adrenal axis downregulation—with consequent reduction of cortisol and pro-inflammatory cytokines—while enhancing markers of psychophysiological health (e.g., blood pressure, heart rate, flexibility, balance, strength, pulmonary functions, and musculoskeletal conditions, McCall, 2013; Sullivan et al., 2018). With regard to psychological health, both yoga and mindfulness meditative practices encourage selective intentional attention, a non-judgmental and acceptance-based attitude, and a decentering process. These effects concomitantly instigate the activity of the executive and frontoparietal control brain regions (e.g., dorsolateral prefrontal cortex, the dorsal anterior cingulate cortex, and the premotor cortex), and may reduce emotional reactivity, rumination, expressive suppression, and negative reappraisal (Chiesa et al., 2013; Fox et al., 2016; Gard et al., 2014; Menezes et al., 2015). Garland et al. (2009) proposed an explanatory model bolstering the role of mindfulness to indirectly engender positive reappraisal on the basis of its metacognitive

mechanism of re-perceiving (Shapiro et al., 2006). The authors suggested that the mindful approach of observing the content of one's consciousness—emerging thoughts and emotions—nonjudgmentally, enables one to disentangle and disidentify from it, implicating a shift of perspective, or re-perceiving, that represents itself a metacognitive experience of broadened awareness from which new meaningful insights could arise and be attributed to one's primary appraisal to be reconstructed it as positive. Therefore, according to the proposed model, mindfulness training could potentially be a decisive factor for monitoring and enhancing student musicians' emotional regulation strategies and particularly positive reappraisal. It appears that the current literature does not reveal any studies examining the effect of a particular intervention, let alone a mindfulness-based one, to improve emotional regulation strategies amongst musicians and higher education student musicians.

Despite the important role that developing mindfulness skills could play to benefit higher education student musicians' health and well-being and performance, the research evidence in this particular field remains scant (Rodríguez-Carvajal & Lecuona, 2014) with only a few exploratory studies available. In a quasi-experimental study, Steyn et al. (2016) examined the effect of a seven-week mixed program, which integrated mindfulness and sport-related psychological skills, across various psychological and well-being measures on a convenience sample of 36 undergraduate music students allocated to either an experimental or a control group. The authors reported significant improvements in the experimental group for competitive state anxiety, self-confidence, positive relations with others, concentration, relaxation, motivation, worry, and the FFMQ subscales of Describe and Non-Judging. In another mixed intervention that included qualitative elements, Czajkowski and Greasley (2015) found improvements in all facets of the FFMQ on a sample of eight university singing students after following an eight-week Mindfulness for Singers program—based on the Mindfulness-Based Stress Reduction (MBSR) program and Mindfulness-Based Cognitive Therapy (MBCT). Similarly, in a further mixed-methods study using the same MBSR/MBCT program tailored for different music specialties, Czajkowski et al. (2022) reported significant improvements in the FFMQ and in a 15-item mindfulness scale specifically tailored for musicians (Czajkowski, 2018) on a sample of 25 conservatory students. Semi-structured interviews revealed a wide range of benefits either in lessons (e.g., greater bodily awareness, attention, learning experience, teacher-student communication), practice (e.g., increased effectiveness, creativity, and coping skills); performance (positive impact on MPA and expressivity), and ensemble rehearsals (e.g., improved collaborative and listening skills).

In addition to yoga and mindfulness, the burgeoning fields of emotional intelligence and positive psychology afford useful practices and components that can be leveraged by higher education students and student musicians to cope with their health and well-being concerns and academic demands. Positive psychology places a major emphasis on the positive side of people's lives through the cultivation of values, abilities, and states such as flow, savoring, gratitude, kindness, empathy, optimism, strengths, gratitude, hope, and meaning (Peterson & Seligman, 2004). Positive psychology interventions instructing participants to list grateful things per day have shown improvements in positive affect (Martínez-Martí et al., 2010), life satisfaction (Manthey et al., 2016), happiness (Mongrain & Anselmo-Matthews, 2012), and stress (Kerr et al., 2015); whereas, savoring, or the ability to be engaged in the appreciation of one's activities and experiences has been found to increase resilience and happiness and reduce depressive symptoms (Smith & Hanni, 2019). Lastly, in the build-up of intrapersonal and interpersonal intelligence, emotional intelligence focuses on

monitoring one's emotions and those of others to use this output efficiently to support one's behaviors effectively (Salovey & Mayer, 1990). To that end, Goleman's (1995) five components of emotional intelligence—self-awareness, self-regulation, motivation, empathy, and social skills—could help student musicians develop higher interpersonal and intrapersonal awareness of their emotions to better express them, maximize their teamwork skills in various contexts (e.g., chamber music, orchestra, collaborative classroom tasks), and dealing with specific emotional concerns such as MPA. Evidence from correlational studies supports the potential role of emotional intelligence to promote positive emotions, life satisfaction, happiness, stress reduction, well-being (Mayer et al., 2008; Ruiz-Aranda et al., 2014), and adaptive forms of emotional regulation strategies such as cognitive reappraisal (Megías-Robles, 2019).

As has been highlighted in this review of literature, either yoga, mindfulness, emotional intelligence, or positive psychology could potentially offer a valuable and distinct contribution to improve the health and well-being and academic experience of higher education students and specifically student musicians. However, along with their strengths, either of these disciplines presents limitations, and considering the multifaceted nature of higher education students' well-being and academic demands, it can be argued that relying solely on the practices and components of one of them could be limited. For instance, the theories and methods underpinning both positive psychology and emotional intelligence do not provide specific physical practices, and though those of mindfulness such as in the modern MBSR (Kabat-Zinn, 1994) program embeds a few *Hatha* yoga postural elements, it could be upheld that such elements could not suffice to comprehensibly enhance physical well-being. Conversely, although the multifaceted method of yoga lends a wide range of meditative, breathing, physical, and relaxation practices to target psycho-physical health, it could be argued that mindfulness, and emotional intelligence place a greater emphasis and afford a larger number of components to directly work with emotions. Similarly, though flow states might arise from the practice of both yoga and mindfulness, and engagement in yoga, mindfulness, and emotional intelligence activities might indirectly foster strengths and virtues, positive psychology gives direct focus to develop these components. Accordingly, it can be surmised that these four disciplines complement each other insofar as the limitations of each one could be counterbalanced and/or enhanced by the strengths of another. This rationale, in turn, undergirds the supposition that a single program based on selected components from these four disciplines could be more effective than a program exclusively based on one of them.

The recently developed CRAFT program was designed to facilitate a holistic education and health and well-being experience by concurrently addressing students' physical, emotional, cognitive, and spiritual processes and demands (Posadas, 2019). Though applicable to any educational context, the program was originally devised to attend to the health and well-being needs and academic demands of students undertaking tertiary education in highly specialized fields such as fine arts, languages, sports, and particularly music. The program is the product of integrating a careful selection, adaptation, and/or creation of practices and components derived from or inspired by the theories, philosophical underpinnings, methods, and state-of-the-art neuroscientific findings of yoga, mindfulness, positive psychology, and emotional intelligence. These four disciplines represent the four foundations of the program and inspired, in turn, the creation of the acronym CRAFT, which stands for the following Spanish terms that synthesize the five elements of the program: *Consciencia* (i.e., Consciousness), *Relajación* (i.e., Relaxation), *Atención* (i.e., Attention), *Felicidad* (i.e., Happiness), and *Transcendencia* (i.e., Transcendence). A preliminary short version of the program, *the*

CRAFT's 7 mindful minutes, was firstly applied at the Royal Conservatory of Music of Granada Victoria Eugenia in the subjects English for Musicians and Chamber Music during the academic year 2016/2017 (Posadas & Bartos, 2022; Rull et al., 2019). In 2017/2018, the program was implemented within the curriculum of the same institution as a CRAFT-based elective subject of Mindfulness, while a year later also as a CRAFT-based elective subject of Emotional Intelligence.

The purpose of the current study was to examine the feasibility and preliminary effectiveness of the newly developed CRAFT program to engender mindfulness skills and enhance the physical, psychological, and emotional health and well-being of higher education student musicians. To that end, we aimed to determine whether the CRAFT program could be a feasible intervention for further large-scale investigations based on evaluating its *Demand, Implementation, Practicality, Adaptation, Integration, and Limited Efficacy* (Bowen et al. 2009). We hypothesized that if higher education student musicians followed the CRAFT program as part of their curriculum at a Royal Conservatory of Music, they would report improvements in dispositional mindfulness and emotional regulation, psychological distress, psychological well-being, and physical flexibility.

Method

Participants

Participants were higher education student musicians enrolled in the CRAFT-based elective subjects of Mindfulness and Emotional intelligence at the Royal Conservatory of Music Victoria Eugenia. This public institution located in Granada, a mid-size city in the south of Spain, offers an advanced four-year higher education music curriculum tantamount to a bachelor's degree. The final sample consisted of 25 student musicians, age range 19-26 years, of whom, the majority of them, 76%, were females. Regarding their CRAFT-based elective subject instruction, 16 participants, 64%, attended exclusively the subject of Mindfulness; 5 participants, 20%, the Emotional Intelligence subject; whereas 4 participants, 16%, both elective subjects. In addition, participants were also enrolled in other elective subjects they attended such as English, 20%, Ergonomics, 16%, Choir, 16%, History of Jazz, 12%, and German, 12%. Most participants, 92%, were either second or third-year student musicians, and more than a third of the sample, 32%, either pianist, 16%, or violinist, 16%. At Time 1 assessments, almost half of the sample, 48%, indicated not being involved in any physical activity, whereas 88% reported not practicing any yoga/meditation activity different from what they had already learned in the program.

Procedure

The current study was devised within the context of a larger research project funded by the regional government of the south of Spain. The aim of this project was to investigate the influence of the newly developed CRAFT program on the health and well-being of higher education student musicians. To that end, a longitudinal study was conducted during the academic year 2018/2019 to examine the preliminary effectiveness of the program to enhance various psycho-physical outcomes within this population.

This longitudinal study was originally conceived and designed to potentially include, depending on recruitment and retention rate, up to three CRAFT-based program groups and a control group, naturally configured based on participants' pre-existing enrolment choices in elective subjects. These prospective grouping options were as follows: First, a CRAFT program group-M, with participants enrolled in the elective subject of Mindfulness; second, a CRAFT program group-EI with participants enrolled in the elective subject of

Emotional intelligence; third, an integrated CRAFT program group with participants enrolled in both CRAFT-based subjects simultaneously. All these CRAFT participants could also be enrolled in other non-CRAFT-based elective subjects. Lastly, those participants exclusively enrolled in non-CRAFT-based elective subjects (e.g., English, choir, Ergonomics, and History of Jazz) would serve as a control group. However, due to unexpected circumstances bound to final exam constraints, a substantial number of participants across all groups did not contribute to the post-test data collection phase (Time 2 assessments). Consequently, this event only enabled us to conduct inferential statistical analyses with the data derived from those participants enrolled in CRAFT-based subjects but only as a single group. Therefore, this investigation was reframed as a single-arm pre-post quasi-experimental study not only to examine the preliminary effectiveness of the CRAFT program to improve various health and well-being outcomes amongst student musicians but also its feasibility for further large-scale investigations. Nonetheless, such a reconfiguration was doable as all CRAFT participants received full instruction in the program for the contents and components imparted in both CRAFT-based elective subjects overlapped considerably (see program procedures and limitation section).

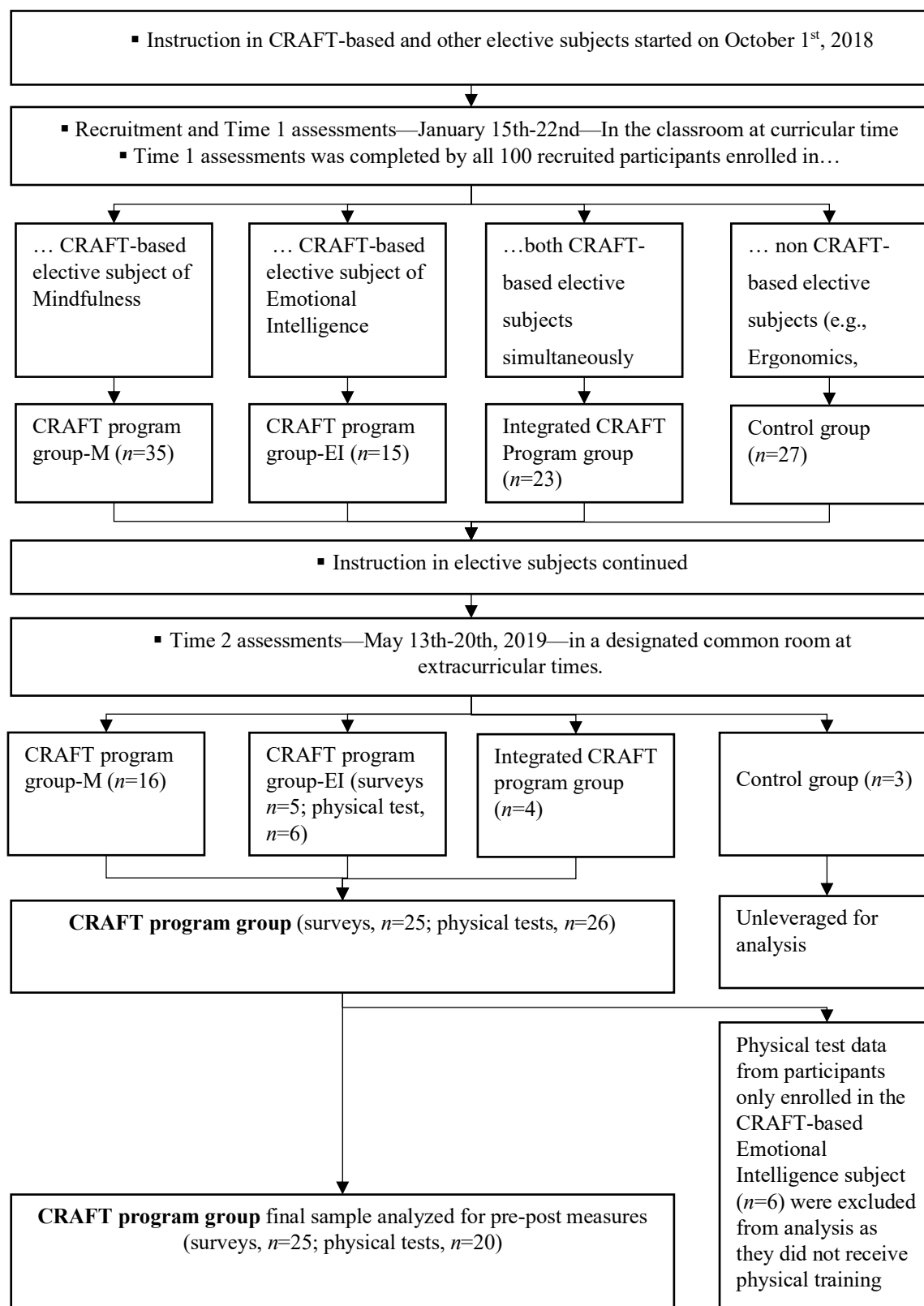
The program was curricularly implemented in the CRAFT-based elective subjects of Mindfulness and Emotional Intelligence. As in all elective subjects, instruction occurred once a week for one hour, from October 1st, 2018, till the end of the teaching phase on May 15th, 2019. After obtaining ethical approval from the relevant Institutional Review Board, the study was advertised to the students by the conservatory's website and announcements given by the faculty and board of directors. Recruitment and Time 1 data collection took place from January 14th-21th, 2019 at the different times and classrooms scheduled for the various elective subject classes—CRAFT and non-CRAFT-based ones—that were previously selected to that end. To facilitate these procedures while keeping teachers blind to them, no lessons were imparted in the aforementioned classes during this week, and teachers left the classroom upon researchers' arrival. To ensure concealment of the pre-determined grouping options prospective participants could be part of, student musicians were recruited through brief presentations in which they were broadly informed that the study aimed at examining different physical, emotional, and cognitive health and well-being components associated with their lifestyle (e.g., meditation, sports) and curricular instruction at the conservatory. During these presentations, they were notified that their participation in the study was voluntary, anonymous, not contingent on the marks of any of their subjects, and that they could withdraw from it at any time and with no repercussions for their musical studies. Therein, 100 interested student musicians signed a consent form and completed the Time 1 assessments. Participants were instructed to assign themselves an alphanumeric code, to be provided in all tests and surveys related to the study. All surveys except for the demographic questionnaire, which was paper-based administered, were filled in online through the platform Google Docs. To that end, each participant was provided with an institutional laptop displaying an open window with direct access to the online survey that included, the FFMQ, the DASS-21 the ERQ, and the SPWS. Participants filled out the surveys in their respective classrooms supervised by two researchers, while a third researcher and a research assistant called participants one by one to perform the SRT.

After drawing all participants' enrollment options from the demographic questionnaire, participants' representation in each of the potential grouping options was as follows: the CRAFT program group-M ($n=35$), the CRAFT program group-EI ($n=15$), the integrated CRAFT program group ($n=23$), and the control group ($n=27$). Exactly the same course of actions that were implemented during the Time 1 assessments had been programmed for the Time 2 assessments that occurred from May 15th-22nd, 2019, two weeks before

participants' final examinations. Notwithstanding, following instructions announced by the board of directors, post-test evaluations had to be moved to be conducted during extracurricular hours to ensure all academic instruction was imparted prior to final students' examinations. Anticipating a significant proportion of participants not completing post-tests assessments due to this procedural change at Time 2, participants were offered one Elective Credit—not influential to any of their marks of any of their current enrolled subjects—in exchange for completing their participation in the study. Despite the incentive, only 16, 5, and 4 CRAFT participants from the three CRAFT-based sampled groups respectively at Time 1, and 3 controls, completed all Time 2 assessments. Moreover, there was an additional participant from the original CRAFT program group-EI who only underwent the physical tests. Since no valid inferential statistical analyses could be drawn from comparing these small sample-sized groups, the control group ($n=3$) did not feature in the final study design, and the three CRAFT-based program groups were merged into a single CRAFT program group ($n=25$). Lastly, the physical test data collected from the six participants in the CRAFT-based elective subject of Emotional Intelligence were excluded from analysis as no physical training was imparted in this subject. Figure 6.1 shows the flow of participants through the study design and procedures.

Figure 6.1

Flow of Participants and Procedures through the Study Research Phases.



The CRAFT Program. The CRAFT program was curricularly implemented through the CRAFT-based elective subjects of Mindfulness and Emotional Intelligence at the Royal Conservatory of Music of Granada, once a week per one hour, during the entire academic year 2018/2019. The total instruction consisted of 24 hours administered in a well-equipped and multipurpose spacious classroom. The program developer (author PP, blinded to the study hypotheses, measures, data collection, and recruitment), a singing and pedagogy professor at the same institution holding an advanced and extensive accredited formation and experience as a mindfulness and yoga teacher (Posadas, 2019), taught the program classes.

All foundations and elements of the program guided the practical and theoretical instruction in both CRAFT-based elective subjects. Notwithstanding, a preponderance of yoga and mindfulness components were integrated into the CRAFT-based elective subject of Mindfulness. For instance, the 15-minute physical protocol based on *Hatha* yoga was exclusively administered in this CRAFT-based subject. Conversely, emotional intelligence, empathy, compassion, and positive psychology theory and practice were more prevalent in the CRAFT-based elective subject of Emotional Intelligence. During the first 14 sessions, there was a focus on developing the first three elements of the program (i.e., Consciousness, Relaxation, and Attention), while all five elements (i.e., Consciousness, Relaxation, Attention, Happiness, and Transcendence) were worked on thereafter. To that end, various practices and theories selected from, inspired by, and/or adapted from the four foundations by the program developer were utilized. When applicable, these practices were adapted to the particular physical, mental, and emotional needs of participants. In addition, a series of reflective debates were stimulated to meaningfully and creatively inquire on how to apply the practices learned in the program to real-life situations and problems (e.g., personal, academic, and professional).

Participants were encouraged to complete at least two hours of weekly home-based practice that included performing the CRAFT-physical protocol (only for those enrolled in the Mindfulness subject) thrice a week, formal and informal meditation, and journaling their lived experiences with the program. Further details about the elements and foundations of the program can be consulted elsewhere (Bartos et al., 2021; Bartos et al., 2022; Posadas, 2019; Posadas & Bartos, 2022) and a summary of the objectives, contents, and practices planned and delivered by the creator of the program for both CRAFT-based elective subjects can be accessed in the supplementary material linked to the current study (Table App. 3 in Appendix E3). Moreover, we offer below a description of the CRAFT elements outlining some of the practices employed for their development.

Consciousness. In the CRAFT program, *Consciousness* is the overarching and common ground element pervading all the other elements. Drawing from both yoga and mindfulness foundations, an essential step towards promoting *Consciousness* is developing a non-judgmental, open, and compassionate witness attitude in the observation of one's physical, mental, and emotional states. Therefore, such a process of nurturing heightened awareness signifies a steppingstone for the promotion of self-regulatory mechanisms, either naturally-occurring metacognitively (Garland et al., 2009), or intentionally implemented upon one's sharpened realization of potential disharmony through specific practices. A series of practices drawn from *hatha* yoga and mindfulness (e.g., *antar mouna*, body scan, meditation techniques, breath awareness) and other ones, inspired by these two foundations, created by the program developer (e.g., so-named FEM meditation, based on the impartial observation of physical sensations, emotions, and thoughts) were used to teach *Consciousness*. Furthermore, these practices were applied within the framework of a mindful CRAFT yoga style that included selected or adapted *hatha* yoga postures and/or movements to be performed with a mindful-based approach

(e.g., CRAFT physical protocol), whereby each postural physical element was associated with a particular attitude or ‘mental posture’ to be applied in one’s life. Lastly, components from both emotional intelligence (e.g., self-awareness) and positive psychology (e.g., strengths and virtues) intertwine into the process of building a more holistic notion of conscious awareness. Accordingly, becoming aware was also emphasized in terms of acknowledging one’s strengths and virtues as well as noticing and feeling at both interpersonal and intrapersonal levels (e.g., being aware or sensing how others might be feeling). In the CRAFT program, an expanded level of *Consciousness* implies a broader understanding of the self, others, and the world in a process that could also encapsulate genuine lived experiences of subtle perception and insight—arguably inconspicuous through materialistic-empirical lenses—that could bring about a change of meaning and perspective about reality.

Relaxation. The second initial of the acronym CRAFT, ‘R’, not only refers to *Relaxation* but also *Regulation* and *Respiration*. In this conjunction of constructs, *Regulation* of one’s physical, emotional, and mental states is the linchpin through which both *Relaxation* and *Respiration* operate. Therefore, this element was worked through a wide range of self-regulation practices involving mainly breathing (e.g., *sitali*, *sitkari*, *bhramari*, full yogic breathing) and relaxation (e.g., yoga *nidra*, progressive muscle relaxation, autosuggestion, creative relaxation exercises, Jacobson’s relaxation) components, but also postural (e.g., *hatha* yoga postures, CRAFT mindful yoga protocol) and meditative (e.g., visualization practices, *shamatha* meditation) ones for the promotion of holistic health and well-being. In addition, participants delved into the understanding of Goleman (1998)’s five components of emotional intelligence, amongst which, the second one (i.e., self-regulation) was highly emphasized to cultivate the second element of the CRAFT program. Finally, explicit emphasis was placed not only on keep acknowledging and/or valuing one’s strengths and virtues but also to use them for coping with real-life problems and difficulties. In recapping from the first two elements leading up to the third, becoming aware of one’s body, mind, and emotional states through *Consciousness*, and being able to self-regulate them and relax, through *Relaxation*, eases the pathway to *Attention*, and, as a central part of this, meditation.

Attention. The main practices implemented to develop *Attention* were drawn from the foundations of yoga and mindfulness. This encompassed the employment of specific *pranayamas* (e.g., alternate nostril breathing, unilateral nostril breathing, *bhramari*, *kapalabhati*, breath retention) and meditation techniques (e.g., *shamatha* meditation, sound meditation, open-monitoring meditation). In addition, various innovative games and activities adapted to the needs of higher education student musicians were implemented. The path of *Raja* yoga and predominantly its three meditative stages (i.e., *dharana*, *dhyana*, and *samadhi*) were reviewed and discussed. Moreover, ancient and modern mindfulness-based meditative practices such as Zen meditations and the body scan from the MBSR program respectively were taught and practiced. In the cultivation of *Attention*, participants were instructed to pay attention not just in terms of the mental faculty to keep one’s concentration to a particular object, but also as to being fully immersed in the act of ‘attending’ with care, affection, and love, in a holistic attentional process from which *Happiness* may emerge.

Happiness. The CRAFT program approach to *happiness* is mainly eudaimonic, and hence, towards realizing one’s virtues, living a purposeful and meaningful life, and ultimately attaining ever-lasting happiness independent of and unattached to the ever-changing external reality. This was encouraged through reflections on both yoga and Buddhist philosophy, further inquiry into positive psychology components such as how to realize and exalt one’s strengths, virtues, and a gratefulness attitude (e.g., listing grateful things), as well as meditative

practices such as loving-kindness and compassion meditations. However, hedonic happiness as when derived from savoring or appreciating one's present activities and experiences was also encouraged. Drawing also from positive psychology, specific activities to develop flow states (Csikszentmihalyi, 1990) such as group-meditative improvisations and mindful concerts were employed to foster a blissful experience along with an optimal performance, cultivating, in turn, the attitude of non-attachment to the outcome. Moreover, happiness was also promoted from the theory and practice of full emotional intelligence (Díaz et al., 2012) and positive psychology through the work of empathy, motivation, hope, optimism, kindness, positive relationships, and compassion.

Transcendence. Along the path of building eudaimonic *Happiness* and well-being and an expanded level of *Consciousness*, *Transcendence* stands as an essential element of the program requiring the mastery of all previous elements to connect with the ultimate transcendental pursuits of self-inquiry and self-knowledge. The development of this element is mainly rooted in the philosophical foundations of both yoga and mindfulness, but it is also worked according to positive psychology components such as the importance of finding and giving meaning to life, the appreciation of beauty and excellence, gratitude, hope, humor, and spirituality (Peterson & Seligman, 2004). Through *Transcendence*, participants were stimulated to dis-identify themselves from their ever-changing realities and concerns, see them from different lenses, and ultimately transcend them through a self-transforming-creative attitude leading to new opportunities, perspectives, possibilities, situations, and realities. In addition, the transcendent and creative aspects embedded in this element were underlined for optimizing the processes of acquiring and integrating new knowledge through a meaningful learning experience. Though theory and practice derived from all four foundations were used for teaching *Transcendence*, there was a focus on yoga and mindfulness meditative practices, as well as on reflective debates and discussions about their various philosophical grounds with an emphasis on how to apply them to real-life situations.

Measures

Demographic Questionnaire. It included a range of items prompting participants to provide descriptive information about their age, gender, years of musical practice, enrolment in elective subjects, level of education, grade year, instrumental specialty, weekly minutes of home-CRAFT-based practice, the frequency to which they applied the practices learned in the program to their daily lives through a 10-point visual analog scale ranging from “0” or “never” to “10” or “always”, current engagement in physical activity, hours of physical activity, and current involvement in other yoga/meditation activities different from the CRAFT-program (Appendix D1).

Five Facet Mindfulness Questionnaire (FFMQ). The FFMQ (Baer et al., 2006; Appendix D3) was employed to measure mindfulness disposition. This questionnaire includes five subscales each representative of a distinct mindfulness ability: Observe (eight items; e.g., “When I’m walking, I deliberately notice the sensations of my body moving”), Describe (eight items; e.g., “I’m good at finding words to describe my feelings”), Act Aware (eight reversed items; e.g., “When I do things, my mind wanders off and I’m easily distracted”), Non-Judge (eight reversed items; e.g., “I criticize myself for having irrational or inappropriate emotions”), Non-React (seven items; e.g., “I perceive my feelings and emotions without having to react to them”). Participants rated their level of agreement with each item according to a five-point Likert scale ranging from 1 or “never or very rarely true” to 5 “very often or always true”. Scores can be reported for both the total

scale and for each subscale and interpreted as the greater the value the higher the frequency of being mindful generically or in a particular mindfulness ability respectively. We employed the Spanish version of the FFMQ (Cebolla et al., 2012; Appendix D3). For the current study sample, internal consistency was high across subscales (α ranging between .72 and .89 at Time 1).

Emotional Regulation Questionnaire (ERQ). The ERQ (Gross & John, 2003; Appendix D8) was used to assess emotional regulation disposition. The ERQ includes two subscales representative of two different emotional regulation strategies: Cognitive Reappraisal (six items; e.g., “I control my emotions by changing the way I think about the situation I’m in”), and Expressive Suppression (four items; e.g., “I control my emotions by not expressing them”). Participants rated each item according to a seven-point Likert scale ranging from 1 or “strongly disagree” to 7 or “strongly agree”. Results are reported separately for each subscale with higher scores suggestive of a greater tendency of adopting that particular emotional regulation strategy. We administered the Spanish version of the ERQ (Cabello et al., 2012; Appendix D8). For the current sample, Cronbach alpha was .87 and .78 for these subscales respectively at Time 1.

Subjective Psychological Well-Being Subscale (SPWS). The SPWS was utilized to measure psychological well-being. This 30-item subscale belongs to a larger 65-item psychological well-being questionnaire (Sánchez-Cánovas, 1998; Appendix D9) that includes also three more subscales of material, working, and partner relationships well-being. The SPWS mainly emphasizes aspects of well-being (e.g., “I believe I am in good health”), happiness (e.g., “I feel well with myself”), and other mainstream concepts of positive psychology such as focusing on what goes right in life (e.g., I am accustomed to seeing the favorable side of things) resilience (e.g., “I believe I can overcome my weaknesses and mistakes”), optimism (e.g., “I feel optimistic”), savoring (e.g., “I enjoy having meals”), and meaning (e.g., “I think everything is interesting”). Participants rate the items according to a five-point Likert scale ranging from 1 or “never or almost never” to 5 or “always”, applicable to the current stage of their lives, with higher values in the total SPWS score suggestive of a greater tendency of experiencing higher Subjective Psychological Well-being. Cronbach alpha for the current study sample was .94 at Time 1.

Depression Anxiety and Stress Scale (DASS-21). The DASS-21, which is the shorter version of the original DASS (Lovibond & Lovibond, 1995; Appendix D7), was administered to evaluate psychological distress. This questionnaire comprises three subscales including 7 items each for depression (e.g., “I couldn’t seem to experience any positive feeling at all”), stress (e.g., “I found it hard to wind down”), and anxiety (e.g., “I was aware of dryness of my mouth”) respectively. Participants rate each item following a 4-point Likert scale ranging from 0 or “Did not apply to me at all” to 3 “Applied to me very much or most of the time” during the past week. The final scores must be multiplied by two, being higher scores indicative of higher depression, stress, or anxiety. Scores can be reported for both the total psychological distress scale as well as for each subscale and interpreted as the greater the value the higher the prevalence of being afflicted by emotional symptoms associated with these conditions. We administered the Spanish version of the DASS-21 (Bados et al., 2005; Appendix D7). For the current study sample, Cronbach alpha at Time 1 was .85, .81, and .93 for the depression, anxiety, and stress subscales respectively. Due to an editing error in the process of typesetting the survey into Google docs, a 5-point Likert scale ranging from 0 to 4 was inserted and used for participants to rate each item. To ensure all participants’ scores ranged, as in the original survey, from 0 to 3, we made the following data point proportional conversions: all 0 data points remained as 0; 1 to 0.75; 2 to 1.5; 3 to 2.25, and

4 to 3. Such conversion gave us the possibility to approximately interpret participants' degree of severity per subscale according to the recommended cut-off points of the survey.

Sit and Reach Test (SRT). Due to the physical component developed through the CRAFT program and the physical demands of higher education student musicians, we decided to include at least one physical measure into our research design. The SRT protocol was utilized to measure hip and trunk flexion (Hoeger et al., 1990). Participants were first instructed to adopt a sitting position with knees extended and ankles flexed so that the soles of their feet were resting on the box. Second, participants placed one hand over the other and performed a hip forward bending to reach as farther as possible with the index fingers sliding on the measuring tape. As the participant reached the final position and held it for one to two seconds, the measurement was taken. All participants executed one practice trial to familiarize themselves with the SRT protocol. Subsequently, they performed the test twice and the best score was used for analyses. Greater scores (cm) are indicative of higher lower-body flexibility with the zero point (line of the feet) at 23 cm.

Feasibility

Feasibility was evaluated based on six of the eight domains for devising feasibility studies proposed by Bowen et al. (2009).

Demand. It was examined by developing an extensive literature review of higher education student musicians' well-being and academic demands relative to the four foundations of the program. Furthermore, it was also assessed by exploring how much *demand* for yoga/meditation training existed in the sample, not only to learn further about participants' interest in mind-body therapies, but also to better estimate the appropriate sample size needed for a larger scale CRAFT-based intervention.

Implementation. It was evaluated as to whether the program was successfully delivered as planned in relation to its objectives, contents, practices, and number of sessions completed, canceled, and/or postpone. Moreover, other aspects of consideration were related to the viability of implementing on-site testing resources, successful completion of measurement, and any potential issues related to survey/test fatigue.

Practicality. It was examined based on participants' attendance rate and self-reports of daily practice.

Adaptation. It was addressed by tailoring the program components and practices to the particular demands of higher education student musicians, and if applicable within this population, to the specific needs of each individual. Also, *adaptation* was considered in relation to the potential unexpected events that could lead to a change within pre-established intervention procedures.

Integration. It was assessed through the analysis of the demographic questionnaire item that invited participants to self-report the frequency to which they transferred their CRAFT-learning experience to their daily life following a 10-point visual analog scale ranging from "0" or "never" to "10" or "always".

Limited efficacy. It was examined according to the preliminary effectiveness of the CRAFT program to improve the Time1-Time2 outcome measures as inferred from both statistical and practical significance including effect sizes and respective 95% CI.

Data Analysis

Descriptive statistics were computed to summarize participants' demographic characteristics and Time 1-Time 2 (T1-T2) outcome measures using means and standard deviations for the continuous variables and counts and frequencies for the categorical ones. For the T1-T2 dependent variables, normality was assessed by the Shapiro-Wilk Test. Statistical significance was tested through two-tailed paired sample *t*-tests if normality was

met at both T1 and T2 and through two-tailed Wilcoxon's signed-rank tests if data were not normally distributed at either T1 or T2. In addition, we also examined practical significance for each T1-T2 variable by calculating the effect size (ES) and corresponding 95% CI. ES was calculated as Cohen's *d Average*, using the average standard deviation from T1 and T2, $\frac{M_{T2}-M_{T1}}{SD_{T2}+SD_{T1}/2}$, (Lakens, 2013). As recommended by Hedges and Olkin (1985), particularly for small samples, all Cohen's *d* values were corrected for bias by multiplying them by the following correction factor formula for paired sample designs, $1 - \frac{3}{8(n-1)-1}$, yielding an unbiased Cohen's *d*, also named Hedges' *g*. To compute the 95% CIs, we used the central *t* distribution method (Cumming, 2007; Goulet-Pelletier & Cousineau, 2018; Nakagawa & Cuthill, 2007) whereby the upper and lower ends of the 95% CIs were obtained by adding *g* to the product between the standard error (SE) and the equivalent critical *z*-scores of the 97.5 (i.e., +1.96) and .025 (i.e., -1.96) quantiles of a standard normal *t* distribution respectively, $CI = g \pm 1.96 \times SE$. The SE of the CI was derived using Becker's (1988) formula for paired samples, $SE = \sqrt{\frac{2(1-r_{t1,t2})}{n} + \frac{g^2}{2(n-1)}}$, extracted from Nakagawa and Cuthill (2007), whereby *r* is the correlation coefficient between T1 and T2. Subsequently, to better interpret the values obtained at both Time 1 and Time 2, ES and 95% CI derived from the comparison of the current study T1-T2 outcome measures mean scores and those of comparable studies (e.g., validation studies with Spanish samples of FFMQ and ERQ; see Table 6.2) were computed. In this case, Hedges' *g* was calculated using the pooled standard deviation, whereas the 95% CIs were derived employing the central *t* distribution method as explained in Hedges and Olkin (1985). Practical significance was met if 95% CIs of ESs (*g*) did not include the null value of zero (Coe, 2002) and was interpreted using Cohen's *d* (1988) ES benchmarks of small ($0.2 \leq d < 0.5$), medium ($0.5 \leq d < 0.8$), and large ($d \geq 0.8$). IBM SPSS v. 25 was used to analyze the data of the demographic questionnaire. *T*-tests and ESs with 95% CIs were analyzed through Excel 2020 Software.

Lastly, to determine whether the large amount of CRAFT participants who did not contribute to the completion of Time 2 assessments may have revealed any valuable information serving feasibility purposes, one-way ANOVAs and chi-square tests of independence were conducted to determine whether there was any difference in any of the continuous and categorical variables, respectively, under study (i.e., demographics and main outcome measures) at Time 1 between CRAFT participants who completed both Time 1 and Time 2 assessments ($n=26$; Time 1-Time 2 assessed CRAFT participants) and those who only completed Time 1 assessments ($n=47$; Time 2 unassessed CRAFT participants) for at least one of these variables under study.

Results

The main purpose of the current study was to examine the feasibility and preliminary effectiveness of the CRAFT program to engender mindfulness skills and improve the physical, psychological and emotional well-being and academic experience of higher education student musicians. To that end, the current study results were derived from the examination of eight feasibility domains proposed by Bowen et al. (2009).

Demand

The elaboration of our literature review was the first instrumental process serving feasibility purposes for the current study. Therein we identified and justified the need of implementing and investigating the newly developed CRAFT program to help higher education student musicians cope with their physical, psychological, and emotional well-being and academic demands. Second, we attempted to consider the research demands of both randomized controlled trials—entailing more stringent lifestyle restrictions and inclusion criteria to control

for the potential effects of confounding factors—and naturalistic studies, involving minimum researchers’ meddling within participants’ behaviors for preserving higher real-life conditions and ecological validity (Verster et al., 2019). Bearing that in mind, we conducted analyses for both a total sample and a filtered sample after excluding those participants who had reported other out-of-CRAFT yoga/meditation experience by both Times 1 and 2. Table 6.1 displays the demographic characteristics of participants across both samples. In the total sample, 7 participants, 27%, were involved in regular yoga/meditation practices other than those learned in the CRAFT program by Time 1, which increased up to 10 participants, 39%, by Time 2. Amongst these 10 participants, 4 of them, 16%, learned mind-body practices related to yoga and/or meditation in the elective subject Ergonomics, while the other six, 24%, out of the Conservatory. Accordingly, it could be tentatively inferred that approximately 40% of the participants that would be recruited in a further study, conducted at the same institution, should be excluded or used their experience level as a covariate to determine the effectiveness of the CRAFT program. Therefore, such a drop-off should be taken into consideration when conducting *a priori* power analyses.

Table 6.1
Participants' Demographic Characteristics

Variables	Total Sample ($n = 25$)	Filtered Sample ($n = 15$)
Age	21.20 $\pm$ 1.96	21.33 $\pm$ 1.95
Years of Musical Practice	12.94 $\pm$ 2.41	13.37 $\pm$ 1.91
Gender		
Females	19 (76%)	11 (73%)
Enrolled in CRAFT-based Elective Subjects		
Mindfulness	16 (64%)	7 (47%)
Emotional Intelligence	5 (20%)	4 (27%)
Mindfulness and Emotional Intelligence	4 (16%)	4 (27%)
Enrolled in Other Elective Subjects		
English	5 (20%)	3 (20%)
Ergonomics	4 (16%)	0 (0%)
Choir	4 (16%)	2 (13%)
History of Jazz	3 (12%)	2 (13%)
German	3 (12%)	0 (0%)
Level of Education		
High School	16 (64%)	9 (60%)
Bachelor's Degree	6 (24%)	4 (27%)
Unreported	3 (12%)	2 (13%)
Grade Year		
Second	9 (36%)	5 (33%)
Third	14 (56%)	9 (60%)
Fourth	2 (8%)	1 (7%)
Other Yoga/Meditation Experience		
Time 1—out of the Conservatory	3 (12%)	NA
Meditation	2	
Yoga	1	
Time 2—out of the Conservatory	6 (24%)	NA
Meditation	3	
Yoga	2	
Yoga and Meditation	1	
Ergonomics	4 (16%)	NA
Engagement in Physical Activity		
Time 1	13 (52%)	9 (60%)
Hours/Week	4.65 $\pm$ 3.01	4.78 $\pm$ 3.5
Time 2	13 (52%)	9 (60%)
Hours/Week	4.92 $\pm$ 3.38	3.78 $\pm$ 2.23

Note. Values are mean $\pm$ *SD* or *n* (%); NA = Not Applicable

Implementation

The entire curriculum designed for each CRAFT-based elective subject was fully covered. Except for the unimparted sessions—one hour lesson per each class—to facilitate recruitment and Time 1 data collection, all other sessions scheduled in the academic calendar were delivered as planned. Though the program implementation had to be interrupted during public holidays, participants were urged to keep weekly home-based practice. All participants completed the tests and surveys, at both Times 1 and 2, within the 50-min timeframe previously estimated and with no apparent signs/complaints of survey/test fatigue. The inclusion of testing resources, and particularly, the technological ones (i.e., laptops) was rather cumbersome as classrooms in

the conservatory were not appropriately equipped for e-learning. This led to logistic challenges relative to managing a *portable lab* from class to class at Time 1. In addition, though at Time 2 a reserved room was designated as the common testing site, putatively offsetting logistic difficulties, 71 out of the 100 participants recruited at Time 1 did not complete Time 2 assessments, which considering the re-configuration of the current investigation as a single-arm pre-post study design including only CRAFT participants, it would represent a 64% Time 2 assessment attrition rate (i.e., 47 Time 2 unassessed CRAFT participants out of the initial sample of 73 CRAFT participants who completed Time 1 assessments). However, it should be noted that such a substantial loss of assessment participation was not an actual dropout rate in a traditional sense that indicates a level of engagement with the program (see practicality domain below). Instead of revealing a lack of interest in the program, the high dropout rate was potentially and largely due to the fact that post-test assessments were scheduled at extracurricular hours due to examination constraints (see procedures).

Practicality

As confirmed by the program deliverer, all students met the minimum 80% attendance rate requirement for successfully completing their curricular instruction in the CRAFT-based elective subjects of Mindfulness and Emotional Intelligence, and therefore, we can be confident that all participants fulfilled this criterion. In the total sample, at Time 1, participants indicated on average 115.62 ($SD=143.61$, $median=60$) min of home-CRAFT-based practice, increasing at Time 2 to 151.42 ($SD=103.69$, $median=120$) min. These figures were higher in the filtered sample at both Time 1 and Time 2 respectively, 142.33 ($SD = 103.69$, $median=90$), and 167.14 ($SD=120.41$, $median=120$) min.

Adaptation

From a programmatic perspective, different adaptations were made by the program deliverer such as affording different physical practice alternatives and employing props to accommodate the specific postural needs and/or musculoskeletal problems of participants enrolled in the CRAFT-based elective subject of Mindfulness. Also, the various group reflective debates were tailored to particularly address the common physical, emotional, cognitive, and psychological demands experienced by student musicians and guide them on how to apply the practices learned in the program to better cope in real-life situations. In an attempt to adapt to a large estimated Time 2 assessment attrition rate due to changes in the testing schedule and location at Time 2, participants were offered one Elective Credit in exchange for completing their participation in the study. Despite the incentive, 64% Time 2 assessment attrition rate was reported upon completion of Time 2 assessments.

Integration

The total study sample that completed the Time 1-Time 2 outcome measures averaged a frequency of daily life program application of 7.16 ($SD = 2.03$) at Time 1, and 8.25 ($SD = 1.11$) at Time 2. Similarly, slightly higher values were observed in the filtered sample, 7.67 ($SD = 1.54$) and 8.53 ($SD = 2.03$) at Times 1 and 2 respectively, for this parameter.

Limited Efficacy

Table 6.2 displays the CRAFT-program preliminary effectiveness results reported in terms of both statistical and practical significance for all Time 1-Time 2 outcome measures across the total and filtered sample including also comparative data from previous studies. Only the DASS-21 depression subscale in both samples and the ERQ suppression and DASS-21 anxiety subscales in the total sample did not meet normality. As

explained in the procedure section, the physical test data from those participants enrolled in the CRAFT-based elective subject of emotional intelligence ($n=6$) were not included in the SRT test analysis. Additionally, in the filtered sample, the SRT data from those participants who reported any yoga-based training engagement different from the CRAFT program at Times 1 and 2—ergonomics ($n=3$) and yoga out of the conservatory ($n=3$) were excluded for analysis. However, the SRT scores from those participants who engaged in non-CRAFT-based meditation only ($n=3$) were used for analysis as meditation *per se* does not directly work to develop hamstring or trunk flexibility. For all the other Time 1-Time 2 dependent variables, the filtered sample included the scores of those participants who did not report any outside yoga/meditation experience.

Table 6.2*CRAFT Program Effectiveness of Total and Filtered Samples for Main Outcome Measures Determined through Statistical and Practical Significance with Comparative Data*

Surveys (<i>n</i> _{Total} =25, <i>n</i> _{Filtered} =15) & Tests (<i>n</i> _{Total} =20, <i>n</i> _{Filtered} =14)	Time 1 _{Total}		Time 2 _{Total}		Time 1 _{Filtered}		Time 2 _{Filtered}		Comparative Data ^j		Test Statistics ^a		Effect Sizes ^d _{Total}			Effect Sizes ^d _{Filtered}		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>p</i> _{Total}	<i>p</i> _{Filtered}	<i>g</i>	95% CI		<i>g</i>	95% CI	
														UL	LL		UL	LL
FFMQ																		
Observe (8-40)	27.44	5.59	29.68	4.53	27.40	6.08	30.67	4.53	23.6 ^c	5.6	<.01 ^b	<.01 ^b	0.44	0.14	0.73	0.60	0.22	0.98
Describe (8-40)	29.32	6.62	31.52	4.82	28.93	6.42	31.87	4.76	28.7 ^c	6.5	<.05 ^b	<.05 ^b	0.38	0.04	0.72	0.51	0.02	1.00
Act Aware (8-40)	24.96	7.64	25.12	7.96	26.73	6.82	27.40	6.75	27 ^c	6.6	.87 ^b	.53 ^b	0.02	-0.22	0.26	0.10	-0.21	0.40
Non-Judge (8-40)	25.24	7.94	25.44	8.51	27.27	6.17	28.00	7.73	26.8 ^c	7.4	.85 ^b	.55 ^b	0.02	-0.22	0.27	0.10	-0.22	0.42
Non-React (7-35)	22.08	4.67	23.44	4.50	22.60	4.55	23.13	5.14	20.6 ^c	4.5	.11 ^b	.51 ^b	0.29	-0.07	0.65	0.11	-0.21	0.42
Total (39-195)	129.04	21.65	135.20	21.24	132.93	18.08	141.07	19.21	—	—	.02^b	<.05 ^b	0.28	0.05	0.52	0.42	0.07	0.78
ERQ																		
Reappraisal (1-7)	4.83	1.27	5.33	1.00	4.90	1.32	5.36	0.90	4.80 ^f	1.01	.01^b	.08 ^b	0.43	0.11	0.75	0.41	-0.02	0.84
Suppression (1-7)	3.35	1.24	3.13	1.49	3.18	0.90	2.61	1.21	3.39 ^f	1.23	.29 ^c	<.05 ^b	-0.16	-0.44	0.13	-0.52	-0.93	-0.12
SPWS (30-150)	113.40	16.48	118.64	15.44	115.53	16.98	124.40	12.35	106 ^g	16.23	.01^b	<.01 ^b	0.32	0.06	0.58	0.59	0.20	0.97
DASS-21																		
Depression (0-42)	9.48	8.04	8.94	7.07	7.9	5.27	7	6.15	6.29 ^h	6.76	.49 ^c	.24 ^c	-0.07	-0.26	0.12	-0.15	-0.40	0.09
Anxiety (0-42)	17.88	10.62	17.82	10.74	15.20	7.68	13.6	7.31	6.02 ^h	5.61	.95 ^c	.28 ^b	-0.01	-0.20	0.19	-0.21	-0.59	0.17
Stress (0-42)	20.40	9.02	21.12	9.12	18.10	5.39	18	6.66	13.92 ^h	7.65	.58 ^b	.96 ^b	0.08	-0.20	0.36	-0.02	-0.62	0.59
Total (0-126)	95.52	49.91	95.76	48.77	82.40	26.95	77.20	32.66	—	—	.96 ^b	.43 ^b	0.01	-0.20	0.21	-0.17	-0.58	0.24
SRT (cm)	15.25	10.87	19.5	10.93	16.11	11.07	19.96	11.71	27.33 ⁱ	11.16	<.001 ^b	<.05 ^b	0.39	0.15	0.61	0.34	0.04	0.62

Note. FFMQ = Five Facet Mindfulness Questionnaire; ERQ = Emotional Regulation Questionnaire; SPWS = Subjective Psychological Well-Being Subscale; DASS-21 = Depression, Anxiety, and Stress Scale; SRT = Sit and Reach Test; *g* = Hedges' *g* = Cohen's *d* corrected for bias. CI = Confidence interval of effect size (Hedges' *g*); UL = Upper Limit; LL = Lower Limit; Bold font denotes significance.

^aStatistical significance is achieved if $p < .05$; ^b*p*-values from two-tailed paired *t*-test for normally distributed variables.

^c*p*-values from two-tailed Wilcoxon's Signed-Rank Test for not normally distributed variables.

^dPractical significance is determined through effect sizes (Hedges' *g*), achieved if CI do not include the null value of zero, and interpreted following Cohen's (1988) *d* benchmarks: small ($0.2 \leq d < 0.5$), medium ($0.5 \leq d < 0.8$), and large ($d \geq 0.8$).

^eCebolla et al. (2012); ^fCabello et al. (2012); ^gSánchez-Cánovas (1998); ^hBados et al. (2005); ⁱAraújo et al. (2020); ^jSince Cabello et al. (2012) only reported the ERQ means and corresponding standard deviations for male ($M_{\text{Reappraisal}}=4.73, SD=1.03$; $M_{\text{Suppression}}=3.80, SD=1.22$) and female ($M_{\text{Reappraisal}}=4.85, SD=1.00$; $M_{\text{Suppression}}=3.15, SD=1.24$) participants separately, the weighted mean and pooled standard deviation from the former values were computed to report the ERQ descriptive statistics of Cabello et al. (2012) from a total sample of male and female participants altogether as in the current study and the other comparable studies.

In the FFMQ, practically and statistically significant increases were reported in the total sample for the Observe, $t(24)=3.16, p=.004, g=0.44, 95\% \text{ CI } (0.13, 0.73)$ and Describe, $t(24)=2.21, p=.037, g=0.38, 95\% \text{ CI } (0.04, 0.72)$ subscales as well as the total scale, $t(24)=2.58, p=.016, g=0.28, 95\% \text{ CI } (0.05, 0.52)$. A similar pattern of statistically and practically significant results was evidenced in the filtered sample for the same variables. All FFMQ reported effect sizes (ES) were small, except for the medium ES found for the subscales of Observe and Describe in the filtered sample. The mean scores for the observe subscale in the total sample at both Time 1, $g=0.68, 95\% \text{ CI } (0.28, 1.09)$, and Time 2, $g=1.09, 95\% \text{ CI } (0.69, 1.50)$ as well as the describe, $g=0.44, 95\% \text{ CI } (0.04, 0.84)$ and non-react, $g=0.63, 95\% \text{ CI } (0.23, 1.04)$ subscales at Time 2 were higher than the scores reported by Cebolla et al. (2012) when validating the Spanish version of the FFMQ ($n=462, M_{\text{age}}=27.4$ years, $SD=8.3$) in a sample whereby 68% of participants were undergraduate and graduate university students. A similar pattern of results was observed when making such a comparison with the filtered sample mean scores of the aforementioned subscales, except for the describe subscale that achieved neither statistical nor practical significance at Time 2, $g=0.49, 95\% \text{ CI } (-0.02, 1.01)$.

For the ERQ, the reappraisal subscale scores increased significantly, both statistically and practically, in the total sample, $t(24)=2.79, p=.010, g=0.43, 95\% \text{ CI } (0.11, 0.75)$ displaying a small ES, whereas a trend towards significance was reported in the filtered sample, $t(14)=1.88, p=.080$. Interestingly, only in the filtered sample, a statistically and practically significant reduction was evidenced in the ERQ Suppression subscale, $t(14)=2.76, p=.015, g=-0.52, 95\% \text{ CI } (0.20, 0.97)$, with a medium ES. The reappraisal subscale mean scores of the total, $g=0.52, 95\% \text{ CI } (0.13, 0.92)$, and filtered, $g=0.55, 95\% \text{ CI } (0.04, 1.07)$ sample at Time 2 were higher than those reported by Cabello et al. (2013) when validating the Spanish version of the ERQ ($n=866, M_{\text{age}}=39.80$ years, $SD=14.82$), whereas only the suppression subscale mean scores of the filtered sample at Time 2 were higher compared to those of the former study, $g=-0.63, 95\% \text{ CI } (-1.15, -0.12)$.

In terms of the SPWS, a statistically and practically significant increase was observed for both the total, $t(24)=2.65, p=.014, g=0.32, 95\% \text{ CI } (0.06, 0.58)$, and filtered sample, $t(14)=3.38, p=.004, g=0.59, 95\% \text{ CI } (0.20, 0.97)$ with a small and medium ES respectively. The SPWS mean scores in the total sample were higher than the average values reported by Sánchez-Cánovas (1998) for the age range 17-25 years ($n=188$) at Time 1, $g=0.45, 95\% \text{ CI } (0.04, 0.88)$, and Time 2, $g=0.78, 95\% \text{ CI } (0.36, 1.21)$, falling within the 65th and 80th percentiles, respectively. In the filtered sample, the SPWS mean scores were even higher at Time 1, $g=0.58, 95\% \text{ CI } (0.06, 1.12)$, and Time 2, $g=1.15, 95\% \text{ CI } (0.62, 1.69)$, than those of the total sample when compared to the average values of Sánchez-Cánovas (1998) reaching the 70th and the 90th percentiles, respectively.

Regarding the SRT, a significant increase, both statistically and practically, was reported across the total, $t(19)=3.90, p=.001, g=0.39, 95\% \text{ CI } (0.15, 0.61)$ and filtered sample, $t(13)=2.55, p=.024, g=0.33, 95\% \text{ CI } (0.04, 0.62)$ showing a small ES. However, the SRT results in the total sample of the current study were lower compared to those reported by Araújo et al. (2020) in a cross-sectional study conducted to evaluate the physical fitness level of conservatory students ($n=483$), at both Time 1, $g=-1.08, 95\% \text{ CI } (-1.49, -0.68)$, and Time 2, $g=-0.70, 95\% \text{ CI } (-1.11, -0.30)$, falling within the fitness category *Needs Improvement* for the age range 20-29 according to previous normative data (ACSM, 2014). A similar pattern of results was observed when comparing the mean SRT scores of the filtered sample with those of Araújo et al. (2020).

No significant results were reported in the FFMQ subscales Act Aware, Non-Judge, and Non-React, nor for any of the three subscales of the DASS-21 across both samples. Furthermore, no significant changes

were observed for the ERQ Suppression subscale mean scores in the total sample. In comparison to the mean scores reported in the validation study of the DASS-21 using a Spanish sample (Bados et al., 2005) formed by psychology university students ($n=365$; age range=20-25 years), the total sample of the current study reported higher levels of depression at Time 1, $g=0.47$, 95% CI (0.06, 0.87), anxiety at Time 1, $g=1.96$, 95% CI (1.54, 2.39), and Time 2, $g=1.95$, 95% CI (1.52, 2.38), and stress at Time 1, $g=0.84$, 95% CI (0.43, 1.25) and Time 2, $g=0.93$, 95% CI (0.52, 1.34), with a similar pattern of results observed for the anxiety and stress subscales in the filtered sample. The mean level of psychological distress based on identified cut-off severity values for the survey was *Normal* for depression in both the total and filtered sample at Time 1 and Time 2; *Severe* for anxiety at Time 1 for the Total and filtered sample, while *Severe* and *Moderate* at Time 2 for the total and filtered sample, respectively; and *Moderate* in the total sample but *Mild* in the filtered sample for stress at both Time 1 and Time 2.

Lastly, there were no significant differences between Time 1-Time 2 assessed CRAFT participants and Time 2 unassessed CRAFT participants at Time 1 for all outcome measures (i.e., FFMQ, DASS, SPWS, ERQ, and SRT), main demographics (i.e., age, gender, hours of physical activity per week, engagement in physical activity, other yoga meditation experience, enrollment in CRAFT-based elective subjects, level of education) and other variables (i.e., home-based practice and frequency of daily life program application) under study. There were significant differences for years of musical practice, $F(1,71)=4.43$, $p=.04$, whereby Time 2 unassessed CRAFT participants reported significantly more years of musical practice, 14.32 ($SD = 2.81$) than Time 1-Time 2 CRAFT participants, 12.94 ($SD = 2.40$); and Grade Year, $\chi^2(3) = 12.07$, $p < .007$, whereby most Time 2 unassessed CRAFT participants were undertaking the second, 32%, and fourth, 40% grade year level at Time 1. It could be tentatively argued that the extra academic pressures experienced from those 4th-year level students who were about to completing their degrees may have also contributed—along with the changes in the testing site and schedule bound to examination constraints—to the lack of participation reported at Time 2.

Discussion

This study examined the feasibility and preliminary effectiveness of the newly developed CRAFT program to enhance higher education student musicians' physical, psychological, and emotional well-being and academic experience. To that end, we tested feasibility based on the evaluation of six of the eight feasibility domains recommended by Bowen et al. (2009).

The results provided preliminary evidence undergirding a high feasibility of the CRAFT program to engender mindfulness skills, emotional regulation strategies, psychological well-being, flexibility, and a series of perceived benefits across various dimensions of well-being in relation to the five elements of the program. In addition, the findings informed of relevant aspects that should be considered for successfully planning and conducting further large-scale investigations. Along these lines, the evaluation of *demand* revealed that, in order to power a future controlled design study at the same institution, it should be accounted that approximately 40% of the prospective CRAFT sample might be simultaneously involved in other non-CRAFT-yoga/meditation training, and therefore, potentially disregarded or considered for co-variate analyses. Furthermore, though the program *implementation* occurred as planned, there were various issues that limited the *implementation* of the research procedures. A major inconvenience was that due to examination constraints, the testing location and schedule during Time 2 assessments were shifted from participants' respective classrooms to an appointed

common room and from curricular to extracurricular times. This unexpected procedural change might have led to the substantial Time 2 assessment attrition rate despite offering Elective Credits to participants at Time 2 as an *adaptation* to compensate for such a foreseeable drop-off. The issue casts doubt on the appropriateness of participants' commitment to the study requirements, especially when additional effort could be needed from them due to unexpected circumstances. Therefore, a potential solution to protect against survey-test attrition rate from such eventualities could be to offer additional incentives to participants right from the recruitment phase. From a programmatic perspective, *adaptation* was also successfully accomplished by tailoring the program to target the general well-being and academic concerns of higher education student musicians and particularly, when applicable, to the individual needs they could be experiencing. Moreover, the evaluation of *practicality* revealed that participants' weekly fidelity of home-based practice of 151.42 ($SD = 103.69$) and 167.14 ($SD = 120$) minutes in the total and filtered sample respectively was consistent with previous yoga and mindfulness-based interventions followed by tertiary students (Falsafi et al., 2016; Tang et al., 2020). Furthermore, none of the participants, either contributing or not to the second time of assessment (Time 1-Time 2 assessed CRAFT participants and Time 2 unassessed CRAFT participants), withdrew from the program training and all of them achieved the 80% attendance rate requirement to successfully complete their CRAFT-based instruction. Thus, participants' level of engagement with the program appeared to be acceptable, even if 47 (64%) CRAFT participants from the original sample of 73 CRAFT participants did not complete Time 2 assessments. Therefore, along these lines, we deem it relevant to underline that such a substantial Time 2 assessment dropout rate referred only to Time 2 unassessed CRAFT participants and did not indicate, in any case, discontinuation from and/or lack of participation with the program.

Regarding the preliminary effectiveness of the program for the Time 1-Time 2 outcome measures, our results met our initial hypothesis, with both statistically and practically significant differences, across both samples for the FFMQ in the total scale and the subscales of Observe and Describe, the SPWS, and the SRT; the ERQ Cognitive Reappraisal subscale in the total sample; and the ERQ Suppression subscale in the filtered sample. Our FFMQ results partially aligned with those of other mindfulness-based interventions that reported significant improvements in the Observe and Non-Judge subscales (Steyn et al., 2016) and all FFMQ subscales (Czajkowski et al., 2022) amongst higher education music students. Though we did not find significant differences for the FFMQ subscales of Act Aware, Non-Judge, and Non-React, all mean scores across both samples exhibited the expected Time1-Time2 upward pattern. An array of plausible explanations for the absence of significant results for these FFMQ subscales could include the low dosage of program delivery, the fact that participants had already completed three months of program instruction before undertaking Time 1 assessments, fluctuations related to how much actual fidelity of program delivery and practice was accomplished in accordance to the CRAFT program contents and objectives, and the differential emphasis that could have been placed on developing certain mindfulness components and/or attitudes over the others.

The current study results of increased dispositional mindfulness and cognitive reappraisal can be partially explained by the explanatory model proposed by Garland et al. (2009). The authors contended that the practice of mindfulness meditation promotes a metacognitive mechanism of dis-identification and broader cognition from which new creative perspectives and insights might emerge to potentially re-construe one's primary appraisals positively. In a further study that supported their model, Garland et al. (2011) found significant increases in the total scale of the FFMQ and the Cognitive Reappraisal subscale of the Cognitive

Emotional Regulation Questionnaire on a sample of 339 participants following an eight-week Mindfulness-Based Stress and Pain Management Program. Hierarchical regressions showed that mindfulness scores at Time 2 were predicted by the change in positive reappraisal and vice versa, suggesting that these two parameters might reciprocally boost each other in alignment with the positive feedback loop between positive emotions and broadened cognition explained in the broaden-and-build theory (Fredrickson, 2004). Similarly, in the CRAFT program, a mindful metacognitive process potentially leading to a cognitive reappraisal strategy is facilitated through different types of yoga and mindfulness meditations (e.g., focused attention, mantra, open-monitoring, and loving-kindness and compassion meditations; Fox et al., 2016) as a pathway for nurturing meta-creativity, wisdom and knowledge, and a self-transforming-creative attitude that might give rise to new perspectives and opportunities. Furthermore, other resources integrated as part of the program drawn from positive psychology-based components such as focusing on the positive aspects of one's life, the appreciation of beauty and excellence, gratitude, hope, and humor (Peterson & Seligman, 2004) could have also promoted positive reappraisal.

An interesting finding relative to the ERQ analysis was that only in the filtered sample the subscale of Expressive Suppression achieved significance. This result aligns with our expectation that instruction in the CRAFT program would induce a positive effect on reducing expressive suppression, being in turn, consistent with those of previous researchers reporting such an effect through a Kripalu yoga-based intervention for improving posttraumatic stress disorder symptoms (Dick et al., 2014). A possible mechanism behind this potential effect could lie on the basis that both yoga and mindfulness practitioners are encouraged to observe their internal events and experiences (e.g., thoughts, feelings, and emotions) with a non-judgmental and acceptance-based attitude (Gard et al., 2014; Menezes et al., 2015; Shapiro et al., 2006), thus, putatively protecting them from engaging in either avoidance, aversive, or suppressive-related behaviors. Another plausible explanation could be found in the antithetical self-regulatory approach between using and/or developing expressive suppression versus mindfulness-based describing/expressive strategies of such internal experiences. In the current study, the FFMQ Describe subscale scores were significantly improved from Time 1 to Time 2 which supports the notion that participants following a mindfulness-based intervention will be more likely to engage in expressive rather than suppressive self-regulatory processes. Additional evidence in support of these aforementioned contentions can be identified in studies whereby negative associations between mindfulness and expressive suppression have been documented (Brockman et al., 2017; Ma & Fang, 2019; Parmentier et al., 2019). Furthermore, the significant reduction in the Expressive Suppression subscale in the filtered sample of the current study was coupled with a trend towards significance in the cognitive reappraisal subscale. Whether CRAFT program exposure alone was more effective than other forms of yoga/meditation training for enhancing emotional regulation requires further examination with more highly powered controlled studies. It seems that the existing literature does not show any studies examining the effect of an intervention on dispositional mindfulness and emotional regulation amongst student musicians. The current study results along with those of Garland et al. (2009), Garland et al. (2011), and Dick et al. (2014) appear to support the role of both yoga and mindfulness training to stimulate adaptive emotional regulation strategies (e.g., cognitive reappraisal) while downregulating maladaptive ones (e.g., expressive suppression). These findings could also have further implications in terms of the potential influence of mindfulness as an adaptive emotional regulation training to mediate student musicians' learning processes and academic performance. In a recent study,

Peistaraitė and Clark (2020) found a significant positive correlation between cognitive reappraisal and self-regulated learning coupled with negative correlations between the former and expressive suppression, rumination, and repression on a sample of 334 professional musicians. Drawing from this combined evidence, further research should investigate the effect of mindfulness-based interventions on dispositional mindfulness, emotional regulation strategies, and self-regulated learning amongst student musicians.

In terms of the psychological well-being improvements, our results compared favorably with those reported in other yoga and mindfulness-based interventions conducted with higher education students using self-reported measures of positive and negative affect (Jarry et al., 2017), subjective well-being (De Vibe et al., 2013; Tang et al., 2020), and mental health (Akhtar et al., 2013). Additionally, based on previous normative values (Sánchez-Cánovas, 1998), the SPWS scores reported in the current study at Time 2 achieved the 80th and 90th percentiles in the total and filtered sample, respectively. The SPWS contains various positive psychology components of well-being such as eudaimonic and hedonic happiness, resilience, optimism, and meaning. In the CRAFT program, not only these components are explicitly worked on drawing from the theories, methods, and practices of positive psychology but also from those of the other three foundations of the program. For instance, through the cultivation of positive psychology components such as gratitude, savoring, as well as strengths and virtues, participants might have learned to appreciate and value to a greater extent not just particular aspects of their life but also their life as a whole. Positive psychology interventions using such components have led to improvements in happiness, well-being, resilience, positive affect, and psychological well-being (Martínez-Martí et al., 2010; Mongrain & Anselmo-Matthews, 2012; Sin & Lyubomirsky, 2009; Smith & Hanni, 2019). In addition, the CRAFT program's emphasis on promoting *flow* through the different mindful concerts and improvisations might have also contributed to developing happiness and meaningful lived experiences derived from heightened states of absorption, self-awareness, self-control, and a harmoniously ordered consciousness (Csikszentmihalyi, 1990). Similarly, yoga and mindfulness practice, which have been also linked to nurturing flow states, gratitude, and meaningful living (Ivtzan & Papantoniou, 2014), might have induced an overall increase in both physical and mental well-being through its different components (e.g., ethical, breathing, postural, and meditative). Such yoga and mindfulness components have been referenced to stimulate top-down and bottom-up processes of high and low brain networks that instigate the activation of the relaxation response, vagal nerve, and parasympathetic nervous system to synergically downregulate the hypothalamic–pituitary–adrenal-axis and stress response (Chiesa et al., 2013; Fox et al., 2016; Gard et al., 2014; Sullivan, Erb, et al., 2018).

Regarding physical fitness, the significant SRT improvements for the current study sample are consistent with previous *Hatha* yoga interventions with university students (Smith et al., 2011; Tran et al., 2001). Although participants' scores at Time 2 did not meet appropriate levels of lower body flexibility according to previous normative values (ACSM, 2014), being lower than those reported in a recent cross-sectional study conducted with conservatory students (Araújo et al., 2020), a major proportion of participants across the total, 52%, and filtered, 40%, sample did not engage in any type of physical activity. Moreover, the program's dose of delivery of physical components was limited to 15 minutes per class and though participants adhered to CRAFT home-based practice, it is unclear how much of this time was spent on physical practice. Notwithstanding, considering the high sedentarism in the sample and the low programmatic dosage of physical components, we found a small effect for lower body flexibility. The benefits associated with engaging in

physical activities across multiple dimensions of well-being have been widely documented (Walsh, 2011). More specifically for the current sample, the development of physical qualities such as flexibility and strength have been recommended as proactive therapeutic processes for both prevention and treatment of PRMD (Araújo et al., 2020; Heming, 2004), a major problem amongst students musicians that has been attributed to various physical risk factors such as excessive practice, lack of physical condition, and muscular tiredness (Cruder et al., 2020; Rodriguez-Romero et al., 2016). In addition, in the current study only 13, 52%, and 9, 60%, participants respectively met previously recommended guidelines of weekly hours of physical activity (World Health Organization, 2010). Therefore, further CRAFT-based interventions implemented in conservatory settings should increase the dosage of physical components, determine its fidelity of practice, and include other recommended physical outcome measures (e.g., strength, pulmonary and cardiovascular functions, and other flexibility parameters; Araújo et al., 2020) in their research design.

Contrary to our expectations, we did not find significant Time 1-Time 2 differences in psychological distress across both samples in any of the DASS-21 subscales and the total scale. The scores for depression were interpreted as *Normal* in both cases and this was indicative of a floor effect whereby the lack of significance could be attributable to participants' absence of depressive symptoms. However, in the filtered sample, anxiety and stress fell within the *Moderate* and *Mild* cut-off categories respectively, whereas in the total sample in the *Severe* and *Moderate* ones. Whether participation in the CRAFT program was influential to reduce anxiety and stress needs further investigation, given also the fact that Time 1 assessments were conducted after participants had completed three months of program instruction. An additional caveat was that due to a typesetting error, item rating ranged from 0 to 4, and although we made the necessary adjustments to convert it to the original range (0 to 3), the interpretation of the DASS-21 results according to pre-established cut-off values should be taken with caution.

Limitations and Future Research

The current study has various limitations. First and foremost, this investigation was initially conceived as a quasi-experimental control designed study involving three distinct groups of participants that received instruction in the CRAFT program with a different emphasis regarding the preponderance of components springing from two of its foundations (i.e., Mindfulness and Emotional Intelligence). However, due to a substantial Time 2 assessment attrition rate as a result of changes in the testing site and schedule, it was reframed as a single-arm pre-post quasi-experimental study to examine the feasibility and preliminary effectiveness of the CRAFT program to improve various health and well-being outcomes amongst student musicians. Thus, it remains unclear to what extent the results herein reported stemmed from instruction in the CRAFT program with a slightly difference emphasis in course content depending on which precise CRAFT-based elective subject(s) they were enrolled in. Nonetheless, except for the physical protocol that was only administered in the CRAFT-based elective subject of Mindfulness, all CRAFT participants involved in the current study received full instruction in the CRAFT program (Table App. 3 in Appendix E3). Hence, the findings derived from the re-configuration of the initial research design into a single-group pre-post feasibility study set also a valuable point of reference for future studies whereby the CRAFT program will be implemented. In addition, although the findings presented herein appear to be promising and supportive of the CRAFT program's potentiality to improve dispositional mindfulness and emotional regulation, psychological well-being, and lower body flexibility, we remain cautious since no definite conclusions and generalizations

seem plausible given the small sample-sized group and uncontrolled design of the current study. Nevertheless, besides using classical null hypothesis testing to estimate the odds of finding an effect, we inferred also the magnitude of such an effect as well as its precision through the use of effect sizes and 95% confidence intervals respectively, applying recommended computations to remove bias from small samples (Cumming, 2007; Hedges & Olkin, 1985). An additional advantage of determining practical significance was that our results were also reported in standardized metrics for meaningful comparisons and meta-analytic purposes.

A second limitation was that Time 1 assessments were conducted after participants had already completed three months of program attendance, which did not allow us to determine whether there had been an effect due to the program during this period. Thus, baseline assessments must be conducted before the onset of the program in further research to determine the effectiveness of the CRAFT program. A third limitation was the low dosage of program delivery. Although we attempted to compensate for this by encouraging and monitoring fidelity of practice over time, further research should determine whether doses higher than 50-60 minutes of CRAFT training per week could eventuate in greater effects. A fourth limitation was the high heterogeneity of the sample in terms of participants' self-selection choices in elective subjects and yoga/meditation instruction. However, it should be acknowledged that self-selection is what typically occurs in our communities, entailing hence, a meaningful value on its own to be captured through naturalistic research lenses. The inclusion of a total and a filtered sample was a way to concomitantly control for the research demands of both naturalistic and randomized controlled studies respectively, therefore, paving the way for future CRAFT-based investigations of both designs.

Lastly, due to response burden, we limited our choice of measures to examine a series of physical (SRT), psychological (DASS-21), emotional (ERQ), mindfulness (FFMQ), and well-being (SPWS) related variables highly intertwined with both the multidimensional demands affecting higher education student musicians and the four CRAFT foundations, albeit with more emphasis on yoga and mindfulness. However, further CRAFT-based research should also consider the inclusion of other instruments to provide better coverage of additional relevant components specifically related to the CRAFT foundations of positive psychology (e.g., creativity, gratitude, and meaning) and emotional intelligence (e.g., empathy, social skills) such as the Abbreviated Torrance Test for Adults (Goff & Torrance, 2002) as well as the Gratitude (McCullough et al., 2002) and Meaning in Life (Steger et al., 2006) questionnaires, for the former, or the Trait Emotional Intelligence Questionnaire and the Mayer-Salovey-Caruso Emotional Intelligence Test (O'Connor et al., 2019), for the latter. In this vein, considering the CRAFT program's highly multifaceted approach, future research should also incorporate in-depth qualitative methods such as semi-structured interviews and practice logs to delve into a greater understanding of participants' lived experience with the program and their perceived benefits derived from it.

Despite these limitations, overall, the evaluation of Bowen et al.'s (2009) feasibility domains showed that the implementation of the CRAFT program was satisfactorily demanded by participants, easily implemented within the students' curriculum as an elective subject, practically adhered to and integrated by them into their daily lives, and easily adapted to their specific needs. In terms of the preliminary effectiveness, our findings suggest that the CRAFT program appears to be a feasible approach to enhance higher education student musicians' mindfulness and emotional regulation abilities of cognitive reappraisal and expressive suppression; psychological well-being; and physical flexibility. Although this evidence is promising, further

research with various arms and higher dosages of program delivery within both naturalistic and randomized controlled designs integrating quantitative and qualitative methods are needed to substantiate these findings.

Prelude. Chapter 7

The fourth study of this PhD investigation and first study within Phase 2, which was divulged in Chapter 6 (Bartos et al., 2022), examined the feasibility and preliminary effectiveness of the Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT) program to improve tertiary student musicians' well-being through a single-arm pre-post design implemented in 2018. The findings of this study bolstered CRAFT as a feasible intervention to enhance tertiary student musicians' mindfulness skills, emotional regulation, psychological well-being, and physical abilities, as well as its potential to be implemented as part of larger trials. This was underpinned by the positive evaluation of six feasibility domains (*Demand, Implementation, Practicality, Integration, Adaptation, and Limited efficacy*; Bowen et al., 2009) and CRAFT participants' significantly improved levels of mindfulness, cognitive reappraisal, well-being, and lower body flexibility. Despite these results being promising, they were derived from the quantitative assessment of a few feasibility domains and outcome measures that arguably could not suffice to comprehensively ascertain the feasibility of CRAFT to enhance tertiary student musicians' well-being and academic experience. Therefore, to further explore and establish the feasibility phase of CRAFT, Bartos, Posadas, Wrapson, et al. (2024) conducted a mixed-methods study to gain a wider understanding of CRAFT participants' experiences and perceived benefits from following the program in relation to their well-being, daily life, and academic performance. Such a study is detailed in the subsequent chapter through a manuscript published in the *Journal of Humanistic Psychology*.

Chapter 7. The CRAFT Program: Mindfulness and Yoga for Enhancing the Well-Being and Academic Experience of Higher Education Student Musicians

Introduction

Higher education students experience numerous health and well-being concerns such as musculoskeletal problems (Can & Karaca, 2019; Rodriguez-Romero et al., 2016), involvement in unhealthy habits (Jao et al., 2019; Molina et al., 2012), high academic workload (Jääskeläinen et al., 2023), and emotional and mental disturbances (Henning et al., 2018). Among tertiary students, psychological distress has been documented as highly prevalent (Auerbach et al., 2016; Hunt & Eisenberg, 2010), even more than in the general population (Ibrahim et al., 2013; Stallman, 2010), negatively affecting their lives and academic performance (Bruffaerts et al., 2018). A large survey completed by 64,519 higher education students at multiple higher education providers revealed that undergraduate and graduate students involved in art and design studies reported the highest probability (44%) of presenting mental health problems (Lipson et al., 2016).

Tertiary-level student musicians face highly demanding challenges that may place their academic and professional careers in jeopardy (Antonini et al., 2019; Osborne et al., 2014). Due to risk factors such as excessive practice, instrument-related postural deficiencies, lack of adequate physical condition, muscular tiredness, and competitiveness, higher education student musicians are prone to develop performance-related musculoskeletal disorders (PRMD, Cruder et al., 2020; Rodríguez-Romero et al., 2016). Amongst these students, prevalence rates of PRMD have been documented ranging between 48% (Cruder et al., 2020) up to 80% (Steinmetz et al., 2012), with reportedly higher musculoskeletal complaints than in other types of tertiary-level students (e.g., medical students, Kok et al., 2013). Similarly, in the mental health domain, there have been reported rates of up to 80% of professional and higher education student musicians afflicted by music performance anxiety (MPA, Fernholz et al., 2019; Kokotsaki & Davidson, 2003; Lupiáñez et al., 2022), which has also been linked with the high frequency of PRMD (Steinmetz et al., 2014).

For the purposes of enhancing the well-being and academic experience of higher education students, and specifically student musicians, the CRAFT program, a holistic neuroeducational method for self-actualization and happiness, was created (Posadas, 2019). Although it was initially developed to attend to the highly demanding challenges affecting Spanish tertiary students involved in specialized educational fields such as sports, arts, languages, and particularly music, the program was also conceived to be implemented across multiple cross-cultural educational contexts. The acronym *CRAFT* stands for the following Spanish terms encompassing its five elements: *Consciencia* (Consciousness); *Regulación, Relajación* (Regulation, Relaxation); *Atención* (Attention); *Felicidad* (Happiness or Fulfillment¹); and *Transcendencia* (Transcendence). Grounded in yoga, mindfulness, positive psychology, and emotional intelligence, which represent the four theoretical and practical CRAFT foundations, *CRAFT* is a holistic program synergistically encompassing physical, psychological, cognitive, emotional, and spiritual dimensions of well-being (Posadas, 2019).

Interventions based on alternative and complementary therapies such as yoga and mindfulness seem to be effective amongst higher education students in improving psychological distress (Breedvelt et al., 2019; Halladay et al., 2019; McConville et al., 2017); well-being (De Vibe et al., 2013; Jarry et al., 2017; Tang et al., 2020); awareness, attention, memory, executive function, neuroplasticity, cognitive and emotional functioning, and self-regulation (Brunner et al., 2017; Gothe & McAuley, 2015; Tang et al., 2015); and higher education

student musicians' specific concerns such as music performance anxiety (Chang et al., 2003; Stern et al., 2012). Furthermore, researchers of *Hatha* yoga-based interventions conducted with higher education students have reported a series of physical benefits including increased flexibility, strength, balance, as well as cardiovascular and pulmonary function (Birkel & Edgren, 2000; Park et al., 2017; Smith et al., 2011; Tran et al., 2001). Moreover, research literature within the fields of positive psychology and emotional intelligence has identified several benefits for addressing students' emotional needs, happiness, health, and well-being. For example, positive psychology-based interventions have improved happiness, depressive symptoms (Bolier et al., 2013; Seligman et al., 2005) and subjective and psychological well-being (Gander et al., 2013), whereas evidence from correlational (Mayer et al., 2008; Ruiz-Aranda et al., 2014) and longitudinal (Schoeps et al., 2020) investigations appears to underpin the efficacy of emotional intelligence for boosting positive emotions, life satisfaction, happiness, subjective well-being, and stress reduction.

The abovementioned studies support the positive role that each of these four disciplines and/or fields of knowledge (i.e., yoga, mindfulness, positive psychology, and emotional intelligence) alone may play in enhancing the well-being and academic experience of higher education students. However, along with their unique strengths, they also present limitations. Nonetheless, the limitations of one or more disciplines could be compensated by the strengths of others. For example, positive psychology and emotional intelligence interventions, which are devoid of physical and breathing practices, may be enhanced if respiratory and postural techniques from *hatha* yoga were added to their curriculums. Therefore, an integrated program based on a careful selection of the theories and practices from these four disciplines together could offset the limitations of a program based on one of these disciplines alone, while better satisfying higher education students' multidimensional needs (Bartos et al., 2021, 2022). The CRAFT program was conceived under this original premise resulting in the conscious assemblage of components from these four disciplines, its so-called CRAFT foundations.

The CRAFT program was firstly applied in its reduced version called the *CRAFT's 7 mindful minutes*, at the Royal Conservatory of Music of Granada Victoria Eugenia, Spain, in the subjects English for Musicians and Chamber Music during the academic year 2016/2017 (Posadas & Bartos, 2022; Rull et al., 2019). The positive impact of the *CRAFT's 7 mindful minutes* led to subsequent applications of the program but with higher priority as part of the educational curriculum of the music conservatory. In 2017/2018, the program was implemented as a CRAFT-based elective subject of Mindfulness, and, since 2018/2019, as both CRAFT-based elective subjects of Mindfulness and Emotional Intelligence, each subject imparted once a week for 60 min (Bartos et al., 2022).

In the context of this new application of the CRAFT program, a recent feasibility study conducted by Bartos et al. (2022) supports the preliminary effectiveness of the CRAFT-based elective subjects to improve higher education student musicians' mindfulness skills, cognitive reappraisal, psychological well-being, and physical flexibility. The examination of a series of feasibility domains (Bowen et al., 2009) by Bartos et al. (2022) also appears to suggest a satisfactory implementation and integration of the program within the conservatory's curriculum and students' daily lives. However, such an examination was exclusively based on the quantitative analyses of various demographic variables such as home-based practice, attendance rate, and frequency of daily life application. In addition, a thorough exploration of any other potential benefits other than those measured quantitatively to determine the preliminary effectiveness of the CRAFT program was beyond

the scope of the study by Bartos et al. (2022) study. In this vein, the adoption of qualitative research methods has been particularly encouraged and increasingly become more widespread to inform future large-scale trials (Ee et al., 2021; O’Cathain et al., 2015; Hiles et al., 2021; Wrapson et al., 2020).

Current Study Purpose

The aim of the current study was to examine in greater depth the potentiality of the CRAFT program to enhance the academic and well-being experience of higher education student musicians. To that end, first, student musicians’ level of agreement with a series of hypothesized benefits related to the five elements of the CRAFT program and its viability was examined. Subsequently, qualitative analyses were used with the purpose of gaining a wider understanding of CRAFT participants’ overall experience and perceived benefits from following the program as well as how they implemented the techniques learned to enhance their well-being, daily life, and academic experience.

Method

Participants

Participants were higher education student musicians of the Royal Conservatory of Music of Victoria Eugenia, Spain, a state music institution providing a four-year higher academic degree equivalent to a four-year Bachelor’s degree. The inclusion criteria were being a full-time student musician, aged 18 years or older, enrolled at this conservatory, and having completed curricular instruction in CRAFT-based elective subjects (e.g., either Mindfulness or Emotional Intelligence, or both) during the academic years 2017/2019. A convenience sample of 37 student musicians, age range 20-29 years, of whom the majority were females and fourth-year students, was recruited. All participants had accomplished high school education and received instruction in the CRAFT-based elective subject of Mindfulness. Participants’ demographic characteristics are displayed in Table 7.1.

Table 7.1
Participants' Demographic Characteristics

Variables	
<i>N</i>	37
Age	23.24 $\pm$ 2.37
Gender	
Females	26 (70%)
Males	11 (30%)
Level of Education	
High School	20 (54)
Bachelor's Degree	17 (46)
Grade Year	
First	0 (0%)
Second	0 (0%)
Third	9 (24%)
Fourth	18 (49%)
Unreported	10 (27%)
Instruction in CRAFT-Based Elective Subjects	
Mindfulness	37 (100%)
Emotional Intelligence	16 (43%)
Mindfulness and Emotional Intelligence	16 (43%)
Physical Activity	16 (43%)
Hours/Week	4.08 $\pm$ 2.76
Yoga/Meditation Practice out of the Conservatory	16 (43%)
Hours/Week	2.36 $\pm$ 1.36

Note. Values are mean $\pm$ SD or n (%)

Procedure

The CRAFT-based elective subject of Mindfulness was implemented during the academic years 2017/2019, and the CRAFT-based elective subject of Emotional Intelligence during the academic year 2018/2019. Instruction occurred, as per the other elective subjects, once a week for 1 hr during the entire academic year, running from the beginning of October until the end of the teaching phase occurring in the middle of May. From March 15th to April 15th, 2019, a research assistant blind to the study hypotheses approached students during the last 10 min of their CRAFT-based classes inviting them to fill in an online CRAFT evaluation survey through the platform *Google Docs*. All approached students agreed to participate ($n=37$) and completed the survey at least 2 weeks prior to their academic examinations. Because all students who had been approached agreed to participate, the diversity of students in the CRAFT-based elective subjects was mirrored in the sample for the present study ensuring therefore that nobody was excluded. Ethical approval was obtained from the University of Granada Institutional Review Board (n° 1009/CEIH/2019). All participants were informed about the procedures of the study and provided their consent to participate before completing the survey.

In the academic year 2017/2018, instruction in the CRAFT-based elective subject of Mindfulness totaled 25 hr, whereas the following academic year, 2018/2019, it was 24 hr of instruction for this subject, with the same number of hours for the CRAFT-based elective subject of Emotional Intelligence. All classes were delivered in a well-equipped and multipurpose spacious classroom. The program developer, a certified yoga and

mindfulness teacher, and a singing and pedagogy professor at the same educational provider taught all the classes.

The four CRAFT foundations and five CRAFT elements guided the practical and theoretical instruction delivered in both subjects. However, there was a predominance of yoga and mindfulness components included in Mindfulness, whereas higher prevalence was given to empathy, compassion, positive psychology, and emotional intelligence theory and practice in Emotional Intelligence. To fulfil the curricular content of these subjects, the program creator used a series of practices and theories selected from, adapted from, and/or inspired by the four CRAFT foundations, with some of the practices being developed by herself. The program developer encouraged reflective problem-solving debates and role-playing activities to meaningfully and creatively apply the program content to personal, academic, and professional real-life situations. Participants were encouraged to complete at least 2 hr of weekly home-based practice to train themselves in the abilities and techniques learned during their CRAFT-based instruction.

Issues related to diversity, equity, and inclusion were addressed by adapting the program, when applicable, to meet the collective and individual well-being and academic needs of participants. Examples of such adaptations made by the program deliverer include the use of various physical practice alternatives and props to assist the specific postural and/or musculoskeletal demands of participants. In addition, the various reflective debates and role-playing activities were tailored to specifically address the cognitive, emotional, psychological, and physical concerns experienced by the students with guidance on how to implement what they learned in the program to better cope with their problems in real-life situations. Lastly, one-to-one discussions between the program instructor and participants were arranged if specific needs were required to be privately attended to.

A detailed explanation of the five CRAFT elements and four CRAFT foundations can be found elsewhere (Bartos et al., 2021, 2022; Posadas & Bartos, 2022). An extensive portrayal of the objectives, content, and practices planned and delivered by the creator of the program for both CRAFT-based elective subjects can be freely accessed in the supplementary material of a previous study (Bartos et al., 2022; Table App. 3 in Appendix E3).

Measures

A CRAFT evaluation survey (CES) developed by Posadas and Bartos (2022) was used to examine the hypothesized benefits of the program, evaluate its viability, and explore CRAFT participants' experiences and perceived benefits associated with it (Appendix D10). The first section comprised a 36-item Likert scale survey subdivided into six subscales of six items each (one subscale for each of the five elements of the program and one subscale for its viability). Items within each subscale represented a series of hypothesized benefits comprising skills, abilities, and states associated with that specific CRAFT element. Participants rated their level of agreement with each item using a 5-point Likert Scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Results were reported for each subscale and the total scale. The second section of the CES consisted of a concluding open-ended question asking participants to summarize their experience with the program and report any additional benefits derived from it related to their daily life and professional artistic experience. Along with the CES, participants filled in a brief demographic questionnaire that included items relating to age, gender, level of education, grade year, specialty, hours of physical activity, and hours of yoga and/or mindfulness practice outside of the conservatory which was additional to their CRAFT-based instruction. Because of the

limited sample size and the need to maintain anonymity, this questionnaire did not include additional questions such as ethnicity, sexual orientation, disability status, socioeconomic status, and mental health service user status.

Data Analysis

Participants' responses to the CES Likert items and the demographic questionnaire were analyzed with IBM SPSS v. 29.0.1.0 using basic descriptive statistics. For the demographic questionnaire, means and standard deviations were computed for all continuous variables, while the categorical variables were analyzed through frequencies and percentages. Regarding the CES Likert questions, we calculated first the mean scores of each single item, and second, for each subscale and the total scale we computed the grand means from their respective single item mean scores. Results were interpreted following a proportional mean interval scale range with corresponding interpretive categories for both the single-item mean scores and the total scale/subscale grand mean scores (Table 7.2). A similar approach for interpreting Likert scale scores has been adopted elsewhere (Narli, 2010; Posadas & Bartos, 2022). Scores higher than 3.40 were considered positive, between 2.61-3.40 neutral, and lower than 2.61 negative.

Table 7.2

Mean Interval Scale and Corresponding Interpretive Evaluation Categories (Posadas & Bartos, 2022)

Mean Interval Scale	Interpretive Evaluation Categories	
	Individual Items	Subscales/Total Scale
1-1.80	Strongly disagree	Poor
1.81-2.60	Disagree	Very poor
2.61-3.40	Neither agree nor disagree	Fair
3.41-4.20	Agree	Good
4.21-5.00	Strongly agree	Excellent

A deductive content analysis (Elo & Kyngäs, 2008; Kleinheksel et al., 2020) was used to analyze participants' responses to the open-ended question following the pre-existing theoretical framework of the five CRAFT elements (Bartos et al., 2021, 2022; Posadas & Bartos, 2022) and its emerging CES of six subscales and respective hypothesized benefits (Table 7.3). For the preparatory phase, it was determined that either a word, a portion of a sentence, a sentence, or a conjunction of sentences from participants' responses to the open-ended question could be a meaning unit or unit of analysis with meaningful content (Elo & Kyngäs, 2008; Weber, 1990). Furthermore, although meaning units were mainly analyzed following a manifest approach, a latent approach implying a certain degree of interpretation and contextualization was also used to unveil relevant hidden meanings from participants' experiences (Kleinheksel, 2020). To ensure credibility and validity, it was a priori decided that coding decisions would be directed by the conceptual framework of the five CRAFT elements (Bartos et al., 2021, 2022; Posadas & Bartos, 2022) with previous dialogue and consensus between co-researchers (Graneheim & Lundman, 2004). Following these prerequisites, coding of meaning units into the different potential categories, a procedure that is explained below as part of the next phase, was based on content equivalency. The final step of this phase involved reading the data multiple times to become familiar with and make sense of participants' responses to the open-ended questions (Elo & Kyngäs, 2008), thereafter, being side-by-side translated from Spanish into English.

In the organization phase, the names of the six subscales of the CES and their respective hypothesized benefits represented the overarching categories of an initial categorization matrix (Elo & Kyngäs, 2008). The hypothesized benefits—listed in the third column of Table 7.3—within each overarching category served as a deductive coding list of potential pre-determined codes to be paired with meaning units within the data. This structured categorization matrix of overarching categories (i.e., Consciousness; Regulation, Relaxation; Attention; Fulfillment; Transcendence; and viability) and pre-determined codes (i.e., hypothesized benefits) was developed as a table whereby the recommended four steps of content analysis comprising decontextualization (i.e., identification and coding of meaning units), recontextualization (i.e., revision of coding), categorization (i.e., creation of categories), and compilation (i.e., researcher's consensus, final conclusions, quantifying, and reporting) were conducted (Bengtsson et al., 2016). The first three steps of this phase were executed and reviewed by the first author, being further revised in the compilation step by the other authors.

For the decontextualization step, first, a search for and an identification of meaning units related or not to the hypothesized benefits was carried out. Subsequently, meaning units and hypothesized benefits with equal or similar content were paired, whereas those meaning units unrelated to the hypothesized benefits were inductively coded and allocated to a suitable overarching category. At this stage, these decontextualization procedures were deemed as highly relevant for they could enable, in the categorization step, the abstraction of categories and/or subcategories that could inform of both new benefits not contemplated in the CES and the confirmation and/or clarification of those benefits already hypothesized. In the recontextualization step, the aforementioned decontextualization procedures were reviewed various times, leading to a re-organization of the categorization matrix from modifications in the original coding and assignment of meaning units across the different overarching categories and hypothesized benefits. In the categorization step, the process of abstraction from all coded meaning units yielded a series of categories and subcategories out of which those containing benefits not contemplated in the survey were highlighted. Lastly, in the compilation step, co-researchers blindly reviewed the analysis conducted after completion of the categorization step, indicating their agreement or disagreement with each coded meaning unit as well as each category and subcategory abstracted by the first author. Thereafter, coding and categorization procedures marked with disagreement were discussed until mutual consensus was reached. Completion of the compilation step involved reporting exemplar responses and the total number of participants and meaning units that contributed to each of the categories of this content analysis.

Results

Results for the CES Likert items are displayed in Table 7.3. Participants reported a high level of agreement with the hypothesized benefits of the program and its viability with most items, 24, 66%, being rated as *strongly agree* and some of them, 12, 33%, as *agree*. Such positive scores across all individual items were also manifested amongst the different subscales and total scale which achieved the highest possible evaluation labeled as *excellent*, except for Attention and Relaxation which fell within the evaluative category of *good*.

Table 7.3*CRAFT Evaluation Survey Likert Items Results (n=37)*

Elements/ Subscales	CES Likert items	Underlying Hypothesized Benefit per CES Item	M±SD (Level of Agreement)	GM±SD (Evaluation)
C	1. The program made me aware of my emotional state: feelings and emergent emotions	Emotional awareness	4.62±.64 (SA)	
	2. The program made me aware of my mental state: flow and type of thoughts	Mental awareness	4.54±.65 (SA)	
	3. The program made me aware of my physical state: pain, muscular stiffness, discomfort, and relaxed areas	Physical awareness	4.68±.63 (SA)	
	4. The program made me aware of my posture so I can regulate it to adopt a healthier posture	Postural self-regulation, healthy posture	4.54±.69 (SA)	4.60±.44 (E)
	5. Being aware of my physical, mental, and emotional state helps me regulate my vital energy being more efficient to regulate my performance in the activities that I carry out.	Vital energy self-regulation, task efficiency	4.54±.56 (SA)	
	6. Being aware of my physical, mental, and emotional state helps me empathize with others and improve my relationships.	Empathy, social relationships	4.70±.46 (SA)	
R	7. After the practice of the program, I felt more mentally relaxed, having fewer thoughts	Mental relaxation	4.46±.77 (SA)	
	8. After the practice of the program, I felt more physically relaxed, experiencing less bodily tension	Physical relaxation	4.38±.79 (SA)	
	9. After the practice of the program, I felt more emotionally relaxed, observing the emotions with no involvement	Emotional relaxation	4.03±.79 (A)	4.20±.62 (G)
	10. The program contributed to reducing my anxiety and stress in the classroom	Anxiety and stress in the classroom	4.27±.80 (SA)	
	11. The program contributed to reducing my anxiety and stress in public performances	Anxiety and stress in public performances	3.86±.92 (A)	
	12. The program contributed to reducing my stress and anxiety in my daily life and out-of-class activities	Anxiety and stress in daily life and out of class	4.19±.88 (A)	
A	13. After the practice of the program, I was more attentive and focused in the classroom activities.	Attention and concentration in class	4.35±.71 (SA)	
	14. After the program's training, I was more attentive and concentrated in the activities or situations that happened out of the classroom	Attention and concentration out of class	4.19±.81 (A)	
	15. The program's training on attention helps me learn easier and faster	Learning quality and efficiency	4.00±.94 (A)	
	16. The program's training on attention helps me memorize better the academic content	Memorization of academic content	3.51±1.12 (A)	4.03±.65 (G)
	17. The in-class-mindfulness exercises contributed to improving concentration and reducing distracting information in my musical practice	Concentration during music practice	4.14±.82 (A)	
	18. The in-class-mindfulness exercises contributed to improving concentration and reducing distracting information in my public performances	Concentration during music performances	3.97±.86 (A)	

(continued)

Table 7.3 (continued)
CRAFT Evaluation Survey Likert Items Results (n=37)

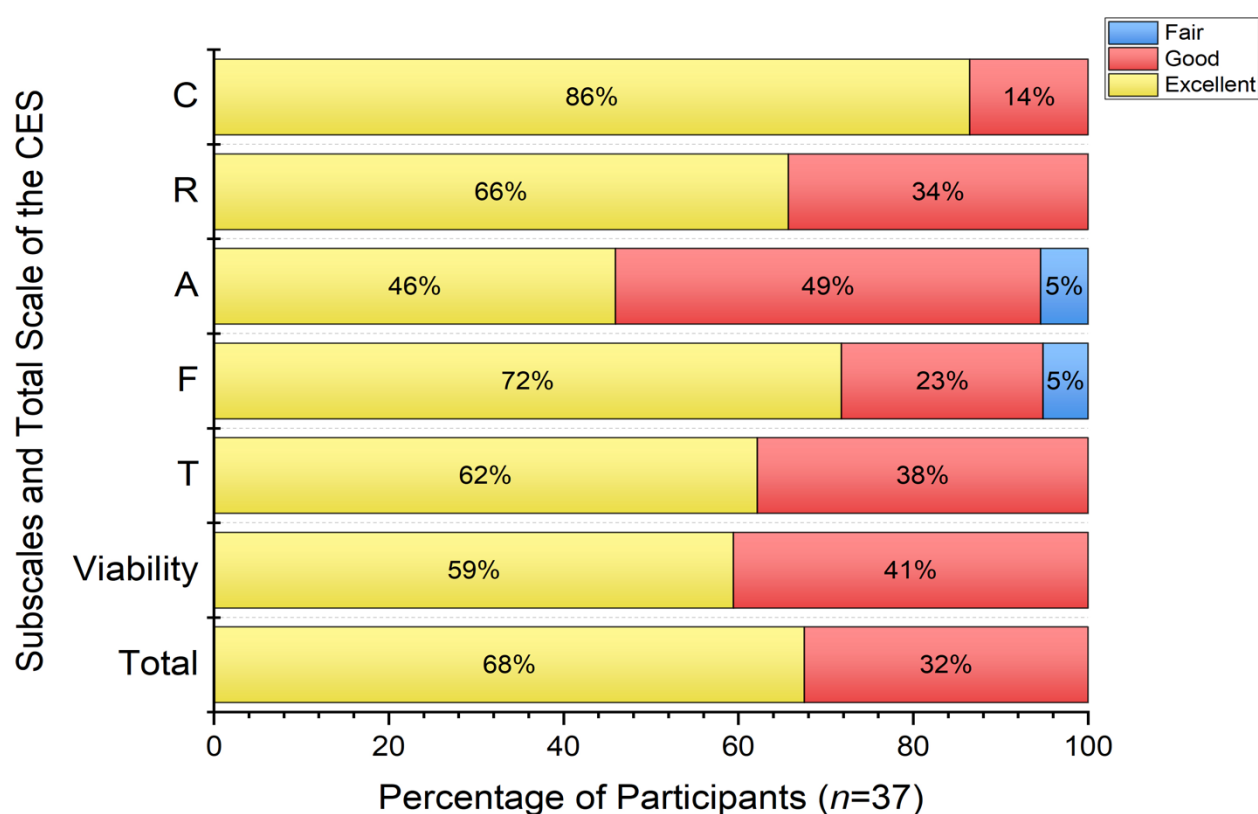
Elements/ Subscales	CES Likert items	Underlying per CES Item	Hypothesized Benefit	M±SD (Level of Agreement)	GM±SD (Evaluation)
F	1. The program contributed to my motivation and enthusiasm when studying in the classroom	Motivation and enthusiasm in the classroom		4.49±.61 (SA)	
	2. My vitality was greater after the practice so I felt less tired, more revitalized	Vital energy, tiredness, revitalization		4.41±.83 (SA)	
	3. After the practice of the program, my attitude in class was more positive	Positive attitude in class		4.46±.60 (SA)	4.41±.48 (E)
	4. The program helps me have more self-belief and confidence	Self-belief and confidence		4.35±.72 (SA)	
	5. After the practice of the program, I felt happier immediately	Immediate happiness		4.27±.80 (SA)	
	6. The practice helped me be happier for a longer term, on a daily basis	Long-term happiness on a daily basis		4.49±.61 (SA)	
T	7. The learning process in the classroom was meaningful, and thus I could integrate what I was learning with my own life and experience	Meaningful learning experience		4.27±.77 (SA)	
	8. The program helped me to make my life and daily experience meaningful	Meaningful daily life experience		4.08±.79 (A)	
	9. The program improved my capacity to stay calm when facing adverse situations, increasing my resilience	Resilience, stay calm under pressure		4.35±.68 (SA)	4.31±.55 (E)
	10. The program contributed to fostering creativity	Creativity		4.22±.82 (SA)	
	11. The program helped me to look at the same situation from different perspectives	Open-mindedness		4.54±.65 (SA)	
	12. The program helped me improve my quality of life	Quality of life		4.38±.76 (SA)	
Viability	13. The program helped me improve my academic performance	Academic performance		3.70±1.10 (A)	
	14. I apply elements of the program to improve my academic performance	Students apply it to improve academic performance		4.03±1.01 (A)	
	15. I apply elements of the program during public performances	Students apply it during public performances		3.86±1.00 (A)	4.26±.61 (E)
	16. The program could be applied to other subjects	It could be applied to other subjects		4.76±.55 (SA)	
	17. I apply the program to improve my quality of life in my daily life	Students apply it to improve their quality of life		4.30±.91 (SA)	
	18. I would recommend the program to other people	Students would recommend the program to others		4.92±.28 (SA)	
Total					4.30±.46 (E)

Note. CES = CRAFT Evaluation Survey; C = Consciousness; R = Regulation, Relaxation; A = Attention; F = Fulfillment; T = Transcendence; M = Mean; SD = Standard Deviation; GM = Grand Mean; LA = Participants' Level of Agreement according to interpretive evaluation categories (see Table 7.2); SA = Strongly Agree; A = Agree; E = Excellent; G = Good.

A similar pattern of results was observed in Figure 7.1 which shows the frequency of participants across the different evaluative categories for each subscale and total scale. On average, most participants provided an evaluation that was interpreted as *excellent*, some of them as *good*, while just a few of them, only for the elements of Attention and Fulfillment, as *fair*.

Figure 7.1

Percentage of Participants by Interpretive Evaluation Categories for each Subscale and Total Scale of the CES



Note. C= Consciousness; R = Regulation, Relaxation; A = Attention; F = Fulfillment; T = Transcendence

Overall, these results provided a strong indication for the potential of the CRAFT-based elective subjects of Mindfulness and Emotional intelligence to promote a variety of benefits related to the five CRAFT elements and their applicability. Examples of these potential benefits include an enhanced self-awareness, empathy, and social relationships (Consciousness); relaxation, stress, anxiety, and music performance anxiety (Regulation, Relaxation); attention, concentration, and memory (Attention); motivation, long- and short-term happiness, positive attitude, and vitality (Fulfillment); resilience, creativity, open-mindedness, and meaningful learning experiences (Transcendence); and student musicians' agency to independently used CRAFT techniques to optimize their wellness and academic music performance (Viability).

The deductive content analysis conducted on participants' responses to the open-ended question yielded 11 categories across the five CRAFT overarching categories. As can be seen in Table 7.4, the categories and/or subcategories abstracted from meaning units not related to the hypothesized benefits were boldfaced to be distinguished from those including meaning units paired with related hypothesized benefits.

Table 7.4*Perceived Benefits from Participants' Responses to the CES Open-Ended Question across the Five CRAFT Elements and Viability Subscale (N=32)*

Elements	Categories/Subcategories	Exemplar Responses	MU	N
C	➤Self-Awareness	P20: "I am more aware of everything that I do, feel, the decisions I make, and what my purpose is..."	38	12
	▪ Emotional	P22: "The CRAFT program has made me be more observant of my emotional state..."	8	6
	▪ Mental	P1: "The program has helped me be aware when I was not well mentally..."	5	5
	▪ Physical	P2: "I have been a lot more aware of what is happening within my body at a physical level..."	3	3
	▪ Insightful	P37: "...Thanks to it [the program], I am more aware of all moments of my life..."; P22: "The CRAFT program has made me aware of everything around me..."; P20: " <i>I am more aware of what my purpose is...</i> "	10	8
	➤Empathy and Social Relationships	P10: "...I believe my empathy has improved, I am able to put myself in someone else's shoes and understand their situations...my social abilities have improved..."	12	8
R	➤Self-knowledge	P15: "...In my daily life, the program helped me know and understand myself a little bit more and observe aspects of my personality that I did not know and that at times were detrimental to me..."	10	8
	➤Self-Regulation	P30: "...more self-confidence mostly as far as controlling my thoughts and emotions are concerned."	27	18
	▪ Emotional	P26: "it [the program] has helped me learn to regulate my emotions..."	6	5
	▪ Mental	P23: "...I no longer let myself be carried away by my thoughts as much as did before but rather I can observe them as a witness without being involved or identified with them..."	5	5
	▪ Physical	P2: "I have been a lot more conscious of what is happening within my body at a physical level and in this manner be able to control it a lot better..."	2	2
	▪ Self-Relaxation	P7: "It [the program] has helped me to relax myself..."	7	6
	▪ Non-Reactivity	P29: "Thanks to the CRAFT program I have learned to hold back my impulses in "unpleasant" situations..."	4	4
	▪ Anxiety and Stress	P27: "...It [the program] has helped me to regulate the anxiety during public performances."	3	3
	➤Attention and Concentration	P7: "It [the program] has helped me to concentrate myself in and out of the conservatory..."	8	5
	▪ Learning quality and efficiency	P10: "...As far the attention is concerned, meditation helps me to focus and achieve my objectives in a more efficacious manner..."	3	3

(continued)

Table 7.4 (continued)*Perceived Benefits from Participants' Responses to the CES Open-Ended Question across the Five CRAFT Elements and Viability Subscale (N=32)*

Elements	Categories/Subcategories	Exemplar Responses	MU	N
F	➤ Fulfilling Well-Being	P10: "it [the program] has helped very much to give myself what my body, my emotions, and my mind need..."	13	9
	▪ Confidence	P18: "...I feel also more confident with myself..."	4	3
	▪ Positivity	P14: "...It [the program] really has brought me optimism."	2	2
	▪ Self-need-fulfillment	P6: "It [the program] has helped me to have the tools to give myself what I need..."	2	2
	▪ Quality of Life	P36 "...it [the program] has improved my quality of life in all respects."	5	4
	➤ Hedonic Happiness	P17: "It [the program] has been useful to myself for living the moment, enjoying..."	10	6
	➤ Eudaimonic Happiness	P31: "...I have learned to live happier with my being and the rest of the world."	16	8
	▪ Long-Term Happiness	P14: "...It [the program] really has brought me inner peace and happiness."	6	5
	▪ Growth	P12: "...It [the program] makes me improve as a person every day and I feel happy for it."	4	3
	▪ Self-Acceptance	P37: "I am happier because I accept what I have and this is quite an important aspect in the musicians' lives. "...Interiorize such self-acceptance, breathe, and start working without torturing and blocking oneself is one of the things that I have practiced more...At the end of the day, we have come here to be happy and the CRAFT program is a good tool to attain it."	4	3
T	▪ Appreciation	P6: "...I value more the daily life details..."	2	2
	➤ Meaningful Self-Development Experience	P6: "It [the program] has helped me be conscious of my emotional states, what messages they give me, and have the tools to give myself what I need. I value more the daily life details. Likewise, my empathy has greatly developed and increasingly more and more I look at the conflicting situations from different perspectives. It has also been useful to become aware of everything I feel due to the ego."	8	8
	➤ Meaningful Daily Life Experience	P12: "It has been one of the most useful subjects not only for my degree but also for my daily life. I practice every day and remember with affection all the acquired experience. It makes me improve as a person every day and I feel happy for it."	12	12
	➤ Open-mindedness and Transforming Attitudes	P27: "Above all, the program has helped me see more perspectives to things and extract both the positive and the negative, and do not take the negative as something bad. There will be always these two perspectives and we have to accept it..."	25	16
	▪ Resilience, Stay Calm under Pressure	P28: "...During the time I was studying the subject, I was able to handle a lot better the anxiety, changing completely my capacities when it comes to study, and solve daily life problems..."	12	9
	▪ Reprioritization	P4: "...The CRAFT program has helped me become aware that in many of my daily life actions, I was giving importance to situations that were devoid of it..."	4	4
	▪ New Perspectives	P21: "...After meditating. The mind is fresh and one has another view of the problems..."	5	5
	➤ Integration	P14: "It [the program] is not something that I have used for my academic performance/efficiency. I have practiced it as a way of life but I have noticed that everything has improved	31	18
	▪ Daily Life	P9: "...and these teachings have facilitated the development of my personal and academic life."	12	12
	▪ Music	P33: "In my artistic experience, it [the program] has helped me not judge myself much, to feel more confident with myself and accept my mistakes, to play from another point of view different from trying to show off..."	19	11
Viability	➤ Expansion	P10: "...I would like these subjects continued in the conservatory and even that they were applied in any educational context because I am convinced that they are worth it."	7	5

Note. CES=CRAFT Evaluation Survey; C=Consciousness; R=Regulation, Relaxation; A=Attention; F=Fulfillment; T=Transcendence; MU=Number of meaning units; N=Number of Participants; Bold font denotes a category emerging from meaning units mainly unrelated to the CES hypothesized benefits.

Consciousness

From the overarching category of Consciousness, comprised of 60 meaning units from 21 participants, emerged the following three categories: Self-Awareness; Empathy and Social Relationships; and Self-Knowledge. Self-Awareness included four subcategories, out of which the first three (i.e., emotional, mental, and physical self-awareness) were abstracted from meaning units related to the first 3 CES hypothesized benefits. Across these three subcategories, participants mentioned that the program helped them be more aware of various aspects regarding their physical, mental, and emotional states. In addition, the last subcategory, yielded from meaning units unmatched to the CES hypothesized benefits, alluded to an enhanced insightful awareness relative to humanistic aspects of their lived experience. In this subcategory, participants' comments suggested that the program contributed to increasing awareness of themselves and everything around them, including their life purpose, ego, actions, surroundings, personality, life moments, priorities, and playing style. In the category Empathy and Social Relationships, named as the sixth hypothesized benefit, eight participants provided meaning units related to empathy and social skills such as a greater ability to listen actively and attentively, be in someone else's shoes, understand other people's situations and emotions, including, for instance, the actual composers' emotions to be able to express their feelings when interpreting their pieces. For the category Self-knowledge, eight participants disclosed evidence of an enhanced comprehension regarding general, agential, and trait self-knowledge (e.g., increased knowledge about themselves, the reasons for their actions, and unknowing aspects of their personality).

Regulation, Relaxation

In the overarching category of Regulation, Relaxation, with a total count of 18 participants and 27 meaning units, Self-Regulation was the only category abstracted. This category encapsulated Self-Relaxation as a subcategory, for self-relaxation can be conceived as a type of self-regulation process. The voices of six participants suggested self-relaxation benefits such as higher tranquility, calmness, and relaxation within one's music experience. In addition, Self-Regulation included six subcategories, out of which the first three (Emotional, Mental, and Physical) and the fifth (Non-Reactivity) were composed of meaning units reflecting benefits not contemplated in the CES. For the first three subcategories, participants revealed that their CRAFT program experience was helpful in fostering an enhanced self-regulation of their physical, mental, and emotional processes. This also entailed developments in their capacity to effectively apply a mindful decentering-based self-regulatory mechanism and quell negative thoughts and ruminations. In the fifth subcategory, four participants mentioned that the program contributed to increasing their non-reactivity and impulse self-regulation skills. In the last subcategory, three participants indicated benefits relative to greater self-regulation of general anxiety and music performance anxiety.

Attention

For the overarching category of Attention, a single category named Attention and Concentration generated eight meaning units from five different participants. Overall, as evidenced by the subcategory named Learning Quality and Efficiency, participants suggested having achieved greater concentration and attention to maximize skills and learning outcomes of their academic and daily life experience.

Fulfillment

For the overarching category of Fulfillment, comprised of 38 meaning units from 15 participants, there were three emerging categories mainly abstracted from meaning units matched with pre-determined CES hypothesized benefits. In the first category entitled Fulfilling Well-Being, nine participants disclosed that the program helped them promote a variety of well-being aspects including their self-confidence, positivity, quality of life, and capacity to fulfill their own needs. In the second category of Hedonic Happiness, mostly derived from meaning units paired with the 23rd CES hypothesized benefit *immediate happiness*, six participants mentioned a series of benefits relative to an increased enjoyment, music flow experience, and capacity to savor and enjoy from the present moment and the small aspects in life. For the category of Eudaimonic Happiness, eight participants conveyed an array of perceived benefits related to eudaimonic components of happiness, as reflected by the subcategories Long-Term Happiness, Growth, Self-acceptance, and Appreciation. Amongst these subcategories, Long-term Happiness received the name of the 24th CES hypothesized benefit, whereas the other three were derived from meaning units unrelated to the CES hypothesized benefits. Some of the benefits voiced by participants included higher inner peace, happiness in every aspect of their life, happiness from increased acceptance, daily life happiness, capacity to live to the fullest, appreciation, and humanistic self-improvement.

Transcendence

Within the category Transcendence, representing 45 meaning units from 22 participants, two categories arose from meaning units connected with the CES hypothesized benefits. In the first category entitled Holistic Meaningful Experience, 16 participants narrated relevant lived experiences learned through the program regarding multiple aspects of their daily life, academic music career, and well-being. The 25th and 26th CES hypothesized benefits synthesized as *meaningful learning experience* and *meaningful daily-life experience*, serve to conceptually illustrate the essence of this category and explain its underlying subcategories (Table 7.4). In the second category, named Developing Resilience, Open-mindedness, and Transforming Attitudes, the responses of 16 participants appear to show that instruction in the CRAFT program may have bestowed upon them an increased open-mindedness, ability to reframe from new perspectives for conflict resolution, resilience, and an equanimous- and acceptance-based attitude. The 27th and 29th CES hypothesized benefits of *resilience*, *stay calm under pressure* and *open-mindedness* majorly explain this category and its first two subcategories. In addition, for the subcategory reprioritization, which sprang from meaning units unrelated to the CES hypothesized benefits, four participants commented on changes in their priorities and the relative importance given to particular aspects of their lives.

Viability

From the overarching category Viability, composed of 38 meaning units from 18 participants, two categories named Integration and Expansion arose. Within Integration, as stressed by the subcategories Application to Daily Life and Application to Music, the responses showed evidence of having integrated and employed what they had learned in the program within their daily lives and music studies. Notably, the subcategory Application to Music was mainly derived from meaning units that could not be linked to the hypothesized benefits included in the CES Viability subscale. Some of the music-related benefits uncovered by participants from their CRAFT-based practice application referred to the promotion of confidence in music

performance, on-stage attitude, regulation of music performance anxiety, a conscious and relaxed playing style, non-judgmental- and acceptance-based attitude, a less-egoistic playing perspective, emotional interpretation, flow states, and enjoyment. For the category expansion, five participants commented on the potentiality of the program to be applied to other fields, educational contexts, life situations, classes, and among faculty members and students of any discipline.

Discussion

The purpose of the current study was to provide further evidence to investigate the potential of the CRAFT program to enhance the well-being and academic experience of higher education student musicians. Following up on a previous quantitative feasibility study (Bartos et al., 2022), we conducted a detailed examination of the possible benefits and viability of the CRAFT program, to gain a wider understanding of how exposure to CRAFT training may impact student musicians' well-being and academic life.

The high level of agreement of the CES Likert item results with the hypothesized benefits of the program and its viability suggest that the CRAFT program may be a beneficial intervention to enhance student musicians' wellness and academic music performance. These results can be aligned with those reported in previous longitudinal studies implementing either yoga, mindfulness, emotional intelligence, or positive psychology-based interventions with higher education students. Researchers examining the effect of yoga- and mindfulness-based interventions through outcome measures related to the CES hypothesized benefits have found students' improvements in psychological distress (Breedvelt et al., 2019; Halladay et al., 2019; McConville et al., 2017); awareness, attention, memory, and executive function (Brunner et al., 2017; Gothe & McAuley, 2015; Tang et al., 2015); and music performance anxiety (Chang et al., 2003; Stern et al., 2012). Similarly, the current study results supporting the potentiality of the CRAFT program to increase happiness and quality of life concurred with those found by other researchers suggesting enhanced happiness and well-being amongst participants following interventions based on positive psychology (Bolier et al., 2013; Gander et al., 2013; Seligman et al., 2005) and emotional intelligence (Mayer et al., 2008; Ruiz-Aranda et al., 2014; Schoeps et al., 2020).

Regarding the CES open-ended question, results from the content analysis indicated that participants' CRAFT-based experiences and perceived benefits aligned with the five CRAFT elements, and to a large degree with the program's hypothesized benefits and viability. However, participants documented also other benefits not assessed in the CES. For example, for Consciousness, participants' voices suggested that instruction in the CRAFT program may have helped them to enhance their self-knowledge, not only in its broadest sense but also regarding particular aspects of their personality and behavior. These enhancements could have been the result of an increased self-awareness insofar as having an accurate ability to perceive one's experiences, processes, and states may be the actual reflection and pathway of acquiring self-knowledge (Vazire & Carlson, 2010). In effect, self-awareness has been conceived as both awareness and knowledge of one's thinking, emotional, and behavioral processes (Richards et al., 2010), being in turn metacognitively influenced by self-reflection (i.e., inspection) and insight (i.e., clarity of understanding) to catalyze meaningful intrapersonal change (Grant, 2002). With reference to the CRAFT foundations, particularly self-awareness represents a key component worked through yoga, mindfulness, and emotional intelligence theory and practice (Chiesa et al., 2013; Gard et al., 2014; Goleman, 1998), whereas self-knowledge and insight stand as fundamental constituents of both yoga and mindfulness philosophy along the pathway of Self-realization (Dahl & Davidson, 2019; Tolbaños-Roche &

Menon, 2021). As reported in the first category of Consciousness, participants' potential improvements in self-awareness seem to have surfaced not only at the CES hypothesized levels (i.e., physical, mental, and emotional) but also in relation to humanistic aspects of their lived experience (e.g., temporal, agentic, life purpose, relativistic, academic, ego, and an all-inclusive self-awareness). Drawing from the foregoing evidence, it could be surmised that an increased mental, emotional, and physical self-awareness through CRAFT-based mindful practices may have concomitantly triggered both a higher insightful conscious awareness of such humanistic aspects and an enhanced self-knowledge. In the CRAFT program, self-awareness is worked through practices such as the body scan and open-monitoring, focused, and loving-kindness meditations. Evidence from neuroimaging investigations has shown that these practices stimulate the insula, a brain region that plays a major role in the modulation of interoceptive awareness and metacognition (Fox et al., 2016). In addition, other practices developed by the CRAFT program developer (e.g., experiential self-introduction and the impartial observation of the physical, emotional, and mental states) may have been influential in fostering both self-awareness and self-knowledge.

In the milieu that connects self-awareness, insight, and self-knowledge, Carlson (2013) contended that both the attentional and non-judgmental components operationalizing mindfulness as a non-judgmental sustained awareness of one's experiences may explain to a great extent why mindfulness practice promotes self-knowledge. As discussed by the author, increased attention to one's inner experiences through mindfulness training may allow practitioners to perceive and retrieve further information about their tendencies, thoughts, conduct, and emotions. Furthermore, as Carlson (2023) posited, the cultivation of the non-judgmental- and acceptance-based attitude with which mindfulness attentional component is performed may promote non-reactivity skills, and consequently, processing information about one's personality with a lesser degree of influence from ego-related bias (e.g., self-enhancing and self-threatening). In the current study, in addition to the category self-awareness, the subcategories Non-Reactivity and Self-Acceptance featured within the second and fourth CRAFT elements respectively, lend support to Carlson's (2013) contention as a plausible mechanism explaining participants' potential improvements in self-knowledge. Likewise, previous studies support the efficacy of mindfulness-based interventions for enhancing self-knowledge (Abbasi et al., 2021; Aránega et al., 2019; Crescentini & Capurso, 2015; Rodríguez-Jiménez et al., 2022), albeit, as a field in its early infancy, contemplative scholars have yet to thoroughly examine and elucidate the impact of mind-body practices on personality traits and self-concepts.

Lastly for the element of Consciousness, participants' perceived enhancements in their empathy and social skills appeared to be congruent with their exposure to the emotional intelligence curriculum imparted through the CRAFT program. Particularly, participants' critical reflection on Goleman's (1998) five components of emotional intelligence through practical role-play cases of guided discovery specifically developed to stimulate conscious communication and empathy-related abilities might shed light on the emergence of these benefits. Similar types of hands-on strategies (e.g., role play, group discussion) have been employed in previous emotional intelligence-based interventions that effectively improved emotional intelligence (Mattingly & Kraiger, 2019), and specifically empathy (Schoeps et al., 2020) and interpersonal emotional regulation abilities (Nelis et al., 2019). However, in addition to the explicit work on empathy encouraged through the CRAFT foundation of emotional intelligence, the mindfulness-based loving-kindness meditations and class reflections on compassion-related concepts undertaken in the program may have also

indirectly contributed to participants' potential improvements in empathy. Both empathy and compassion involve a certain level of awareness of other people's emotional concerns with compassion additionally encompassing the wish to mollify pain and suffering (Bibeau et al., 2016). In support of this relationship, evidence from neuroscientific studies indicates that compassion and loving-kindness meditations may instigate relevant brain regions linked to empathy (e.g., somatosensory cortices, insula, Fox et al., 2016). In addition, significant effects in self-reported measures of empathy have been reported in various mindfulness-based interventions involving a variety of populations (Garrote-Caparrós et al., 2022; Cheang et al., 2019; Luberto et al., 2017), including university students (Centeno et al., 2020; Shapiro et al., 1998).

In the element of Regulation, Relaxation, participants' comments were supportive of an increased relaxation and a reduction in their stress and anxiety levels as a result of their CRAFT training. These benefits could be majorly explained by the potential self-regulatory effects driven by the different yoga- and mindfulness-based postural, breathing, relaxation, and meditative techniques implemented through the program. Such techniques encourage an interoceptive, proprioceptive, embodied, non-judgmental, and acceptance-based experience that may eventuate in a general relaxation response of vagal nerve and parasympathetic nervous system activation through bottom-up processes engaging lower-level brain networks (Gard et al., 2014). In turn, these processes would also manifest in a counteraction of the stress response by reduction of sympathetic tone and subsequent downregulation of the hypothalamic-pituitary-adrenal axis, catecholamines, and proinflammatory cytokines (McCall, 2013; Sullivan, Erb, et al., 2018). Moreover, the open-monitoring meditative practice of observing the content of one's mental and emotional processes with a non-judgmental and acceptance-based stance has been arguably described as a combined top-down and bottom-up mechanism stimulating high and low brain networks (Guendelman et al., 2017). Through such an integrative and diverse neural pathway instigation, open-monitoring meditation has been linked to promoting adaptive strategies of emotional regulation such as meta-awareness and cognitive reappraisal, while reducing maladaptive cognitions such as rumination, reactivity, and expressive suppression (Chiesa et al., 2013; Gard et al., 2014). Considering the fact that open-monitoring meditations are highly encouraged through the CRAFT program, it appears not surprising that these benefits parallel those portrayed in the current study content analysis for this element.

Additionally, other types of mindfulness- and yoga-based meditation techniques involving direct attention to a specific target (e.g., breath awareness and mantra meditations) implemented in the program may have played a relevant role in accounting for participants' perceived benefits of attention in the third element. The constant practice of maintaining and redirecting upon distraction one's focus of attention to the target (e.g., breath, mantra) through focused-attention meditations has been associated with the stimulation of top-down processes and brain regions responsible for executive and cognitive monitoring (e.g., anterior cingulate cortex, premotor cortex, dorsolateral prefrontal cortex, Fox et al., 2016; Gard et al., 2014).

The non-evaluative and acceptance-based observation of one's inner experiences that is engrained in both yoga and mindfulness practices could also be put forward as a pivotal mindful mechanism to account for other relevant benefits voiced by CRAFT participants. As theorized by Shapiro et al. (2006), such a non-evaluative observation constitutes a metacognitive process that enables practitioners to disidentify with the content of their consciousness and reexperience themselves as different from it, a change in perspective the authors named *reperceiving*. Based on Shapiro et al.'s (2006) theorization, Garland et al. (2009) proposed a mindful coping model suggesting reperceiving as the naturally occurring process, prior to positively reappraising any

given negative appraisal, through which a state of expanded awareness and cognitive flexibility could arise. According to Garland et al. (2009, 2015), from this heightened state of consciousness, new valuable perspectives and insights might emerge and be leveraged to meaningfully re-construct stressful primary appraisals as beneficial for intrapersonal development and eudaimonia. Drawing from Shapiro et al. (2006) and Garland et al. (2009, 2015), it could be argued that through the practice of open-monitoring meditations, CRAFT participants may not only have potentiated their reframing and cognitive reappraisal skills but also eudaimonic qualities and resilience. In accordance with such supposition and derivative benefits, our content analysis results suggested that CRAFT participants may have experienced greater happiness mainly through changes in eudaimonic components of well-being such as increased self-acceptance, appreciation, and personal growth in the fourth element (Fulfillment); as well as a higher resilience and ability to reframe and reprioritize in the fifth element (Transcendence).

For Fulfillment and Transcendence, participants' responses aligned also with the major emphasis that instruction in the CRAFT program places on developing eudaimonic well-being, resilience, and transforming attitudes through critical reflection and group discussions on both yoga and mindfulness philosophy and practice. For instance, critical inquiry into yoga core values, principles, and moral precepts (Sullivan, Moonaz, et al., 2018) may have nudged CRAFT participants to realize the importance of nurturing an ever-lasting happiness and purposeful life unattached to the impermanence of their hedonic pleasures and unpleasant sensations. In addition, class debates and reflections on their metacognitive experiences of re-perceiving through the lenses of mindfulness and yoga philosophy (Goenka, 2000; Satyananda, 2013; Sullivan, Moonaz, et al., 2018) may have assisted CRAFT participants to further comprehend re-perceiving and meaningfully apply it into their daily lives. In this regard, CRAFT instruction encourages practitioners to delve into the existential notion that any of their worldly sensed phenomena (pleasant and unpleasant) they may identify with—including their own physical and personality traits—are part of an ever-changing reality they can accept, neither clinging to nor repel, disidentify with, and reframe by deploying an acceptance- and equanimous-based witness stance, the perfection of which clears the path towards realizing the everlasting reality of the transcendental Self (Goenka, 2000; Satyananda, 2013; Sullivan, Moonaz, et al., 2018).

Furthermore, participants' potential changes in their perspectives, perceptions, frame of reference, and appraisals (i.e., re-perceiving, reframing); meanings and conceptions, (i.e., reconceptualization); and values and priorities (i.e., reprioritization) appear to largely overlap with what previous scholars have referred to as a response shift phenomenon in the context of self-reported measurement error and bias (Sprangers & Schwartz, 1999; Rapkin & Schwartz, 2019). These researchers explained response shift in terms of variations in self-reported evaluations at different times from catalyst-induced changes in intrapersonal cognition and appraisal abilities, internal standards, conceptualizations, and priorities. In finding evidence of a potential mindfulness-based response shift occurrence that may have masked participants' actual improvement in mindfulness levels, Bartos, Posadas, Wrapson, et al. (2023) equated the transformative lived experiences that might occur from yoga- and mindfulness-based practices with a response shift phenomenon. Lastly, the practical and theoretical instruction of positive psychology-based components (e.g., attending to the positive aspects of one's life, optimism, appreciation of beauty and excellence, savoring of one's experiences, gratitude, hope, humor, and flow states, Peterson, 2006; Peterson & Seligman, 2004) implemented through the CRAFT-based elective

subjects of mindfulness and emotional intelligence may also explain some of the participants' benefits portrayed through the content analysis within these two elements.

In the final main category of the content analysis, participants voiced support for the benefits of the program to optimize students' well-being, daily lives, and music academic experience. One of the main objectives of the CRAFT program is to nurture within practitioners a sense of agency and inner responsibility to independently transfer and leverage what they learned through the training to real-life contexts. This sense of agency and empowerment blends with the self-grounded paradigm that is central to the program through the four CRAFT foundations, mainly yoga and mindfulness, whereby the Self stands as the primarily responsible entity for observing, realizing, accepting regulating, caring, knowing, engaging, implementing, and transcending (Bartos et al., 2021). The encouragement of these series of self-rooted behaviors, attitudes, and experiences—promoted for the benefit of transcending selfishness and raising consciousness amongst individuals and communities—may have also contributed to other benefits echoed by participants across the previously discussed five categories of the content analysis. In accordance with this paradigm and participants' testimonies reflected in the category Viability, significantly higher proactivity and perceived benefits amongst CRAFT participants than controls in terms of applying strategies to improve their health and well-being during the COVID-19 lockdown have been previously reported (Bartos et al., 2021; Bartos, Posadas, et al., 2023).

Particularly with regard to evidence of CRAFT-based practice deployment in academic music contexts, participants divulged benefits supportive of an enhanced music practice and performance. Some of these benefits indicated that participants lived their artistic experience with an improved self-confidence, non-judgmental- and acceptance-based attitude, attention, music performance anxiety, tolerance for accepting their mistakes, enjoyment, capacity to attain flow states, and ability to play more consciously and relaxed. These results were consistent with those reported in a previous mixed methods study implementing an 8-week hybrid program based on the Mindfulness-Based Stress Reduction (MBSR, Kabat-Zinn, 1990) program and Mindfulness-Based Cognitive Therapy (MBCT, Segal et al., 2002) followed by 25 conservatory students (Czajkowski et al., 2022). In addition, in alignment with Czajkowski et al. (2022) and the current study results, the findings by Steyn et al. (2016) suggested improved self-confidence, concentration, anxiety, worry, and mindfulness skills (e.g., non-judging) in a sample of 36 undergraduate music students following a 7-week mixed program combining mindfulness and sport-related psychological skills. Although taken together these results are promising, further research is required to determine the impact of mindfulness-based interventions on student musicians' well-being and academic performance.

Limitations and Further Research

Various limitations exist in the current study. First, due to its cross-sectional and non-controlled design, no actual causation can be inferred or attributed to the different evaluations (CES Likert items) and perceived benefits (CES open-ended question) reported. Additionally, as a single-arm study with a qualitative focus, blindness of intervention in terms of concealment of group allocation was not possible. However, data were collected by a research assistant blind to the study hypotheses, and this procedure served as a further layer to reduce bias. Second, although the present study results provide further breadth and insight into the understating of participants' experiences and perceived benefits from following the CRAFT program, neither objective nor psychometric measures were employed to substantiate any of the reported findings. Therefore, considering the neuroscientific and multifaceted nature of the CRAFT program, future longitudinal investigations including

modern functional Magnetic Resonance Imaging (MRI) techniques (Fox et al., 2016); functional tests of cognition (e.g., Attentional Network Test, Tang et al., 2015) and physical fitness (e.g., range of motion, lung function, Araújo et al., 2020); physiological assessment (e.g., salivary cortisol, Inder et al., 2012); and self-reported inventories measuring, for example, mindfulness, psychological distress, music performance anxiety, empathy, self-knowledge, and eudaimonic well-being are needed to estimate the effectiveness of the CRAFT program to potentially induce the benefits reported here. Third, participants' involvement in reading and evaluating the CES Likert items may have evoked among participants extensive information they could have drawn from to answer the open-ended question. However, the provision of a variety of options to choose from, as typically occurs in self-reported questionnaires, should not preclude participants from procuring genuine responses. As reported in the current study content analysis results, participants' comments to the open-ended question also uncovered relevant benefits not contemplated in the CES Likert items. Fourth, despite some comprehensive responses to the CES open-ended questions, others were only brief comments lending scant content and context that limited to some extent our ability to draw consistent generalizations for adequately targeting our research questions. Notwithstanding this, even small textual fragments can afford a meaningful account that may reflect the essence or highlights of the participants' experience, and therefore offer a valuable contribution to the research process. Yet, further research incorporating semi-structured interviews and/or practice logs is highly encouraged to expand, clarify, and further inquire into the understanding of higher education student musicians' experiences and perceived benefits from following the CRAFT program. Moreover, to further delve into the understanding and social validation of the CRAFT program and its impact on the lived experience of CRAFT participants, these qualitative methods should also include specific open-ended questions in relation to the program's goals, procedures, and outcomes. Lastly, because of the limited sample size and the need to maintain anonymity, the current study did not furnish full demographic information of participants. Future specific work including data collection on a wider scope of demographics is required to explore to what extent the CRAFT program suits the needs of various marginalized and diverse populations.

Despite its limitations, the results of the current study through both the CES Likert Items and open-ended question were supportive of an overall beneficial impact of the CRAFT program to enhance the music and well-being experience of higher education student musicians. Participants' positive evaluations of the CES Likert items indicated that they perceived the program as a viable tool to be integrated into their daily lives to maximize their wellness and academic careers while developing a series of hypothesized benefits across the five CRAFT elements. Furthermore, the CES open-ended question confirmed, clarified, and expanded these results uncovering relevant additional benefits, insights, and implications across humanistic, educational, well-being, and music-related domains. Overall, these responses endorsed the continued application of the CRAFT program in higher music education and its expansion to other settings, educational fields, and populations. Hence, albeit remaining at an evaluative, descriptive, and perceptual level, due to the study's cross-sectional and non-controlled design, as well as the qualitative elements incorporated, these findings provide further evidence for including the CRAFT program in the curriculum of higher education student musicians. Future longitudinal investigations with a mixed-methods design are encouraged to comprehensively examine the efficacy and effectiveness of the CRAFT program to enhance well-being outcomes and further understand its impact on the lived experiences of their practitioners.

Prelude. Chapter 8

The fifth study of this PhD investigation and second study within Phase 2, which was showcased in Chapter 6 (Bartos et al., 2022), widened the breadth of the quantitative findings reported in the previous chapter by a mixed methods exploration of the potential benefits and viability of the Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT) program to enhance tertiary student musicians' well-being and academic performance. Results from a CRAFT evaluation survey (CES) containing 36 5-point Likert Items and one open-ended question indicated that tertiary student musicians following CRAFT-based elective subjects during 2017-2019 perceived the program as a feasible tool to promote various states, conditions, and abilities related to CRAFT's theoretical framework to promote their daily life, well-being, and music academic performance experience. This was supported by CRAFT participants' high level of agreement with a series of hypothesized benefits of the program expressed within the CES Likert items, and the deductive content analysis performed on their responses to the open-ended question that revealed further benefits not contemplated in the survey. Overall, this study lent further support to CRAFT as a feasible program to improve tertiary student musicians' well-being and academic experience, concluding the feasibility phase of CRAFT. The next Chapter reveals the capstone project of this PhD investigation, a manuscript submitted for publication that describes the conduction of a three-arm non-randomized controlled trial that, building upon prior limitations in the field, leads the way through a new research stage examining the effectiveness of CRAFT (Bartos, Posadas, Wrapson, Medvedev, et al., 2024).

Chapter 8. Examining the CRAFT Program's Impact on Student Musicians' Compared to Controls

Introduction

The health and well-being of university students has gradually become a grave concern in recent decades due to the numerous and growing challenges faced by this population (Hernández-Torrano, 2020). These challenges include managing autonomy (e.g., independent learning, living, caring; Thompson et al., 2021), unhealthy habits (e.g., drinking, smoking, drug consumption; Jao et al., 2019; Molina et al., 2012), financial worries (Richardson et al., 2017; Tran et al., 2018), high academic workloads (Jääskeläinen et al., 2023), and physical and mental disturbances (Hernández-Torrano et al., 2020; Hussain et al., 2013; Sanci et al., 2022). Notably, anxiety and depression are ubiquitous among tertiary students (Auerbach et al., 2018), with even higher rates than in the general population (Ibrahim et al., 2013; Stallman et al., 2010), and seemingly heightened—ranging from 15-41%—among arts, design, and music students (Lipson et al., 2016; Ruiz-Hernández et al., 2022; Vaag et al., 2021).

In addition to the generic stressors affecting university students, tertiary student musicians encounter specific health and well-being issues from the highly physical, emotional, and mental demands required to meet elite levels of music performance. One of the most widely documented concerns disrupting student musicians' ability to perform at the level they are accustomed to are playing-related musculoskeletal disorders (PRMDs) such as pain, tingling, and numbness (Zaza et al., 1998). There have been reported prevalence rates of PRMDs for student musicians ranging between 49-81% (Cruder et al., 2023; Steinmetz et al., 2012) with evidence suggesting higher musculoskeletal symptoms among music students than tertiary students in other disciplines (Ballenberger et al., 2023; Kok et al., 2013). A series of risk factors has been highlighted as potential predictors of PRMDs, including poor physical condition; deficient playing-related posture; muscular fatigue; excessive practice; and high levels of perfectionism, competitiveness, and psychological distress (Ballenberger et al., 2023; Cruder et al., 2023; Rodríguez-Romero et al., 2016). In addition, the occurrence of PRMDs has been associated with music performance anxiety (MPA; Kenny & Ackerman, 2015), another major problem experienced by tertiary student musicians (Kenny, 2011). Rates of MPA amongst student musicians appear to vary between 50% (Steptoe & Fidler, 1987), 65% (Kokotsaki & Davidson, 2003), up to even 96% (Zakaria et al., 2013) with reportedly higher MPA levels than professional musicians (Biasutti & Concina, 2014; Steptoe & Fidler, 1987). Typical MPA symptoms occurring either before, during, or after challenging performance situations include feelings of panic, lack of self-confidence, inattention, fear of making mistakes, worrying about external evaluations, negative self-judgment, and overthinking (Kenny et al., 2011).

To manage these problems and prevent their occurrence while satisfying high levels of performance, it is of paramount importance that student musicians maintain an optimal level of holistic well-being (Kenny, 2011; Williamon, 2004). In this vein, the manner in which student musicians self-regulate their physical, mental, and emotional states may play a crucial role in ascertaining to what extent these stressors may impact their well-being and academic performance (Kalénska-Rodzaj et al., 2023; Osborne et al., 2014). At an emotional level, using adaptive emotional regulation strategies (e.g., acceptance, positive reframing) as opposed to maladaptive ones (e.g., rumination, expressive suppression) may help student musicians monitor situations of emotional instability, such as when experiencing MPA symptoms (Kalénska-Rodzaj et al., 2023; Osborne et al., 2014). For instance, positive reappraisal may be used to reconstrue unwanted feedback about their performances not only

as a potential source to derive useful learning but also to develop resilience and establish their happiness irrespective of the valence of other people's opinions. Compared to expressive suppression and rumination, positive reappraisal has been consistently associated with lower anxiety and depression as well as higher self-esteem, life satisfaction, and positive emotions (Gross & John, 2003; Megías-Robles et al., 2019; Moore et al., 2008). In this milieu, mindfulness-based practices, which encourage a sustained and purposeful awareness of the present moment with a non-judgmental and acceptance-based attitude (Kabat-Zinn, 1994), have been particularly recommended (Juncos & Markman, 2016; Kaleńska-Rodzaj, 2023; Shaw et al., 2020). Drawing from the mindful mechanism of *re-perceiving* (Shapiro et al., 2006), by paying attention to the content of their present-moment experience (e.g., feeling anxious before performing) with acceptance and a non-evaluative stance, student musicians may learn to disidentify with such content, and *re-perceive* themselves as different from it. Based on the mindful coping model (Garland et al., 2009, 2011), such a metacognitive experience of re-perceiving may encompass a state of heightened awareness and cognitive flexibility from which new meaningful insights could arise and be deployed by student musicians to re-construe stressful primary appraisals as growth-promoting.

Despite the major role that mindfulness-based training could play in enhancing tertiary students' well-being, academic performance, emotional regulation skills, and MPA, the research literature in the field remains scarce. In a quasi-experimental study (Steyn, 2013; Steyn et al., 2016), significant within-group improvements were reported for competitive state anxiety, concentration, motivation, relaxation, self-confidence, worry, growth mindset, psychological well-being, and mindfulness skills among undergraduate music students following a 7-week, 1 hr per week, combined mindfulness and sport-related psychological skills program ($n=21$) relative to controls ($n=15$). Enhancements in mindfulness skills have also been found in single-arm studies with a mixed-methods design implementing a hybrid program based on both Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT) followed by 8 (Czajkowski & Greasley, 2015) and 25 (Czajkowski et al., 2022) tertiary student musicians. Subsequently, Czajkowski et al. (2021) substantiated their previous findings through a larger mixed-methods investigation followed by tertiary-level singing music students participating in the same program. In this study, Czajkowski et al. (2021) employed a non-randomized controlled trial, in which experimental participants ($n=16$) reported within-group improvements in mindfulness skills relative to controls ($n=11$), and a randomized controlled trial, in which between-group differences in the same mindfulness abilities favoring experimental participants ($n=12$) over waitlist controls ($n=12$) were found. Some of the perceived benefits reported by Czajkowski and Greasley (2015) and Czajkowski et al. (2021, 2022) included improved bodily awareness, attention, learning experience, effectiveness, creativity, coping strategies, collaborative skills, expressivity, and MPA. The hybrid mindfulness program was delivered over 8 weeks, once per week, for either 1 hr (Czajkowski & Greasley, 2015; Czajkoski et al., 2021) or 2-2.5 hr (Czajkoski et al., 2022). Regarding MPA, Chang et al. (2003) conducted a randomized controlled study in which tertiary student musicians following 8 weeks of mindfulness training on Chan meditation ($n=9$)—once a week for 1 hr—reported significant MPA within-group improvements before performing in a concert compared to controls ($n=10$). In a further study linked to the former, Lin et al. (2008) reported a significant positive association between performance quality and MPA in the Chan meditation group, suggesting that meditation training may help student musicians optimize their performance even when feeling higher levels of MPA. Lastly, in a one-group design study, Stern

et al. (2012) found significant reductions in MPA and general anxiety in a sample of 24 higher conservatory music students following a 9-week Kripalu yoga intervention, twice a week, for 1 hr.

Fitness promotion in conservatory settings has recently gained prominence due to the diversity of physically demanding functions and abilities (e.g., cardiovascular, flexibility, postural balance, and pulmonary functions) involved in professional music practice and performance (Araújo et al., 2020; Kim & Kim, 2023). This growing interest is not surprising considering also the apparent association between being physically active and reducing the frequency and severity of both MPA (Burin & Osorio, 2016; Rocha et al., 2014; Wasley et al., 2012) and PRMDs (Lundborg & Grooten, 2018; Matei & Ginsborg, 2020; Roos & Roy, 2018) amongst professional and student musicians. Yet, the apparent scarcity of student musicians' involvement in physical activity and other health-promoting behaviors warrants concern (Araújo et al., 2017; Panebianco-Warrens et al., 2015). Findings from a cross-sectional study (Araújo et al., 2020), in which the physical condition of 483 tertiary student musicians was assessed through various standardized tests, call into question whether student musicians' fitness levels are adequate to meet the high physical demands of professional performance. Although Araújo et al. (2020) found that 79% of participants reported an overall satisfactory level of physical activity, their lower back and hamstring flexibility, upper body strength, and endurance scores were lower than normative values.

The multiple demands and concerns affecting tertiary student musicians have raised awareness of the need to incorporate comprehensive approaches to health, well-being, and academic performance promotion within higher music education settings (Araújo et al., 2020; Matei et al., 2020). One of such approaches that has been frequently leveraged by musicians is the Alexander Technique (Alexander, 2001), a psychophysical self-regulatory method with the potential to optimize performance by ameliorating balance, flexibility, coordination, movement, MPA, and PRMDs through a holistic *use of the self* (Conable & Conable, 1995; Davies et al., 2020; Wong et al., 2024). This is accomplished through a series of principles (e.g., habit recognition, inhibition and non-doing, provision of directions, and primary control) that enable the practitioner to consciously become aware, avoid, and undo detrimental neuromuscular tensions, reactions, and patterns (Cacciatore et al., 2020; Little et al., 2008; MacDonald, 2006). Results from a systematic review of controlled trials suggest that the Alexander technique may be an effective approach to induce various psycho-physical effects among professional and student musicians such as improved neck and shoulder flexibility, head-neck alignment, pain, awareness, executive skill function, stress, anxiety, well-being, heart rate variability, blood pressure, performance quality, and MPA (Klein et al., 2014). The most replicated finding, reported in 4 out of the 12 reviewed studies by Klein et al. (2014), was reduced MPA. In addition, other benefits such as reduced muscle tension (Loo et al., 2015) and PRMDs (Davies et al., 2020) have been noted in subsequent studies conducted with tertiary student musicians after receiving Alexander technique training.

Holistic approaches to health and well-being, such as mindfulness and yoga, may also afford tertiary student musicians a variety of practices to effectively address their physical, psychological, and emotional needs. Springing from these ancestral disciplines, Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT), a newly developed neuroeducational program for self-actualization, happiness, and well-being—named after its five core elements—appears to be a suitable asset to that end (Posadas, 2019). CRAFT combines a careful selection and/or adaptation of the theories, philosophies, practices, and state-of-the-art neuroscientific findings of mindfulness, yoga, positive psychology, and emotional intelligence, its so-called four foundations, insofar as the limitations of a particular foundation could be offset by the strengths of others (Bartos et al., 2021,

2022; Posadas & Bartos, 2022). As a result, CRAFT could potentially be more effective than other programs based on one of these four disciplines and/or fields of knowledge alone to address tertiary student musicians' multidimensional demands.

Since 2016, CRAFT has been curricularly implemented at the Higher Conservatory of Music of [Anonymized]. During 2016/2017, it was first applied as the *CRAFT's 7 mindful minutes* in the subjects English for Musicians and Chamber Music, with students reporting improvements in second-language acquisition skills (Rull et al., 2019) and positive program evaluations (Posadas & Bartos, 2022). The satisfactory implementation of the CRAFT's 7 mindful minutes motivated the creation of the CRAFT-based elective subjects of Mindfulness and emotional intelligence, which have been imparted once a week for 1 hr at this music conservatory since 2017 (Bartos et al., 2022). With this format of program delivery, a series of studies were conducted to assess the feasibility and preliminary effectiveness of CRAFT to enhance tertiary student musicians' well-being and academic experience, paving the way for further large-scale investigations (Bartos et al., 2022).

In a quasi-experimental study conducted amidst the COVID-19 pandemic, Bartos et al. (2021) found that student musicians' participation in a CRAFT group ($n=40$) was associated with higher proactivity and perceived benefits—in terms of implementing practices to improve their well-being during the lockdown—than in a control group ($n=54$). In a qualitative study reporting on Bartos et al. (2021), Bartos, Posadas, et al. (2023) found that such perceived benefits aligned with CRAFT's five elements and four foundations including developments such as enhanced conscious awareness, emotional self-regulation, psychological distress, relaxation, concentration, and wellness. Moreover, the findings from a recent feasibility study (Bartos et al., 2022) conducted with a sample of 25 student musicians appear to support the preliminary effectiveness of CRAFT in improving mindfulness skills, positive reappraisal, psychological well-being, and physical flexibility. Subsequent evidence from a program evaluation survey (Bartos et al., 2024) lent support to the social validation of the program, its viability to be implemented in other settings and populations, and its potentiality to bestow benefits related to the five CRAFT elements (e.g., increased self-awareness, non-reactivity, attention, self-knowledge, empathy, eudaimonic happiness, self-acceptance, and resilience). In addition to higher music education, the preliminary effectiveness of CRAFT in engendering health and well-being effects has been recently examined through a clinical trial followed by translation and interpreting tertiary students (Cásedas et al., 2023). Participants were randomly assigned to either a CRAFT ($n=24$) or MBSR ($n=18$) program administered 2hr per week over 4 months. Although Cásedas et al. (2023) did not find significant between-group differences, participants in both the CRAFT and MBSR groups reported significant within-group improvements in mindfulness skills, cognitive reappraisal, expressive suppression, trait emotional intelligence, cultural intelligence, stress, and mind wandering.

Although overall these preparatory studies have served the purpose of successfully establishing the feasibility and preliminary effectiveness of CRAFT to enhance the well-being and academic experience of higher education students, specifically student musicians, they are not exempt from various limitations. Some of their most relevant shortcomings relate to the absence of either a control or an active control group, the lack of significant between-group differences, and the scant use of objective and/or performance-based measures. Therefore, the current study was conceived as the first investigation upon completion of the CRAFT feasibility phase that could offset these limitations and examine the efficacy and effectiveness of CRAFT to enhance tertiary student musicians' physical, psychological, and emotional well-being. To that end, tertiary student musicians' scores on psycho-emotional surveys of MPA, mindfulness, psychological distress, and emotional regulation, as

well as physical tests of lower body balance and flexibility were compared before and after participating in subjects based on either CRAFT (CRAFT group), the Alexander Technique (active control group), or regular music instruction (inactive control group) for 8 months, once a week for 60-90 min. It was hypothesized that CRAFT participants would report higher improvements than active and inactive controls on mindfulness, MPA, psychological well-being, emotional regulation, psychological distress; and lower body balance and flexibility.

Method

Design

A three-arm non-randomized controlled trial was utilized to examine the effectiveness of CRAFT in enhancing tertiary student musicians' levels of mindfulness, MPA, psychological well-being, emotional regulation, psychological distress, and lower body balance and flexibility compared to active and inactive control groups.

Participants

Participants were a sample of 93 tertiary student musicians (41 females, 52 males; M age=20.15 years, $SD=3.58$; age range=17–24 years) enrolled at two higher music conservatories in Spain during the academic year 2022/2023. Based on their different involvement in pre-existing subjects at these educational providers, they were subdivided into three pre-determined groups. The CRAFT group included participants ($n=28$) following CRAFT-based elective subjects (Mindfulness and/or Emotional Intelligence) at the Higher Music Conservatory of [Anonymized]. The active control group consisted of participants ($n=32$) attending an Alexander Technique-based subject at the Higher Music Conservatory of [Anonymized]. The term *active* in this second group of participants denotes that they were involved in a type of activity that has some degree of overlapping content with that imparted in the CRAFT-based elective subjects. The inactive control group comprised participants ($n=33$) studying other courses different from the aforementioned subjects at the Higher Music Conservatory of [Anonymized] (e.g., Theory of Music, Choir, English). The term *inactive* serves to differentiate this third group from the second insofar as inactive controls did not attend a subject with similar content to that learned in either the CRAFT or active control group. Both CRAFT and active control participants could also be engaged in any of the subjects undertaken by inactive controls. Inclusion criteria involved being full-time tertiary student musicians, aged 17 years or older, matriculated at these institutions, having not studied CRAFT- or Alexander Technique-based elective subjects in previous years, nor having any prior or concurrent experience with other mindfulness- and/or yoga-based trainings by the end of the intervention.

Measures

Demographic Questionnaire. In this questionnaire participants were asked to report age, gender, years of musical practice, elective subject enrolment, education level, grade year, specialty, attendance to either CRAFT- or Alexander Technique-based subjects in previous years, prior mindfulness- and/or yoga-based experience, as well as exercise engagement and weekly hours of physical activity during the last two months (Appendix D1). Additionally, this survey included three questions to monitor CRAFT and active control participants' adherence to intervention-related practice outside the conservatory during the two months preceding Time 2 assessments. First, participants were prompted to report whether they had engaged in the activities practiced in class (i.e., home-based practice), and if so, to specify the extent of it (i.e., weekly minutes of home-based practice). Then, they were asked to rate how frequently they applied what they learned in class to

their daily lives (e.g., problems, social relationships, work, studies, musical practice, family, eating, walking) using a 10-point visual analog scale ranging from 0 = Never to 10 = Always.

Five Facet Mindfulness Questionnaire Short Form (FFMQ-SF-24). The FFMQ-SF-24 (Bohlmeijer et al., 2011; Appendix D5), is a short 24-item version of the original Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006) used to measure dispositional mindfulness. We employed the Spanish version of the FFMQ-SF-24 validated with a non-clinical Spanish sample (Asensio-Martínez et al., 2019; Appendix D5). The FFMQ-SF-24 includes the same five subscales of the FFMQ, each identifying a distinct mindful skill: Observe (four items), Describe (5 items including 3 reversed items), Act Aware (five reversed items), Non-Judge (five reversed items), Non-React (five items). Items are rated on a 5-point Likert scale ranging from 1=*Never or very rarely true* to 5=*Very often or always true*. Scores can be reported for both the total scale and each subscale with greater values indicative of a higher tendency of being mindful either generically or for a particular mindful skill respectively. For the present study sample, internal consistency was acceptable across subscales (α ranging from .72 to .81 at Time 1).

Kenny Music Performance Anxiety Inventory-Revised (KMPAIR). The KMPAIR is a 40-item questionnaire originally designed to evaluate the developmental theory of anxiety (Barlow, 2000) as it relates to MPA (Kenny et al., 2009; 2014). From the seven subscales proposed by Kenny et al. (2014) in the KMPAIR, we only employed those containing specific MPA items (Appendix D6): Proximal somatic anxiety and worry about performance (KMPAIR Proximal subscale; 11 items); Worry/dread focused on self-other scrutiny (KMPAIR Dread/Scrutiny subscale; 8 items); Memory (2 reversed items); and Anxious/Apprehension (3 items including 1 reversed item). We retrieved these subscales from the Spanish version of the KMPAIR validated by Arnáiz (2015) with a sample of higher education student musicians from Spain (Appendix D6). Items are rated following a 7-point Likert Scale ranging from 0=*Strongly disagree* to 6=*Strongly agree*. Results can be reported for the total scale or each subscale with greater scores representative of higher MPA. For the present study sample, internal consistency was acceptable across subscales (α ranging from .69 to .92 at Time 1).

Subjective Psychological Well-Being Subscale (SPWS). The SPWS, which is a 30-item subscale of a larger psychological well-being questionnaire (Sánchez-Cánovas, 1998; Appendix D9), was administered to measure subjective psychological well-being. The SPWS includes items related to well-being, happiness, and positive psychology components (e.g., optimism, savoring, humor, personal growth, accomplishment). Items are positively worded and rated following a 5-point Likert scale ranging from 1=*Never or almost never* to 5=*Always*, with greater values indicative of higher subjective psychological well-being. For the present study sample, Cronbach's alpha was .93 at Time 1.

Emotional Regulation Questionnaire (ERQ). The ERQ (Gross & John, 2003; Appendix D8) is a 10-item questionnaire used to measure individuals' tendency to regulate their emotions. We utilized the Spanish version of the ERQ (Cabello et al., 2013; Appendix D8) consisting of two subscales, each designating a different emotional regulation strategy: Cognitive Reappraisal (6 items) and Expressive Suppression (4 items). Items are rated on a 7-point Likert scale ranging from 1=*Strongly disagree* to 7=*Strongly agree*. Scores are reported separately for each subscale and greater values are indicative of a higher tendency to apply the corresponding emotional regulation strategy. For the present sample, Cronbach's alpha was .75 for Cognitive Reappraisal and .74 for Expressive Suppression at Time 1.

Depression Anxiety Stress Scales (DASS-21). The DASS-21 is a short version of the original Depression Anxiety Stress Scales (DASS; Lovibond & Lovibond, 1995) used to measure psychological distress (Appendix D7). We employed the Spanish version of the DASS-21 (Bados et al., 2005; Appendix D7). The survey consists of the following three 7-item subscales: Depression, Stress, and Anxiety. Items are rated according to a 4-point Likert scale ranging from 0=*Did not apply to me at all* to 3=*Applied to me very much or most of the time* during the past week. Results, which can be reported for both the total and each subscale, must be multiplied by two with greater scores representative of either higher general psychological distress or higher depression, stress, or anxiety, respectively. For the current study sample, Cronbach alpha values at Time 1 for the Depression, Anxiety, and Stress subscales were .86, .80, and .79 respectively.

Sit and Reach Test (SRT). The SRT (Hoeger et al., 1990) was employed to measure trunk and lower body flexibility. Participants, seated barefoot with extended knees and flexed ankles, placed their feet on the SRT box's frontal inner panel. They then performed a hip forward bending, sliding their fingers as far as possible on the upper panel. The measurement was recorded when the participant held their maximum stretch for approximately 2 s. After a practice trial, participants performed two attempts and the best score (cm) was taken for analysis. Greater scores are indicative of higher flexibility with the line of the feet marked at 23 cm on the measuring scale of the upper panel.

Stork Balance Test (SBT). The SBT (Makhlouf, 2018) was employed to assess lower body balance on the right (SBTR) and left (SBTL) legs. Participants stood on their dominant leg, with hands at their waist, and the opposite foot resting on the inner edge of the standing knee by externally rotating the lifted leg. When ready, they raised the heel of the standing leg, and the stopwatch was started as they balanced on their toes for as long as possible. The stopwatch was stopped if participants' heels touched the floor, hands moved from their waist, and/or if the toes shifted around. After a practice trial, two attempts were performed on each leg and the best score (in seconds) was kept for analysis.

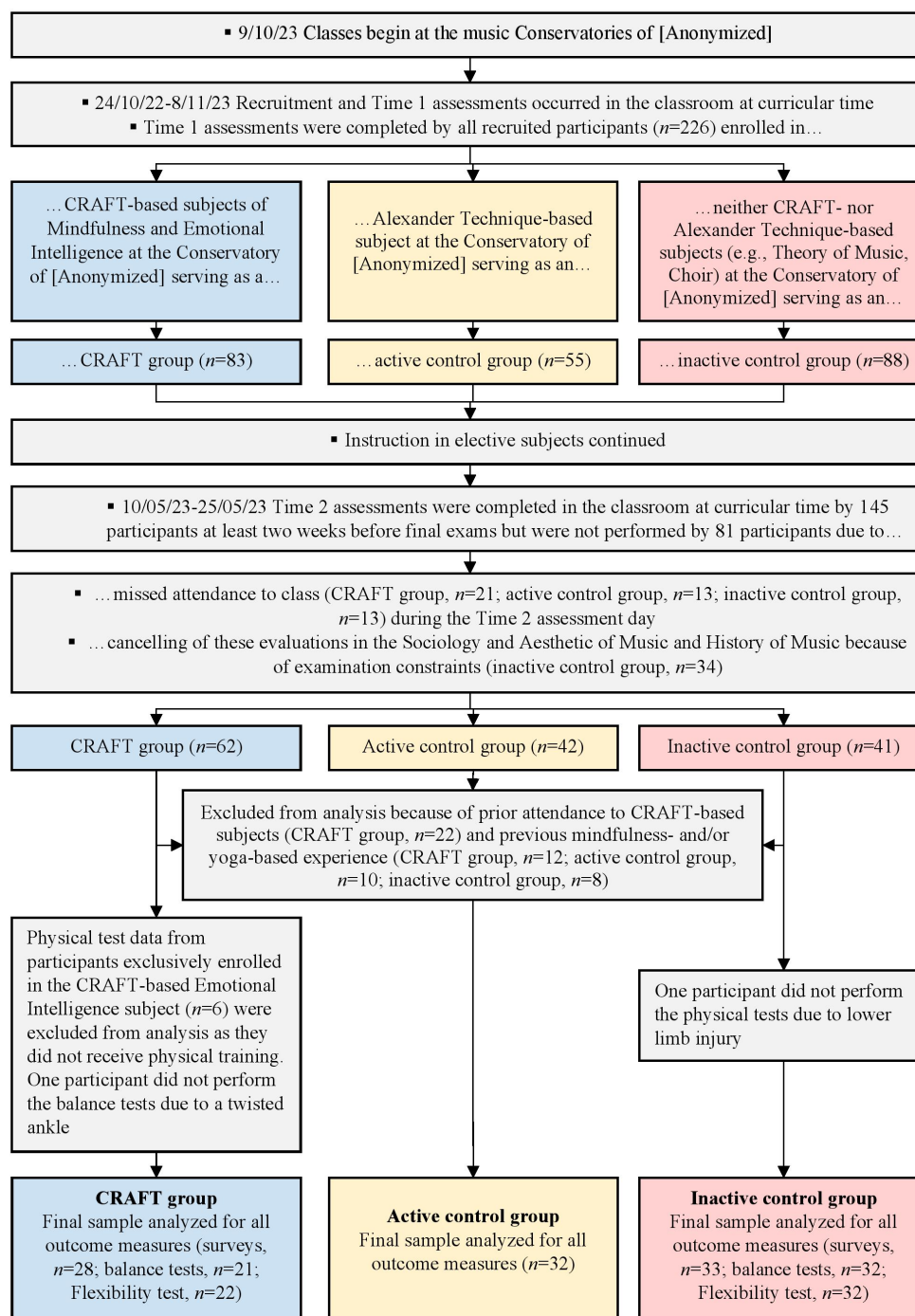
Procedure

After obtaining ethical approval from the relevant university's Institutional Review Board, the study was advertised through the conservatories' websites and announcements sent by the faculty and board of directors. Additionally, 10 days before recruitment, students were sent a participant information sheet by their teachers on behalf of the main investigator with detailed information about the study procedures and requirements. In this document, to facilitate concealment of the pre-determined groups they could be involved in, students were broadly informed that the study aimed at examining different psychophysical factors related to their lifestyle, well-being, and curricular instruction.

Recruitment and Time 1 data collection occurred from October 24 to November 8, 2022, after students had officially confirmed their subject enrolment choices at both conservatories. The main investigator approached students at the beginning of six different classes to recruit participants for either the CRAFT group, from the CRAFT-based elective subject of Mindfulness and Emotional Intelligence; active control group, from the Alexander Technique-based elective subject; or inactive control group, from the core subjects of Theory of Music, Sociology and Aesthetics of Music, and History of Music. The main investigator gave a brief presentation of the study in each of the classes, explaining the main points covered in the participant information sheet which had been sent to them beforehand. During these presentations, students were notified that their participation would be voluntary, confidential, completely unrelated to their course grades, and that they could

withdraw at any time. Following such presentations, interested students signed a consent form and completed Time 1 assessments in their classrooms.

To safeguard confidentiality, participants were instructed to provide in all surveys (demographic questionnaire, FFMQ-SF-24, KMPAIR, SPWS, ERQ, and DASS-21) and physical tests (SRT, and SBT) an alphanumeric code. Each participant was provided with a card displaying a Google Docs link to fill in the surveys online through their mobile phones. While filling out the surveys, the main researcher called participants individually to perform the physical tests in a separate space of the classroom, away from the view of the survey respondents. All participants were instructed to remain silent and focus on their task at hand. In each of the approached classes, it was previously agreed with the board of directors and faculty that no lessons would be imparted during the 45 min required to complete these procedures. The same processes described for Time 1 assessments were applied for Time 2 assessments, taking place from May 10 to May 25, 2023, at least 2 weeks before students' final exams. Figure 1 illustrates the flow of participants through the different research phases.

Figure 8.1*Flow of Participants through the Study Research Phases*

Core and Elective Subjects Involvement. All participants were involved in the various core (e.g., Theory of Music, Aesthetic and Sociology of Music, History of Music) and elective (e.g., English, German, Choir) subjects typically imparted in a regular higher music conservatory in Spain. These were delivered once a week for 60-90 min over eight months in a conventional classroom by the specialized corresponding professor.

Excluding holiday periods, CRAFT participants received 25 hr of instruction in the CRAFT-based elective subjects of Mindfulness and/or Emotional Intelligence—once a week for 1 hr, whereas active controls completed 38 hr of instruction in an Alexander Technique-based subject—once a week for 90 min. These classes were imparted in a large open learning classroom. CRAFT-based subjects were imparted by the CRAFT developer, a certified yoga and mindfulness teacher, and a singing and pedagogy professor, while a musicologist and authorized Alexander Technique teacher delivered the Alexander Technique-based subject. CRAFT and active control participants were encouraged to practice at home what they learned in class and were required to attend at least 80% of the classes throughout the academic year to successfully complete their instruction in either subject. Further details on the contents, activities, and directions for home-based practice delivered in these elective subjects can be consulted in Appendix E4.

Sample Size, Power, and Precision

Power analyses were conducted using G*Power (Faul et al., 2007). A priori power analysis revealed that for two-tailed planned contrasts from one-way ANOVAs with $\alpha=.05$ and $\beta=.80$, a sample of 53 participants in each group would be required to detect an effect size (ES) of Cohen's $d \geq |0.55|$. A Cohen's $d=|0.55|$ was the *smallest effect size of interest* (Anvari & Lakens, 2021) we considered practically important based on the FFMQ results reported in previous CRAFT-based research (Bartos et al., 2022; Cásedas et al., 2023) using similar measures to those herein employed. In the current study, this ES of interest was referred to as the minimum practically significant effect (MPSE). Anticipating that approximately 40% of the prospective sample could be excluded due to prior experience with mindfulness and/or yoga-based practices (Bartos et al., 2022) and that an additional 10% of students may not attend their classes during the days scheduled for Time 2 assessments, we targeted to recruit 320 participants. In acknowledging that we fell short of achieving the a priori expected sample size ($n=159$), it was estimated through further sensitivity power analyses that, for two-tailed planned contrasts from one-way ANOVAs with $\alpha=.05$, $\beta=.80$, and sample size ($n=93$), it was required an effect size of $d \geq |0.74|$ for the CRAFT ($n=28$) versus the active control group ($n=32$) comparison; and $d \geq |0.73|$ for the CRAFT ($n=28$) versus the inactive control group ($n=32$) comparison.

Data Analyses

Data were analyzed using IBM SPSS v. 29. Normality was assessed by examining whether Fisher's absolute values of Skewness and Kurtosis for Time 1, Time 2, and change (Time 2 minus Time 1) scores presented either a mild (0-1), moderate (1-2.3), or high (>2.3) departure from normality (Lei & Lomax, 2005). The results of this analysis are reported in Table App. 4 (Appendix E4). Data from years of musical practice, frequency of daily life application, weekly hours of physical activity, and the FFMQ-SF-24, KMPAIR, SPWS, ERQ, and DASS-21 exhibited mild to moderate deviations from normality and were deemed suitable to be analyzed through parametric statistics. A logarithmic (base 10) transformation, $y' = \log_{10}(y)$, was performed on each score of the SBTR, SBTL (Time 1 and Time 2), and weekly minutes of home-based practice (Time 2), which presented severe deviations from normality. The new Time 1 and Time 2 SBTR and SBTL converted scores were used to calculate the change scores of these two variables. The logarithmic transformed scores of

the SBTR, SBTL, and weekly minutes of home-based practice met normality assumptions and therefore parametric statistics were used to analyze them. Values of skewness and kurtosis for age at Time 1 and SRT change scores could not be normalized through transformation techniques. Notwithstanding this, based on the evidence that the F-test is sufficiently robust to offset moderate and even severe divergence from normality (Blanca et al., 2017), data from these variables were also analyzed using parametric statistics.

Homoscedasticity for all continuous variables was assessed through Levene's test, with only the SBTL and the DASS-21 change scores, as well as the frequency of daily life application Time 2 scores violating the equality of variance assumption. Therefore, between-group statistical significance for these variables was determined through either the Welch's *F*-test or the Welch's *t*-test. Descriptive statistics were employed to summarize participants' demographic characteristics and Time 1, Time 2, and change outcome measures scores through counts and frequencies (categorical variables) and means and standard deviations (continuous variables). Separate planned contrasts from one-way ANOVAs and two-way chi-square tests of independence were conducted to test whether there were significant differences for each of the continuous and categorical demographic variables, respectively, between the CRAFT versus active control group, and the CRAFT versus inactive control group, including involvement in physical activity at Time 2. Additionally, the same planned contrasts from one-way ANOVAs were also employed to test whether there were significant between-group differences at Time 1 for all the current study outcome measures.

For all outcome measures as part of our main analysis, statistical and practical significance was tested by examining differences in the change scores between the CRAFT versus active control group, and the CRAFT versus inactive control group through separate planned contrasts from one-way ANOVAs and Cohen's *d* ESs $\pm$ 95% CIs. Statistical significance was achieved if $p < .05$. Practical significance was attained if $d \geq |0.55|$ (MPSE) and the 95% CI did not contain the null value (Coe, 2002). The magnitude of the ES was interpreted following Cohen's *d* (1988) ES benchmarks of small ($0.2 \leq d < 0.5$), medium ($0.5 \leq d < 0.8$), and large ($d \geq 0.8$). Additionally, following the same criteria, two-tailed paired sample *t*-tests and Cohen's *d* ESs $\pm$ 95% CIs were also utilized to determine whether there were statistically and practically significant within-group differences. Cohen's *d* for the planned contrasts and paired sample *t*-tests were computed using the pooled standard deviation and the standard deviation of the mean difference, respectively, and the 95% CIs were calculated following the central *t*-distribution method (Hedges & Olkin, 1985). Moreover, we conducted planned contrasts from one-way ANCOVAs on outcome measures Time 2 scores controlling for Time 1 levels. This analysis served as a robustness check to procure a more reliable interpretation of the results derived from examining between-group differences in non-randomized controlled-group studies (Amundsen et al., 2020; Seppälä et al., 2020; Van Breukelen et al., 2006).

Lastly, we also carried out analysis to examine the generalizability of the current study findings in terms of the extent to which the data from participants who did not complete Time 2 assessments or Time 2 unassessed participants ($n=47$; CRAFT group, $n=10$; Active control group, $n=10$; Inactive control group, $n=27$) were comparable to that from those who completed both Time 1 and Time 2 assessments or Time 1-Time 2 assessed participants ($n=93$; CRAFT group, $n=28$; Active control group, $n=32$; Inactive control group, $n=33$). To that end, one-way ANOVAs and chi-square tests of independence were conducted to determine potential differences in any of the current study continuous and categorical variables, respectively (i.e., demographics and

main outcome measures) at Time 1 between Time 2 unassessed participants and Time 1-Time 2 assessed participants, both overall and across the three groups.

Results

Demographic Characteristics

Participants' demographic characteristics by group at Time 1 are displayed in Table 8.1. The majority of participants were high-school diploma completers and half of them were first-year students. There were significant differences between the CRAFT and inactive control group for age, years of musical practice, and grade year, with CRAFT participants reporting higher age and more years of musical practice than inactive controls. These results may largely be explained by our inability to conduct Time 2 assessments due to examination constraints in the second-year core subjects of Sociology and Aesthetic of Music and History of Music (See Figure 1 in Procedure section). Consequently, all inactive controls were first-year students recruited from the first-year core subject of Theory of Music, and therefore, potentially younger and with less music practice experience than CRAFT and active control participants, two-thirds of whom were second- or third-year students. The CRAFT group was mostly constituted of participants enrolled in Mindfulness, with some participants attending the Emotional Intelligence subject, and a few of them studying both courses concurrently.

Moreover, there were significant differences favoring CRAFT participants over active controls in their engagement in home-based practice, extent of home-based practice (min per week), and frequency of daily life application of what they learned in class. In addition, As confirmed by the CRAFT- and Alexander Technique-based elective subjects' instructors, all students accomplished the minimum 80% attendance prerequisite to complete their instruction in these subjects by the end of the academic year. Therefore, we can be confident that CRAFT and active control participants exhibited an overall adequate level of engagement with their respective training. No other significant between-group differences were found regarding the variables examined in the current study demographic questionnaire.

Table 8.1
Participants' Demographic Characteristics

Variables	CRAFT Group (<i>n</i> =28)	Active Control Group (<i>n</i> =32)	Inactive control Group (<i>n</i> =33)	<i>p</i> ^a	<i>p</i> ^b
Age	21.00 ± 4.50	20.84 ± 3.31	18.76 ± 2.45	.86	.01
Years of musical practice	13.39 ± 2.56	13.34 ± 2.88	11.85 ± 2.42	.94	.02
Gender				.86	.66
Females	12 (43%)	13 (41%)	16 (48%)		
Males	16 (57%)	19 (59%)	17 (52%)		
CRAFT-based elective subjects' enrolment				NA	NA
Mindfulness	19 (68%)	NA	NA	NA	NA
Emotional Intelligence	6 (21%)	NA	NA	NA	NA
Mindfulness and Emotional Intelligence	3 (11%)	NA	NA	NA	NA
Education level				.22	.08
High school	24 (86%)	30 (94%)	33 (100%)		
Bachelor's degree	1 (4%)	1 (3%)	0 (0%)		
Master's degree	3 (11%)	0 (0%)	0 (0%)		
Ph.D.	0 (0%)	1 (3%)	0 (0%)		
Grade year				.79	<.001
First	9 (32%)	11 (34%)	33 (100%)		
Second	10 (36%)	11 (34%)	0 (0%)		
Third	8 (29%)	7 (22%)	0 (0%)		
Fourth	1 (4%)	3 (9%)	0 (0%)		
Engagement in Physical Activity					
Time 1	15 (54%)	21 (66%)	16 (48%)	.34	.69
Hours per week	6.31 ± 4.69	4.74 ± 3.09	4.07 ± 2.34	.20	.10
Time 2	14 (50%)	18 (56%)	20 (61%)	.63	.41
Hours per week	6.00 ± 3.83	5.56 ± 3.12	5.29 ± 3.35	.72	.56
Adherence at Time 2					
Home-based practice	27 (89%)	25 (78%)	NA	<.05	NA
Min per week	181.30 ± 184.97	53.30 ± 47.87	NA	<.001^c	NA
Frequency of daily life application	7.79 ± 1.16	5.84 ± 1.87	NA	<.001	NA
Attendance	≥80%	≥80%	NA	NA	NA

Note. ^a*p*-values from the CRAFT versus active control group comparison; ^b*p*-values from the CRAFT versus inactive control group comparison; ^c*p*-value from logarithmic (base 10) transformed scores. Values are mean ± SD with corresponding *p*-values computed with planned contrasts from one-way ANOVAs; or *n* (%) with respective *p*-values computed with chi-square. Bold font denotes significance. NA = Not Applicable.

Outcome Measures

Participants' Time 1 and change scores' descriptive statistics by group including the relevant statistics of the between- and within-group comparisons for all outcome measures are shown in Table 8.2. The results of the planned contrasts conducted on Time 1 scores revealed that, compared to active controls, CRAFT participants reported significantly higher scores in the KMPAIR Proximal and Dread/Scrutiny subscales, as well as the SBTR. Moreover, CRAFT participants exhibited significantly higher scores in the SPWS than inactive controls. No significant between-group differences were found for any of the other outcome measures at Time 1.

Table 8.2*Descriptive Statistics and Between-Group Comparison of Time 1 and Change Scores using Planned Contrasts and Cohen's d ESs $\pm$ 95% CIs*

Outcome Measures	CRAFT Group (<i>n</i> =28) ^a				Active control group (<i>n</i> =32)				Inactive control group (<i>n</i> =33) ^b				CRAFT versus active control group ^{c, d}			CRAFT versus inactive control group ^{c, d}						
	<i>M_{T1}</i>	<i>SD_{T1}</i>	<i>M_Δ</i>	<i>SD_Δ</i>	<i>M_{T1}</i>	<i>SD_{T1}</i>	<i>M_Δ</i>	<i>SD_Δ</i>	<i>M_{T1}</i>	<i>SD_{T1}</i>	<i>M_Δ</i>	<i>SD_Δ</i>	<i>p_{T1}</i>	<i>P_Δ</i>	<i>d_Δ</i>	95% CI		<i>p_{T1}</i>	<i>P_Δ</i>	<i>d_Δ</i>	95% CI	
																LL	UL				LL	UL
FFMQ-SF-24																						
Total (24-120)	75.21	11.49	10.32***	9.40	75.97	12.05	0.91	10.09	72.61	12.00	1.03	8.14	.81	<.001	0.96	0.42	1.50	.39	<.001	1.06	0.52	1.60
Observe (4-20)	13.68	3.64	1.39*	3.18	14.34	3.62	-0.85	3.34	13.45	4.00	0.30	3.39	.50	.01	0.68	0.16	1.20	.82	.20	0.33	-0.18	0.84
Describe (5-25)	16.61	3.74	1.89*	3.84	16.13	3.90	0.28	3.25	16.15	4.58	0.64	3.24	.65	.07	0.45	-0.06	0.97	.67	.16	0.36	-0.15	0.86
Act Aware (5-25)	16.14	4.05	1.79*	4.06	16.28	4.97	0.81	4.48	17.21	4.04	-0.42	4.83	.90	.40	0.23	-0.28	0.73	.35	.06	0.49	-0.02	1.00
Non-Judge (5-25)	15.61	4.83	2.36***	3.38	14.84	4.38	0.84	2.71	14.09	4.25	0.64	3.61	.51	.08	0.50	-0.20	1.01	.19	.04	0.49	-0.23	1.00
Non-React (5-25)	13.18	3.90	2.89***	3.30	14.38	3.95	-0.19	3.48	11.70	4.31	-0.12	4.25	.26	.002	0.91	0.37	1.44	.16	.002	0.78	0.26	1.30
KMPAIR																						
Proximal (0-60)	41.64	13.10	-7.79***	9.33	32.34	13.56	-3.47*	8.07	39.09	12.63	-2.39	9.56	.007	.07	-0.50	-1.01	0.20	.45	.02	-0.57	-1.08	-0.05
Dread/Scrutiny (0-40)	33.43	6.33	-5.96***	6.57	28.69	10.04	-2.28	7.23	34.61	9.22	-1.33	6.83	.03^f	.04	-0.53	-1.04	-0.01	.56 ^f	.01	-0.69	-1.21	-0.17
Memory (0-12)	5.18	3.79	-0.46	3.18	5.44	3.67	-0.59	2.76	4.12	4.01	0.63	2.45	.79	.86	0.04	-0.46	0.55	.29	.13	-0.39	-0.90	0.12
Anxious (0-18)	10.14	4.31	-1.21	3.75	8.97	4.28	-1.03	3.27	9.24	3.97	-0.57	2.98	.28	.83	-0.05	-0.56	0.45	.40	.46	-0.19	-0.69	0.31
SPWS	117.79	14.37	2.46	10.67	115.53	18.72	0.62	14.18	108.88	17.47	1.09	14.38	.61	.59	0.14	-0.36	0.65	.04	.69	0.11	-0.40	0.61
ERQ																						
Reappraisal (6-42)	26.57	6.96	3.32*	7.28	28.25	6.06	-2.19	6.61	26.70	7.59	0.21	7.03	.35	.003	0.79	0.26	1.32	.94	.09	0.43	-0.08	0.94
Suppression (4-28)	14.04	5.57	-1.21	4.54	15.66	5.23	-1.12	3.88	14.73	5.73	0.78	5.24	.26	.94	-0.02	-0.53	0.49	.63	.09	-0.41	-0.91	0.10
DASS-21																						
Total (0-126)	47.36	25.63	-5.00	19.96	39.87	23.87	-3.06	17.52	51.10	22.68	7.39*	18.37	.23	.69	-0.10	-0.61	0.40	.55	.01	-0.65	-1.16	-0.13
Depression (0-42)	12.78	9.57	-1.79	6.45	12.31	9.61	-0.94	8.17	13.93	9.74	3.64*	8.15	.85	.67	-0.11	-0.62	0.39	.64	.007	-0.73	-1.25	-0.21
Anxiety (0-42)	14.57	10.02	-3.21*	8.38	11	8.50	-1.12	6.93	16.12	9.41	2.54	8.62	.14	.32	-0.27	-0.78	0.24	.52	.006	-0.68	-1.19	-0.16
Stress (0-42)	20	9.03	0.00	9.46	16.56	9.75	-1.00	7.82	21.03	7.67	1.21	5.34	.14	.66 ^f	0.12	-0.39	0.62	.65	.54 ^f	-0.16	-0.66	0.34
SRT (cm)	17.95	8.78	2.71*	4.88	14.42	9.15	2.23***	3.45	19.19	10.89	-0.39	4.08	.19	.68	0.12	-0.43	0.66	.65	.008	0.70	0.14	1.26
SBTR (s) ^e	8.42	12.66	11.36**	17.38	3.51	3.04	1.56*	5.55	5.92	7.55	0.48	8.36	.01	.11 ^f	0.51	-0.05	1.07	.26	.02^f	0.69	0.12	1.26
SBTL (s) ^e	4.85	4.61	11.26***	11.98	5.11	5.83	-0.62	3.40	5.35	8.20	0.84	5.41	.84 ^f	<.001^f	1.77	1.11	2.41	.72 ^f	<.001^f	1.24	0.63	1.83

Note. T1 = Time 1 scores; Δ = Change scores; FFMQ-SF-24 = Five Facet Mindfulness Questionnaire Short Form; KMPAIR = Kenny Music Performance Anxiety Inventory-Revised; SPWS = Subjective Psychological Well-Being Subscale; ERQ = Emotional Regulation Questionnaire; DASS-21 = Depression, Anxiety, and Stress Scale; SRT = Sit and Reach Test; SBTR = Stork Balance Test Right Leg; SBTL = Stork Balance Test Left Leg; CI = Confidence interval of Cohen's d values; UL = Upper Limit; LL = Lower Limit.

^a $n=22$ for SRT and $n=21$ for SBTR and SBTL; ^b $n=32$ for SRT, SBTR, and SBTL.

Bold font denotes significance.

^cStatistical significance was achieved if $p < .05$; levels of statistical significance for within-group differences in mean change scores are represented by asterisks, $*p < .05$, $**p < .01$, $***p < .001$.

^dPractical significance was attained if $d \geq$ minimum practical significant effect (MPSE) of $d = \pm 0.55$ with the 95% CI not containing the null value (Coe, 2002) and interpreted following Cohen's d (1988) ES benchmarks of small ($0.2 \leq d < 0.5$), medium ($0.5 \leq d < 0.8$), and large ($d \geq 0.8$).

^eDue to severe departures from normality, a logarithmic (base 10) transformation was performed on each Time 1 and Time 2 data value of the SBTR and SBTL to compute their respective change scores. The new transformed change scores, upon meeting normality assumptions, were used for determining statistical and practical significance. However, the original means and standard deviations of the SBTR and SBTL have been presented here to facilitate a meaningful interpretation of these data according to their actual units (s).

^f p -value from Welch test due to homoscedasticity not assumed.

To test our hypotheses that CRAFT participants would report higher improvements than active and inactive controls on measures of mindfulness, MPA, psychological well-being, emotional regulation, psychological distress; and lower body balance and flexibility, statistical and practical significance of the between-group differences in change scores was examined through planned contrasts from one-way ANOVAs and Cohen's d ESs $\pm$ 95% CIs. In addition, paired sample t -tests and Cohen's d ESs $\pm$ 95% CIs were also employed to determine statistical and practical significance of the within-group differences from Time 1 to Time 2 for these outcome measures.

CRAFT versus Active Control Group Planned Contrasts. The CRAFT group exhibited a statistically and practically significant higher mean change score than the active control group in the FFMQ-SF-24 total scale, FFMQ-SF-24 Observe and Non-React subscales, ERQ Reappraisal subscale, and SBTL. Practical significance was reflected by the medium to large ESs exceeding the MPSE, $d=|0.55|$, and their 95% CIs that did not include the null value. The large ES reported in the FFMQ-SF-24 total scale, FFMQ-SF-24 Non-React subscale, and ERQ reappraisal subscale fell above the minimum ES required to achieve 80% statistical power, $d \geq |0.73|$. However, the medium ES found in the Observe subscale did not meet this minimum threshold and therefore this result should be interpreted cautiously, as our study may not have been sufficiently powered, $\beta=.73$, to detect it.

Moreover, the CRAFT group reported a statistically significant lower mean change score than the active control group in the KMPAIR Dread/Scrutiny subscale. However, this result did not achieve practical significance as the ES did not reach the MPSE nor 80% statistical power, $\beta=.52$. No significant differences were reported for the FFMQ-SF-24 Describe, Act Aware, and Non-Judge subscales; the KMPAIR Proximal, Anxious/Apprehension, and Memory subscales; as well as the ERQ Suppression subscale, SPWS, SRT, and SBTR.

CRAFT versus Inactive Control Group Planned Contrasts. The CRAFT group showed a statistically and practically significant higher mean change score than the inactive control group for the FFMQ-SF-24 total scale, FFMQ-SF-24 Non-React subscale, SRT, SBTR, and SBTL. Practical significance was reflected by the medium to large ESs exceeding the MPSE, $d=|0.55|$, and 95% CIs that did not include the null value. The large ES reported in the FFMQ-SF-24 total scale, the FFMQ-SF-24 Non-React subscale, and SBTL rose above the cut-off ES threshold to achieve 80% statistical power, $d \geq |0.74|$. However, statistical power for the medium ES found in the SRT, $\beta=.76$, and SBTR, $\beta=.75$, was below 80% and therefore these results should be interpreted cautiously. The CRAFT group reported also a statistically significant higher mean change score than the inactive control group in the FFMQ-SF-24 Non-Judge subscale, but this result did not attain practical significance as the medium ES was lower than the MPSE and its 95% CI included the null value, nor did it reach 80% statistical power, $\beta=.46$.

Furthermore, the CRAFT group showed a statistically and practically significant lower mean change score than the inactive control group in the KMPAIR Proximal and Dread/Scrutiny subscales, as well as the DASS-21 total scale and the DASS-21 Depression and Anxiety subscales. Practical significance was explained by the medium ESs exceeding the MPSE and 95% CIs that did not include the null value. However, except for the ES reported in the Depression subscale, statistical power for the ES reported in the KMPAIR subscales of Proximal, $\beta=.59$, and Dread/Scrutiny, $\beta=.75$, the Total DASS-21 scale, $\beta=.70$, and the DASS-21 Anxiety subscale, $\beta=.74$, was below 80% and hence caution is warranted in the interpretation of these results. No

significant differences were found in the FFMQ-SF-24 Describe, Observe, and Act Aware subscales; the KMPAIR Anxious/Apprehension and Memory subscales; as well as the ERQ Suppression subscale, SPWS; and DASS-21 Stress subscale.

Between-Group Robustness Check. Planned contrasts from one-way ANCOVAs on Time 2 outcome measures scores, controlling for Time 1 levels, were conducted to ascertain the robustness and accuracy of the current study findings. The results of this analysis, which have been detailed in Table App. 5 (Appendix E4), followed a similar pattern to those obtained from our main analysis confirming each result herein reported that achieved both practical and statistical significance.

Within-Group Results. A complete illustration of the within-group results is provided in Table App. 6 (Appendix E4). CRAFT participants exhibited statistically and practically significant improvements quantified with large ESs in the FFMQ-SF-24 total scale, FFMQ-SF-24 Non-React subscale, SBTL, as well as the KMPAIR Proximal and Dread/Scrutiny subscales; and medium ESs in the FFMQ-SF-24 Non-Judge subscale, SRT, and SBTR. Moreover, they showed statistically significant improvements of medium ESs in the FFMQ-SF-24 Observe, Describe, and Act Aware subscales, as well as the ERQ Reappraisal and DASS-21 Anxiety subscales.

Active controls reported a statistically and practically significant increase of a medium ES in the SRT. Furthermore, they also exhibited statistically significant improvements of medium ESs in the KMPAIR Proximal subscale and the SBTR. Inactive controls reported a statistically significant increase of a medium ES in the DASS-21 total scale and the DASS-21 Depression subscale.

Time 1-Time 2 Assessed Participants versus Time 2 Unassessed Participants

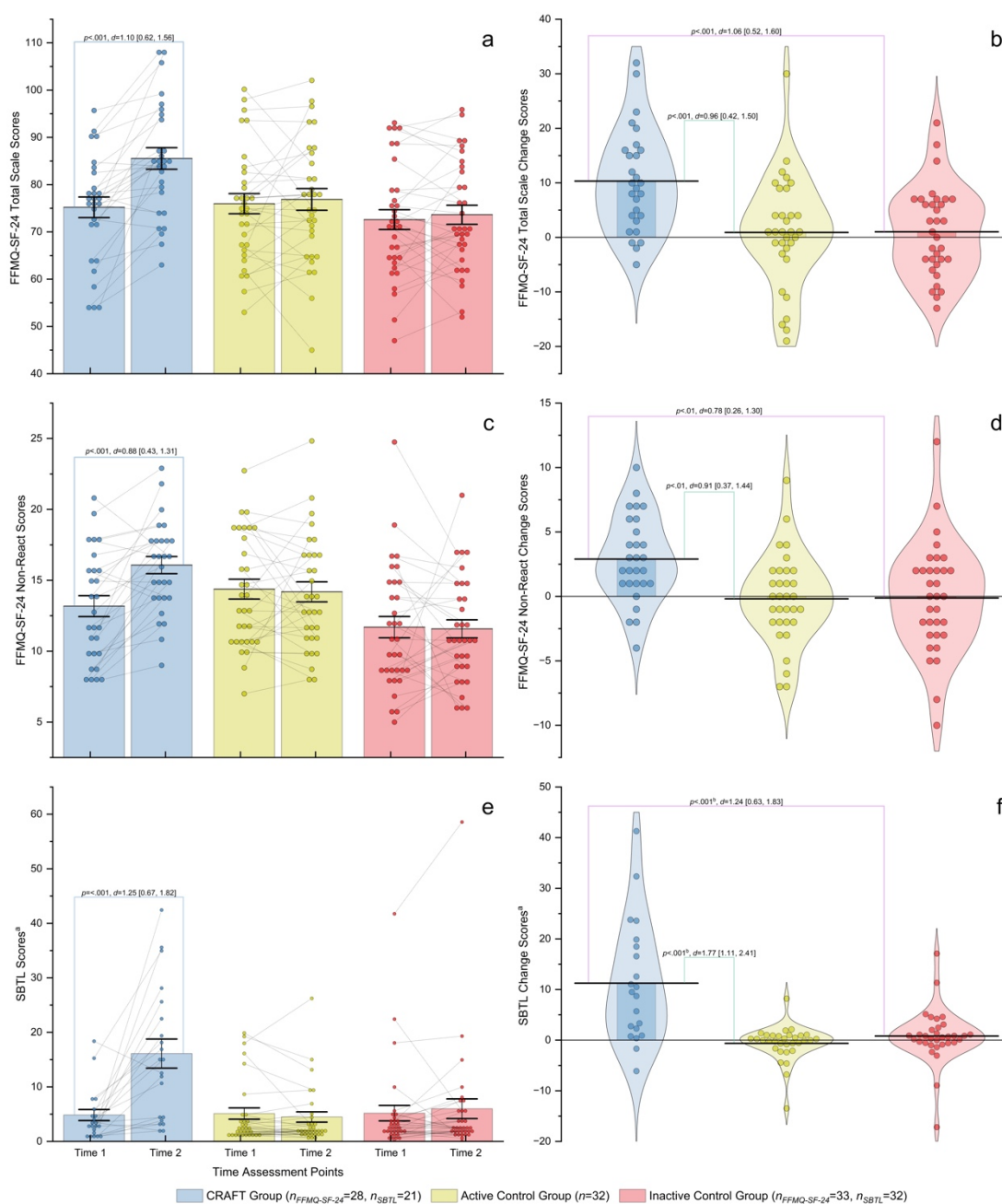
Table App. 7 (Appendix E4) shows the results of the one-way ANOVAs and chi-square tests of independence conducted to determine differences in the current study variables between Time 1-Time 2 assessed participants and Time 2 unassessed participants, both for the entire sample, and within each of the three groups. There were significant differences for grade year, with a high proportion of Time 1-Time 2 assessed participants being first year students, while half of the Time 2 unassessed participants were second-year students. This result was expected given the high proportion of inactive controls from the second year who were unable to complete Time 2 assessments due to examination constraints. Additionally, Time 2 unassessed participants reported significantly higher mean scores than Time 1-Time 2 assessed participants for hours of physical activity per week, the FFMQ-SF-24 total scale, and the FFMQ-SF-24 Observe subscale, while scoring significantly lower on the KMPAIR Dread/Scrutiny subscale. These differences appear to be largely driven by the significant results favoring Time 2 unassessed participants over Time 1-Time 2 assessed participants in the inactive control group for all these outcome measures, as well as for the DASS-21 total scale.

Main Findings Visualization.

All the practically and statistically significant findings of the current study derived from our main analysis (i.e., planned contrasts from one-way ANOVAs on change scores) are illustrated through Figures 8.2-8.6 below. Following recommended guidelines (Dankel et al., 2020; Weissgerber et al., 2019), in these figures, each data point has been made visible for a more transparent visualization of the results that could be critically assessed by readers.

Figure 8.2

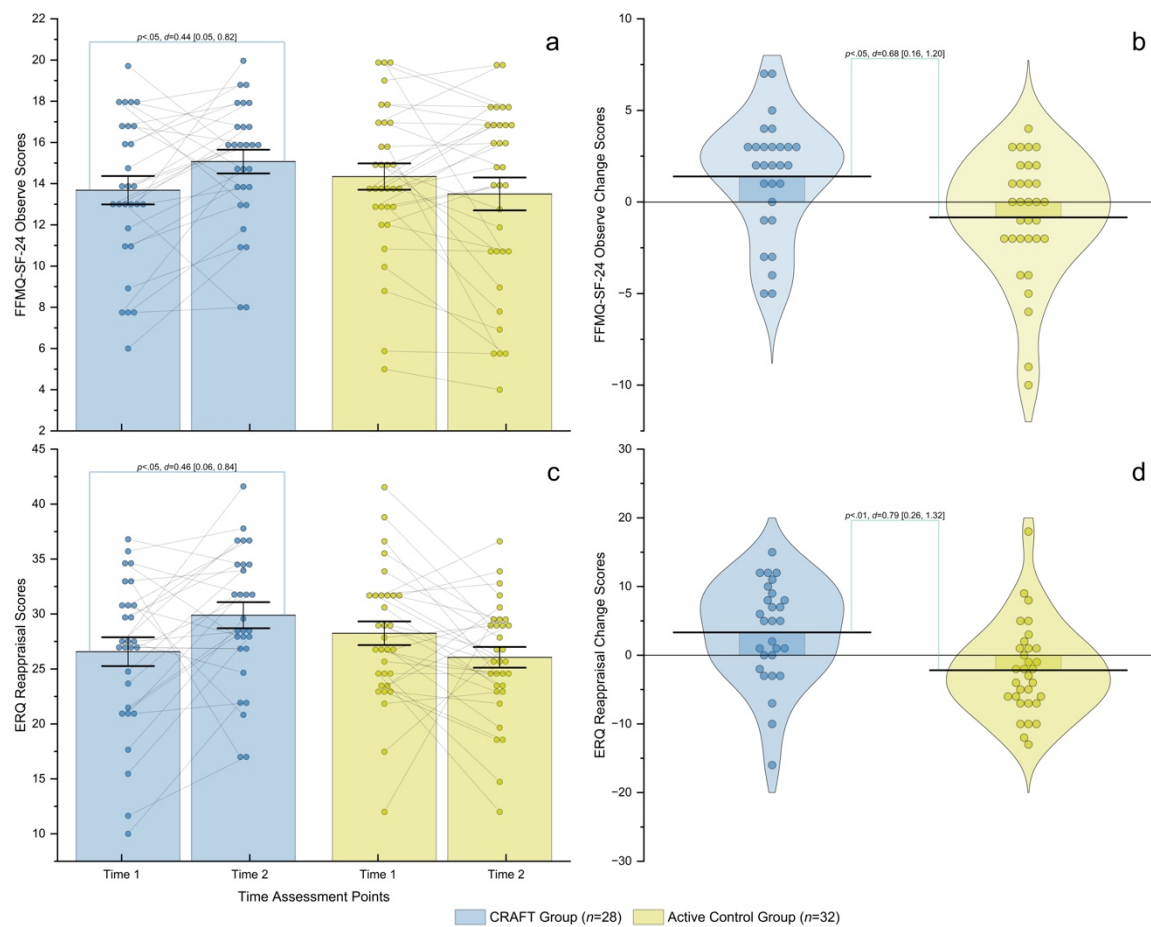
Within- and Between-Group Results of the FFMQ-SF-24 Total Scale, FFMQ-SF-24 Non-React subscale, and SBTL across the CRAFT, Active Control, and Inactive Control Group



Note. FFMQ-SF-24=Five Facet Mindfulness Questionnaire Short Form; SBTL=Stork Balance Test Left Leg. Panels a, c, and e show the within-group results through dot plot line graphs highlighting each paired data point and bar graphs emphasizing the Time 1 and Time 2 mean scores. Panels b, d, and f illustrate the between-group results through violin plot graphs highlighting each change score (Time 1 minus Time 2) data point and bar graphs topped with horizontal lines emphasizing each group's mean change score. ^aDue to severe departures from normality, a logarithmic (base 10) transformation was performed on each Time 1 and Time 2 data value of the SBTL to compute their respective change scores. The new transformed change scores, upon meeting normality assumptions, were used for determining statistical and practical significance. However, the original means and standard deviations of the SBTL have been presented here to facilitate a meaningful interpretation of these data according to their actual units (s); ^b p -value from Welch test due to homoscedasticity not assumed.

Figure 8.3

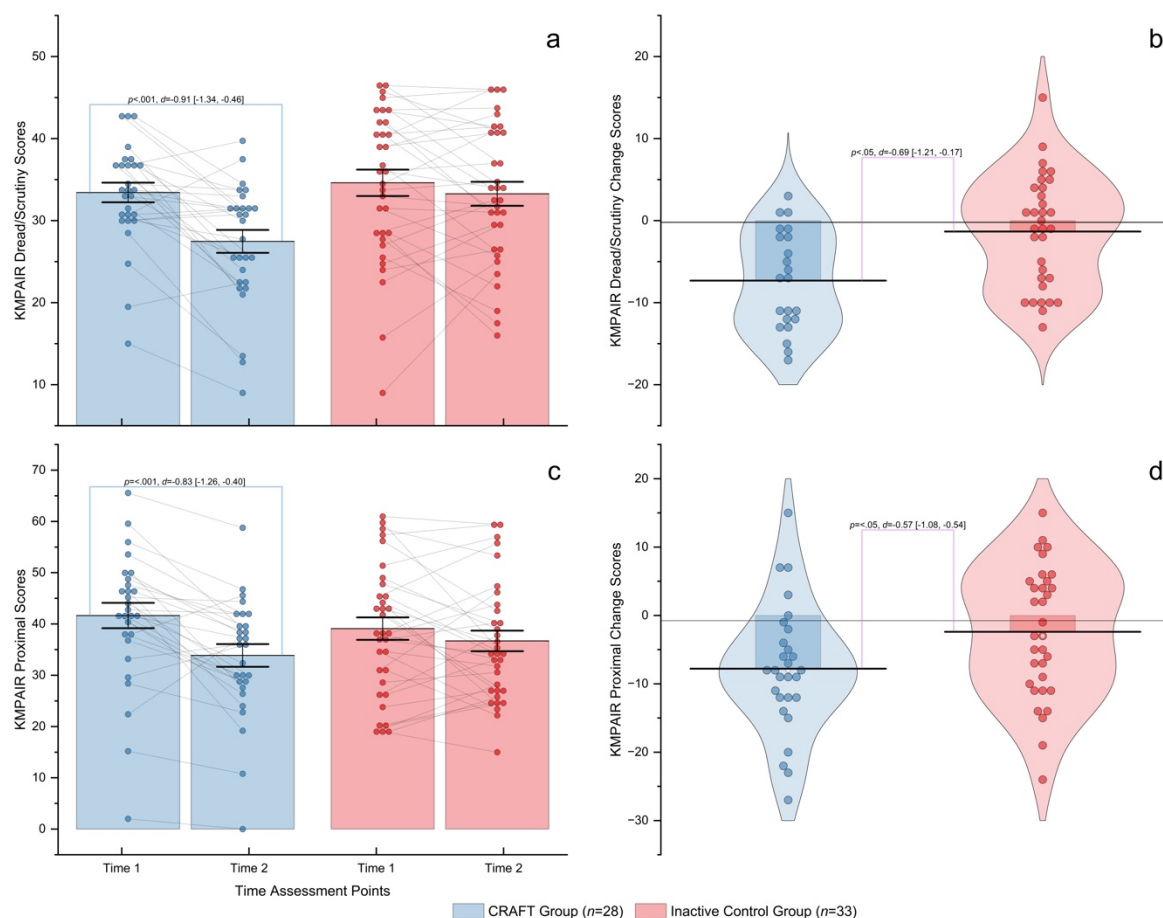
Within- and Between-Group Results of the FFMQ-SF-24 Observe Subscale and ERQ Reappraisal Subscale across the CRAFT and Active Control Group



Note. FFMQ-SF-24 = Five Facet Mindfulness Questionnaire Short Form; ERQ = Emotional Regulation Questionnaire. Panels a and c show the within-group results through dot plot line graphs highlighting each paired data point and bar graphs emphasizing the Time 1 and Time 2 mean scores. Panels b and d illustrate the between-group results through violin plot graphs highlighting each change score (Time 1 minus Time 2) data point and bar graphs topped with horizontal lines emphasizing each group's mean change score.

Figure 8.4

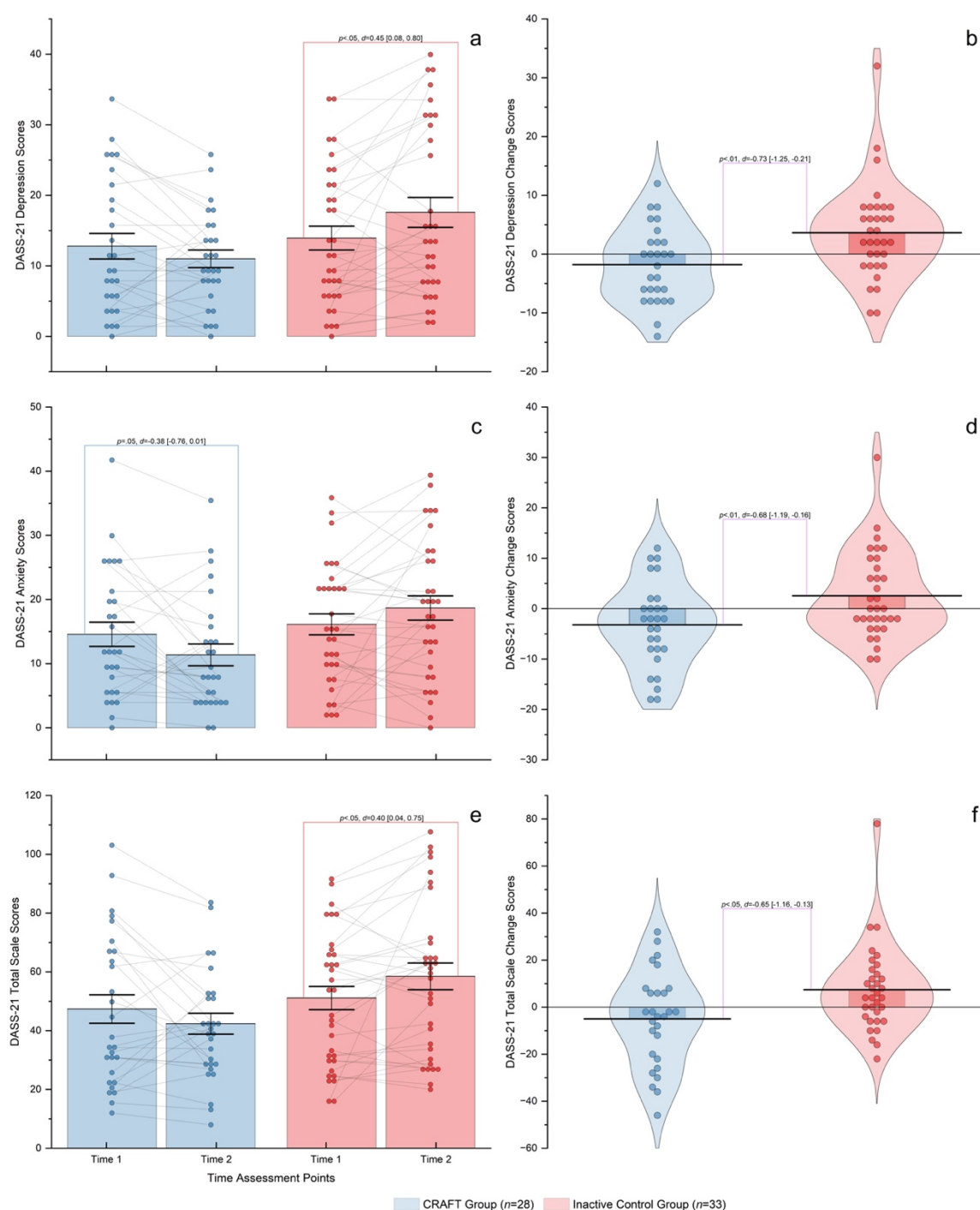
Within- and Between-Group Results of the KMPAIR Subscales of Proximal and Dread/Scrutiny across the CRAFT and Inactive Control Group



Note. KMPAIR = Kenny Music Performance Anxiety Inventory-Revised. Panels a and c show the within-group results through dot plot line graphs highlighting each paired data point and bar graphs emphasizing the Time 1 and Time 2 mean scores. Panels b and d illustrate the between-group results through violin plot graphs highlighting each change score (Time 1 minus Time 2) data point and bar graphs topped with horizontal lines emphasizing each group's mean change score.

Figure 8.5

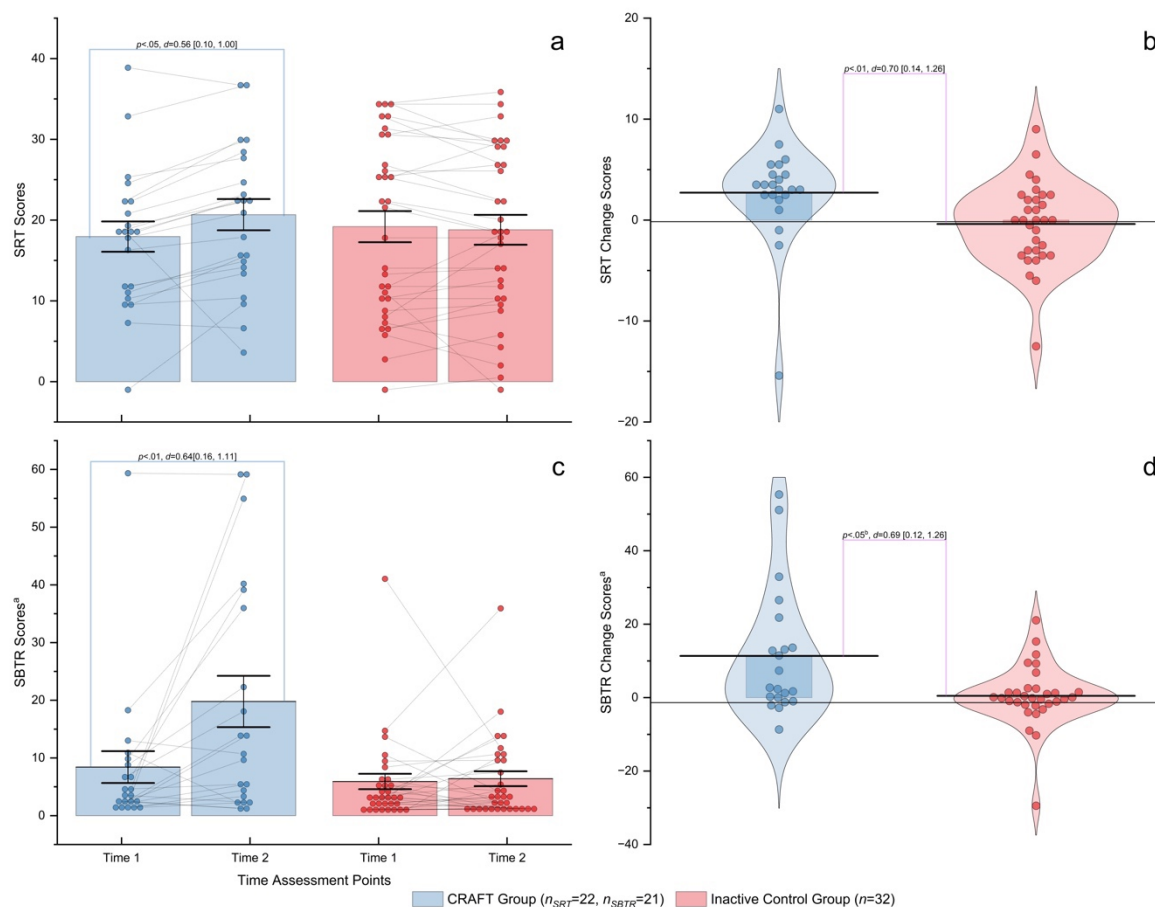
Within- and Between-Group Results of the DASS-21 Total scale and DASS-21 Subscales of Depression and Anxiety across the CRAFT and Inactive Control Group



Note. DASS-21 = Depression, Anxiety, and Stress Scale. Panels a, c, and e show the within-group results through dot plot line graphs highlighting each paired data point and bar graphs emphasizing the Time 1 and Time 2 mean scores. Panels b, d, and f illustrate the between-group results through violin plot graphs highlighting each change score (Time 1 minus Time 2) data point and bar graphs topped with horizontal lines emphasizing each group's mean change score.

Figure 8.6

Within- and Between-Group Results of the SRT and SBTR across the CRAFT and Inactive Control Group



Note. SRT = Sit and Reach Test; SBTR = Stork Balance Test Right Leg. Within- and Between-Group Results of the SRT and SBTR across the CRAFT and Inactive Control Group. SRT=Sit and Reach Test; SBTR=Stork Balance Test Right Leg. Panels a and c show the within-group results through dot plot line graphs highlighting each paired data point and bar graphs emphasizing the Time 1 and Time 2 mean scores. Panels b and d illustrate the between-group results through violin plot graphs highlighting each change score (Time 1 minus Time 2) data point and bar graphs topped with horizontal lines emphasizing each group's mean change score. ^aDue to severe departures from normality, a logarithmic (base 10) transformation was performed on each Time 1 and Time 2 data value of the SBTR to compute their respective change scores. The new transformed change scores, upon meeting normality assumptions, were used for determining statistical and practical significance. However, the original means and standard deviations of the SBTR have been presented here to facilitate a meaningful interpretation of these data according to their actual units (s). ^b p -value from Welch test due to homoscedasticity not assumed.

Discussion

The purpose of the current study was to build on preliminary CRAFT feasibility research by examining the effectiveness of CRAFT in enhancing tertiary student musicians' physical, psychological, and emotional well-being through a three-arm non-randomized controlled trial design. As hypothesized, CRAFT participants reported statistically and practically significant improved levels of overall dispositional mindfulness, non-reactivity, and left leg balance compared to active and inactive controls; observing mindfully and cognitive reappraisal compared to active controls; and right leg balance, lower body flexibility, MPA, depression, anxiety, and overall psychological distress compared to inactive controls.

Overall, our results in dispositional mindfulness, cognitive reappraisal, and lower body flexibility substantiated the within-group improvements found for these types of abilities in a previous feasibility study (Bartos et al., 2022) and clinical trial (Cásedas et al., 2023) examining the preliminary effectiveness of CRAFT to enhance well-being outcomes amongst tertiary music and translation students, respectively. Specifically with regard to improved mindfulness skills, our findings also aligned with previously reported effects in these abilities among tertiary student musicians (Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Steyn, 2013; Steyn et al., 2016) and non-music university students following mindfulness-based interventions (McConville et al., 2017; Pan et al., 2024).

The potential improvement in mindfulness and cognitive reappraisal skills among CRAFT participants relative to active and/or inactive controls can be mainly explained by the different mindfulness- and yoga-based meditative practices learned in CRAFT. Examples of these techniques include an array of focused attention, opening monitoring, and loving-kindness and compassion meditations (Bartos et al., 2022) that have been linked to top-down and bottom-up mechanisms instigating high and low brain networks (Guendelman et al., 2017). Through these neural pathways, these techniques may facilitate disengagement from maladaptive cognitions, such as rumination, reactivity, and expressive suppression, while promoting adaptive emotional regulation strategies, such as meta-awareness and cognitive reappraisal (Chiesa et al., 2013; Gard et al., 2014). A pivotal aspect underlying these benefits appears to be the non-evaluative- and acceptance-based stance through which the meditative practices of yoga and mindfulness are performed. Drawing from the metacognitive mechanism of *re-perceiving* (Shapiro et al., 2006), CRAFT participants may have learned to a certain extent to disidentify with the content of their stressors (e.g., negative thoughts and emotions from MPA and psychological distress) by observing it with a non-judgmental and acceptance-based attitude. This process of disidentification and change of perspective named *re-perceiving* was what Garland et al. (2009) alluded to as the naturally occurring phenomenon preceding the actualization of any cognitive reappraisal. According to Garland et al. (2009, 2015), *re-perceiving* frees one's attention from being enclosed within the content of a given appraisal into a metacognitive space of expanded awareness and cognitive flexibility that embrace the stressor and inconspicuous meaningful possibilities including positively valenced states and affects (e.g., inner peace, calmness, joy, compassion, love). As explained by the authors, from this state of broadened cognition, new valuable perspectives and insights might arise and be deployed to meaningfully re-construe stressful primary appraisals (e.g., MPA, psychological distress) as beneficial for intrapersonal growth and eudaimonic well-being.

Additionally, CRAFT participants' cognitive reappraisal abilities may have also been enhanced through various hands-on activities specifically designed by the program developer (e.g., group debates, role play cases of guided discovery; Bartos et al., 2022) to nurture core components of positive psychology (e.g.,

focusing on the positive aspects of one's life, the appreciation of beauty and excellence, gratitude, hope, engagement, and humor; Peterson & Seligman, 2004) and emotional intelligence (e.g., self-awareness, social skills, empathy, and motivation; Goleman, 1998). Except for a previous feasibility study (Bartos et al., 2022), it appears that the extant literature does not show any studies explicitly examining the effectiveness of well-being interventions to improve tertiary student musicians' mindfulness and cognitive reappraisal abilities. Therefore, , further research including specific instruments to concurrently measure these skills is highly encouraged, considering the relevant impact that enhanced mindfulness and/or cognitive reappraisal may have on ameliorating student musicians' well-being, self-regulated learning, academic performance, MPA, and psychological distress (Kaleńska-Rodzaj, 2023; Peistaraitė & Clark, 2020).

As has been discussed, CRAFT participants' increased levels of mindfulness and cognitive reappraisal may have contributed to enhancing their capacity to cope with symptoms related to MPA and psychological distress. This rationale is supported by CRAFT participants' reported improvements in their levels of overall psychological distress, depression, anxiety, and MPA related to proximal somatic anxiety and judgments/scrutinies compared to active and/or inactive controls. The current study results of reduced MPA among CRAFT participants are consistent with those found among tertiary student musicians following interventions based on Chan meditation (Chang et al., 2003) and Kripalu yoga (Stern et al., 2012), and among adolescent, student, and professional musicians involved in similar practices (e.g., biofeedback, yoga, Alexander Technique; Burin & Osorio, 2016).

Drawing on positive psychology, various practices implemented in CRAFT to foster engagement (Seligman, 2011) and *flow* (Csikszentmihalyi, 1990) such as group-meditative improvisations and mindful concerts (Bartos et al., 2022) may have contributed to reducing psychological distress, especially MPA. Evidence from studies conducted with student (Fullagar et al., 2013) and professional (Cohen & Bodner, 2019, 2021) musicians indicate that higher flow is associated with lower MPA. *Flow* refers to a state of heightened awareness, self-control, attention, and joy that may occur when one is fully immersed in an activity and might therefore accomplish it effortlessly and at a high level of performance while losing track of time (Csikszentmihalyi 1990). Hence, it is possible that CRAFT participants through CRAFT exposure may have enhanced their ability to attain flow states during demanding events (e.g., music performance), enabling them to experience such stressful situations of MPA and psychological distress as a meaningful, enjoyable, and successful process. Further explanations of CRAFT participants' potential improvement in psychological distress that may also cast light on their reported MPA reductions can be found in the specific self-regulation training developed in CRAFT through the different yoga-based postural, breathing, and relaxation techniques. Via bottom-up processes engaging lower-level brain networks, the interoceptive, proprioceptive, and embodied experience elicited by these practices may engender an enhanced relaxation response of vagal nerve and parasympathetic nervous system upregulation (Gard et al., 2014). Conversely, these processes would be reflected in a counteraction of the stress response via a downregulation of the sympathetic tone, hypothalamic-pituitary-adrenal axis, catecholamines, and proinflammatory cytokines (McCall, 2013; Sullivan et al., 2018).

In the physical domain, the between-group results of increased lower body flexibility and balance favoring CRAFT participants over active and/or inactive controls align with those reported in previous *Hatha* yoga-based interventions followed by university students (Park et al., 2017; Smith et al., 2011; Tran et al., 2001). These findings are congruent with CRAFT participants' training in the different *hatha* yoga-based

practices implemented through the program that promote various physical qualities, such as flexibility, balance, and strength (Bartos et al., 2022; McCall, 2013). However, CRAFT participants' lower body flexibility levels at Time 2, albeit being higher than controls, were lower than average according to normative values (ACSM, 2014) and those reported in a recent cross-sectional study conducted with conservatory students (Araújo et al., 2020). Similarly, although CRAFT participants reported the highest scores at Time 2 in lower body balance, these values were below average compared to previous norms (Coulson & Archer, 2009). These results were not unexpected considering the high proportion of CRAFT participants in the Mindfulness subject that did not exercise in the past 2 months preceding Time 1 and Time 2 assessments and CRAFT's low dosage of physical training delivery per week. Notwithstanding this, CRAFT participants increased by a medium ES their lower body flexibility and by a medium and large ES their ability to balance on the right and left leg, respectively. These physical gains appear to be particularly relevant for tertiary student musicians for whom developing optimal levels of physical fitness has been specifically recommended to prevent and ameliorate PRMD, MPA, and psychological distress, and enhance their overall music practice and performance experience (Araújo et al., 2020; Matei & Ginsborg, 2020; Kim & Kim, 2023).

In contrast to the CRAFT versus inactive control group comparison, the results of MPA related to proximal somatic anxiety and judgments/scrutinies, overall psychological distress, depression, anxiety, and stress, as well as lower body flexibility and right leg balance between the CRAFT and active control group were not as hypothesized. These findings suggest that active controls may have also experienced positive effects on these variables as a result of their Alexander Technique training. This overall outcome was not surprising, given the various overlapping elements with CRAFT that may have been controlled for by using an active control group of this kind that was also rooted in a holistic mind-body approach. These include (see Appendix E4 for more details about the content and practices imparted in both groups), for instance, the development of motor skills, bodily alignment, an adequate posture, proprioception, kinaesthesia, and present-moment awareness at a physical, mental, and emotional level; the focus on process-oriented goals; and the employment of relaxation techniques, dynamic games, and group discussions on how to apply the content learned in class to participants' daily lives, well-being, and academic demands. Although investigating the effectiveness of participating in the Alexander Technique-based subject was beyond the scope of our study, we examined its within-group effects, with active controls reporting significant improvements in proximal somatic MPA, lower body flexibility, and right leg balance. These results partially concur with previous studies the evidence of which appears to support the Alexander Technique as an effective intervention for improving several health and well-being outcomes, such as anxiety, stress, MPA, and flexibility (Klein et al., 2014). Taking all these findings together and the seemingly limited evidence in the field, further research is encouraged to examine the impact of the Alexander Technique on tertiary student musicians' well-being and academic experience.

Contrary to our hypothesis, there were no between-group differences favoring CRAFT participants compared to active and inactive controls in the levels of psychological well-being, stress, mindfulness regarding describing and acting with awareness; expressive suppression; and MPA related to playing from memory and feeling anxious/apprehension. Moreover, the non-significant results in the abilities of cognitive reappraisal and observing mindfully between CRAFT and inactive control participants as well as the mindfulness skill of non-judging between CRAFT and active control participants were not as hypothesized. These null effects could obey to various degrees of extent to the low dosage of program delivery, variations in the actual fidelity of program

implementation and practice that was attained in resonance with CRAFT's contents and objectives, and the differential emphasis placed on developing certain components, practices, and abilities over others. In addition, potential response shift effects due to the program inducing changes in participants' internal standards, understanding of the measured construct, and values/priorities, may have masked the actual improvement they might have gone through on the current study self-reported outcome measures (Bartos, Posadas, Wrapson, et al., 2023; Sprangers & Schwartz, 1999). However, CRAFT participants' change scores compared to inactive controls trended towards significance in the mindfulness ability of acting with awareness, emotional regulation strategies of cognitive reappraisal and expressive suppression, and their MPA related to playing from memory, and those in the mindfulness abilities of observing and describing followed the expected pattern in accordance to our hypothesis. Similarly, trends towards significance in the direction of our hypotheses were also noted between CRAFT participants and active controls in the levels of MPA related to proximal somatic anxiety and mindfulness regarding the skills of non-judging and describing.

Limitations and Further Research

Various limitations can be identified in the current study. First, the three groups involved in this investigation were formed based on students' enrolment in pre-existing subjects at two music conservatories. Therefore, the absence of randomization may have contributed to the between-group baseline imbalances reported in participants' levels of psychological well-being, right leg balance, and MPA related to proximal somatic anxiety and judgments/scrutinies (Van Breukelen et al., 2006). In this regard, the fact that participants were recruited from two different conservatories and cities may have also had an effect in increasing the heterogeneity of the sample and further explained these observed differences at Time 1. However, the naturalistic design implemented posed the advantage of conducting this investigation with high ecological validity and therefore mirroring what normally occurs in the community without meddling with participants' choices and interests (Dimitrov et al., 2003; Verster et al., 2019). Moreover, the inclusion of active and inactive controls, alongside a strict exclusion criterion of prior and/or concurrent familiarization with yoga and/or mindfulness-based training, further strengthened the validity of the effects herein reported as being primarily attributable to CRAFT exposure rather than other possible factors. As a further layer of robustness following previous recommendations (Van Breukelen et al., 2006), the current study findings derived from our main analysis were corroborated when pre-existing between-group differences were controlled for. Additionally, the large number of inactive controls who did not complete Time 2 assessments (Time 2 unassessed inactive controls) due to examination constraints could have also accounted for the aforementioned differences observed at Time 1. Such possibility finds support from the significantly higher scores reported by Time 2 unassessed inactive controls not assessed at Time 2 compared to those who completed Time 1 and Time 2 assessments (Time 1-Time 2 inactive controls) at Time 1 for hours of physical activity, overall mindfulness, observe mindfully, MPA related to judgments/scrutinies, and psychological distress (Table App. 7 in Appendix E4). Therefore, it appears that Time 2 unassessed inactive controls not assessed at Time 2 were physically active individuals who entered the intervention with potentially higher levels of physical and mental well-being than their Time 1-Time 2 assessed counterparts. Consequently, it could be contended that, had Time 2 unassessed inactive controls been assessed at Time 2, the inactive control group could have arguably been considered rather as a similar condition to an active control group. However, the question arises as to how this eventuality may have impacted the directionality and

generalizability of the current study findings as unequal group sample sizes with a significantly higher proportion of inactive controls could have been observed. Furthermore, according to the regression to the mean phenomenon, it could be postulated that participants with higher levels at baseline—such as in the case of the current study Time 2 unassessed inactive controls not assessed at Time 2—may presumably undergo lower improvements than those presenting lower scores (Dankel, 2020), which may have led to putatively finding higher differences favoring CRAFT participants over inactive controls. Nonetheless, our current study findings indicated that CRAFT participants showed significant improvements in more outcome measures relative to inactive controls than to active controls, which mirrors the logical pattern of results that is typically expected when an experimental condition is contrasted with active and inactive control groups. Further research with larger sample sizes for each condition, along with the provision of incentives for completing all study assessments, is needed to clarify these findings and their generalizability to the target population.

Second, due to the relatively high proportion of students who were unable to complete Time 2 assessments because of examination constraints, we fell short of achieving the expected sample size of our *a priori* power analysis that would have enabled us to detect ESs equivalent to our estimated MPSE. Notwithstanding this, the current study results were consistently interpreted following benchmarks derived from our sensitivity power analysis to estimate whether they achieved adequate power and both statistical and practical significance. Thus, we were able to rigorously discriminate some statistically and/or practically significant results warranting replication with larger samples because our study may not have been sufficiently powered to detect them. In addition, by inferring the practical significance of our results through the MPSE and ESs $\pm$ 95% confidence intervals (Hedges & Olkin, 1985) we could also report their magnitude and precision through standardized metrics for meaningful comparisons and meta-analytic purposes. Third, the heterogeneity of the CRAFT group as a result of including participants receiving instruction in two different subjects (Mindfulness and/or Emotional Intelligence) limited our ability to determine to what extent each of these two types of instruction alone may have influenced the current study results. Nonetheless, except for the CRAFT physical protocol that was exclusively administered in the Mindfulness subject, all CRAFT participants regardless of the CRAFT-based elective subject they were enrolled in received complete CRAFT instruction.

Fourth, Time 1 assessments were conducted after students had officially confirmed their final enrolment choices which occurred after they had already completed three weeks of instruction (3 hr) in their respective subject classes. Although evidence suggests that even 2.5-5 hr of mindfulness training may engender measurable effects (Baer et al., 2012), it remains unclear to what extent, if at all, those 3hr of training prior to Time 1 assessments may have impacted participants' actual baseline levels and the overall between- and within-group effects reported. Thus, future CRAFT research within such naturalistic settings should contemplate multiple assessments including evaluations conducted before the onset of any academic instruction, after confirmation of enrolment choices or mid-term, upon completion of the intervention, and at follow-up, to adequately examine both the short- and long-term effects of CRAFT. Fifth, despite most significant results being quantified within the medium to large ES range, the dosage of program delivery of 1 hr per week may have not been sufficiently high to allow us to detect the actual effectiveness of CRAFT in enhancing well-being outcomes. Although encouraging and monitoring fidelity of formal and informal home-based practice was a way to extend this dose, further research should determine whether higher exposure to CRAFT instruction in

both frequency and intensity could lead to greater effects. Given the need to enhance tertiary student musicians' fitness levels (Araújo et al., 2020), future CRAFT interventions within higher conservatory settings should also specifically increase the dose of physical training and include other relevant physiological measures related to their physical demands (e.g., strength, pulmonary and cardiovascular functions, postural balance; Araújo et al., 2020; Kim & Kim, 2023). Lastly, in resonance with yoga and mindfulness, CRAFT is ultimately a method for intrapersonal and spiritual development toward self-actualization (Posadas, 2019). Therefore, as a contemplative intervention, it may have the potential of inducing transcendental and genuine lived experiences of subtle perception that could bring about a relevant change of meaning and perspective about reality (Bartos, Posadas, Wrapson, et al., 2023; Ekici et al., 2020; Leledaki, 2014). Thus, to register such experiences, identify within them relevant patterns, and gain a greater understanding of CRAFT participants' quantitative effects and perceived benefits, future CRAFT research should incorporate in-depth qualitative methods, such as semi-structured interviews and practice logs.

Notwithstanding these limitations, the current study findings support CRAFT as an effective intervention to improve tertiary student musicians' levels of mindfulness, cognitive reappraisal, MPA, psychological distress, and lower body balance and flexibility. In addition, this investigation served the purpose of building on previous CRAFT feasibility research, and in turn, on the extant literature in the field of higher music education which appears not to include any studies with an active control group examining the effectiveness of mindfulness-based interventions on the aforementioned outcomes. Our findings have important implications as far as raising awareness of the importance of implementing comprehensive interventions within higher education settings, in general, and specifically, music tertiary education to holistically enhance the well-being and academic experience of university students. Although this evidence is promising, larger multi-arm-controlled studies implementing mixed methods and higher dosages of program delivery among tertiary students of music and other disciplines are needed to substantiate these findings.

Chapter 9. Integrated Discussion

The main purpose of the current PhD investigation was to examine the feasibility and effectiveness of the newly developed Consciousness, Relaxation, Attention, Fulfillment, and Transcendence (CRAFT; Posadas, 2019) program, based on yoga, mindfulness, positive psychology, and emotional intelligence, to enhance the well-being and academic experience of tertiary student musicians. To that end, a series of six PhD studies with data collected at a higher conservatory of music where CRAFT was followed as CRAFT-based elective subjects (i.e., Mindfulness and Emotional Intelligence) by tertiary student musicians from 2017 to 2023, once a week for 60 min for the entire academic year, were conducted. As discussed in Chapter 2, this PhD work was initiated with the rise of the COVID-19 pandemic, which led to an unexpected research line that, while keeping with the main purpose, was created to explore the applicability, perceived benefits, and potential transformative effect of CRAFT to enhance tertiary student musicians' well-being during the lockdown. The studies described in Chapters 3, 4, and 5 completed this first research step coined as Phase 1, while those the data of which were collected either before (Chapters 6 and 7) or after (Chapter 8) the pandemic—and were specifically devised to fulfill the main purpose—culminated Phase 2. In the ensuing section, these six studies across Phase 1 (Chapters 3-5) and Phase 2 (Chapters 6-8) will be summarized.

Summary of PhD studies and Relevant Findings

Table 9.1 shows the most relevant aspects and findings related to the six studies that comprise this PhD investigation across the two identified research phases. In the first study within Phase 1 (Chapter 3; Bartos et al., 2021), a quasi-experimental design was employed to explore whether CRAFT could be an applicable and beneficial program in terms of being leveraged by tertiary student musicians to improve their health and well-being during the lockdown. To that end, Bartos et al. (2021) administered a 7-item online questionnaire (Appendix D2) to tertiary student musicians who had been following CRAFT-based elective subjects (CRAFT group; $n=40$) and other non-CRAFT-based subjects (control group, $n=53$) for six months—16 weeks face-to-face followed by 7 weeks online due to the lockdown. The online questionnaire prompted participants to report on different aspects of their COVID-19 health-related experience; and whether they had implemented any particular practices to improve their well-being during the lockdown and perceived any benefits from it. Bartos et al. (2021) found that compared to controls, there was a significantly higher proportion of CRAFT participants who were proactive in terms of deploying practices to improve their well-being during the lockdown, 92% versus 58%. Likewise, compared to proactive controls, the proportion of proactive CRAFT participants perceiving benefits from their implemented practices was significantly higher, 78% versus 53%. Noteworthy, yoga and meditation CRAFT-based practices were the most implemented among proactive CRAFT participants, 68%, and the ones from which more participants, 51%, reported benefits in comparison to other types of practices (e.g., other yoga/meditation techniques, physical activity). Moreover, Bartos et al. (2021) provided further evidence strengthening the validity of their findings by finding a similar pattern of results in a filtered sample after excluding participants who reported prior familiarization with yoga- and/or mindfulness-based practices. Lastly, although Bartos et al. (2021) documented some of the perceived benefits reported by proactive participants from their comments in relation to their experience with the practices implemented, it was beyond the scope of their study to examine such accounts through qualitative methods. Despite the various limitations

identified in this study, such as its cross-sectional design, the absence of any objective and psychometric measures, and self-selection bias, this study lent support to the utility of CRAFT and its practices to be used for well-being purposes by tertiary student musicians facing highly demanding situations.

Table 9.1*PhD Studies across Research Phases and Academic Years of CRAFT Implementation as CRAFT-based Elective Subjects*

Phase	Chapter (Study)	Academic year	Purpose	Sample	Research Design	Measures	Analysis	Main Results
1	3 (Bartos et al., 2021)	2019/2020	To explore the applicability and potential perceived benefits of CRAFT to improve tertiary student musicians' well-being during the lockdown compared to controls.	CRAFT group (n=40) Control group (n=53)	Quasi-Experimental	Online COVID-19 Survey (Questions 1-7)	Two-way chi-square tests One-way ANOVAs	- Higher proportion of CRAFT participants than controls were proactive in terms of implementing practices to improve their well-being during the lockdown— 92% vs. 58% - Higher proportion of proactive CRAFT participants than controls perceived benefits from the practices implemented— 78% v. 53% 68% of CRAFT participants used yoga and meditation CRAFT-based practices 51% of CRAFT participants reported benefits from yoga and meditation CRAFT-based practices
1	4 (Bartos, Posadas, et al., 2023)	2019/2020	To gain a greater understanding of tertiary student musicians' experience with the CRAFT-based practices they implemented to enhance their well-being during the lockdown and their perceived benefits associated with it.	n=26	Qualitative	7th question (open-ended) of the Online COVID-19 Survey	Deductive Content Analysis	Consciousness: Higher metacognitive awareness, lucidity, self-knowledge Relaxation: Higher mental and emotional self-regulation, stress, anxiety, calmness Attention: Higher concentration Fulfillment/Happiness: Higher sense of wellness and satisfaction, hope, vitality Transcendence: Higher resilience, self-transforming changes (e.g., positive attitude, perspective-taking, holistic)
1	5 (Bartos, Posadas, Wrapson, et al., 2023)	2019/2020	To explore the utility of the then-test to detect a potential CRAFT-based response shift occurrence among tertiary student musicians following CRAFT, and to ascertain to what extent effect sizes may differ when adjusting for it.	n=31	Single-arm pre-post design	FFMQ Then-Test-FFMQ	Paired <i>t</i> -tests Hedges' <i>g</i> effect sizes ± 95% CIs	Response shift: FFMQ Observe ($g=0.41$), FFMQ total scale ($g=0.37$) Conventional effect: FFMQ Act Aware ($g=0.28$), FFMQ Non-React ($g=0.36$), FFMQ total scale ($g=0.28$) Effect adjusted for response shift (i.e., actual effect): FFMQ Observe ($g=0.47$), FFMQ Describe ($g=0.25$), FFMQ Act Aware ($g=0.40$), FFMQ Non-Judge ($g=0.28$), FFMQ Non-React ($g=0.57$)
2	6 (Bartos et al., 2022)	2018/2019	To examine the feasibility and preliminary effectiveness of CRAFT to improve tertiary student musicians' mindfulness skills, emotional regulation, psychological distress, well-being, and physical flexibility and balance.	n=25	Single-arm pre-post design	FFMQ, ERQ, SPWS, DASS-21, SRT	Paired <i>t</i> -tests Hedges' <i>g</i> effect sizes ± 95% CIs	FFMQ total scale ($g=0.28$), FFMQ Observe ($g=0.44$), FFMQ Describe ($g=0.38$), SPWS ($g=0.32$), ERQ Reappraisal ($g=0.43$), SRT ($g=0.39$)

(continued)

Table 9.1 (continued)*PhD Studies across Research Phases and Academic Years of CRAFT Implementation as CRAFT-based Elective Subjects*

Phase	Chapter (Study)	Academic year	Purpose	Sample	Research Design	Measures	Analysis	Main Results
2	7	2017/2019	To gain a wider understanding of CRAFT participants' overall experience and perceived benefits from following CRAFT, as well as how they implemented the techniques learned to enhance their well-being, daily life, and academic experience.	$n=37$	Mixed-Methods	CES (36 5-point Likert items)	Descriptive Statistics	- Participants reported a high level of agreement with the 36 5-point Likert items referring to hypothesized benefits of CRAFT ($M=4.30$, $SD=0.46$) Consciousness: Higher self-knowledge (e.g., behaviors, personality), insightful self-awareness (e.g., life purpose, ego, actions), empathy and social relationships Relaxation: Higher emotional, mental, and physical self-regulation, non-reactivity; Reduced psychological distress Attention: Higher attention, learning quality and efficiency Fulfillment/Happiness: Higher eudaimonic happiness (e.g., intrapersonal growth, self-acceptance, appreciation), quality of life Transcendence: Higher reprioritization, resilience, open-mindedness Viability: integration into students' daily life and academic music experience (e.g., playing more confidently, calmer, aware, non-judgmentally; higher flow states and mistake tolerance; MPA regulation), expansion (e.g., it could be implemented to other subjects and settings)
	8					CES (open-ended question)	Deductive Content Analysis	
2	8	2022/2023	To examine the effectiveness of CRAFT in enhancing tertiary student musicians' mindfulness skills, MPA, psychological well-being, psychological distress, emotional regulation, as well as physical flexibility and balance, compared to active and inactive controls.	CRAFT group ($n=28$) Active control group ($n=32$) Inactive control group ($n=33$)	Three-arm non-randomized controlled trial	FFMQ-SF-24, KMPAIR, ERQ, SPWS, DASS-21, SRT, SBTR, SBTL	One-way ANOVAs on change scores One-way ANCOVAs controlling for baseline Cohen's d effect sizes $\pm$ 95% CIs	CRAFT Group vs. Active Control Group: FFMQ-SF-24 Total Scale ($d=0.96$), FFMQ-SF-24 Non-React ($d=0.91$), FFMQ-SF-24 Observe ($d=0.68$), ERQ Reappraisal ($d=0.79$), SBTL ($d=1.77$) CRAFT group vs. Inactive Control Group: FFMQ-SF-24 Total Scale ($d=1.06$), FFMQ-SF-24 Non-React ($d=0.78$), KMPAIR Proximal ($d=-0.57$), KMPAIR Dread/Scrutiny ($d=-0.69$), DASS-21 Depression ($d=-0.73$), DASS-21 Anxiety ($d=-0.68$), DASS-21 Total Scale ($d=-0.65$), SRT ($d=0.70$), SBTL ($d=1.24$), SBTR ($d=0.69$)

Note. FFMQ = Five Facet Mindfulness Questionnaire; Then-Test-FFMQ = The Retrospective Five Facet Mindfulness Questionnaire; FFMQ-SF-24 = Five Facet Mindfulness Questionnaire Short Form; KMPAIR = Kenny Music Performance Anxiety Inventory-Revised; SPWS = Subjective Psychological Well-Being Subscale; ERQ = Emotional Regulation Questionnaire; DASS-21 = Depression, Anxiety, and Stress Scale; SRT = Sit and Reach Test; SBTR = Stork Balance Test Right Leg; SBTL = Stork Balance Test Left Leg; CES = CRAFT Evaluation Survey; Music Performance Anxiety = MPA

The second study within Phase 1 (Chapter 4; Bartos, Posadas, et al., 2023) was conducted to expand on the quantitative findings reported by Bartos et al. (2021) by exploring CRAFT participants' ($n=26$) overall experience and potential perceived benefits with the CRAFT-based practices they implemented during the lockdown. Furthermore, Bartos, Posadas, et al. (2023) were also interested in identifying the specific types of CRAFT-based practices used by participants and whether the possible perceived benefits they may have derived from such application could be aligned with the four foundations (i.e., yoga, mindfulness, positive psychology, and emotional intelligence) and five elements (i.e., Consciousness, Relaxation, Attention, Fulfillment/Happiness, and Transcendence) of CRAFT (Posadas, 2019). Accordingly, Bartos, Posadas, et al. (2023) content analyzed CRAFT participants' responses to the last item of the online questionnaire administered by Bartos et al. (2021), an open-ended question that invited participants to comment on their experience with the practices implemented to enhance their well-being during the lockdown (Appendix D2). The deductive content analysis revealed that CRAFT participants' perceived benefits, mainly derived from the use of meditative practices, aligned with the four foundations of the program, especially yoga and mindfulness, and its five elements. Most notably, such perceived benefits reflected a series of potential developments relative to participants' metacognitive awareness, lucidity, and self-knowledge (Consciousness); mental and emotional self-regulation, stress, anxiety, and calmness (Relaxation); concentration (Attention); sense of wellness and satisfaction, hope, and vitality (Fulfillment/Happiness); as well as resilience and self-transforming changes in terms of adopting a positive attitude, seeing things from different perspectives, and realizing the synergistic effect of CRAFT-based practice (Transcendence). Although it cannot be disregarded that conducting qualitative analysis only on participants' responses to a single open-ended question substantially limited the generalizability of these findings, this study provided further insights into the potential benefits, applicability, and usefulness of CRAFT among tertiary student musicians amidst stressful times.

In the third study of Phase 1 (Chapter 5), Bartos, Posadas, Wrapson, et al. (2023) explored the usefulness of the so-called technique *then-test* to identify a potential CRAFT-based response shift occurrence among tertiary student musicians ($n=31$) following CRAFT during the pandemic. It was hypothesized that participants' exposure to CRAFT could bring about a change in their internal standards, meanings, and values, and as a result, mask or bias their actual self-reported levels of mindfulness (i.e., response shift). Participants completed the regular Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006; Appendix D3) midway through the 6-month intervention (Time 1) and at the end of it (Time 2). Immediately after filling in the FFMQ at Time 2, participants were provided with a then-test FFMQ (Appendix D4), which included the same items of the regular FFMQ but retrospectively adapted so that they could think back to Time 1 and self-assess again their Time 1 mindfulness levels. Results from paired *t*-tests and Hedges' *g* effect sizes $\pm$ 95% CIs showed that response shift effect—operationalized as the FFMQ scores at Time 1 minus the then-test FFMQ scores—was significant in terms of CRAFT participants' levels in their overall mindfulness skill (FFMQ total scale) and ability to observe mindfully (FFMQ Observe subscale). When adjusting for response shift in an attempt to estimate the potential actual effect—operationalized as the FFMQ scores at Time 2 minus the then-test FFMQ scores—CRAFT participants reported significant improvements in their levels of overall mindfulness skill (FFMQ total scale) and each mindfulness ability (all FFMQ subscales). In addition, the effect sizes reported for all these mindfulness abilities after correcting for response shift were amplified relative to those conventionally estimated—FFMQ scores at Time 2 minus FFMQ scores at Time 1. Notwithstanding various limitations, such

as the absence of a control group and an actual pre-test, this study supported the use of the then-test to quantitatively detect a possible response shift occurrence of transformative nature potentially induced by CRAFT exposure.

In the first study within Phase 2 (Chapter 6), Bartos et al. (2022) employed a single-arm pre-post design to examine the feasibility and preliminary effectiveness of CRAFT to promote mindfulness skills and improve tertiary student musicians' physical, psychological, and emotional well-being. To that end, Bartos et al. (2022) evaluated six feasibility domains described by Bowen et al. (2009), namely, *Demand*, *Implementation*, *Practicality*, *Adaptation*, *Integration*, and *Limited Efficacy*, to determine whether CRAFT could be a feasible program to be implemented as part of larger future trials. To ascertain CRAFT's limited efficacy, tertiary student musicians were assessed on self-reported measures of mindfulness (Appendix D3), psychological distress (Appendix D7), emotional regulation (Appendix D8), and well-being (Appendix D9), as well as a field test of physical flexibility, 3 months after they started their CRAFT instruction (Time 1), and at the end of it (Time2), five months after Time 1. In terms of preliminary effectiveness, results from paired *t*-tests and Hedges' *g* effect sizes $\pm$ 95% CIs indicated that CRAFT participants reported improved levels of mindfulness skills—particularly in terms of observing and describing mindfully, cognitive reappraisal, psychological well-being, and physical flexibility from Time 1 to Time 2. These findings were also replicated to a large extent when excluding participants who reported previous exposure to yoga- and/or mindfulness-based training. In addition, the evaluation of the aforementioned feasibility domains (Bowen et al., 2009) revealed that CRAFT was easily implemented within elective subjects and adapted to students' specific needs, as well as being highly demanded by students, consistently practiced by them, and frequently integrated into their daily lives. Despite these promising outcomes, Bartos et al. (2022) identified relevant limitations warranting their cautious interpretation and further research to substantiate them, including the small sample size and power, lack of a control group, and the fact that time 1 assessments were conducted 3 months after the onset of the CRAFT instruction. Nonetheless, the findings of this study, overall, suggested that CRAFT could be a feasible program to be implemented as part of larger trials to examine its effectiveness in enhancing tertiary student musicians' well-being and academic experience.

The second study of Phase 2 (Chapter 7; Bartos, Posadas, Wrapson, et al., 2024) was conducted to expand on the quantitative findings reported by Bartos et al. (2022) to further examine and establish the feasibility of CRAFT in terms of acquiring a higher understanding of how such training could impact tertiary student musicians' well-being and academic experience. In pursuit of it, Bartos, Posadas, Wrapson, et al. (2024) administered a CRAFT evaluation survey (Posadas & Bartos, 2022; Appendix D10), comprising 36 5-point Likert Items and one open-ended question, to a sample of tertiary student musicians ($n=37$) who received CRAFT instruction during 2017-2019 to explore their CRAFT-based experiences and potential perceived benefits derived from it. Results from the Likert items revealed a high level of agreement by participants with a series of hypothesized benefits of the program, suggesting their CRAFT exposure helped them promote various states, conditions, and abilities related to the five CRAFT elements and CRAFT's applicability. For instance, these results supported CRAFT as a feasible program to foster self-awareness and empathy (Consciousness); relaxation, music performance anxiety (MPA), and psychological distress (Relaxation); attention and memory (Attention); happiness and motivation (Happiness/Fulfillment); creativity and resilience (Transcendence); and agency (viability). Results from the deductive content analysis performed on participants' responses to the open-

ended question confirmed, clarified, and expanded these aforementioned findings uncovering additional benefits categorized within the CRAFT five elements. Examples of such further benefits included potential developments in participants' self-knowledge of their behaviors and personality, as well as insightful self-awareness of their life purpose, ego, and actions (Consciousness); emotional, mental, and physical self-regulation and non-reactivity (Relaxation); eudaimonic happiness regarding intrapersonal growth, self-acceptance, and appreciation (Happiness/Fulfillment); and capacity to reprioritize (Transcendence). Moreover, as reported in the overarching category Viability, participants' comments suggested that they perceived CRAFT as a useful program to be integrated into their daily lives and academic experience, also recommending its inclusion in other disciplines and settings. Particularly for Viability, participants acknowledged a series of music-related benefits derived from their CRAFT-based experience, such as enhanced capacity to accept their mistakes, play more aware and calmer, reach flow states, enjoy, and live their music experience with higher confidence and a non-judgmental attitude. Notwithstanding the limited narrative provided by participants in their responses to the open-ended question, which may have been influenced by their previous evaluations of the Likert items, this study further supported CRAFT as a useful program to enhance tertiary student musicians' well-being and academic experience, establishing and completing the feasibility phase of CRAFT.

Lastly, the third study of Phase 2 (Chapter 8; Bartos, Posadas, Wrapson, Medvedev, et al., 2024), which represents the culminating and presumably most relevant work as part of this PhD investigation, was designed to build on the previous five studies that established and completed the feasibility phase of CRAFT. Through this study, Bartos, Posadas, Wrapson, Medvedev, et al. (2024) attempted to address some of the limitations identified in the preceding five PhD studies and prior yoga- and mindfulness-based interventions conducted with tertiary student musicians (Chan et al., 2003; Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Lin et al., 2008; Posadas & Bartos, 2022; Rull et al., 2019; Stern et al., 2012; Steyn et al., 2016). Consequently, this study included an active and inactive control group, power analysis, measures of effect size, as well as emotional regulation and physical outcome measures to examine the effectiveness of CRAFT in enhancing tertiary student musicians' physical, psychological, and emotional well-being. Accordingly, using a three-arm non-randomized controlled trial, tertiary student musicians ($n=93$) with no prior yoga- and/or mindfulness-based experience were assessed before and after following CRAFT (CRAFT group, $n=28$), Alexander Technique (active control group, $n=32$), or music (inactive control group, $n=33$) curricular instruction, once a week for 1-1.5 hr during 6 months, on several physical, psychological, and emotional abilities, states, and conditions. Outcome measures included surveys of mindfulness (Appendix D5), MPA (Appendix D6), psychological distress (Appendix D7), emotional regulation (Appendix D8), well-being (Appendix D9), as well as field tests of balance and flexibility. One-way ANOVAs on participants' change scores indicated that compared to both active and inactive controls, CRAFT participants reported an increase in their overall mindfulness skill, particularly in terms of their ability to non-react, as well as an improvement in their left leg balance. In addition, they also exhibited enhancements in their ability to observe mindfully and cognitively reappraise compared to active controls, as well as improvements in their right leg balance, lower body flexibility, MPA, depression, anxiety, and overall psychological distress compared to inactive controls. All these results reported by Bartos, Posadas, Wrapson, Medvedev, et al. (2024) were practically and statistically significant. As a robustness check to verify the validity of these findings, the authors conducted one-way ANCOVAs controlling for baseline levels on all outcome measures and found a similar

pattern of results (Table App. 5 in Appendix E4). Despite various limitations, such as self-selection bias and loss of substantial power due to participants' inability to complete post-intervention assessments due to examination constraints, these findings endorsed CRAFT as an effective program to enhance tertiary student musicians' physical, psychological, and emotional well-being.

Integrated Exploration of CRAFT Studies and Research Phases

As summarized in the previous section, each of the six studies conducted as part of this PhD investigation has furnished valuable evidence through the overall process of examining the feasibility and effectiveness of CRAFT to enhance tertiary student musicians' well-being and academic experience. Although each study has been published (Chapters 3-7) or submitted for publication (Chapter 8) separately, there was a logic underlying their design, purpose, and succession ancillary to the comprehensive larger PhD project they together constitute.

On the one hand, the findings of the first three studies conducted during the COVID-19 pandemic (Phase 1; Chapters 3-5) bolstered CRAFT as an applicable, useful, beneficial, and even transformative program to be meaningfully leveraged by student musicians under highly stressful conditions. In the first study (Chapter 3; Bartos et al., 2021), compared to regular music instruction, exposure to CRAFT-based elective subjects was associated with more proactivity and perceived benefits among tertiary student musicians in terms of implementing practices to improve their well-being during the lockdown. Additionally, such proactivity and perceived benefits among CRAFT participants were majorly related to the implementation of CRAFT-based practices. These findings suggested that CRAFT training, which has a predominant focus on cultivating self-promoting behaviors (e.g., self-responsibility, self-health care, Bartos et al., 2021), may instill into CRAFT participants a sense of agency to independently apply what they learn through the program to effectively respond to stressful events. Building on the quantitative findings of the first study, the qualitative exploration conducted in the second study (Chapter 4; Bartos, Posadas, et al., 2023) shed light on the benefits that proactive CRAFT participants perceived from their CRAFT-based practice implementation experience. Along these lines, CRAFT participants' voices suggested that the CRAFT-based practices they independently deployed during the lockdown helped them to develop their awareness, self-knowledge, and self-regulation; manage their psychological distress; and promote their wellness, hope, vitality, resilience, and self-transforming behaviors (e.g., perspective-taking, positive attitude, equanimity). Taking all these benefits together, it could be argued that tertiary student musicians' exposure to CRAFT training may have holistically and constructively impacted their health and well-being during the stressful circumstances elicited by the pandemic and lockdown. Subsequently, in the third study (Chapter 5; Bartos, Posadas, Wrapson, et al., 2023), retrospective examinations of CRAFT participants' self-reported levels of mindfulness supported the potential occurrence of such holistic and transformative experience, which appeared to have masked their actual improvement in this ability due to changes in their internal standards, values, and meanings (i.e., response shift). In this regard, CRAFT participants' self-reported levels of mindfulness, which significantly increased after the intervention, were amplified when they were adjusted for the potential response shift that may have occurred. Therefore, the third study provided quantitative evidence underpinning the possible occurrence of a CRAFT-based induced response shift phenomenon of transformative nature in conformity with the qualitative findings reported in the second study. Furthermore, in this third study, Bartos, Posadas, Wrapson, et al. (2023) afforded an innovative contribution to the field of yoga- and mindfulness-based research, in which it appears no studies have examined

through retrospective self-reported evaluations (i.e., then-test; Schwartz & Sprangers, 2010) whether these types of interventions may induce response shift and confound mindfulness measurement.

On the other hand, the results gathered from the ensuing three studies that completed Phase 2 (Chapters 6-8), not only confirmed the applicability, potential benefits, and possible transformative impact of CRAFT among tertiary student musicians' health but also supported its feasibility and effectiveness to be implemented as part of larger trials to enhance their well-being and academic experience. It is important to remember that the implementation of CRAFT as part of these Phase 2 studies was either before or after the pandemic, and that they were conceived to be the cornerstone of this PhD investigation. In the fourth study (Chapter 6; Bartos et al., 2022), tertiary student musicians following CRAFT-based elective subjects, once a week for 1 hr, reported increased levels of mindfulness (i.e., overall as well as for the mindfulness abilities of observing and describing), cognitive reappraisal, psychological well-being, and lower body flexibility at the end of the sixth-month intervention. These findings indicated that CRAFT training may be effective in improving tertiary student musicians' mindfulness skills, in alignment with those reported in the second (Chapter 4; Bartos, Posadas, et al., 2023) and third (Chapter 5; Bartos, Posadas, Wrapson, et al., 2023) studies; well-being and adaptive emotional regulation strategies (e.g., cognitive reappraisal), in accordance with the perceived benefits disclosed in the second study (Chapter 4; Bartos, Posadas, et al., 2023); and physical capacities (e.g., flexibility). Furthermore, concurring with the findings reported in the first study (Chapter 3; Bartos et al., 2021), in which CRAFT instruction was linked to high levels of CRAFT-based practice implementation, the evaluation of several feasibility domains (Bowen et al., 2009) informed that CRAFT appears to be a hands-on program not only highly demanded by tertiary student musicians but also frequently applied and integrated into their daily lives. This evidence was further corroborated in the fifth study (Chapter 7; Bartos, Posadas, Wrapson, et al., 2024) in which CRAFT participants reported positive evaluation of the CES viability subscale and divulged relevant comments regarding the beneficial impact and high applicability of CRAFT within their music-making, daily lives, and well-being experience, recommending its application to other educational contexts and settings. Furthermore, the results obtained from the mixed methods evaluation of CRAFT participants' responses to the CES Likert items and open-ended question, in addition to being consistent with the findings reported in the previous four studies (Chapters 3-6; Bartos et al., 2021; Bartos et al., 2022; Bartos, Posadas, et al., 2023; Bartos, Posadas, Wrapson, et al., 2023), broaden their scope and understanding uncovering additional potential benefits and further nuances to those priorly identified. For instance, the deductive content analysis of this fifth study elucidated potential improvements in aspects of participants' self-knowledge (personality, behavior), self-awareness (e.g., life purpose, ego), empathy and social relationships, happiness (e.g., eudaimonic happiness, self-acceptance, appreciation) as well as relevant music-related benefits (e.g., mistake tolerance, playing calmer and more consciously, development of flow states, less self-scrutiny/judgment, regulation of MPA) that were not detected in the first qualitative study (Chapter 4, Bartos, Posadas, et al., 2023). Moreover, in the fifth study, some of the perceived benefits abstracted in the overarching category Transcendence (e.g., perspective-taking, reprioritization, open-mindedness, and resilience) conformed to and cast light on the foregoing quantitative results of significant response shift and increased cognitive reappraisal found among CRAFT participants in the third (Chapter 5; Bartos, Posadas, Wrapson, et al., 2023) and fourth (Chapter 6; Bartos et al., 2022) studies, respectively. Yet, overall, along with those within Transcendence, several other perceived benefits categorized into Consciousness (e.g., emotional, mental, and physical self-awareness); Relaxation (e.g., non-reactivity;

physical, mental, and emotional self-regulation); and Happiness/Fulfillment (e.g., quality of life, happiness, self-acceptance) helped explain and supported CRAFT participants' significant results in response shift (Chapter 5; Bartos, Posadas, Wrapson, et al., 2023), as well as improved mindfulness, well-being, and emotional regulation (Chapter 6; Bartos et al., 2022).

Altogether, this evidence combined from the previous five studies rendered comprehensive support to the feasibility of CRAFT to be implemented within larger investigations examining its well-being effects among tertiary student musicians. Therefore, having established the feasibility phase of CRAFT, the sixth study (Chapter 8; Bartos, Posadas, Wrapson, Medvedev, et al., 2024) was conceived as the first investigation leading the way through the new research stage of examining its efficacy and effectiveness in enhancing tertiary student musicians' well-being and academic experience. In this study, tertiary student musicians following CRAFT reported significant enhancements in their overall mindfulness skills—specifically non-reactivity and observing—as well as in their ability to cognitively reappraise and balance on the left leg relative to active controls receiving Alexander Technique instruction. In addition, compared to inactive controls attending regular music instruction, CRAFT participants showed significant improvements in their mindfulness skills, particularly non-reactivity, balance on right and left legs, lower body flexibility, MPA, depression, anxiety, and overall psychological distress. These findings substantiated those reported in the previous two quantitative studies, where CRAFT participants showed significant increases in mindfulness (Chapter 5; Bartos, Posadas, Wrapson, et al., 2023; Chapter 6; Bartos et al., 2022) as well as cognitive reappraisal and lower body flexibility (Chapter 6; Bartos et al., 2022). In addition, a series of perceived benefits unveiled in the second (Chapter 4; Bartos, Posadas, et al., 2023) and fifth studies (Chapter 7; Bartos, Posadas, Wrapson, et al., 2024), which suggested CRAFT training helped tertiary student musicians better manage their MPA and psychological distress, were also corroborated through the results of this last PhD study. Therefore, this interactive correspondence, replication, expansion, and substantiation of results, which has been gradually and consistently manifesting between the different PhD studies as they were being conducted, found ultimate expression and reinforcement through the final and more robust three-arm non-randomized controlled trial that culminated this PhD investigation. On this basis, albeit the various limitations identified in the previous section, the overall body of evidence amassed through the six studies across the two research phases, not only supported CRAFT as a feasible and effective intervention to improve tertiary student musicians' levels of mindfulness, cognitive reappraisal, MPA, psychological distress, and lower body balance and flexibility, but also their well-being and academic experience as a whole.

Key Findings and Contributions in Context: Insights from this PhD Investigation

In an attempt to contextualize and better understand the main findings of this PhD investigation, the current section will focus on contrasting them with those showcased in the inchoate body of literature in the field, as well as intertwining them with the tenets and components of the four CRAFT foundations (yoga, mindfulness, positive psychology, and emotional intelligence). In this manner, the following interactive discourse not only intends to shed light on the potential reasons underlying the emergence of these findings but also underscore the novel contributions and implications they could reveal. Moreover, limitations and recommendations for further research will be discussed.

As concluded in the previous section, the findings of the present PhD investigation in its entirety suggest CRAFT may be an effective program for enhancing tertiary student musicians' well-being and academic

experience holistically. On the one hand, the quantitative findings reported in the first, third, fourth, and sixth studies (Chapters 3, 5, 6, & 8), as a whole, underpinned CRAFT's potential to enhance tertiary student musicians' proactivity to implement practices to improve their health and well-being; dispositional mindfulness, cognitive reappraisal, psychological well-being, lower body balance, and flexibility; as well as anxiety, depression, overall psychological distress, and MPA symptoms. On the other hand, the qualitative results derived from the second and fifth studies (Chapters 4 & 7) not only confirmed and threw light on these quantitative findings but also widened their scope by unmasking a series of additional benefits relevant to tertiary student musicians' well-being and academic experience. These further benefits included potential developments in relation to their self-knowledge, self-awareness, empathy, and social skills; ability to relax and self-regulate at a physical, mental, and emotional level; attention and concentration; eudaimonic happiness, self-acceptance, hope, and vitality; resilience, perspective-taking, equanimity, and ability to reprioritize; and music making and performance experience (e.g., self-confidence, mistake tolerance, attainment of flow states).

Some of the quantitative results reported in this PhD investigation aligned with those reported in previous yoga- and mindfulness-based interventions conducted with tertiary student (Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Stern et al., 2012; Steyn et al., 2016), adolescent (Khalsa et al., 2013), and young professional (Khalsa & Cope, 2006; Khalsa et al., 2009) musicians. For instance, tertiary student musicians following hybrid interventions, involving either a 7-week instruction in mindfulness and sport-related psychological skills (Steyn et al., 2016) or an 8-week training based on Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT) components (Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022), exhibited also increased levels of mindfulness at the end of their participation. In addition, significant reductions in MPA were also found after an 8- or 9-week Kripalu yoga intervention completed by adolescent (Khalsa et al., 2013), young professional (Khalsa & Cope, 2006; Khalsa et al., 2009), and higher conservatory student (Stern et al., 2012) musicians; as well as after an 8-week training based on Chan meditation (Chan et al., 2003) followed by tertiary student musicians. Similarly, as in the current PhD investigation, a significant reduction in participants' levels of anxiety was reported by Stern et al. (2012), Khalsa et al. (2009), and Steyn et al. (2016). However, the only significant between-group differences ostensibly showcased in the entire field were found by Khalsa et al. (2009), Khalsa et al. (2013), and Czajkowski et al. (2021) for mood (i.e., Anger/Hostility and Tension/Anxiety), MPA, and dispositional mindfulness, respectively. In this regard, the present PhD investigation added to the literature the wide range of between-group changes favoring the experimental condition (i.e., improved levels of mindfulness, cognitive reappraisal, depression, anxiety, overall psychological distress, MPA, as well as lower body balance and flexibility) that were detected through its final trial (Chapter 8; Bartos, Posadas, Wrapson, Medvedev, et al., 2024). Noteworthy, in this last study, the conduction of power analysis, the use of various practical significance benchmarks, the inclusion of both an active and inactive control group, and the application of a robustness check, served as additional layers of rigor strengthening the validity of the findings therein reported. Furthermore, Bartos, Posadas, Wrapson, Medvedev, et al. (2024) and Bartos et al. (2022) examined changes in the level of skill related to emotional regulation (e.g., cognitive reappraisal) and physical (e.g., flexibility and balance) abilities, the development of which have been highly emphasized for their potential to target tertiary student musicians' relevant concerns (e.g., MPA, musculoskeletal disorders, Araújo et al., 2020; Kaleńska-Rodzaj et al., 2023; Matei & Ginsborg, 2020; Peistaraite & Clark, 2020). Indeed, the adoption of these aforementioned research elements in this

culminating PhD study appears to be a unique contribution seemingly not addressed or incorporated in previous yoga and/or mindfulness-based interventions conducted with this population (Chan et al., 2003; Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Lin et al., 2008; Stern et al., 2012; Steyn et al., 2016).

In a similar fashion to the quantitative results, some of the qualitative findings exhibited in this dissertation mirrored those documented by other researchers in the field (Chan et al., 2003; Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Stern et al., 2012). For example, the thematic analyses conducted by Czajkowski and Greasley (2015) and Czajkowski et al. (2021, 2022) revealed that tertiary student musicians perceived their mindfulness training, based on MBSR and MBCT, helpful to improve their bodily awareness, attention, learning experience, effectiveness, creativity, coping strategies, collaborative skills, expressivity, and MPA. Other perceived benefits reported in other studies examining the well-being effects of Kripalu yoga on adolescent, young professional, and higher conservatory student musicians suggested participants' improvements in fatigue, physical tension, flexibility, strength, stamina, MPA, and contentment from playing (Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Stern et al., 2012). In this milieu, the use of qualitative methods by Czajkowski and Greasley (2015), Czajkowski et al. (2021, 2022) and researchers of the current PhD investigation (Bartos, Posadas, et al., 2023; Bartos, Posadas, Wrapson, et al., 2024) was as staple in this field in which qualitative data was apparently either not collected (Lin et al., 2008; Steyn et al., 2016) or only reported as brief comments highlighting the most relevant perceived benefits experienced by participants (Chan et al., 2003; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Stern et al., 2012).

As can be specifically consulted through the previous six chapters, different mechanisms and explanatory reasons underlying the emergence of the results reported in this thesis have been proposed. One of the overarching propositions that may account for several of the current PhD outcomes relates to CRAFT's central tenet, largely grounded in yoga and mindfulness philosophy, to cultivate among individuals a range of self-promoting attitudes, abilities, states, and behaviors (e.g., self-awareness, self-regulation, self-responsibility, self-acceptance, self-care, self-engagement, self-transformation, and self-transcendence). The development of such self-rooted components, which are ancillary to CRAFT's essential purpose of developing one's inner technology and intrinsic human abilities (Posadas, 2019), may have instilled into CRAFT participants the necessary inner responsibility and self-caring attitude to independently leverage the techniques learned in the program to enhance their well-being and academic experience. This self-rooted paradigm at the core of CRAFT may explain the higher proportion of CRAFT participants implementing practices and perceiving benefits than controls to improve their well-being during the lockdown (Bartos et al., 2021), as well as the positive evaluation through both qualitative and quantitative lenses regarding the program applicability, viability, and practicality (Bartos et al., 2022; Bartos, Posadas, et al., 2023; Bartos, Posadas, Wrapson, et al., 2024).

Other pivotal motives driving many of the benefits herein reported may lie within the non-judgmental-, acceptance-, and equanimous-based attitude that is highly encouraged in CRAFT through both yoga- and mindfulness-based practices. Based on the mindful metacognitive mechanism of *reperceiving* (Shapiro et al., 2006), by cultivating and implementing these attitudes in the process of sustaining their attention to their perceptions, including relevant concerns affecting their well-being and academic performance (e.g., MPA, psychological distress), CRAFT participants may have been able, to a certain extent, to decenter themselves

from such events (Shapiro et al., 2006). In conformity with ancient yoga and mindfulness philosophy (Goenka, 2000; Sullivan, Moonaz, et al., 2018), through the constant practice of witnessing their inner pleasant and unpleasant experiences non-judgmentally and equanimously—neither clinging to nor suppressing them—CRAFT participants may have gradually become aware of the ever-changing nature (i.e., *prakriti*, *anicca*) of these phenomena, disidentify with them, and *reperceive* themselves as an entity (e.g., *purusha*) different from them. Drawing from the mindful coping model (Garland et al., 2009, 2015) through such process of *decentering*, disidentification, or *reperceiving* (Shapiro et al., 2006), CRAFT participants may have progressively experienced more frequently states of expanded awareness in which their attention could have broadened to encompass not only the stressor but also positively valenced states and emotions (e.g., inner peace, joy, compassion). In turn, from this state of expanded consciousness, from which new creative insights are seemingly more likely to emerge (Garland et al., 2009, 2015), CRAFT participants may have drawn meaningful insights to potentially reconstrue their primary appraisals as growth- and well-being-promoting. In CRAFT, the qualities and attitudes involved in these aforementioned contemplative processes are highly developed through different focused attention, open monitoring, and loving-kindness and compassion meditations (Fox et al., 2016; Posadas & Bartos, 2022). In alignment with the different benefits that can be drawn from the previous mechanisms and models (Garland et al., 2009, 2015; Shapiro et al., 2006), highly mirroring many of the current PhD results, these meditative techniques have been associated with both top-down and bottom-up processes of high and low brain network stimulation (Guendelman et al., 2017). Through such pathway of neural instigation, these practices appear to promote adaptive strategies of self-regulation (e.g., cognitive reappraisal, acceptance, meta-awareness); reduce maladaptive cognitions (rumination, reactivity, and expressive suppression); as well as developing a series of intrinsic human abilities and states, such as selective and intentional attention, eudaimonic happiness, cognitive flexibility, contentment, appreciation, and bliss (Chiesa et al., 2013; Gard et al., 2014; Garland et al., 2015).

From a proposed bottom-up level of lower brain network activation (Gard et al., 2014), the wide variety of hatha yoga-based practices implemented in CRAFT (e.g., *pranayama*, *asanas*, CRAFT psycho-emotional protocol) may not only have helped CRAFT participants to regulate their MPA, overall psychological distress, depression, and anxiety symptoms but also enhance their physical fitness, specifically, their balance and flexibility. In this regard, the interoceptive, proprioceptive, and embodied experience that is stimulated through hatha yoga poses and breathing techniques has been associated with the promotion of a relaxation response of parasympathetic nervous system activation and vagal nerve activation (Gard et al., 2014). Correspondingly, such a relaxation response may reduce the stress response by downregulating sympathetic activity, the hypothalamic-pituitary-adrenal axis, catecholamines, and proinflammatory cytokines (McCall, 2013; Sullivan, Erb, et al., 2018). In addition, synergistically to these processes, these techniques from hatha yoga, which involve the performance of different patterns of muscular contraction, breathing, and stretching, have been linked to gains in physical fitness and function, such as strength, flexibility, balance, as well as pulmonary and cardiovascular functions (Birkel & Edgren, 2000; Park et al., 2017; Smith et al., 2011; Tran et al., 2001).

Moreover, various components and practices drawn from positive psychology and emotional intelligence implemented through the program may have also contributed to several of the benefits reported in this PhD investigation. For example, the group-meditative improvisations and mindful concerts specifically

created by the program developer (Bartos et al., 2022; Posadas & Bartos, 2022) to promote flow states may have accounted for improving CRAFT participants' psychological well-being, MPA, psychological distress, as well as fostering other positive outcomes perceived by participants, such as higher happiness, hope, optimism, attention, enjoyment, performance, and music practice efficiency. In support of this claim, these series of benefits have been linked to the experience of flow among diverse general (Peifer et al., 2022) and musician (Tan & Sin, 2021) population. In addition, positive psychology-based activities employed in CRAFT to develop character strengths and virtues (e.g., *identifying signature strengths*; Seligman et al., 2005), gratitude (e.g., *counting blessings*; Lyubomirsky et al., 2005) and *savoring* (Bryant & Veroff, 2017) may have also positively impacted CRAFT participants' overall well-being experience. In alignment with the current PhD results, positive psychology-based interventions conducted with university students utilizing these practices and components have been found effective in increasing psychological well-being, life satisfaction, hope, happiness, positive mood, and eudaimonic well-being (Hobbs et al., 2022). In CRAFT training, the cultivation of character strengths associated with the virtue of *transcendence*—appreciation of beauty and excellence, gratitude, hope, humor, and spirituality, as classified by Peterson and Seligman (2004)—is particularly relevant in the context of the positive psychology-based instruction delivered in the program. This focus aligns with the program's fifth element, which is named after this virtue, and may have played an important role in explaining various of the perceived benefits identified by CRAFT participants (e.g., capacity to reframe, take things with humor, maintenance of hope, as well as increased perspective-taking and open-mindedness). Lastly, the use of practical role-play cases of guided discovery as well as group debates and discussion deployed in CRAFT to critically inquire into the five components of emotional intelligence (i.e., Self-Awareness, Self-Regulation, Motivation, Empathy, and Social Skills; Goleman, 1998) could shed light on several CRAFT participants' perceived benefits (e.g., improved empathy, social skills, emotional self-regulation, happiness) and self-reported improvements (e.g., observing mindfully, non-reacting, psychological distress, and well-being). In bolstering this proposition, evidence from correlational (Mayer et al., 2008; Ruiz-Aranda et al., 2014) and longitudinal (Schoeps et al., 2020) studies suggests that emotional intelligence instruction may be effective in improving empathy, mood (positive affect and happiness), life satisfaction, and stress reduction.

Limitations and Directions for Further Research

Relevant limitations can be highlighted in this PhD as a whole. First, in addition to the limited sample size and power, in all studies conducted, involving either a single-, two-, or three-arm design, the different groups were formed based on participants' pre-existing enrolment in subjects they were attending at a higher music conservatory. Therefore, the lack of randomization may have increased the likelihood that participants in a particular group were already familiar, motivated, skilled, and/or naturally talented in the practical and theoretical content imparted therein. Such self-selection bias may have also explained some of the between-group baseline differences found in the sixth study (Chapter 8; Bartos, Posadas, Wrapson, Medvedev, et al., 2024). However, in an attempt to curtail this limitation, in the first (Chapter 3; Bartos et al., 2021) and fourth (Chapter 6; Bartos et al., 2022) studies, results were reported and interpreted from analysis conducted on both a total and a filtered sample after excluding participants who reported prior familiarization with any yoga- and/or mindfulness-based training. In addition, in the sixth study (Chapter 8; Bartos, Posadas, Wrapson, Medvedev, et al., 2024), those participants who acknowledged previous experience with these disciplines were excluded, and following recommended guidelines (Van Breukelen et al., 2006), data were also analyzed through a robustness

check in which participants' baseline levels were controlled for. In support of the fact that self-selection bias might not have severely affected the results reported in these studies, all the findings derived from these secondary analyses revealed a similar pattern to those obtained from the primary ones. Nevertheless, by not interfering with participants' inherent inclinations and choices through the naturalist design of these PhD studies, the findings of the current dissertation may have arguably higher ecological validity than if a randomized trial had been implemented (Dimitrov et al., 2003; Verster et al., 2019). Notwithstanding this, in acknowledging the advantages of both randomized and non-randomized trials, further research using either of these designs is encouraged to investigate the effectiveness of CRAFT. In this vein, it is also highly recommended that in such trials, in conformity with the culminating PhD study herein presented (Chapter 8; Bartos, Posadas, Wrapson, Medvedev, et al., 2024), researchers include active and inactive control groups, conduct power analysis, and estimate practical significance and effect sizes for a more robust examination of the effectiveness of CRAFT.

Second, for all quantitative studies in which longitudinal data were collected, the first evaluation time point (Time 1) occurred either three months (January 14th; Chapter 6; Bartos et al., 2022; Chapter 5; Bartos, Posadas, Wrapson, et al., 2023) or three weeks (October 24th; Chapter 8; Bartos, Posadas, Wrapson, Medvedev, et al., 2024) after participants had already initiated their instruction in CRAFT-based elective subjects on October 1st. Therefore, it is possible, particularly for those tertiary student musicians who participated in the studies featured in Chapters 5 and 6, that the CRAFT training that took place before Time 1 assessments could have already impacted their actual baseline levels in the different abilities, conditions, and states that were measured. Under this supposition, the well-being effects of CRAFT among participants of these studies may have been in actuality larger than what has been reported, considering also the fact that even short exposure to mindfulness, 2.5-5 hr, appears to induce measurable changes (Baer et al., 2012). In addition to an adequate pre-test, the quantitative studies within the present PhD investigation could have benefitted from the inclusion of follow-up testing to delve into the long-term effects of CRAFT. Therefore, these shortcomings warrant the need for including multiple assessment time points, such as a pre, a mid, a post, and a follow-up to better ascertain the extent to which CRAFT could improve tertiary student musicians' well-being and academic performance at both short- and long-term levels. Moreover, CRAFT dosage of delivery in this PhD investigation was restricted to the curricular time devoted to the CRAFT-based elective subjects—once a week for 1 hr during the entire academic year from October 1st-May 15th—as per all elective subjects imparted at the higher music conservatory where the program was implemented. After excluding the holiday periods in which no classes are imparted, the overall dose of CRAFT instruction per year totals approximately 24 hr, which is equivalent to that administered through well-established mindfulness-based programs, such as MBSR (Kabat-Zinn, 2011). However, the MBSR is typically imparted over a short period of time (i.e., 8 weeks) but with higher intensity (i.e., 2.5-3.5 hr per week) and includes a 7.5-hr day retreat in the sixth week (Santorelli, 2014). A similar dose of delivery to the MBSR has been employed in some of the previous yoga- and mindfulness-based interventions conducted in higher music education settings herein reviewed (Czajkowski et al., 2022; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Stern et al., 2012). Although as has been discussed in this chapter the findings of the current PhD investigation appear to compare favorably with those previously reported in the field, questions arise as to whether higher frequency and intensity of CRAFT delivery could have eventuated in greater well-being effects. To that end, future studies in which CRAFT could be administered over the same or even shorter period of time

but more frequently and in comparison with a counterpart mind-body program, such as the MBSR, and non-program control group, are highly encouraged.

Third, due to the purpose of building upon methodological shortcomings in the field, avoiding response burden, and substantiating prior findings, the selection of measures as part of the fourth (Chapter 6; Bartos et al., 2022) and sixth (Chapter 8; Bartos, Posadas, Wrapson, Medvedev, et al., 2024) PhD studies aligned with determinant physical, psychological, and emotional demands experienced by tertiary student musicians, and the CRAFT four foundations, specifically yoga and mindfulness. Nonetheless, considering the holistic and neuroeducational approach of CRAFT (Posadas, 2019; Posadas & Bartos, 2022), future studies should also incorporate other instruments through which the potential influence of the program on intrinsic components of positive psychology and emotional intelligence as well as structural and functional neural correlates could be examined. Along these lines, the use of modern functional Magnetic Resonance Imaging (MRI) techniques (Fox et al., 2016); functional tests of cognition (e.g., Attentional Network Test; Tang et al., 2015), and self-reported inventories measuring, for example, flow, eudaimonic well-being, gratitude, trait emotional intelligence, and empathy, are specifically urged.

Lastly, the findings reported in the second (Chapter 4; Bartos, Posadas, et al., 2023) and fifth (Chapter 7; Bartos, Posadas, Wrapson, et al., 2024) PhD studies were derived from qualitative analysis conducted on CRAFT participants' responses to a single open-ended question. Therefore, although some participants disclosed lengthy narratives, many of the comments furnished by other participants were brief and deprived of the necessary content and context to enable a deeper exploration and comprehension of their perceptions. However, even succinct responses may uncover meaningful insights that capture the essence of participants' experiences, thus offering valuable contributions to the research process. Yet, to further explore and understand not only the well-being effects of CRAFT among tertiary student musicians but also the transcendental, spiritual, and transformative lived experiences it may evoke within its practitioners, future studies including in-depth qualitative methods, such as semi-structured interviews and/or practice logs are strongly called for. In this context, the combined utilization of the then-test (Schwartz & Sprangers, 2010) alongside these qualitative methods may allow a deeper exploration of the response shift phenomenon as it relates to yoga and/or mindfulness-based training and psychometrics. Such proposed mixed-methodology may shine further light on the extent to which response shift may bias self-reported measurement from possibly being itself the expression of a potential CRAFT-based transformative experience that—through the lenses of yoga and mindfulness-based practice—may change CRAFT participants' perceptions and conceptions of reality (Bartos, Posadas, Wrapson, et al., 2024). Similarly, for a more thorough understanding and examination of the effectiveness of CRAFT in enhancing well-being outcomes on tertiary student musicians and other populations, it is highly advocated that such qualitative methods are integrated within mixed methods studies to enable a synergistic expansion, clarification, contextualization, and/or confirmation of quantitative findings.

Summary and Conclusion

As can be learned through this chapter, this PhD work has been progressively built and enriched through the conduction of six different studies, with each one lending a meaningful, distinct, and additive piece of evidence towards ascertaining the feasibility and effectiveness of CRAFT in enhancing tertiary student musicians' well-being and academic experience. Therefore, not only the findings of one particular study have made a unique contribution to the overarching PhD research goal but they have also served the purpose of

substantiating, clarifying, and/or shining light on those reported in previous and/or subsequent studies synergistically. In finding correspondence, replication, corroboration, and expansion of findings through the use of quantitative and qualitative methods, this PhD investigation has arguably accrued and revealed a more comprehensive body of evidence than it could have accomplished through either of these methods alone. Although this PhD investigation as a whole presents various shortcomings, such as relatively low power, limited scope of qualitative data, and sparse use of objective-based measures, the integrative body of cumulative evidence gathered through these six different studies endorses CRAFT as a feasible and effective intervention to enhance tertiary student musicians' well-being and academic experience. Furthermore, not only has this doctoral work built on the preliminary two studies that initiated the nascent research line of CRAFT (Posadas & Bartos, 2022; Rull et al., 2019) but also it has expanded the broader yet early-stage literature examining the efficacy of yoga- and mindfulness-based interventions conducted in higher music education settings (Chan et al., 2003; Czajkowski & Greasley, 2015; Czajkowski et al., 2021, 2022; Khalsa & Cope, 2006; Khalsa et al., 2009, 2013; Lin et al., 2008; Posadas & Bartos, 2022; Rull et al., 2019; Stern et al., 2012; Steyn et al., 2016). In this regard, new evidence casting light on relevant areas of seemingly unexplored research, such as the detection of response shift effects and enhancements in emotional regulation and physical abilities has been added to the field.

Overall, based on evidence derived from both quantitative and qualitative methods, this PhD research supports the potentiality of CRAFT to promote a wide range of well-being benefits in relation to fundamental states, conditions, attitudes, and abilities for tertiary student musicians, such as MPA, overall psychological distress, anxiety, depression, well-being, mindfulness, cognitive reappraisal, lower body flexibility, balance, self-knowledge, awareness, empathy, relaxation, attention, eudaimonic happiness, flow, confidence, vitality, resilience, perspective-taking, and positivity. These findings have significant implications, particularly in highlighting the importance of implementing comprehensive well-being approaches of this kind to help tertiary students, and specifically student musicians cope with their well-being and academic demands. While these results are promising, there is a need to further examine through rigorous and comprehensive investigations the efficacy and effectiveness of CRAFT to holistically enhance the well-being and academic experience of tertiary student musicians, and extend it to other settings and populations. To that end, large mixed methods investigations with an active and inactive control group, a high frequency/intensity of CRAFT program delivery, multiple assessment points, and a wide range of self-reported—including retrospective evaluations of pre-test levels—and objective-based measures are highly encouraged.

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Appendices

Appendix A1. University of Granada Ethics Committee Approval (Chapter 6)



UNIVERSIDAD
DE GRANADA

Vicerrectorado de Investigación y Transferencia

COMITE DE ETICA EN INVESTIGACION DE LA UNIVERSIDAD DE GRANADA

La Comisión de Ética en Investigación de la Universidad de Granada, visto el informe preceptivo emitido por la Presidenta del Comité en Investigación Humana, tras la valoración colegiada del Comité en sesión plenaria, en el que se hace constar que la investigación propuesta respeta los principios establecidos en la legislación internacional y nacional en el ámbito de la biomedicina, la biotecnología y la bioética, así como los derechos derivados de la protección de datos de carácter personal,

Emite un Informe Favorable en relación a la investigación titulada: 'SOLICITUD DE ENMIENDA AL PROYECTO: EVALUACIÓN DE LOS EFECTOS FÍSICOS, COGNITIVOS Y EMOCIONALES DEL PROGRAMA "CRAFT" (CONSCIENCIA, RELAJACIÓN, ATENCIÓN PLENA, FELICIDAD Y TRANSCENDENCIA) EN ESTUDIANTES INSTRUMENTISTAS DE GRADO SUPERIOR DE MÚSICA, (SOLICITUD NUM.477, INFORME FAVORABLE (20/02/2018))' que dirige D./Dña. M^a JESÚS FUNES MOLINA, con NIF 44.287.968-L, quedando registrada con el nº: 1009/CEIH/2019.

Granada, a 09 de Enero de 2020.



EL PRESIDENTE
Fdo: Enrique Herrera Viedma

EL SECRETARIO
Fdo: Francisco Javier O'Valle Ravassa

Appendix A2. University of Granada Ethics Committee Amendment Approval (Chapters 3, 4, 5, & 7)**UNIVERSIDAD
DE GRANADA****Vicerrectorado de Investigación y Transferencia****COMITE DE ETICA EN INVESTIGACION
DE LA UNIVERSIDAD DE GRANADA**

La Comisión de Ética en Investigación de la Universidad de Granada, visto el informe preceptivo emitido por la Presidenta del Comité en Investigación Humana, tras la valoración colegiada del Comité en sesión plenaria, en el que se hace constar que la investigación propuesta respeta los principios establecidos en la legislación internacional y nacional en el ámbito de la biomedicina, la biotecnología y la bioética, así como los derechos derivados de la protección de datos de carácter personal,

Emite un Informe Favorable en relación a la investigación titulada: 'PROPUESTA DE ENMIENDA MENOR AL PROTOCOLO DE INVESTIGACIÓN ORIGINAL APROBADO POR COMITÉ DE ÉTICA DE INVESTIGACIÓN HUMANA DE LA UGR, TITULADO: "EVALUACIÓN DE LOS EFECTOS FÍSICOS, COGNITIVOS Y EMOCIONALES DEL PROGRAMA "CRAFT" (CONSCIENCIA, RELAJACIÓN, ATENCIÓN PLENA, FELICIDAD Y TRANSCENDENCIA) EN ESTUDIANTES INSTRUMENTISTAS DE GRADO SUPERIOR DE MÚSICA", (SOLICITUD NUM.477, INFORME FAVORABLE (20/02/2018, Y SOLICITUD NUM.1009, INFORME FAVORABLE (08/01/2020)' que dirige D./Dña. M^a JESÚS FUNES MOLINA, con NIF 44.287.968-L, quedando registrada con el nº: 1468/CEIH/2020.

Granada, a 26 de Mayo de 2020.

EL PRESIDENTE
Fdo: Enrique Herrera Viedma

EL SECRETARIO
Fdo: Francisco Javier O'Valle Ravassa

Appendix A3. Auckland University of Technology Ethics Committee Approval (Chapter 8)



Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

10 December 2021

Chris Krageloh
Faculty of Health and Environmental Sciences

Dear Chris

Re Ethics Application: **21/421 PHEM Research. Investigating the Health and Well-Being of Higher Education Student Musicians at Higher Conservatories during Pandemic Times: A Concurrent Mixed Methods Design**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 10 December 2024.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the [Auckland University of Technology Code of Conduct for Research](#) and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.
8. AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online through <http://www.aut.ac.nz/research/researchethics>

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: Javibartos@hotmail.com

Appendix B1. Participant Information Sheet (Spanish; Chapters 3-7)**HOJA DE INFORMACIÓN**

Departamento de Psicología Experimental. Universidad de Granada

CÓDIGO DEL EXPERIMENTO: fisemcogM

DEPARTAMENTO DE PSICOLOGÍA EXPERIMENTAL

INVESTIGADORES RESPONSABLES: M^a Jesús Funes, Marc Ouellet, Luis Javier Bartos

Email de contacto: mifunes@ugr.es

Se trata de un estudio enmarcado dentro de un proyecto más amplio de investigación e innovación educativa de la Consejería de Educación de la Junta de Andalucía (ref. PIV-027/17). El objetivo del presente estudio es identificar qué tipo de actividades pueden mejorar las características cognitivas, emocionales y físicas de los estudiantes de grado superior de música y su relación con diferentes factores tales como el tipo de práctica musical (ej. tipo de instrumento), o la cantidad de práctica diaria que realizan.

El estudio constará de dos sesiones con 2 fases cada una. La primera sesión la realizaremos esta semana y la segunda a final de curso. En la primera fase de cada sesión tendrás que responder a una serie de cuestionarios sobre procesos psicológicos y físicos asociados a la práctica musical. También dentro de la primera fase mediremos el movimiento de algunas de tus articulaciones. La fase 2 de cada sesión consiste en realizar una tarea a través de un ordenador con conexión a internet. Tendrás que responder a la aparición de una serie de estímulos simples que aparecerán en la pantalla. Esta tarea mide diferentes procesos atencionales, y la duración es aproximadamente de 30 minutos. A lo largo de la semana recibirás un email a la dirección que tú nos proporcionarías, con las instrucciones exactas sobre cómo acceder y realizar esta tarea online.

Los riesgos conocidos o anticipados de la participación en este estudio son *inexistentes*.

Es importante que sepa que su participación en el estudio es libre, voluntaria, confidencial, y anónima. Los datos identificativos de los participantes (nombre, apellidos, DNI o email) sólo se requieren para tener constancia de que participáis de manera voluntaria e informada en el estudio (consentimiento informado) pero nunca será registrada en relación a los datos recogidos por los test del estudio. Para asegurar esto, cada participante elegirá un código alfanumérico a voluntad para identificar sus test que deberá recordar y custodiar a título personal. Ninguna persona aparte de los investigadores tendrá acceso a información sobre su participación o no en el estudio o sobre sus datos identificativos. Para asegurar esto todos los datos de carácter identificativo/identificable serán recogidos en papel y se mantendrán en ordenadores protegidos por contraseña de seguridad y/o en archivadores bajo llave custodiada exclusivamente por los investigadores en dependencias de la UGR, lo que garantiza el cumplimiento de los términos establecidos en Reglamento General de Protección de Datos (UE) 2016/679 del Parlamento Europeo y del Consejo de 27 de abril de 2016. Los datos recogidos en los test serán utilizados para su análisis y posterior publicación a nivel grupal, nunca a nivel individual.

Los participantes podrán ejecutar en cualquier momento los derechos de acceso, rectificación, cancelación u oposición, sin que por ello reciban ningún tipo de penalización.

INFORMACIÓN ADICIONAL SOBRE PROTECCIÓN DE DATOS

- **¿Quién es el responsable del tratamiento de sus datos?**

Identidad: Secretaría General de la Universidad de Granada

Dirección postal: Hospital Real

Avenida del Hospicio s/n

18071 Granada

Teléfono: + 34 958 243021

Correo electrónico: protecciondedatos@ugr.es

Delegada de protección de datos: Rosa Mª García Pérez

Contacto de la Delegada: delegadapd@ugr.es

- **¿Con qué finalidad tratamos los datos recogidos?**

Los datos de los tests se usarán para identificar qué tipo de actividades pueden mejorar las características cognitivas, emocionales y físicas de los estudiantes de grado superior de música y su relación con diferentes factores tales como el tipo de práctica musical (ej. tipo de instrumento), o la cantidad de práctica diaria que realizan. Los datos identificativos recogidos en la hoja de consentimiento informado se utilizarán únicamente para poder contactar con usted via correo electrónico y para acreditar que su participación en el estudio es consentida e informada.

- **Plazo previsto de conservación de datos:**

Los plazos de conservación de datos son los previstos en la legislación de archivos para las Administraciones Públicas (entre otras normas, Ley 7/2011, de Documentos, Archivos y Patrimonio Documental de Andalucía, Ley 16/1985, de 25 de junio, de Patrimonio Histórico y Reglamento del Archivo Universitario de la UGR, aprobado en Consejo de Gobierno de la Universidad de Granada de 27.11.2008. Los datos personales estrictamente necesarios para acreditar las acciones realizadas serán conservados de manera indefinida.

- **Decisiones automatizadas, perfiles y lógica aplicada:**

Sus datos no se utilizarán para decisiones automatizadas ni para la elaboración de perfiles.

- **¿Cuál es la legitimación para el tratamiento de sus datos?**

El interesado dio su consentimiento explícito para el tratamiento de dichos datos con uno o más de los fines especificados. (art. 6.1.a del Reglamento General de Protección de Datos).

- **¿A qué destinatarios se comunicarán sus datos?**

No se prevén cesiones o comunicaciones de datos. No se efectúan transferencias internacionales.

- **Encargados de tratamiento:**

No se prevén

- **¿Cuáles son tus derechos respecto al tratamiento de sus datos?**

Usted tiene derecho a:

- Solicitar el acceso a los datos personales que tratamos sobre usted.
- Solicitar su rectificación o supresión.
- Solicitar la limitación de su tratamiento.
- Oponerse a su tratamiento.

Estos derechos podrán ejercerse ante el responsable del tratamiento indicado anteriormente. La normativa e impresos están disponibles en la siguiente dirección: http://secretariageneral.ugr.es/pages/proteccion_datos.

Puede asimismo obtener información en la siguiente dirección de correo electrónico: protecciondedatos@ugr.es. El derecho a la portabilidad no puede ejercitarse atendiendo a la base jurídica del tratamiento. Asimismo, le informamos de que si usted presenta una solicitud para el ejercicio de estos derechos y considera que no ha sido atendida adecuadamente por nuestra institución, puede presentar una reclamación ante la Agencia Española de Protección de Datos de acuerdo con el procedimiento previsto en la siguiente dirección: <https://sedeagpd.gob.es/sede-electronica-web/vistas/formReclamacionDerechos/reclamacionDerechos.jsf>

- **¿Cómo hemos obtenido sus datos?**

Los datos personales objeto de tratamiento son los que usted mismo nos ha facilitado. Las categorías de datos que recogemos son:

Datos de carácter identificativo: Apellidos, nombre, DNI/NIF, correo electrónico, firma (recogidas únicamente en el consentimiento informado)

Datos de características personales: edad, sexo, altura, peso,

Datos de categorías especiales: salud (variables cognitivas, psicológicas, y físicas)

Appendix B2. Participant Information Sheet (Spanish; Chapter 8)



Hoja de información

Estimado/a estudiante,

Me llamo Luis Javier Bartos Pérez. Soy un doctorando y becario del Departamento de Psicología y Neurociencia de la Universidad Tecnológica de Auckland. Por medio de la presente hoja de participación que tu profesor te ha enviado en mi nombre, tengo el placer de invitarte a participar en el siguiente estudio científico, financiado por la Junta de Andalucía y la beca doctoral de la cual soy beneficiario, denominado:

Estudio PHEM. Investigación para la Salud y el Bienestar de los Estudiantes Universitarios de Música en Conservatorios Superiores en Tiempos de Pandemia a través de un Diseño Mixto Concurrente.

El objetivo del presente estudio es explorar e identificar una serie de factores que puedan contribuir a la salud y el bienestar de los estudiantes de música, así como el tipo de actividades que puedan ayudarles a mejorar sus habilidades físicas, mentales y emocionales asociadas con su salud y bienestar y su práctica musical en tiempos de pandemia.

Para participar en esta investigación solamente se te pide que seas un estudiante de música mayor de 18 años, estar matriculado en un conservatorio superior de música y no padecer de ninguna condición física o psicológica grave que te impida realizar de forma autónoma las tareas descritas en el párrafo siguiente. La recogida de datos para el presente estudio comenzará en octubre, de modo que dispondrás de más de una semana para decidir sobre tu participación.

Como participante de esta investigación, podrás participar en una serie de mediciones relacionadas con aspectos físicos, mentales y emocionales que tendrán lugar tres veces al año, un día para la fase 1 (aproximadamente a finales de octubre, 2022), un día para la fase 2 (aproximadamente a mitad de enero, 2023) y un último día para la fase 3 (aproximadamente a mediados de mayo) en horario lectivo en tu aula de clase durante 45 minutos cada día. La primera fase se realizará aproximadamente en uno de los días comprendidos entre el 10 de enero y el 31 de enero, mientras que la segunda fase en un día a mediados de mayo. Para participar en estas mediciones, se te pedirá que completes una serie de cuestionarios relacionados con la salud y el bienestar psicológico y emocional así como la realización de dos pruebas físicas y una tarea cognitiva. **El tiempo aproximado para completar estas mediciones es de 45 minutos aproximadamente en cada fase.** Todos los cuestionarios se podrán completar online a través de tu teléfono móvil por medio de un enlace de formularios *Google* que compartiré contigo el día que se efectúen las mediciones. Las pruebas físicas conllevan la realización de una serie de movimientos moderados mientras que en la prueba cognitiva se te podrán presentar estímulos con una determinada valencia emocional. Es muy poco probable que puedas experimentar alguna incomodidad durante la realización de estos cuestionarios y pruebas. En cualquier caso, para atender cualquier potencial problema o incomodidad que pudieses notar durante las mediciones, estaré disponible en el aula en todo momento para proporcionarte la debida asistencia.

Al finalizar el curso académico (aproximadamente durante la primera quincena de junio) podrás ser invitado a participar en una entrevista conmigo durante 30 minutos a una hora mutuamente convenida que podrá ser online a través de la plataforma "Zoom" o en un lugar previamente acordado en el conservatorio. En esta entrevista, te formularé una serie de preguntas relacionadas con tu experiencia sobre la salud y el bienestar, en general, y con las diferentes actividades de salud y bienestar que puedas estar realizando. En todo momento dispondrás de plena libertad para contestar o no a cada una de las preguntas formuladas durante la entrevista. Durante este proceso, serás invitado a elegir un pseudónimo para salvaguardar tu confidencialidad en esta investigación y en futuras publicaciones. Asimismo, recibirás una copia de la entrevista para que puedas revisarla y realizar sobre ésta, si así lo consideraras oportuno, alguna enmienda.

Para garantizar con fines metodológicos el necesario emparejamiento de tus resultados y/o respuestas de los cuestionarios, pruebas y entrevistas a lo largo de las diferentes fases de esta investigación, salvaguardando la confidencialidad de tus datos, se te pedirá que proporciones un código alfanumérico durante la realización de dichos cuestionarios y pruebas. Este código deberá ser el mismo para todas las fases del estudio y consistirá en la primera inicial de tu primer nombre, seguida de la primera inicial de tu primer apellido, seguida de los primeros cuatro dígitos de tu fecha de nacimiento. Por ejemplo:

Primer nombre: María; Primer apellido: Zambrano; Fecha de nacimiento: 07/01/2000; código alfanumérico: MZ0701

Tu participación en esta investigación es voluntaria (es tu elección) y tu elección de participar o no, no te beneficiará ni perjudicará. Asimismo, en cualquier momento del estudio podrás renunciar a participar en el mismo y si así lo decides, podrás elegir entre que cualquier dato que sea identificable como de tu pertenencia sea eliminado o permitir que siga

Appendix B2. Participant Information Sheet (Spanish; Chapter 8; Continued)

siendo utilizado para el estudio. No obstante, una vez que los resultados hayan sido obtenidos, la eliminación de tus datos puede que no sea posible. Bajo ningún concepto tu participación podrá tener ninguna repercusión sobre tus estudios o tus notas académicas de ninguna asignatura. Con respecto a los datos de los cuestionarios y las pruebas físicas y cognitivas, una vez hayas entregado tus respuestas, no podrás ser identificado. Si por cualquier motivo decides abandonar tu participación en esta investigación y que tus datos sean eliminados o no sean utilizados para la misma, necesitaríamos que nos proporcionases el código alfanumérico que utilizaste en los cuestionarios y las pruebas para de este modo identificar tus respuestas y eliminarlas. Con respecto a las entrevistas, podremos eliminar las transcripciones de las mismas.

Los hallazgos de esta investigación podrán ser utilizados para publicaciones y presentaciones académicas. Si este es el caso, se te proveerá con un resumen de los resultados más importantes y de los enlaces a las revistas/publicaciones de interés. Estos serán reenviados a tus profesores, quienes a su vez, te los reenviarán.

Por medio de un consentimiento informado que te será entregado antes de la recogida de datos, te invitaré a indicar tu voluntad para participar en este estudio si es que estás interesado. Deberás firmar dicho consentimiento y entregármelo antes de participar en cualquiera de las mediciones programadas para esta investigación.

Qué puedo hacer si tengo algún problema relacionado con esta investigación?

Cualquier problema relacionado con este proyecto deberá ser notificado en primera instancia al supervisor del presente proyecto, profesor asociado **Chris Krägeloh** (Facultad de Salud y Ciencias Medioambientales), chris.krageloh@aut.ac.nz; +64 09 921 9999 extensión 7103. Asimismo, cualquier problema relacionado con la gestión ética del mismo deberá ser notificado al secretario ejecutivo de AUTEK (Comité de Ética de la Universidad Tecnológica de Auckland), ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

Para cualquier otro tipo de preguntas adicionales y/o problemas relativos a esta investigación, **por favor no dudes en ponerte en contacto conmigo**:

Luis Javier Bartos Pérez (Departamento de psicología y neurociencia, Facultad de Salud y Ciencias Medioambientales, AUT):

Javier.bartos@autuni.ac.nz

Atentamente te saluda,

Javier Bartos

Este estudio está financiado por la Junta de Andalucía y una beca doctoral otorgada por la Universidad Tecnológica de Auckland, Nueva Zelanda.

Aprobado por el Comité de Ética de la Universidad Tecnológica de Auckland el 10 de Diciembre de 2021, número de Referencia AUTEK 21/421

Appendix B3. Participant Information Sheet (English; Chapter 8)



Participant Information Sheet

Dear student,

My name is Luis Javier Bartos Pérez. I am a PhD candidate from the Department of Psychology and Neuroscience at Auckland University of Technology. Through the present participant information sheet kindly being sent to you by your teacher on my behalf, it is my pleasure to invite you to participate in the following study funded by the regional government of the south of Spain and the AUT doctoral scholarship I am a recipient of, entitled:

PHEM Research. Investigating the Health and Well-Being of Higher Education Student Musicians at Higher Conservatories during Pandemic Times: A Concurrent Mixed Methods Design

The objective of the current study is to explore and identify a series of factors that may predict the health and well-being of higher education student musicians as well as the types of activities that may help improve the physical, mental, and emotional abilities associated with their health and well-being and their musical practice amidst COVID-19 times.

To participate in this research, you are required to be a student musician aged 18 years or older enrolled at a higher conservatory of music. You also need to be free from any severe psychological and/or physical illnesses, injuries, conditions, or issues that may not allow you to independently complete the surveys and tests explained below. Data collection for the current study will commence in October, 2022, at least 10 days after the day you have received this letter, ensuring therefore that you will have a time frame longer than one week to consider whether or not you would like to participate.

As a participant in this research, **you will be able to participate in health and well-being assessments that will take place three times in your respective classrooms:** Time 1, (approximately at the end of October 2022), Time 2 (approximately middle of January 2023) and Time 3, at the end of the academic year (approximately middle of May 2023). These include the completion of different health and well-being surveys on well-being, stress, mindfulness, emotional regulation, demographics; a physical test of lower body flexibility and a physical test of balance; and a cognitive test. **The approximate time of completion of all assessments is about 45 minutes at Time 1, 50 minutes at Time 2 and again 50 minutes at Time 3.** All surveys will be filled in online through your mobile phones via a Google forms link that I will share with you on the day of the assessments. The completion of the physical tests involves gentle movement, whereas the cognitive test involves the presentation of emotional valence stimuli. It is unlikely that you will experience any discomfort or harm as a result of undertaking any of the aforementioned tasks. In order to minimise risks, I will be onsite available to assist at any time.

Finally, at the end of the academic year (approximately first fortnight of June) **you might be invited to take part in an interview with me for about 30 minutes** at a mutually convenient time either online via zoom or at a mutually agreed location at the conservatory. In this interview, I will ask you some questions about your health and well-being experience in general and in relation to the various health and well-being activities you might be engaged in. You may choose whether or not to answer any question during the interview. Additionally, you will be invited to choose a pseudonym to retain your confidentiality in this research and in any future publications. A copy of the interview transcript will be sent to you so that you can review it and make any amendments.

To ensure that we are able to link your survey responses, test performances, and interview answers for research purposes across the various data collection periods while retaining confidentiality of your data, you will be kindly asked to provide an alphanumeric code in all the aforementioned evaluations. The alphanumeric code will consist of your first name and surname initials followed by the first four digits of your date of birth.

Example: First name: María; First surname Zambrano; date of birth: 07/01/2000; alphanumeric code: MZ0701

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible. Under no circumstances will your participation have any repercussion with your studies or any of your marks. For the survey data and field testing, once you have submitted your answers, you will not be identifiable. If for any reasons you decide to withdraw and have your data removed or not to be used by us, we will require from you

Appendix B3. Participant Information Sheet (English; Chapter 8; Continued)

the alphanumeric code you have used which will allow us to identify your answers and delete them. For the qualitative interviews we will be able to delete the recordings or the transcripts.

The findings of this research may be used for academic publications and presentations. A summary of the main results as well as the links to journal/publications will be made available to you. These will be forwarded to your teachers who will then forward them to you.

I will invite you to indicate your willingness to participate if you are interested through separate consent forms that will be provided to you prior to collection of any data. You will need to sign these consent forms and return them to me.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor,

Associate Professor **Chris Krägeloh** (Faculty of Health and Environmental Sciences), chris.krageloh@aut.ac.nz; +64 09 921 9999 ext. 7103. Additionally, concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTC, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

If you still have any further questions or concerns about this research, please do not hesitate to contact me or my Chief supervisor:

Luis Javier Bartos Pérez (Faculty of Health and Environmental Sciences):

Javier.bartos@autuni.ac.nz

Chris Krägeloh (Faculty of Health and Environmental Sciences):

chris.krageloh@aut.ac.nz

Yours sincerely,

Javier Bartos

This study is funded by the Regional Government of Andalusia (Spain) and an AUT doctoral scholarship

*Approved by the Auckland University of Technology Ethics Committee on **December 10th, 2021**, AUTC Reference number **21/421***

Appendix C1. Consent Form (Spanish; Chapters 3-7)

HOJA DE CONSENTIMIENTO INFORMADO

NOMBRE Y CODIGO DEL ESTUDIO: fisemcogM

DEPARTAMENTO DE PSICOLOGÍA EXPERIMENTAL. UNIVERSIDAD DE GRANADA.

INVESTIGADORES RESPONSABLES: M^a Jesús Funes Molina, Marc Ouellet y Luis Javier Bartos

Acepto participar en el estudio denominado **fisemcogM** que se lleva a cabo en el conservatorio Victoria Eugenia en colaboración con investigadores del Departamento de Psicología Experimental de la Universidad de Granada. He tomado esta decisión basándome en la información que se me ha proporcionado por escrito y oralmente y he tenido la oportunidad de recibir información adicional que he solicitado. Me comprometo a que toda la información que facilite será veraz. Entiendo que puedo retirar este consentimiento en cualquier momento sin recibir ningún tipo de penalización por ello. Entiendo que he sido informado/a de que mis datos personales serán tratados confidencialmente conforme a los términos establecidos en la Ley Orgánica 15/1999 de Protección de Datos de Carácter Personal, pudiendo ejecutar en cualquier momento los derechos de acceso, rectificación, cancelación u oposición, poniéndome en contacto con la investigadora principal, M^a Jesús Funes, a través de la siguiente dirección: mjfunes@ugr.es.

Información básica sobre protección de sus datos personales aportados	
Responsable:	UNIVERSIDAD DE GRANADA
Legitimación:	El interesado/representante del interesado dio su consentimiento para el tratamiento de sus datos personales para uno o varios fines específicos; (art. 6.1.a del Reglamento General de Protección de Datos)
Finalidad:	Gestión del consentimiento informado de recogida de información personal Identificar qué actividades pueden mejorar las características cognitivas, emocionales y físicas de los estudiantes de grado superior de música.
Destinatarios:	No se prevén cesiones o comunicaciones de datos
Derechos:	Tiene derecho a solicitar el acceso, oposición, rectificación, supresión o limitación del tratamiento de sus datos, tal y como se explica en la información adicional.
Información adicional:	Puede consultar la información adicional y detallada sobre protección de datos en la hoja de información adicional que se le ha entregado.

Por favor, marque la casilla que corresponda:

☐

Doy mi consentimiento para el tratamiento de mis datos personales tras leer la información facilitada.

☐

No doy mi consentimiento para el tratamiento de los mis datos personales.

Nombre y apellidos del participante _____

DNI _____ Email _____ Firma _____

Appendix C2. Consent Form (Spanish; Chapter 8)



Hoja de Consentimiento Informado (cuestionarios y pruebas de campo)

Título del Proyecto:

Estudio PHEM. Investigación para la Salud y el Bienestar de los Estudiantes Universitarios de Música en Conservatorios Superiores en Tiempos de Pandemia a través de un Diseño Mixto Concurrente.

Supervisor del Proyecto: Chris Krägeloh

Investigador: Javier Bartos

- ☐ He leído y comprendido la información proporcionada sobre este proyecto de investigación en la hoja de información.
- ☐ He tenido la oportunidad de hacer preguntas y que éstas hayan sido contestadas.
- ☐ Comprendo que mi participación en este estudio es voluntaria (es mi elección) y que podré renunciar a ella en cualquier momento sin ser perjudicado bajo ningún concepto.
- ☐ Comprendo que si renuncio a participar en este estudio, podré elegir entre pedir que cualquier dato que sea identificable como de mi pertenencia sea eliminado o permitir que siga siendo utilizado para el estudio. No obstante, una vez que los resultados hayan sido obtenidos, la eliminación de mis datos puede que no sea posible.
- ☐ No padezco de ninguna condición física y/o psicológica grave que pueda impedirme completar de forma autónoma los cuestionarios y pruebas descritos en la hoja de participación.
- ☐ Doy mi consentimiento para participar en esta investigación.
- ☐ Doy mi consentimiento para ser nuevamente contactado en esta investigación (aproximadamente durante los meses de enero y mayo 2022).
- ☐ Tal y como se detalla en la hoja de información, utilizaré un código alfanumérico durante la realización de las pruebas de campo y los cuestionarios para salvaguardar la confidencialidad de mis datos. Este código deberá ser el mismo para todas las fases del estudio y consistirá en la primera inicial de mi primer nombre, seguida de la primera inicial de mi primer apellido, seguida de los primeros cuatro dígitos de mi fecha de nacimiento. A través de este procedimiento, los investigadores podrán emparejar mis respuestas y/o resultados a través de las diferentes fases del estudio garantizando la confidencialidad de mis datos.
- ☐ Deseo recibir un resumen de los hallazgos más importantes de este estudio (por favor selecciona una opción): Sí ☐ No ☐

Firma del participante:

Nombre y apellidos del participante:

Email del participante:

Teléfono del participante:

Fecha:

Aprobado por el Comité de Ética de la Universidad Tecnológica de Auckland el 10 de Diciembre de 2021, número de Referencia AUTEK 21/421

Appendix C3. Consent Form (English; Chapter 8)



Consent Form (Surveys and field testing)

Project title: PHEM Research. Investigating the Health and Well-Being of Higher Education Student Musicians at Higher Conservatories during Pandemic Times: A Concurrent Mixed Methods Design.

Project Supervisor: Chris Krägeloh

Researcher: Javier Bartos

- ☐ I have read and understood the information provided about this research project in the Information Sheet.
- ☐ I have had an opportunity to ask questions and to have them answered.
- ☐ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ☐ I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- ☐ I am not suffering from severe psychological and/or physical illnesses, injuries, conditions, or issues that may not allow me to independently complete the surveys and tests explained in the participant's information sheet
- ☐ I agree to take part in this research.
- ☐ I agree to be contacted on two more occasions to take part in this research: the first time will be around January 2023, and the second time around May 2023.
- ☐ As outlined in the participant information sheet, I will be using an alphanumeric code when completing the study assessments. This will consist of my first name and surname initials followed by the first four digits of my date of birth. Through this procedure, researchers will be able to compare my responses across the three time points while retaining confidentiality.
- ☐ I wish to receive a summary of the research findings (please tick one): Yes ☐ No ☐

Participant's signature:

Participant's name:

Participant's Contact Details (if appropriate):

.....

Date:

**Approved by the Auckland University of Technology Ethics Committee on December 10th, 2021, AUTEK
Reference number 21/421**

Appendix D1. Demographic Questionnaire (Chapters 3-8, Spanish/English)

Demographic Questionnaire (Spanish)

CÓDIGO PARTICIPANTE:

1. Curso actual en el conservatorio: 1st ☐, 2nd ☐, 3rd ☐, 4th ☐
2. Especialidad que cursa: instrumental ☐, pedagogía ☐, composición ☐
3. Edad _____; Sexo: Femenino ☐, Masculino ☐, otro ☐; Peso _____; Estatura _____
4. Instrumento principal _____; Instrumento secundario o complementario _____
5. Años de practica musical _____
6. Horas diarias dedicadas a tocar primer instrumento/canto (Incluyendo horas de estudio y de clase)
_____ Horas
7. Horas diarias dedicadas a tocar segundo instrumento/canto (Incluyendo horas de estudio y de clase)
_____ Horas
8. Nivel de estudios completados: Bachiller ☐, Licenciatura/Diplomatura ☐, Master ☐, Doctorado ☐
9. ¿Está cursando este año en el conservatorio la asignatura optativa *Mindfulness*? Si ☐, No ☐; En caso afirmativo:

9.1. indique si en los dos últimos meses ha practicado fuera del horario de clase, las siguientes actividades aprendidas en dicha asignatura especificando tiempo semanal (minutos):

- Protocolo físico CRAFT ☐, tiempo semanal (minutos) _____
- Meditación ☐, tiempo semanal (minutos) _____
- Reflexiones en diario ☐, tiempo semanal (minutos) _____
- Otra ☐; Actividad _____; tiempo semanal (minutos) _____

9.2. En los últimos dos meses, en una escala de 0 a 10 como la de abajo, siendo 0 nunca y 10 siempre, ¿Con qué frecuencia ha transferido lo aprendido en dicha asignatura en su vida cotidiana (ej. en problemas, relaciones sociales, trabajo, estudios, práctica musical, familia, comer, caminar, etc.)?

Nunca → 0 1 2 3 4 5 6 7 8 9 10 ← Siempre

10. ¿Está cursando este año en el conservatorio la asignatura optativa *Inteligencia Emocional*? Si ☐, No ☐; En caso afirmativo:

10.1. En los últimos dos meses, indique si ha practicado fuera del horario de clase, las siguientes actividades aprendidas en dicha asignatura especificando tiempo semanal (minutos):

- Meditación ☐, tiempo semanal (minutos) _____
- Reflexiones en diario ☐, tiempo semanal (minutos) _____
- Otra ☐; tiempo semanal (minutos) _____

10.2. En los últimos dos meses, en una escala de 0 a 10 como la de abajo, siendo 0 nunca y 10 siempre, ¿Con qué frecuencia ha transferido lo aprendido en dicha asignatura en su vida cotidiana (ej. en problemas, relaciones, trabajo, estudios, práctica musical, familia, comer, caminar, etc.)?

Nunca → 0 1 2 3 4 5 6 7 8 9 10 ← Siempre

11. ¿Está cursando este año en el conservatorio la asignatura optativa *Ergonomía*? Si ☐, No ☐; En caso afirmativo:

11.1. En los dos últimos meses ¿Cuántos minutos semanales ha realizado una práctica formal de lo aprendido en dicha asignatura fuera de clase (ej. Prácticas físicas, relajación, etc.)? _____,

11.2. En los dos últimos meses, en una escala de 0 a 10 como la de abajo, siendo 0 nunca y 10 siempre, ¿Con qué frecuencia ha transferido lo aprendido en dicha asignatura en su vida cotidiana (ej. en problemas, relaciones, trabajo, estudios, práctica musical, familia, comer, caminar, etc.)?

Nunca → 0 1 2 3 4 5 6 7 8 9 10 ← Siempre

12. Escriba el nombre de todas las otras asignaturas optativas que esté cursando este curso académico:

13. ¿Ha practicado alguna vez actividades de meditación/yoga/mindfulness fuera del conservatorio (ej. en centros de yoga, retiros, o cualquier lugar especializado para ello)? Si ☐, No ☐, en caso afirmativo:

13.1. especifique el tipo de actividad, cuánto tiempo lleva practicándola desde que empezó (indique años, meses, días según corresponda) y las horas semanales de práctica en casa de lo aprendido en dicha actividad:

- Actividad 1 _____, Tiempo practicándola _____, Horas semanales _____
- Actividad 2 _____, Tiempo practicándola _____, Horas semanales _____
- Actividad 3 _____, Tiempo practicándola _____, Horas semanales _____

13.2. En los últimos dos meses, en una escala de 0 a 10 como la de abajo, siendo 0 nunca y 10 siempre, ¿Con qué frecuencia ha transferido lo aprendido en dicha actividad o dichas actividades en su vida cotidiana (ej. en problemas, relaciones, trabajo, estudios, práctica musical, familia, comer, caminar, etc.)?

Nunca → 0 1 2 3 4 5 6 7 8 9 10 ← Siempre

14. ¿Ha realizado actividad física regularmente en los últimos dos meses? Si ☐, No ☐, en caso afirmativo especifique el tipo de actividad física y las horas semanales:

14.1. Actividad 1 _____, Horas semanales _____

14.2. Actividad 2 _____, Horas semanales _____

14.3. Actividad 3 _____, Horas semanales _____

14.4. Actividad 4 _____, Horas semanales _____

15. Señale si realizó alguna de estas asignaturas optativas o actividades durante los cursos académicos indicados:

- Asignatura Mindfulness: 2017/2018 ☐; 2018/2019 ☐; 2019/2020 ☐; 2020/2021 ☐; 2021/2022 ☐
- Asignatura Ergonomía: 2017/2018 ☐; 2018/2019 ☐; 2019/2020 ☐; 2020/2021 ☐; 2021/2022 ☐
- Asignatura Inteligencia Emocional: 2018/2019 ☐; 2019/2020 ☐; 2020/2021 ☐; 2021/2022 ☐
- Actividad de meditación/yoga/ mindfulness fuera del conservatorio: 2017/2018 ☐; 2018/2019 ☐; 2019/2020 ☐; 2020/2021 ☐; 2021/2022 ☐

16. ¿Ha participado en versiones anteriores del estudio FISEMCOGM en cursos precedentes? Si ☐, No ☐;
2017/2018 ☐; 2018/2019 ☐; 2019/2020 ☐; 2020/2021 ☐; 2021/2022 ☐

Demographic Questionnaire (English)

PARTICIPANT CODE:

1. Current year of study at the Conservatory: 1st ☐, 2nd ☐, 3rd ☐, 4th ☐
2. Specialty: instrumental ☐, pedagogy ☐, composition ☐
3. Age _____; Gender: Female ☐, Male ☐, Other ☐; Weight _____; Height _____
4. Main instrument _____, Secondary or complementary instrument _____
5. Years of musical practice _____ years
6. Daily hours involved in playing main instrument/singing (including both home and class practice) _____ hours
7. Daily hours involved in playing main instrument/singing (including both home and class practice) _____ hours
8. Education level: High School ☐, Bachelor's Degree ☐, Master's Degree ☐, PhD ☐
9. ¿Are you currently studying the elective subject *Mindfulness*? Yes ☐, No ☐; If yes:
 - 9.1. Indicate if you practice outside of the conservatory the following activities learnt in class including the number of minutes per week:
 - CRAFT physical protocol ☐, weekly time (minutes) _____
 - Meditation ☐, weekly time (minutes) _____
 - Diary reflections (logs) ☐, weekly time (minutes) _____
 - Other ☐; Activity name _____, weekly time (minutes) _____
 - 9.2. Using the scale provided below ranging from “0” or “never” to “10” or “always”, ¿How often do you apply what you have learnt in the elective subject *Mindfulness* to your daily life (e.g., problems, social relationships, work, studies, musical practice, family, eating, walking, etc.)?

Never → 0 1 2 3 4 5 6 7 8 9 10 ← Always
10. ¿Are you currently studying the elective subject *Emotional Intelligence*? Yes ☐, No ☐; If yes:
 - 10.1. Indicate if you practice outside of the conservatory the following activities learnt in class including the number of minutes:
 - Meditation ☐, weekly time (minutes) _____
 - Diary reflections (logs) ☐, weekly time (minutes) _____
 - Other ☐; Activity name _____, weekly time (minutes) _____
 - 10.2. Using the scale provided below ranging from “0” or “never” to “10” or “always”, ¿How often do you apply what you have learnt in the elective subject *Emotional Intelligence* to your daily life (e.g., problems, social relationships, work, studies, musical practice, family, eating, walking, etc.)?

Never → 0 1 2 3 4 5 6 7 8 9 10 ← Always

11. ¿Are you currently studying the elective subject *Ergonomics*? Yes ☐, No ☐; If yes:

11.1 ¿How much weekly time (minutes) do you perform a formal practice of what you learnt in the elective subject *Ergonomics* outside of the conservatory (e.g., conscious rest, physical practices, relaxation, etc.)? _____,

11.2. Using the scale provided below ranging from “0” or “never” to “10” or “always”, ¿How often do you apply what you have learnt in the elective subject *Ergonomics* to your daily life (e.g., problems, social relationships, work, studies, musical practice, family, eating, walking, etc.)?

Never → 0 1 2 3 4 5 6 7 8 9 10 ← Always

12. Indicate all other elective subjects you are currently enrolled in during the current academic year:

13. ¿Have you ever practiced any meditation/yoga/mindfulness-based activities out of the conservatory (e.g., in yoga centers, retreats, or any place specialized in these types of activities? Yes ☐, No ☐; If yes:

13.1. indicate the type of activity, how long you have been practicing it since you started practicing for the first time (indicate years, months, days where applicable) and the weekly hours of home-based practice:

- Activity 1 _____, How long practicing it _____, Home-based weekly hours _____,
- Activity 2 _____, How long practicing it _____, Home-based weekly hours _____,
- Activity 3 _____, How long practicing it _____, Home-based weekly hours _____,

13.2. using the scale provided below ranging from “0” or “never” to “10” or “always”, ¿How often do you apply what you have learnt in that/those activity/activities to your daily life (e.g., problems, social relationships, work, studies, musical practice, family, eating, walking, etc.)?

Never → 0 1 2 3 4 5 6 7 8 9 10 ← Always

14. ¿Do you do physical activity regularly? Yes ☐, No ☐, If yes, indicate the type of physical activity and the weekly hours:

- Activity 1 _____, Weekly hours _____
- Activity 2 _____, Weekly hours _____
- Activity 3 _____, Weekly hours _____
- Activity 4 _____, Weekly hours _____

15. Indicate if you completed any of the following subjects or activities during the given academic years:

- Mindfulness subject (conservatory): 2017/2018 ☐; 2018/2019 ☐; 2019/2020 ☐; 2020/2021 ☐; 2021/2022 ☐
 - Ergonomic subject (conservatory): 2017/2018 ☐; 2018/2019 ☐; 2019/2020 ☐; 2020/2021 ☐; 2021/2022 ☐
 - Emotional intelligence subject (conservatory): 2018/2019 ☐; 2019/2020 ☐; 2020/2021 ☐; 2021/2022 ☐
 - Meditation/Yoga/Mindfulness activities out of the conservatory: 2017/2018 ☐; 2018/2019 ☐; 2019/2020 ☐; 2020/2021 ☐; 2021/2022 ☐
16. ¿Have you participated in a similar study before at this institution? Yes ☐, No ☐; If yes, please select the academic year (s) in which you participated: 2017/2018 ☐; 2018/2019 ☐; 2019/2020 ☐; 2020/2021 ☐ 2021/2022 ☐

Appendix D2. Covid-19 Online Questionnaire (Chapters 3-4; Spanish/English)

Covid-19 Online Questionnaire (Spanish)

1. ¿Has recibido algún tipo de ayuda psicológica, psiquiátrica o psicofarmacológica durante el confinamiento (últimos dos meses)? Sí ☐, No ☐
2. ¿Has sufrido algún tipo de eventualidad grave durante los últimos dos meses (ej. Enfermedad grave, pérdida de algún familiar querido, etc.)? Sí ☐, No ☐
3. ¿Has experimentado cambios en tu salud y bienestar durante el confinamiento (últimos dos meses)?
4. En caso afirmativo a la pregunta anterior, ¿Puedes indicar cuáles?
5. En una escala de 0 a 10 como la de abajo, siendo 0 *muy mala* y 10 *muy buena*,
 - a. ¿Cómo evaluarías tu estado de salud física durante los últimos dos meses?

Muy mala → 0 1 2 3 4 5 6 7 8 9 10 ← Muy buena

 - b. ¿Cómo evaluarías tu estado de salud mental y emocional en los últimos dos meses?

Muy mala → 0 1 2 3 4 5 6 7 8 9 10 ← Muy buena

 - c. ¿Cómo evaluarías tu calidad de sueño en los últimos dos meses?

Muy mala → 0 1 2 3 4 5 6 7 8 9 10 ← Muy buena
6. ¿Has realizado alguna actividad o práctica específica para mejorar tu estado físico, mental y emocional durante el confinamiento (últimos dos meses) que hayas aprendido durante este curso académico (ej. práctica deportiva, entrenamiento en meditación, yoga, etc.) fuera o en alguna asignatura del conservatorio? Sí ☐, No ☐
7. En caso afirmativo, indica qué actividad/es has realizado y donde lo has aprendido (gimnasio, curso especializado, asignatura del conservatorio, etc.). Describe cómo ha sido tu experiencia con las prácticas realizadas (como te has sentido, que cambios has notado, etc.), así como el impacto que has experimentado en tu estado físico, mental y emocional, con dicha/s práctica/s.

Covid-19 Online Questionnaire (English)

1. Have you received any type of psychological, psychiatric, and/or psychopharmacological help during the lockdown (in the last two months)? Yes ☐, No ☐
2. Have you suffered any serious event during the last two months (e.g., serious illness, loss of a beloved family member, etc.)? Yes ☐, No ☐
3. Have you experienced any changes in your health and well-being during the lockdown (in the last two months)?
4. In case of answering affirmatively to the previous question, could you specify what these changes are?
5. On a scale from 0 to 10 like the ones presented below, with 0 being very poor and 10 being very good,

a. How would you rate your physical state during the lockdown

Very poor → 0 1 2 3 4 5 6 7 8 9 10 ← Very good

b. How would you rate your mental/emotional state during the lockdown

Very poor → 0 1 2 3 4 5 6 7 8 9 10 ← Very good

c. How would you rate your mental/emotional state during the lockdown

Very poor → 0 1 2 3 4 5 6 7 8 9 10 ← Very good

6. Have you done any specific activity or practice to improve your physical, mental, and emotional state during the lockdown (in the last two months) that you have learned during the current academic year (e.g., sports practice, meditation training, yoga, etc.) outside or in a specific subject of the music conservatory)?
7. In case of answering affirmatively to the previous question, indicate what type of practice(s) you have done and where you have learned them (e.g., gym, specialized course, subject of the music conservatory, etc.). Describe how your experience with the practice(s) implemented has been (e.g., how you have felt, what changes you may have noticed, etc.), as well as how these practice(s) have impacted your physical, mental, and emotional state.

Appendix D3. Five Facet Mindfulness Questionnaire (FFMQ; Chapters 5 & 6; Spanish/English)

FFMQ Items by subscales (Baer et al., 2006)

Subscales	Items
Oberve	1, 6, 11, 15, 20, 26, 31, 36
Describe	2, 7, 12R, 16R, 22R, 27, 32, 37
Act Aware	5R, 8R, 13R, 18R, 23R, 28R, 34R, 38R
Non-Judge	3R, 10R, 14R, 17R, 25R, 30R, 35R, 39R
Non-React	4, 9, 19, 21, 24, 29, 33

Note. R=Reverse Item

FFMQ (Spanish; Cebolla et al., 2012)

Elija en cada ítem la alternativa que mejor refleje el grado en que está de acuerdo con cada uno de los enunciados que se indican a continuación.

	1	2	3	4	5
	Nunca o muy raramente verdad	Raramente verdad	Algunas veces verdad	A menudo verdad	Muy a menudo o siempre verdad
1. Cuando camino, noto deliberadamente las sensaciones de mi cuerpo al moverse	1	2	3	4	5
2. Se me da bien encontrar las palabras para describir mis sentimientos.	1	2	3	4	5
3. Me critico a mí mismo/a por tener emociones irracionales o inapropiadas.	1	2	3	4	5
4. Percibo mis sentimientos y emociones sin tener que reaccionar a ellos.	1	2	3	4	5
5. Cuando hago algo, mi mente divaga y me distraigo fácilmente	1	2	3	4	5
6. Cuando me ducho o me baño, estoy atento a las sensaciones del agua en mi cuerpo.	1	2	3	4	5
7. Con facilidad puedo poner en palabras mis creencias, sentimientos y expectativas.	1	2	3	4	5
8. No presto atención a lo que hago porque sueño despierto, porque me preocupo o porque me distraigo.	1	2	3	4	5

(continued)

FFMQ (Spanish; Cebolla et al., 2012; *continued*)

	1	2	3	4	5
	Nunca o muy raramente verdad	Raramente verdad	Algunas veces verdad	A menudo verdad	Muy a menudo o siempre verdad
9. Observo mis sentimientos sin perderme en ellos.				1	2 3 4 5
10. Me digo a mí mismo/a que no debería sentir lo que siento.				1	2 3 4 5
11. Noto cómo los alimentos y las bebidas afectan a mis pensamientos, sensaciones corporales y emociones.				1	2 3 4 5
12. Me es difícil encontrar palabras para describir lo que siento.				1	2 3 4 5
13. Me distraigo fácilmente				1	2 3 4 5
14. Creo que algunos de mis pensamientos no son normales o son malos y que no debería pensar así.				1	2 3 4 5
15. Presto atención a las sensaciones que produce el viento en el pelo o el sol en la cara.				1	2 3 4 5
16. Tengo problemas para pensar en las palabras que expresan correctamente cómo me siento				1	2 3 4 5
17. Hago juicios sobre si mis pensamientos son buenos o malos.				1	2 3 4 5
18. Me es difícil permanecer centrado/a en lo que está sucediendo en el presente.				1	2 3 4 5
19. Cuando tengo pensamientos o imágenes perturbadoras, soy capaz de dar un paso atrás, y me doy cuenta del pensamiento o la imagen sin que me atrape.				1	2 3 4 5
20. Presto atención a sonidos como el tic-tac del reloj, el gorjeo de los pájaros o los coches que pasan				1	2 3 4 5
21. En situaciones difíciles, puedo parar sin reaccionar inmediatamente				1	2 3 4 5
22. Cuando tengo sensaciones en el cuerpo es difícil para mí describirlas, porque no puedo encontrar las palabras adecuadas.				1	2 3 4 5
23. Conduzco en “piloto automático”, sin prestar atención a lo que hago.				1	2 3 4 5

(continued)

FFMQ (Spanish; Cebolla et al., 2012; *continued*)

	1	2	3	4	5
	Nunca o muy raramente verdad	Raramente verdad	Algunas veces verdad	A menudo verdad	Muy a menudo o siempre verdad
24. Cuando tengo pensamientos o imágenes perturbadoras, me calmo en poco tiempo.	1	2	3	4	5
25. Me digo a mí mismo/a que no debería pensar como pienso.	1	2	3	4	5
26. Percibo el olor y el aroma de las cosas.	1	2	3	4	5
27. Incluso cuando estoy muy enfadado, encuentro una forma de expresarlo con palabras.	1	2	3	4	5
28. Hago actividades precipitadamente sin estar de verdad atento/a a ellas.	1	2	3	4	5
29. Cuando tengo pensamientos o imágenes perturbadoras soy capaz de notarlas sin reaccionar	1	2	3	4	5
30. Creo que algunas de mis emociones son malas o inapropiadas y que no debería sentir las.	1	2	3	4	5
31. Percibo elementos visuales en la naturaleza o en el arte, como colores, formas, texturas o patrones de luces y sombras.	1	2	3	4	5
32. Mi tendencia natural es poner mis experiencias en palabras.	1	2	3	4	5
33. Cuando tengo pensamientos o imágenes perturbadoras, las noto y las dejo marchar	1	2	3	4	5
34. Hago tareas automáticamente, sin ser consciente de lo que hago.	1	2	3	4	5
35. Cuando tengo pensamientos o imágenes perturbadoras, me juzgo como bueno o malo, dependiendo del contenido.	1	2	3	4	5
36. Presto atención a cómo mis emociones afectan a mis pensamientos y a mi conducta	1	2	3	4	5
37. Normalmente puedo describir como me siento con considerable detalle.	1	2	3	4	5
38. Me sorprende haciendo cosas sin prestar atención.	1	2	3	4	5
39. Me critico cuando tengo ideas irracionales.	1	2	3	4	5

FFMQ (English; Baer et al., 2006)

Please rate each of the following statements using the scale provided.

	1	2	3	4	5
	Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true
1. When I'm walking, I deliberately notice the sensations of my body moving.	1	2	3	4	5
2. I'm good at finding words to describe my feelings.	1	2	3	4	5
3. I criticize myself for having irrational or inappropriate emotions.	1	2	3	4	5
4. I perceive my feelings and emotions without having to react to them.	1	2	3	4	5
5. When I do things, my mind wanders off and I'm easily distracted.	1	2	3	4	5
6. When I take a shower or bath, I stay alert to the sensations of water on my body.	1	2	3	4	5
7. I can easily put my beliefs, opinions, and expectations into words.	1	2	3	4	5
8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.	1	2	3	4	5
9. I watch my feelings without getting lost in them.	1	2	3	4	5
10. I tell myself I shouldn't be feeling the way I'm feeling.	1	2	3	4	5
11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.	1	2	3	4	5
12. It's hard for me to find the words to describe what I'm thinking.	1	2	3	4	5
13. I am easily distracted.	1	2	3	4	5
14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way	1	2	3	4	5
15. I pay attention to sensations, such as the wind in my hair or sun on my face.	1	2	3	4	5

(continued)

FFMQ (English; Baer et al., 2006; *continued*)

	1	2	3	4	5
	Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true
16. I have trouble thinking of the right words to express how I feel about things	1	2	3	4	5
17. I make judgments about whether my thoughts are good or bad.	1	2	3	4	5
18. I find it difficult to stay focused on what's happening in the present.	1	2	3	4	5
19. When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.	1	2	3	4	5
20. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.	1	2	3	4	5
21. In difficult situations, I can pause without immediately reacting.	1	2	3	4	5
22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.	1	2	3	4	5
23. It seems I am "running on automatic" without much awareness of what I'm doing.	1	2	3	4	5
24. When I have distressing thoughts or images, I feel calm soon after.	1	2	3	4	5
25. I tell myself that I shouldn't be thinking the way I'm thinking.	1	2	3	4	5
26. I notice the smells and aromas of things.	1	2	3	4	5
27. Even when I'm feeling terribly upset, I can find a way to put it into words.	1	2	3	4	5
28. I rush through activities without being really attentive to them.	1	2	3	4	5
29. When I have distressing thoughts or images I am able just to notice them without reacting.	1	2	3	4	5

(continued)

FFMQ (English; Baer et al., 2006; continued)

	1	2	3	4	5
	Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true
30. I think some of my emotions are bad or inappropriate and I shouldn't feel them.				1 2 3 4 5	
31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.				1 2 3 4 5	
32. My natural tendency is to put my experiences into words.				1 2 3 4 5	
33. When I have distressing thoughts or images, I just notice them and let them go.				1 2 3 4 5	
34. I do jobs or tasks automatically without being aware of what I'm doing.				1 2 3 4 5	
35. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.				1 2 3 4 5	
36. I pay attention to how my emotions affect my thoughts and behavior.				1 2 3 4 5	
37. I can usually describe how I feel at the moment in considerable detail.				1 2 3 4 5	
38. I find myself doing things without paying attention.				1 2 3 4 5	
39. I disapprove of myself when I have irrational ideas.				1 2 3 4 5	

Appendix D4. Retrospective Five Facet Mindfulness Questionnaire (Then-Test-FFMQ; Chapter 5; Spanish/English)

Then-Test-FFMQ (Spanish)

Le pedimos que piense en el momento **justo antes de completar este cuestionario por primera vez en enero 2020 hace aproximadamente cuatro meses**. Por favor, dedique unos instantes para recordar ese momento. A continuación, lea con atención cada ítem y elija la alternativa que mejor refleje el grado en que está de acuerdo con cada uno de los enunciados que se indican a continuación.

	1	2	3	4	5
	Nunca o muy raramente verdad	Raramente verdad	Algunas veces verdad	A menudo verdad	Muy a menudo o siempre verdad
1. Hace cuatro meses, en enero: cuando caminaba, notaba deliberadamente las sensaciones de mi cuerpo al moverse	1	2	3	4	5
2. Hace cuatro meses, en enero: se me daba bien encontrar las palabras para describir mis sentimientos.	1	2	3	4	5
3. Hace cuatro meses, en enero: Me criticaba a mí mismo/a por tener emociones irracionales o inapropiadas.	1	2	3	4	5
4. Hace cuatro meses, en enero: Percibía mis sentimientos y emociones sin tener que reaccionar a ellos.	1	2	3	4	5
5. Hace cuatro meses, en enero: Cuando hacía algo, mi mente divagaba y me distraía fácilmente	1	2	3	4	5
6. Hace cuatro meses, en enero: Cuando me duchaba o me bañaba, estaba atento a las sensaciones del agua en mi cuerpo.	1	2	3	4	5
7. Hace cuatro meses, en enero: Con facilidad podía poner en palabras mis creencias, sentimientos y expectativas.	1	2	3	4	5
8. Hace cuatro meses, en enero: No prestaba atención a lo que hacía porque soñaba despierto/a, porque me preocupaba o porque me distraía.	1	2	3	4	5
9. Hace cuatro meses, en enero: Observaba mis sentimientos sin perderme en ellos.	1	2	3	4	5
10. Hace cuatro meses, en enero: Me decía a mí mismo/a que no debería sentir lo que sentía.	1	2	3	4	5
11. Hace cuatro meses, en enero: Notaba cómo los alimentos y las bebidas afectaban a mis pensamientos, sensaciones corporales y emociones.	1	2	3	4	5

(continued)

Then-Test-FFMQ (Spanish)

	1	2	3	4	5
	Nunca o muy raramente verdad	Raramente verdad	Algunas veces verdad	A menudo verdad	Muy a menudo o siempre verdad
12. Hace cuatro meses, en enero: Incluso cuando estaba muy enfadado, encontraba una forma de expresarlo con palabras.				1 2 3 4 5	
13. Hace cuatro meses, en enero: Hacía actividades precipitadamente sin estar de verdad atento/a a ellas.				1 2 3 4 5	
14. Hace cuatro meses, en enero: Cuando tenía pensamientos o imágenes perturbadoras era capaz de notarlas sin reaccionar				1 2 3 4 5	
15. Hace cuatro meses, en enero: Cría que algunas de mis emociones eran malas o inapropiadas y que no debería sentir las.				1 2 3 4 5	
16. Hace cuatro meses, en enero: Percibía elementos visuales en la naturaleza o en el arte, como colores, formas, texturas o patrones de luces y sombras.				1 2 3 4 5	
17. Hace cuatro meses, en enero: Mi tendencia natural era poner mis experiencias en palabras.				1 2 3 4 5	
18. Hace cuatro meses, en enero: Cuando tenía pensamientos o imágenes perturbadoras, las notaba y las dejaba marchar				1 2 3 4 5	
19. Hace cuatro meses, en enero: Hacía tareas automáticamente, sin ser consciente de lo que hacía.				1 2 3 4 5	
20. Hace cuatro meses, en enero: Cuando tenía pensamientos o imágenes perturbadoras, me juzgaba como bueno o malo, dependiendo del contenido.				1 2 3 4 5	
21. Hace cuatro meses, en enero: Prestaba atención a cómo mis emociones afectaban a mis pensamientos y a mi conducta				1 2 3 4 5	
22. Hace cuatro meses, en enero: Normalmente podía describir como me sentía con considerable detalle.				1 2 3 4 5	
23. Hace cuatro meses, en enero: Me sorprendía haciendo cosas sin prestar atención.				1 2 3 4 5	
24. Hace cuatro meses, en enero: Me criticaba cuando tenía ideas irracionales.				1 2 3 4 5	

(continued)

Then-Test-FFMQ (Spanish; continued)

	Nunca o muy raramente verdad	Raramente verdad	Algunas veces verdad	A menudo verdad	Muy a menudo o siempre verdad
25. Hace cuatro meses, en enero: Me era difícil encontrar palabras para describir lo que sentía.			1	2	3 4 5
26. Hace cuatro meses, en enero: Me distraía fácilmente			1	2	3 4 5
27. Hace cuatro meses, en enero: Creía que algunos de mis pensamientos no eran normales o eran malos y que no debería pensar así.			1	2	3 4 5
28. Hace cuatro meses, en enero: Prestaba atención a las sensaciones que producía el viento en el pelo o el sol en la cara.			1	2	3 4 5
29. Hace cuatro meses, en enero: Tenía problemas para pensar en las palabras que expresaban correctamente cómo me sentía			1	2	3 4 5
30. Hace cuatro meses, en enero: Hacía juicios sobre si mis pensamientos eran buenos o malos.			1	2	3 4 5
31. Hace cuatro meses, en enero: Me era difícil permanecer centrado/a en lo que estaba sucediendo en el presente.			1	2	3 4 5
32. Hace cuatro meses, en enero: Cuando tenía pensamientos o imágenes perturbadoras, era capaz de dar un paso atrás, y me daba cuenta del pensamiento o la imagen sin que me atrapara.			1	2	3 4 5
33. Hace cuatro meses, en enero: Prestaba atención a sonidos como el tic-tac del reloj, el gorjeo de los pájaros o los coches que pasaban			1	2	3 4 5
34. Hace cuatro meses, en enero: En situaciones difíciles, podía parar sin reaccionar inmediatamente			1	2	3 4 5
35. Hace cuatro meses, en enero: Cuando tenía sensaciones en el cuerpo era difícil para mí describirlas, porque no podía encontrar las palabras adecuadas.			1	2	3 4 5
36. Hace cuatro meses, en enero: Conducía en “piloto automático”, sin prestar atención a lo que hacía.			1	2	3 4 5
37. Hace cuatro meses, en enero: Cuando tenía pensamientos o imágenes perturbadoras, me calmaba en poco tiempo.			1	2	3 4 5
38. Hace cuatro meses, en enero: Me decía a mí mismo/a que no debería pensar como pensaba.			1	2	3 4 5
39. Hace cuatro meses, en enero: Percibía el olor y el aroma de las cosas.			1	2	3 4 5

Then-Test-FFMQ (English)

We kindly ask you to think back to the moment **just before you filled in this questionnaire for the first time in January 2022, approximately four months ago**. Please, take a few seconds to recall this moment. Then, read carefully each item and choose from the scale provided the number that best describes your own opinion of what is generally true for you.

	1	2	3	4	5
	Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true
1. Four months ago, in January , when I was walking, I would notice the sensations of my body moving	1	2	3	4	5
2. Four months ago, in January , I was good at finding words to describe my feelings	1	2	3	4	5
3. Four months ago, in January , I would criticize myself for having irrational or inappropriate emotions	1	2	3	4	5
4. Four months ago, in January , I would perceive my feelings and emotions without having to react to them	1	2	3	4	5
5. Four months ago, in January , when I would do things, my mind would wander off and I would be easily distracted	1	2	3	4	5
6. Four months ago, in January , when I would take a shower or bath, I would stay alert to the sensations of water on my body	1	2	3	4	5
7. Four months ago, in January , I could easily put my beliefs, opinions, and expectations into words	1	2	3	4	5
8. Four months ago, in January , I wouldn't pay attention to what I was doing because I was daydreaming, worrying, or otherwise distracted	1	2	3	4	5
9. Four months ago, in January , I would watch my feelings without getting lost in them.	1	2	3	4	5
10. Four months ago, in January , I would tell myself I shouldn't be feeling the way I was feeling	1	2	3	4	5
11. Four months ago, in January , I would notice how foods and drinks affect my thoughts, bodily sensations, and emotions	1	2	3	4	5
12. Four months ago, in January , it was hard for me to find the words to describe what I was thinking	1	2	3	4	5
13. Four months ago, in January , I was easily distracted	1	2	3	4	5
14. Four months ago, in January , I believed some of my thoughts were abnormal or bad and I shouldn't think that way	1	2	3	4	5

(continued)

Then-Test-FFMQ (English; continued)

	1	2	3	4	5
	Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true
15. Four months ago, in January , I would pay attention to sensations, such as the wind in my hair or sun on my face	1	2	3	4	5
16. Four months ago, in January , I would have trouble thinking of the right words to express how I would feel about things	1	2	3	4	5
17. Four months ago, in January , I would make judgments about whether my thoughts are good or bad	1	2	3	4	5
18. Four months ago, in January , I would find it difficult to stay focused on what was happening in the present	1	2	3	4	5
19. Four months ago, in January , when I had distressing thoughts or images, I would “step back” and be aware of the thought or image without getting taken over by it	1	2	3	4	5
20. Four months ago, in January , I would pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.	1	2	3	4	5
21. Four months ago, in January , in difficult situations, I could pause without immediately reacting	1	2	3	4	5
22. Four months ago, in January , when I had a sensation in my body, it was difficult for me to describe it because I could not find the right words	1	2	3	4	5
23. Four months ago, in January , It seemed I was “running on automatic” without much awareness of what I was doing	1	2	3	4	5
24. Four months ago, in January , when I had distressing thoughts or images, I would feel calm soon after	1	2	3	4	5
25. Four months ago, in January , I would tell myself that I shouldn’t be thinking the way I was thinking	1	2	3	4	5
26. Four months ago, in January , I would notice the smells and aromas of things	1	2	3	4	5
27. Four months ago, in January , when I was feeling terribly upset, I could find a way to put it into words	1	2	3	4	5
28. Four months ago, in January , I would rush through activities without being really attentive to them	1	2	3	4	5
29. Four months ago, in January , when I had distressing thoughts or images, I was able just to notice them without reacting	1	2	3	4	5
30. Four months ago, in January , I would think some of my emotions were bad or inappropriate and I shouldn’t feel them	1	2	3	4	5

(continued)

Then-Test-FFMQ (English; *continued*)

	1	2	3	4	5
	Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true
31. Four months ago, in January , I would notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow	1	2	3	4	5
32. Four months ago, in January , my natural tendency was to put my experiences into words	1	2	3	4	5
33. Four months ago, in January , when I had distressing thoughts or images, I just would notice them and would let them go	1	2	3	4	5
34. Four months ago, in January , I would do jobs or tasks automatically without being aware of what I was doing	1	2	3	4	5
35. Four months ago, in January , when I had distressing thoughts or images, I would judge myself as good or bad, depending what the thought/image was about	1	2	3	4	5
36. Four months ago, in January , I would pay attention to how my emotions affect my thoughts and behavior.	1	2	3	4	5
37. Four months ago, in January , I could usually describe how I felt at the moment in considerable detail	1	2	3	4	5
38. Four months ago, in January , I would find myself doing things without paying attention	1	2	3	4	5
39. Four months ago, in January , I would disapprove of myself when I have irrational ideas	1	2	3	4	5

Appendix D5. Five Facet Mindfulness Questionnaire Short Form (FFMQ-SF-24; Chapter 8; Spanish/English)

FFMQ-SF-24 Items by subscales (Bohlmeijer et al., 2011)

Subscales	Items
Observe	6, 10, 15, 20
Describe	1, 2, 5R, 11R, 16
Act Aware	8R, 12R, 17R, 22R, 23R
Non-Judge	4R, 7R, 14R, 19R, 24R
Non-React	3, 9, 13, 18, 21

Note. R=Reverse Item

FFMQ-SF-24 (Spanish; Asensio-Martínez et al., 2019)

Por favor puntúe cada uno de los siguientes enunciados según la siguiente escala. Escriba el número en el espacio que mejor describa su propia opinión o lo que es verdadero de forma general para usted.

	1	2	3	4	5
	Nunca o muy raramente verdad	Raramente verdad	Algunas veces verdad	A menudo verdad	Muy a menudo o siempre verdad
1. Soy bueno en encontrar palabras para describir mis sentimientos.	1	2	3	4	5
2. Puedo poner fácilmente en palabras mis creencias, opiniones y expectativas.	1	2	3	4	5
3. Observo mis sentimientos sin perderme en ellos.	1	2	3	4	5
4. Me digo a mí mismo que no me debería estar sintiendo como me estoy sintiendo.	1	2	3	4	5
5. Me resulta difícil encontrar palabras para describir lo que pienso.	1	2	3	4	5
6. Presto atención a sensaciones, como el viento en mi cabello o el sol sobre mi rostro.	1	2	3	4	5
7. Hago juicios sobre si mis pensamientos son malos o buenos.	1	2	3	4	5
8. Se me hace difícil mantenerme enfocado en lo que ocurre en el presente.	1	2	3	4	5
9. Cuando tengo pensamientos o imágenes mentales negativas, me detengo y tomo conciencia de ellos sin dejar que me afecten.	1	2	3	4	5
10. Presto atención a sonidos, como al tic tac del reloj, el cantar de los pájaros o el ruido de los coches.	1	2	3	4	5

(continued)

FFMQ-SF-24 (Spanish; Asensio-Martínez et al., 2019; *continued*)

	1	2	3	4	5
	Nunca o muy raramente verdad	Raramente verdad	Algunas veces verdad	A menudo verdad	Muy a menudo o siempre verdad
1. Cuando tengo una sensación en mi cuerpo, me es difícil describirla pues no encuentro las palabras adecuadas.	1	2	3	4	5
2. Parece que actúo en “piloto automático”, sin pensar en lo que estoy haciendo.	1	2	3	4	5
3. Cuando tengo pensamientos o imágenes mentales negativas, me tranquilizo rápido.	1	2	3	4	5
4. Me digo a mí mismo que no debería estar pensando como estoy pensando.	1	2	3	4	5
5. Percibo los olores y aromas de las cosas.	1	2	3	4	5
6. Incluso cuando me siento tremendamente alterado, soy capaz de encontrar la manera de expresarlo.	1	2	3	4	5
7. Voy de una actividad a otra sin prestar atención a cada una de ellas.	1	2	3	4	5
8. Cuando tengo pensamientos o imágenes mentales negativas, soy capaz de observarlas sin reaccionar.	1	2	3	4	5
9. Pienso que algunas de mis emociones son malas o inapropiadas, y que no debería sentirlas.	1	2	3	4	5
10. Me fijo en elementos visuales, en el arte o en la naturaleza como colores, formas, texturas	1	2	3	4	5
11. Cuando tengo pensamientos o imágenes mentales negativas, puedo reconocerlas como tales y dejarlas ir.	1	2	3	4	5
12. Hago deberes o tareas automáticamente sin ser consciente de lo que hago.	1	2	3	4	5
13. Me encuentro a mí mismo haciendo cosas sin prestarles atención.	1	2	3	4	5
14. Me critico cuando tengo ideas absurdas.	1	2	3	4	5

FFMQ-SF-24 (English; Bohlmeijer et al., 2011)

Please rate each of the following statements using the scale provided.

	1	2	3	4	5
	Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true
1. I'm good at finding words to describe my feelings.				1	2 3 4 5
2. I can easily put my beliefs, opinions, and expectations into words.				1	2 3 4 5
3. I watch my feelings without getting lost in them.				1	2 3 4 5
4. I tell myself I shouldn't be feeling the way I'm feeling.				1	2 3 4 5
5. It's hard for me to find the words to describe what I'm thinking.				1	2 3 4 5
6. I pay attention to sensations, such as the wind in my hair or sun on my face.				1	2 3 4 5
7. I make judgments about whether my thoughts are good or bad.				1	2 3 4 5
8. I find it difficult to stay focused on what's happening in the present.				1	2 3 4 5
9. When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.				1	2 3 4 5
10. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.				1	2 3 4 5
11. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.				1	2 3 4 5
12. It seems I am "running on automatic" without much awareness of what I'm doing.				1	2 3 4 5
13. When I have distressing thoughts or images, I feel calm soon after.				1	2 3 4 5
14. I tell myself that I shouldn't be thinking the way I'm thinking.				1	2 3 4 5
15. I notice the smells and aromas of things.				1	2 3 4 5
16. Even when I'm feeling terribly upset, I can find a way to put it into words.				1	2 3 4 5
17. I rush through activities without being really attentive to them.				1	2 3 4 5

(continued)

FFMQ-SF-24 (English; Bohlmeijer et al., 2011; *continued*)

	1	2	3	4	5
	Never or very rarely true	Rarely true	Sometimes true	Often true	Very often or always true
1. When I have distressing thoughts or images, I am able just to notice them without reacting.	1	2	3	4	5
2. I think some of my emotions are bad or inappropriate and I shouldn't feel them.	1	2	3	4	5
3. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.	1	2	3	4	5
4. When I have distressing thoughts or images, I just notice them and let them go.	1	2	3	4	5
5. I do jobs or tasks automatically without being aware of what I'm doing.	1	2	3	4	5
6. I find myself doing things without paying attention.	1	2	3	4	5
7. I disapprove of myself when I have irrational ideas.	1	2	3	4	5

Appendix D6. Kenny Music Performance Anxiety Inventory-Revised (KMPAIR; Chapter 8; Spanish/English)

In the current PhD investigation, the following subscales from the KMPAIR (Kenny et al., 2014) were used:

KMPAIR Items by Subscales

Subscale	Items
Proximal somatic anxiety and worry about performance	2, 4, 5, 7, 11, 14, 15, 16, 18, 20, 24
Worry/dread focused on self/other scrutiny	1, 6, 9, 10, 13, 17, 22, 23
Anxious apprehension	3, 8R, 12
Memory	19R, 21R

Note. R=Reverse Item

KMPAIR (Spanish; Arnáiz, 2015)

A continuación te presentaremos unas afirmaciones sobre cómo te sientes generalmente y cómo te sientes antes y durante una actuación. Marca con una cruz un número para indicar cuánto estas en acuerdo o desacuerdo con cada afirmación, siendo:

0	1	2	3	4	5	6
Totalmente en desacuerdo	Bastante desacuerdo	Un poco en desacuerdo	Ni de acuerdo ni en desacuerdo	Un poco de acuerdo	Bastante de acuerdo	Totalmente de acuerdo

- | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|
| 1. | Incluso si trabajo mucho en la preparación para la actuación, es probable que cometa errores | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | Antes, o durante una actuación, tengo sensaciones semejantes al pánico | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | Nunca sé antes de un concierto si mi actuación será buena | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | Antes, o durante una actuación, siento la boca seca | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | Durante una actuación me encuentro a mí mismo pensando si conseguiré acabarla | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | Pensar en la evaluación o juicio puede tener interferencias en mi actuación | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | Antes o durante una actuación me siento enfermo, débil o con el estómago revuelto | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. | Incluso en las situaciones en las que la actuación es más estresante estoy seguro de que actuaré bien | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

(continued)

KMPAIR (Spanish; Arnáiz, 2015; *continued*)

	0	1	2	3	4	5	6
	Totalmente en desacuerdo	Bastante desacuerdo	Un poco en desacuerdo	Ni de acuerdo ni en desacuerdo	Un poco de acuerdo	Bastante de acuerdo	Totalmente de acuerdo
9. A menudo me siento preocupado por una reacción negativa del público					0 1	2 3 4	5 6
10. Me preocupa que una mala actuación pueda arruinar mi carrera					0 1	2 3 4	5 6
11. Antes o durante una actuación siento que el ritmo cardíaco de los latidos de mi corazón aumenta, como golpeando en mi pecho					0 1	2 3 4	5 6
12. Dejo pasar oportunidades de actuar que merecen la pena, por culpa de la ansiedad					0 1	2 3 4	5 6
13. Después de una actuación me preocupo sobre si he tocado suficientemente bien					0 1	2 3 4	5 6
14. Mi preocupación y nerviosismo sobre la actuación interfiere en mi focalización y concentración					0 1	2 3 4	5 6
15. A menudo me preparo para un concierto con la sensación de terror y de desastre inminente					0 1	2 3 4	5 6
16. Antes o durante una actuación tengo un aumento de la tensión muscular					0 1	2 3 4	5 6
17. Después de la actuación la vuelvo a repasar en mi cabeza una y otra vez					0 1	2 3 4	5 6
18. Me preocupo tanto antes de una actuación que no puedo dormir					0 1	2 3 4	5 6
19. Cuando actúo sin música mi memoria es fiable					0 1	2 3 4	5 6
20. Antes, o durante una actuación, experimento agitación, temblor o el pulso tembloroso					0 1	2 3 4	5 6
21. Me siento seguro tocando de memoria					0 1	2 3 4	5 6
22. Me siento preocupado de ser examinado por los otros					0 1	2 3 4	5 6
23. Me siento preocupado por mi propio juicio sobre cómo voy a actuar					0 1	2 3 4	5 6
24. Sigo comprometido para actuar incluso cuando me causa una ansiedad importante					0 1	2 3 4	5 6

KMPAIR (English; Kenny et al., 2014)

Below are some statements about how you feel generally and how you feel before or during a performance. Please circle one number to indicate how much you agree or disagree with each statement.

Strongly disagree	0	1	2	3	4	5	6	Strongly agree
1. Even if I work hard in preparation for a performance, I am likely to make mistakes	0	1	2	3	4	5	6	
2. Prior to, or during a performance, I get feelings akin to panic	0	1	2	3	4	5	6	
3. I never know before a concert whether I will perform well	0	1	2	3	4	5	6	
4. Prior to, or during a performance, I experience dry mouth	0	1	2	3	4	5	6	
5. During a performance I find myself thinking about whether I'll even get through it	0	1	2	3	4	5	6	
6. Thinking about the evaluation I may get interferes with my performance	0	1	2	3	4	5	6	
7. Prior to, or during a performance, I feel sick or faint or have a churning in my stomach	0	1	2	3	4	5	6	
8. Even in the most stressful performance situations, I am confident that I will perform well	0	1	2	3	4	5	6	
9. I am often concerned about a negative reaction from the audience	0	1	2	3	4	5	6	
10. I worry that one bad performance may ruin my career	0	1	2	3	4	5	6	
11. Prior to, or during a performance, I experience increased heart rate like pounding in my chest	0	1	2	3	4	5	6	
12. I give up worthwhile performance opportunities	0	1	2	3	4	5	6	
13. After the performance, I worry about whether I played well enough	0	1	2	3	4	5	6	
14. My worry and nervousness about my performance interferes with my focus and concentration	0	1	2	3	4	5	6	
15. I often prepare for a concert with a sense of dread and impending disaster	0	1	2	3	4	5	6	
16. Prior to, or during a performance, I have increased muscle tension	0	1	2	3	4	5	6	
17. After the performance, I replay it in my mind over and over	0	1	2	3	4	5	6	

(continued)

KMPAIR (English; Kenny et al., 2014; *continued*)

Strongly disagree	0	1	2	3	4	5	6	Strongly agree
18. I worry so much before a performance, I cannot sleep	0	1	2	3	4	5	6	
19. When performing without music, my memory is reliable	0	1	2	3	4	5	6	
20. Prior to, or during a performance, I experience shaking or trembling or tremor	0	1	2	3	4	5	6	
21. I am confident playing from memory	0	1	2	3	4	5	6	
22. I am concerned about being scrutinized by others	0	1	2	3	4	5	6	
23. I am concerned about my own judgement of how I will perform	0	1	2	3	4	5	6	
24. I remain committed to performing even though it causes me great anxiety	0	1	2	3	4	5	6	

Appendix D7. Depression, Anxiety, Stress Scale (DASS-21; Chapters 6 & 8; Spanish/English)

DASS-21 Items by Subscales (Lovibond & Lovibond, 1995)

Subscale	Items
Depression	3, 5, 10, 13, 16, 17, 21
Anxiety	2, 4, 7, 9, 15, 19, 20
Stress	1, 6, 8, 11, 12, 14, 18

DASS-21 (Spanish; Bados et al., 2005)

Por favor lea cada una de las siguientes frases y rodee con un círculo el número 0, 1, 2 o 3 que mejor indique en qué medida cada frase ha sido aplicable a usted durante *los últimos 7 días*. No hay respuestas correctas ni incorrectas. No emplee mucho tiempo en cada frase. La escala de valoración es como sigue:

- 0 Nada aplicable a mí
- 1 Aplicable a mí en algún grado, o una pequeña parte del tiempo
- 2 Aplicable a mí en un grado considerable, o una buena parte del tiempo
- 3 Muy aplicable a mí, o aplicable la mayor parte del tiempo

1.	Me ha costado mucho descargar la tensión	0	1	2	3
2.	He notado la boca seca	0	1	2	3
3.	No he podido sentir ninguna emoción positiva	0	1	2	3
4.	He tenido dificultades para respirar (p. ej., respiración excesivamente rápida, falta de aliento sin haber hecho esfuerzo físico)	0	1	2	3
5.	Me ha resultado difícil tener iniciativa para hacer cosas	0	1	2	3
6.	He tendido a reaccionar exageradamente ante las situaciones	0	1	2	3
7.	He tenido temblores (p. ej., en las manos)	0	1	2	3
8.	He sentido que estaba gastando una gran cantidad de energía	0	1	2	3
9.	He estado preocupado por situaciones en las que pudiera ser presa del pánico y hacer el ridículo	0	1	2	3
10.	He sentido que no había nada que me ilusionara	0	1	2	3
11.	Me he sentido agitado	0	1	2	3

(continued)

DASS-21 (Spanish; Bados et al., 2005; continued)

0	Nada aplicable a mí				
1	Aplicable a mí en algún grado, o una pequeña parte del tiempo				
2	Aplicable a mí en un grado considerable, o una buena parte del tiempo				
3	Muy aplicable a mí, o aplicable la mayor parte del tiempo				
12.	Me ha resultado difícil relajarme	0	1	2	3
13.	Me he sentido desanimado y triste	0	1	2	3
14.	No he tolerado nada que me impidiera seguir con lo que estaba haciendo	0	1	2	3
15.	He sentido que estaba al borde del pánico	0	1	2	3
16.	He sido incapaz de entusiasmarme por nada	0	1	2	3
17.	He sentido que no valía mucho como persona	0	1	2	3
18.	He tendido a sentirme enfadado con facilidad	0	1	2	3
19.	He notado mi corazón sin hacer esfuerzo físico (p. ej., aumento del ritmo cardíaco, ausencia de algún latido)	0	1	2	3
20.	Me he sentido asustado sin una razón de peso	0	1	2	3
21.	He sentido que la vida no tenía ningún sentido	0	1	2	3

DASS-21 (English, Lovibond & Lovibond, 1995)

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you **over the past week**. There are no right or wrong answers. The rating scale is as follows:

0	Did not apply to me at all				
1	Applied to me to some degree, or some of the time				
2	Applied to me to a considerable degree or a good part of time				
3	Applied to me very much or most of the time				
1.	I found it hard to wind down	0	1	2	3
2.	I was aware of dryness of my mouth	0	1	2	3
3.	I couldn't seem to experience any positive feeling at all	0	1	2	3
4.	I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5.	I found it difficult to work up the initiative to do things	0	1	2	3
6.	I tended to over-react to situations	0	1	2	3
7.	I experienced trembling (e.g., in the hands)	0	1	2	3
8.	I felt that I was using a lot of nervous energy	0	1	2	3
9.	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10.	I felt that I had nothing to look forward to	0	1	2	3
11.	I found myself getting agitated	0	1	2	3
12.	I found it difficult to relax	0	1	2	3
13.	I felt down-hearted and blue	0	1	2	3
14.	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15.	I felt I was close to panic	0	1	2	3
16.	I was unable to become enthusiastic about anything	0	1	2	3
17.	I felt I wasn't worth much as a person	0	1	2	3
18.	I felt that I was rather touchy	0	1	2	3
19.	I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)	0	1	2	3
20.	I felt scared without any good reason	0	1	2	3
21.	I felt that life was meaningless	0	1	2	3

Appendix D8. Emotional Regulation Questionnaire (ERQ; Chapters 6 & 8; Spanish/English)

ERQ Items by Subscales (Cross & John, 2003)

Subscale	Items
Cognitive Reappraisal	1, 3, 5, 7, 8, 10
Expressive Suppression	2, 4, 6, 9

ERQ (Spanish; Cabello et al., 2012)

A continuación nos gustaría que contestase a unas preguntas sobre su vida emocional, en concreto, sobre cómo controla sus emociones. Estamos interesados en dos aspectos. El primero es su experiencia emocional o lo que siente internamente. El segundo es su expresión emocional o cómo muestra sus emociones a través de las palabras, los gestos y los comportamientos. Aunque algunas de las cuestiones pueden parecer similares a otras, éstas difieren de forma importante. Por favor, utiliza la siguiente escala de respuesta para cada ítem.

	1	2	3	4	5	6	7
	Totalmente en desacuerdo	En desacuerdo	Ligeramente en desacuerdo	Ni acuerdo ni en desacuerdo	Ligeramente de acuerdo	De acuerdo	Totalmente de acuerdo
1. Cuando quiero incrementar mis emociones positivas (p.ej. alegría, diversión), cambio el tema sobre el que estoy pensando					1 2 3 4 5 6 7		
2. Guardo mis emociones para mí mismo					1 2 3 4 5 6 7		
3. Cuando quiero reducir mis emociones negativas (p.ej. tristeza, enfado), cambio el tema sobre el que estoy pensando					1 2 3 4 5 6 7		
4. Cuando estoy sintiendo emociones positivas, tengo cuidado de no expresarlas					1 2 3 4 5 6 7		
5. Cuando me enfrento a una situación estresante, intento pensar en ella de un modo que me ayude a mantener la calma					1 2 3 4 5 6 7		
6. Controlo mis emociones no expresándolas					1 2 3 4 5 6 7		
7. Cuando quiero incrementar mis emociones positivas, cambio mi manera de pensar sobre la situación					1 2 3 4 5 6 7		
8. Controlo mis emociones cambiando mi forma de pensar sobre la situación en la que me encuentro					1 2 3 4 5 6 7		
9. Cuando estoy sintiendo emociones negativas, me aseguro de no expresarlas					1 2 3 4 5 6 7		
10. Cuando quiero reducir mis emociones negativas, cambio mi manera de pensar sobre la situación					1 2 3 4 5 6 7		

ERQ (English; Cross & John, 2003)

We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways. For each item, please answer using the following scale:

	1	2	3	4	5	6	7
	Strongly disagree			Neutral			Strongly agree
1. When I want to feel more <i>positive</i> emotion (such as joy or amusement), I <i>change what I'm thinking about</i> .	1	2	3	4	5	6	7
2. I keep my emotions to myself.	1	2	3	4	5	6	7
3. When I want to feel less <i>negative</i> emotion (such as sadness or anger), I <i>change what I'm thinking about</i> .	1	2	3	4	5	6	7
4. When I am feeling <i>positive</i> emotions, I am careful not to express them	1	2	3	4	5	6	7
5. When I'm faced with a stressful situation, I make myself <i>think about it</i> in a way that helps me stay calm.	1	2	3	4	5	6	7
6. I control my emotions by <i>not expressing them</i> .	1	2	3	4	5	6	7
7. When I want to feel more <i>positive</i> emotion, I <i>change the way I'm thinking about</i> the situation.	1	2	3	4	5	6	7
8. I control my emotions by <i>changing the way I think about</i> the situation I'm in.	1	2	3	4	5	6	7
9. When I am feeling <i>negative</i> emotions, I make sure not to express them.	1	2	3	4	5	6	7
10. When I want to feel less <i>negative</i> emotion, I <i>change the way I'm thinking about</i> the situation.	1	2	3	4	5	6	7

Appendix D9. Subjective Psychological Well-being Subscale (SPWS, Chapters 6 & 8; Spanish)

SPWS (Sánchez-Cánovas, 1998)

A continuación encontrará una serie de afirmaciones sobre sentimientos que las personas podemos experimentar en cualquier etapa de nuestra vida. Por favor, al leer cada frase vea si usted. EN ESTA ETAPA DE SU VIDA, se siente así. Conteste de forma espontánea y sincera. No es necesario que piense demasiado acerca de cada frase. Marque Ud. una cruz en la casilla mejor se ajuste a su caso después de leer cada una de las frases que aparecen en la página siguiente siguiendo la escala que se muestra abajo.

	1	2	3	4	5
	Nunca o casi nunca	Algunas veces	Bastantes veces	Casi siempre	Siempre
1. Acostumbro a ver el lado favorable de las cosas.	1	2	3	4	5
2. Me gusta transmitir mi felicidad a los demás.	1	2	3	4	5
3. Me siento bien conmigo mismo.	1	2	3	4	5
4. Todo me parece interesante	1	2	3	4	5
5. Me gusta divertirme.	1	2	3	4	5
6. Me siento jovial.	1	2	3	4	5
7. Busco momento de distracciones y descanso.	1	2	3	4	5
8. Tengo buena suerte.	1	2	3	4	5
9. Estoy ilusionado/a.	1	2	3	4	5
10. Se me han abierto muchas puertas en mi vida.	1	2	3	4	5
11. Me siento optimista.	1	2	3	4	5
12. Me siento capaz de realizar mi trabajo.	1	2	3	4	5
13. Creo que tengo buena salud.	1	2	3	4	5
14. Duermo bien y de forma tranquila.	1	2	3	4	5
15. Me creo útil y necesario/a para la gente.	1	2	3	4	5
16. Creo que sucederán cosas agradables.	1	2	3	4	5
17. Creo que como persona (madre/padre/esposo, trabajador/a) he logrado las cosas que quería.	1	2	3	4	5
18. Creo que valgo como cualquier otra persona.	1	2	3	4	5
19. Creo que puedo superar mis errores y debilidades.	1	2	3	4	5
20. Creo que mi familia me quiere.	1	2	3	4	5

(continued)

SPWS (Sánchez-Cánovas, 1998; *Continued*)

	1	2	3	4	5
	Nunca o casi nunca	Algunas veces	Bastantes veces	Casi siempre	Siempre
1. Me siento “en forma”.				1 2 3 4 5	
2. Tengo muchas ganas de vivir.				1 2 3 4 5	
3. Me enfrento al trabajo y a mis tareas Con buen ánimo.				1 2 3 4 5	
4. Me gusta lo que hago.				1 2 3 4 5	
5. Disfruto de las comidas.				1 2 3 4 5	
6. Me gusta salir y ver a la gente.				1 2 3 4 5	
7. Me concentro con facilidad en lo que estoy haciendo.				1 2 3 4 5	
8. Creo que, generalmente, tengo buen humor.				1 2 3 4 5	
9. Siento que todo me va bien.				1 2 3 4 5	
10. Tengo confianza en mí mismo				1 2 3 4 5	

Appendix D10. CRAFT Evaluation Survey (CES; Chapter 7; Spanish/English)

CES Items by Subscales (Posadas & Bartos, 2022)

Subscale	Items
Consciousness	1-6
Relaxation	7-12
Attention	13-18
Fulfillment	19-24
Transcendence	25-30
Viability	31-36

CES (Spanish; Posadas & Bartos, 2022)

La finalidad de este cuestionario es comprobar la eficacia, grado de satisfacción y aplicabilidad del programa CRAFT en el contexto educativo para optimizar, facilitar y mejorar el bienestar, así como la experiencia profesional, académica y personal de los estudiantes que cursan enseñanzas superiores de música. Los datos obtenidos se tratarán respetando las normas de protección de datos de los participantes con absoluta confidencialidad.

Información inicial

10. Edad:

11. Sexo:

12. Curso actual en la Facultad:

13. Especialidad que cursa:

14. Nivel de estudios realizados:

Bachiller _____ Universitario _____ Doctorado _____

15. ¿Cursa o ha cursado asignaturas en la universidad relacionadas con el entrenamiento en meditación/yoga/mindfulness?

Sí _____ No _____ ¿Cuál/cuáles? _____ ¿Cuántas horas a la semana? _____

16. ¿Realiza actividades de entrenamiento en meditación/yoga/mindfulness fuera de la Facultad?

Sí _____ No _____ ¿Cuántas horas a la semana? _____

17. ¿Realiza actividad física regularmente?

Sí _____ No _____ ¿Cuál/Cuáles? _____ ¿Cuántas horas a la semana? _____

CES (Spanish; Posadas & Bartos, 2022; *continued*)

A continuación se presentan unas afirmaciones para evaluar el programa CRAFT. Se te pide que valores tu experiencia, marcando con una cruz el número que mejor indique el grado de acuerdo o desacuerdo con las afirmaciones siguientes (tal y como se señala en el ejemplo), siendo:

1	2	3	4	5
Totalmente en desacuerdo	En desacuerdo	Ni de acuerdo ni en desacuerdo	De acuerdo	Totalmente de acuerdo

CONSCIENCIA					
1.	La práctica del programa me hacía ser consciente de mi estado mental con respecto a sentimientos y emociones emergentes .	1	2	3	4 5
2.	La práctica del programa me hacía ser consciente de mi estado mental , en cuanto a flujo de pensamientos y tipo de pensamientos .	1	2	3	4 5
3.	La práctica del programa me hacía tomar consciencia de mi estado físico : dolor, rigidez muscular, incomodidad y zonas relajadas.	1	2	3	4 5
4.	El programa contribuye a que sea consciente de mi postura física para regularla adoptando una postura más saludable .	1	2	3	4 5
5.	Ser consciente de mi estado físico-mental y emocional me ayuda a regular y dosificar mi energía vital, es decir, me ayuda a ser más eficaz para regular mi rendimiento en las actividades que desempeño.	1	2	3	4 5
6.	Ser consciente de mi estado físico, mental y emocional me ayuda a empatizar con los demás y mejorar mis relaciones.	1	2	3	4 5
RELAJACIÓN					
7.	Tras la intervención del programa me sentía más relajado a nivel mental con menos pensamientos.	1	2	3	4 5
8.	Tras la intervención del programa me sentía más relajado a nivel físico , mi cuerpo experimentaba también menos tensión.	1	2	3	4 5
9.	Tras la intervención del programa me sentía más relajado a nivel emocional , observaba mis emociones sin dejarme llevar por ellas.	1	2	3	4 5
10.	El programa ha contribuido a reducir mi nivel de ansiedad y estrés en el aula .	1	2	3	4 5
11.	El programa ha contribuido a reducir mi nivel de ansiedad y estrés en las actuaciones en público .	1	2	3	4 5
12.	El programa ha contribuido a reducir mi nivel de estrés y ansiedad en actividades fuera del aula, en la vida cotidiana .	1	2	3	4 5

(continued)

CES (Spanish; Posadas & Bartos, 2022; *continued*)

1	2	3	4	5		
Totalmente en desacuerdo	En desacuerdo	Ni de acuerdo ni en desacuerdo	De acuerdo	Totalmente de acuerdo		
ATENCIÓN PLENA						
13.	Después de práctica conseguía estar más atento y enfocado en las actividades de la clase .	1	2	3	4	5
14.	Después de la intervención estaba más atento y concentrado también en las actividades o situaciones que tenían lugar fuera de la clase .	1	2	3	4	5
15.	El entrenamiento en la atención del programa me ayuda a aprender más fácilmente y más rápido .	1	2	3	4	5
16.	El entrenamiento en la atención del programa me ayuda a memorizar mejor los contenidos.	1	2	3	4	5
17.	Los ejercicios de atención plena realizados en el aula han contribuido para mejorar la concentración y reducir la información distractora en mi práctica musical .	1	2	3	4	5
18.	Los ejercicios de atención plena realizados en el aula han contribuido para mejorar la concentración y reducir la información distractora en mis actuaciones en público .	1	2	3	4	5
FELICIDAD						
19.	El programa ha contribuido a que estuviera motivado e ilusionado en clase.	1	2	3	4	5
20.	Mi nivel de energía vital era mayor después de realizar la práctica, es decir, me sentía menos cansado, revitalizado .	1	2	3	4	5
21.	Tras la aplicación del programa mi actitud era más positiva en clase .	1	2	3	4	5
22.	El programa me ayuda a tener más seguridad y confianza en mí mismo/a.	1	2	3	4	5
23.	Tras la práctica me sentía más feliz de modo inmediato .	1	2	3	4	5
24.	La práctica me ayudaba a ser más feliz más a largo plazo en mi día a día.	1	2	3	4	5

(continued)

CES (Spanish; Posadas & Bartos, 2022; *continued*)

1	2	3	4	5
Totalmente en desacuerdo	En desacuerdo	Ni de acuerdo ni en desacuerdo	De acuerdo	Totalmente de acuerdo

TRANSCENDENCIA

25.	El aprendizaje en el aula es significativo , es decir, los contenidos nuevos estaban conectados con lo que vivo y conozco, lo que me permite integrarlos reforzándolos o modificándolos.	1	2	3	4	5
26.	El programa me ayudaba a que mi vida y mi día a día tuvieran sentido y significado para mí.	1	2	3	4	5
27.	El programa ha mejorado mi capacidad de mantenerme en calma ante situaciones adversas, aumentando mi resiliencia .	1	2	3	4	5
28.	El programa contribuía a fomentar la creatividad .	1	2	3	4	5
29.	El programa contribuía a que contemplara una misma situación desde diferentes perspectivas .	1	2	3	4	5
30.	El programa me ha ayudado a mejorar mi calidad de vida .	1	2	3	4	5
31.	El programa me ha ayudado a mejorar mi rendimiento académico .	1	2	3	4	5
32.	Aplico elementos del programa para mejorar mi rendimiento académico .	1	2	3	4	5
33.	Aplico elementos del programa en las actuaciones en público.	1	2	3	4	5
34.	El programa podría aplicarse en otras materias.	1	2	3	4	5
35.	Aplico el programa para mejorar mi calidad de vida en mi vida cotidiana.	1	2	3	4	5
36.	Recomendaría el programa a otras personas.	1	2	3	4	5

- Resume tu propia experiencia al practicar el programa CRAFT e indica, si es el caso, que beneficios te ha aportado en relación a tu bienestar, día a día y experiencia artística profesional. Incluye las sugerencias que consideres oportunas

Gracias por tu cooperación

CES (English; Posadas & Bartos, 2022)

The aim of this questionnaire is to explore the efficacy and applicability of the CRAFT program to facilitate, optimize, and enhance tertiary student musicians' well-being as well as their professional, academic, and personal experience. The data obtained will be used with maximum confidentiality according to the specific norms that regulate participants' data protection.

Initial information

- 1) Age: _____
- 2) Gender: _____
- 3) Current course of study: _____
- 4) Specialty undertaken (instrumental/singing, pedagogy, composition): _____
- 5) Level of education completed:
 High School _____ Bachelor's Degree _____ PhD _____
- 6) Are you studying or have you studied any yoga, meditation or mindfulness related courses at the conservatory before attending this workshop? Yes _____ No _____ Which course/s? _____
- 7) Are you involved in any meditation, yoga or mindfulness related activities outside the music conservatory (e.g. in the gym)?
 Yes _____ No _____ Which one/s? _____ How many hours per week? _____
- 8) Do you usually do physical activity? Yes _____ No _____ Which one/s _____ How many hours per week? _____

CES (English; Posadas & Bartos, 2022; *continued*)

In this survey you are asked to evaluate your own experience with the CRAFT program. Mark the number that best indicates the degree to which you agree or disagree with the statements provided below according to the following range of responses:

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

CONSCIOUSNESS					
1.	The practice of the program made me aware of my emotional state: feelings and emergent emotions	1	2	3	4 5
2.	The practice of the program made me aware of my mental state, that is to say, flow of thoughts and type of thoughts	1	2	3	4 5
3.	The practice of the program made me aware of my physical state: pain, muscular stiffness, discomfort, and relaxed areas	1	2	3	4 5
4.	The program helps me to be aware of my physical posture so I can regulate it to adopt a healthy posture	1	2	3	4 5
5.	Being aware of my physical, mental, and emotional state helps me regulate and ration my vital energy, that is to say, it helps me to be more efficient in regulating my performance in the activities that I carry out	1	2	3	4 5
6.	Being aware of my physical, mental, and emotional state helps me empathize with others and improve my relationships	1	2	3	4 5
RELAXATION					
7.	After the program I was feeling more relaxed at a mental level , that is to say, I had fewer thoughts	1	2	3	4 5
8.	After the program I was feeling more relaxed at a physical level , my body was experiencing less tension.	1	2	3	4 5
9.	After the program I was feeling more relaxed at an emotional level	1	2	3	4 5
10.	The program has contributed to a reduction of my level of anxiety and stress in the classroom	1	2	3	4 5
11.	The program has contributed to a reduction of my level of anxiety and stress in public performances	1	2	3	4 5
12.	The program has contributed to a reduction of my level of stress and anxiety in my daily life and out-of-class activities	1	2	3	4 5

(continued)

CES (English; Posadas & Bartos, 2022; *continued*)

		1	2	3	4	5
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
ATTENTION						
13.	After the practice, I was able to be more attentive and focused in the classroom activities	1	2	3	4	5
14.	After the intervention I was also more attentive and concentrated on the activities or situations that happened out of the classroom	1	2	3	4	5
15.	The program's training on attention helps me to learn easily and faster	1	2	3	4	5
16.	The program's training on attention helps me to better memorize academic content	1	2	3	4	5
17.	The in-class-mindfulness exercises have contributed to improving concentration and reducing distracting information in my musical practice	1	2	3	4	5
18.	The in-class-mindfulness exercises have contributed to improving concentration and reducing distracting information in my public performances	1	2	3	4	5
FULFILLMENT						
19.	The program has contributed to my motivation and enthusiasm when studying in the classroom	1	2	3	4	5
20.	My level of vital energy was greater after the practice, that is to say, I felt less tired and more revitalized	1	2	3	4	5
21.	After the application of the program my attitude was more positive in class	1	2	3	4	5
22.	The program helps me (to) have more self-belief and confidence in myself	1	2	3	4	5
23.	After the practice I felt happier immediately	1	2	3	4	5
24.	The practice helped me to be happier for a longer term, on a daily basis	1	2	3	4	5

(continued)

CES (English; Posadas & Bartos, 2022; *continued*)

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

TRANSCENDENCE

- | | | | | | | |
|-----|--|---|---|---|---|---|
| 25. | The learning process in the classroom was meaningful , and therefore I could integrate what I was learning in the subject with my previous knowledge | 1 | 2 | 3 | 4 | 5 |
| 26. | The program helped me to make my life and daily experience meaningful | 1 | 2 | 3 | 4 | 5 |
| 27. | The program has improved my capacity to stay calm when facing adverse situations, increasing my resilience | 1 | 2 | 3 | 4 | 5 |
| 28. | The program contributed to fostering creativity | 1 | 2 | 3 | 4 | 5 |
| 29. | The program helped me to look at the same situation from different perspectives | 1 | 2 | 3 | 4 | 5 |
| 30. | The program has helped me improve my quality of life | 1 | 2 | 3 | 4 | 5 |

VIABILITY

- | | | | | | | |
|-----|--|---|---|---|---|---|
| 31. | The program has helped me improve my academic performance | 1 | 2 | 3 | 4 | 5 |
| 32. | I apply elements of the program to improve my academic performance | 1 | 2 | 3 | 4 | 5 |
| 33. | I apply elements of the program during public performances | 1 | 2 | 3 | 4 | 5 |
| 34. | The program could be applied to other subjects | 1 | 2 | 3 | 4 | 5 |
| 35. | I apply the program to improve my quality of life in my daily life | 1 | 2 | 3 | 4 | 5 |
| 36. | I would recommend the program to other people | 1 | 2 | 3 | 4 | 5 |

- Summarize briefly your own experience with the CRAFT program and indicate, if applicable, any benefits you may have derived from it in relation to your well-being, daily life, and professional artistic experience. Include any suggestions you consider appropriate.

Thanks for your cooperation

Appendix E1. Supplementary Material (Chapter 3)

Table App. 1

Course Outline for CRAFT-based Elective Subjects (2019/2020)

Module & Sessions	Mindfulness-Based Elective Subject	Emotional Intelligence-Based Elective Subject
Introductory module	INTRODUCTORY SESSION	INTRODUCTORY SESSION
Session 1 (1 hr)	▪ Introductory session to acquaint the students with the practice of the CRAFT program and its application to higher Music Studies at the Conservatory. ▪ The CRAFT program is a systematic combination of practices derived from ancient philosophies, such as yoga and Buddhism, in conjunction with more recent disciplines such as mindfulness, emotional intelligence, and positive psychology for cultivating and deepening the core human qualities of consciousness, relaxation, attention, happiness, and transcendence. ▪ Introduce the notion of mindfulness, the importance of being present and its connection with the five elements of the CRAFT program. ▪ Let the students be aware and reflect on the importance of self-engagement and self-responsibility for the development of inner conscious and holistic wellbeing. ▪ Ask the students to introduce themselves to the group through an experiential self-introduction.	▪ Introductory session to acquaint the students with the practice of the CRAFT program and its application to higher Music Studies at the Conservatory. ▪ The CRAFT program is a systematic combination of practices derived from ancient philosophies, such as yoga and Buddhism, in conjunction with more recent disciplines such as mindfulness, emotional intelligence, and positive psychology for cultivating and deepening the core human qualities of consciousness, relaxation, attention, happiness, and transcendence. ▪ Introduce the notion of emotional intelligence and its 5 components. Learn the relationship between them and the five elements of the CRAFT program. ▪ Let the students be aware and reflect on the importance of self-engagement and self-responsibility for the development of inner conscious and holistic wellbeing. ▪ Ask the students to introduce themselves to the group through an experiential self-introduction.
Module 1	CONSCIOUSNESS	SELF-AWARENESS & CONSCIOUSNESS
Session 2 & 3 (2hr)	▪ Teach students to be aware of the person as a holistic being. Introduce the notions of consciousness, self-awareness, other-awareness, and inner and outer awareness. ▪ Introduce and explain the concept of «witness consciousness» to observe the threefold relationship of body, mind, and emotion. Delve with the students into the concept of perception. ▪ Explain and examine the body-mind relationship. ▪ Introduce students to FEM meditation, observing impartially body sensations, emotions, and thoughts. Learn specific vocabulary to label the physical, emotional, and mental states. ▪ Introduce students to the first posture of the CRAFT psychophysical protocol with the standing posture of <i>tadasana</i>, letting them be aware of their physical and mental postures. ▪ Self-inquiry and reflection about contents and practices	▪ Teach students to be aware of the person as a holistic being. Introduce the notions of consciousness, self-awareness, other-awareness, and inner and outer awareness. ▪ Introduce and explain the concept of «witness consciousness» to observe the threefold relationship of body, mind, and emotion. Delve with the students into the concept of perception. ▪ Explain and examine the body-mind relationship. ▪ Delve with the students into the 5 components of emotional intelligence, their importance, and their connection with with five CRAFT elements. ▪ Introduce students to FEM meditation, observing impartially body sensations, emotions, and thoughts. Learn specific vocabulary to label the physical, emotional, and mental states ▪ Self-inquiry and reflection about contents and practices

(continued)

Table App. 1 (continued)
Course Outline for CRAFT-based Elective Subjects (2019/2020)

Module & Sessions	Mindfulness-Based Elective Subject	Emotional Intelligence-Based Elective Subject
Module 2	RELAXATION-BREATHING-REGULATION	SELF-AWARENESS: CONSCIOUSNESS, PERCEPTION, AND EMOTIONS
Session 4, 5 & 6 (3 hr)	- Let the students examine their thoughts and emotions, and the effects these have on their mind and body. - Introduce the notion of emotions and feelings observing the differences. Let the students examine and explore their basic emotions and the feelings that may arise. - Learn about physical, emotional, and mental relaxation vs. physical, emotional, and mental tension. Delve into the physical and psychological causes and effects of stress. - Introduce breathing as a coping strategy that broadens their inner resources and enhances relaxation and regulation. - Let the students examine the possibility of <i>responding</i> instead of <i>reacting</i> in different situations. - Ask students to keep a record of their body-mind-emotion perceptions before accomplishing any task during the course - Guide students through <i>pranayama</i> and its advantageous effects on the neurocognitive, psychophysiological, respiratory, biochemical, and metabolic functions. - Explore the body-mind standing posture of <i>tadasana</i> and respective variants. - Delve into the experience of yoga <i>nidra</i> and <i>shamatha</i> practices. - Self-inquiry and reflection about contents and practices.	- Let the students examine their thoughts and emotions, and the effects these have on their mind and body. - Introduce the notion of basic emotions, the different types and classifications of emotions and feelings, and the basic abilities to process and regulate the emotions. - Introduce the students to differentiate between emotions, feelings, and thoughts and how they can be felt in the body. - Explain and examine the body-mind connection in relation to different emotions and feelings and delve into the ability to observe with equanimity, letting go. - Introduce breathing as a coping strategy that broadens their inner resources and enhances relaxation and regulation. - Let the student examine their strengths and virtues. - Ask students to keep a record of their body-mind-emotion perceptions before accomplishing any task during the course. - Introduce the notion of limiting beliefs and let the student be aware and examine their own limiting beliefs. - Ask students to keep a record of their pleasant and unpleasant experiences. - Guide the students through <i>shamatha</i> meditation and internal open-monitoring meditation. - Self-inquiry and reflection about contents and practices.
Module 3	MINDFULNESS/FULL ATTENTION	SELF-REGULATION, RELAXATION & BREATHING
Sessions 7, 8 & 9 (3 hr)	- Introduce the notion of attention deployment and how it can regulate emotional experience. - Let students be aware of the ability and importance of focusing the attention on the present moment and shifting from doing to being. - Train students on attentional regulation and the attitudes of mindfulness. Teach them how they can break unproductive styles of cognitive and emotional processing, and foster positive, proactive ones through formal and informal meditation. The importance of a non-reactive observation. Delve with the students into the ability to <i>respond</i> instead of <i>reacting</i>. - Introduce students to the Body Scan, mobilizing attention sequentially from body part to body part teaching students to disengage from one part and engage with the new one. - Introduce students to the CRAFT psychophysical protocol (I), letting them be aware of their physical and mental postures. - Guide them through two observation practices: the conscious minute and conscious pleasures. - Self-inquiry and reflection about contents and practices	- Introduce the notion of Full Emotional Intelligence. - Let students be aware of the ability and importance of locating, perceiving, and labeling their emotions. - Train students on emotional abilities and mechanisms to perceive, recognize, understand, and regulate their basic emotions. Teach them how they can break unproductive styles of cognitive and emotional processing, and foster positive, proactive ones through formal and informal meditation. The importance of a non-reactive observation. - Let the students examine the possibility of <i>responding</i> instead of <i>reacting</i> in different situations. - Let the students examine their limiting beliefs, assumptions, thoughts, emotions, and feelings and the connection with their behavior. - Make them recognize and foster their strengths and virtues to cope with the difficulties and situations they experience. - Ask students to keep a record of their pleasant and unpleasant experiences and observe if they react or respond to them. - Delve with the students into different types of <i>shamatha</i> meditation and internal and external open-monitoring meditation. - Self-inquiry and reflection about contents and practices

(continued)

Table App. 1 (continued)
Course Outline for CRAFT-based Elective Subjects (2019/2020)

Module & Sessions	Mindfulness-Based Elective Subject	Emotional Intelligence-Based Elective Subject
Module 3	MINDFULNESS/FULL ATTENTION	SELF-REGULATION, RELAXATION & BREATHING
Sessions 10, 11, 12 & 13 (4hours)	▪ Keep training students on attentional regulation and the attitudes of mindfulness. ▪ Delve with them into the importance of shifting from doing to being and putting it into practice. ▪ Let them examine their scenic presence and their ability to maintain an aligned and mindful posture and a focused mind throughout their musical performances. ▪ Continue practicing the Body Scan meditation, CRAFT psychophysical protocol (I), and the use of as ways to focus attention and increase lung capacity. ▪ Guide students through other types of meditation such as sound meditation (<i>nada</i> yoga), Kinhin (walking meditation), Contemplation, or open-monitoring meditation and continue with the complete physical, mental, and emotional conscious relaxation practice of yoga <i>nidra</i>. ▪ Self-inquiry and reflection about contents and practices.	▪ Delve into the notion of Full Emotional Intelligence. ▪ Keep training the abilities of locating, perceiving, labelling, and symbolizing their emotions exploring also their meaning and purpose. ▪ Teach the students the notion of compassion and the importance of a compassionate attitude. ▪ Delve with the students into examining their limiting beliefs, assumptions, thoughts, emotions, and feelings and the connection with their behavior, applying their strengths and virtues to cope with the difficulties and situations they experience in their daily life. ▪ Delve into the causes and effects of stage fright and how to apply all the previous contents to deal with it. ▪ Introduce visualization as a key tool of self-regulation and relaxation technique to deal also with stage fright. ▪ Guide the students into different types of relaxation methods: visualization, creative relaxation, Jacobson's relaxation, and music therapy. ▪ Self-inquiry and reflection about contents and practices
Module 4	HAPPINESS/BLISS	MOTIVATION
Sessions 14 & 15 (2hours)	▪ Introduce the notion of flow, happiness, and bliss closely associated with mindfulness, full-awareness, psychological well-being, and meaningful/fulfilling life. ▪ Let the students develop a state of flow during their musical performances. ▪ Reconsider the notion of empathy and forgiveness, and teach students to direct loving-kindness and compassion towards themselves. ▪ Delve with the student into how to cope with perfectionism through the practice of compassion. ▪ Explore new ways of perceiving mistakes and promoting solutions. ▪ Learn about flow as motivation and creativity, and flow as happiness and bliss. ▪ Guide students through observation and <i>shamatha</i> & <i>metta</i> meditation practices towards themselves. ▪ Continue practicing CRAFT psychophysical protocol (I) and meditation. Introduce the practice of CRAFT psychoemotional protocol as the other side of the same coin to deal with difficult situations. ▪ Start practicing Conscious Listening, Speaking and Watching and Conscious communication applied to working in groups. ▪ Self-inquiry and reflection about contents and practices	▪ Introduce the concept of positive psychology, its main contributions, findings, and goals. ▪ Introduce the notion of flow, happiness, and bliss closely associated with psychological well-being and a meaningful/fulfilling life. ▪ Examine flow experiences and elements to be present in the state of flow. ▪ Introduce the students to the notion of transcendence, a state that promotes meaning-making to overcome life's challenges. ▪ Delve into the notion of creativity. Explain the concepts of humor and beauty as by-products of transcendence. Links with motivation and harmonious passion. ▪ Learn about the power of sound and mantra meditation. ▪ Guide the students to examine their motivation tools and abilities to motivate themselves and others. ▪ Explore creative responses to a difficult situation. ▪ Guide them to metta meditation towards themselves and delve into the practice of open-monitoring meditations. ▪ Examine a practical case to observe and analyze the 5 components of emotional intelligence and possible solutions. ▪ Self-inquiry and reflection about contents and practices.

(continued)

Table App. 1 (continued)
Course Outline for CRAFT-based Elective Subjects (2019/2020)

Module & Sessions	Mindfulness-Based Elective Subject	Emotional Intelligence-Based Elective Subject
Module 5	TRANSCENDENCE	EMPATHY
Session 16 (1hr)	Introduce the students to the notion of transcendence, a state that promotes meaning-making to overcome life's challenges.	Reconsider the notion of empathy and forgiveness, and teach students to direct loving-kindness and compassion towards themselves, towards somebody very close and all beings without distinction.
Online Sessions 17 & 18 (2hours)	- Delve into the notion of creativity. Explain the concepts of humor and beauty as by-products of transcendence. Link these concepts with motivation and harmonious passion. Explain other-centered emotions such as kindness and gratitude; see how they relate to connectedness and communication. - Continue practicing CRAFT psychophysical (I) and psychoemotional protocols and other formal meditations such as <i>shamatha-metta</i> meditation practice, meditation for uncertainty and meditation for stage-fright. - Self-inquiry and reflection about contents and practices	- Delve into the notion of creativity. Explain the concepts of humor and beauty as by-products of transcendence. Links with motivation and harmonious passion. Explain other-centered emotions such as kindness and gratitude; see how they relate to connectedness and communication. - Continue practicing CRAFT psychoemotional protocol and other formal meditations such as <i>shamatha-metta</i> meditation practice, meditation for uncertainty and meditation for stage-fright - Examine practical cases to observe and analyze the 5 components of emotional intelligence and possible solutions. - Self-inquiry and reflection about contents and practices
Module 6	COMMUNICATION AS CONNECTION. FROM THE CONSCIOUS SELF	SOCIAL SKILLS: COMMUNICATION AND PERSONAL RELATIONS
Online Sessions 19 & 20 (2hr)	- Introduce the students to communication seen as connection in the context of higher music education. - Encourage the students to embody the “alert-yet-relaxed” mode. Embracing the nerves in the academic context and daily life. Reconsider resilience as a way to be comfortable with being uncomfortable. The key role of motivation and passion. - Practice visualizing before a concert or oral presentation, an exam, or assignment; practice reflecting after, too. Encourage students to be creative and flexible, trying out different approaches, different points of view, and different outcomes. While doing so, help students to practice empathy but feel grounded at the same time. - Continue practicing CRAFT physical (I) protocol and other formal meditations such as <i>shamatha</i>, and introduce <i>metta</i> and compassion meditation practice (directed to a conflicting person, any person, and all beings without distinction). - Continue guiding them through the observation of flow and creativity activities. Guide them through the observation of mindful pleasures, beauty, humor, gratitude, and the ability to be rooted in the uncertainty. - Self-inquiry and reflection about contents and practices.	- Help students to apply previously learned CRAFT skills in the area of communication and personal relations as in the practice of group performances. Frame communications and the practice of playing together within the broader context of personal relations based on empathy and compassion. - Encourage the students to embody the “alert-yet-relaxed” mode. Embracing the nerves in the academic context and daily life. Reconsider resilience as a way to be comfortable with being uncomfortable. The key role of motivation and passion. - Practice visualizing before a concert or oral presentation, an exam, or assignment; practice reflecting after, too. Encourage students to be creative and flexible, trying out different approaches, different points of view, and different outcomes. While doing so, help students to practice empathy but feel grounded at the same time. - Continue practicing CRAFT psycho-emotional protocol and other formal meditations such as <i>shamatha-metta</i> meditation practice (directed to themselves, a conflicting person, any person, and all beings without distinction). - Continue guiding them through the observation of flow and creativity activities. Guide them through the observation of pleasant and unpleasant situations with equanimity, appreciation of beauty, humor, gratitude, and the ability to be rooted in the uncertainty. - Examine practical cases to observe and analyze the 5 components of emotional intelligence and possible solutions. - Self-inquiry and reflection about contents and practices

(continued)

Table App. 1 (continued)
Course Outline for CRAFT-based Elective Subjects (2019/2020)

Module & Sessions	Mindfulness-Based Elective Subject	Emotional Intelligence-Based Elective Subject
Module 7	TIME MANAGEMENT	TIME MANAGEMENT
Online Session 21 (2hours)	▪ Help the students to apply the learned tools and skills for efficient time management. ▪ Delve with the student into a list of tips to plan and organize the time in order to be effective. ▪ Guide them to elaborate their own list of tips for time management. ▪ Self-inquiry and reflection about contents and practices	▪ Help the students to apply the learned tools and skills for efficient time management. ▪ Delve with the student into a list of tips to plan and organize the time in order to be effective. ▪ Guide them to elaborate their own list of tips for time management. ▪ Self-inquiry and reflection about contents and practices.
Module 8	CRAFT AND THE ART OF MINDFUL, CONSCIOUS AND BLISSFUL LIVING OUR DAILY LIVES	CRAFT AND THE ART OF MINDFUL, CONSCIOUS AND BLISSFUL LIVING OUR DAILY LIVES
Online Session 22 (1hours)	▪ Experiential training in the CRAFT program for higher musical studies continues and we review and discuss about the pros and cons of the pandemic and how the program could help. ▪ Let them reflect on the notion of obstacles and difficulties as challenges within the academic or professional context and daily life not necessarily as a threat against one's integrity, but as a way to enhance identity, learn and flourish. Our self as a self in process. Link difficulties, obstacles, and life's challenges to other notions already touched upon in the program, such as creativity, motivation, happiness, and bliss. ▪ Encourage students to make their own selection of the most efficient practices to be applied in their daily life under these special circumstances of COVID-19. ▪ Let students practice on their own.	▪ Experiential training in the CRAFT program for higher musical studies continues and we review and discuss about the pros and cons of the pandemic and how the program could help. ▪ Let them reflect on the notion of obstacles and difficulties as challenges within the academic or professional context and daily life not necessarily as a threat against one's integrity, but as a way to enhance identity, learn and flourish. Our self as a self in process. Link difficulties, obstacles, and life's challenges to other notions already touched upon in the program, such as creativity, motivation, happiness, and bliss. ▪ Encourage students to make their own selection of the most efficient practices to be applied in their daily life under these special circumstances of COVID-19. ▪ Let students practice on their own.
Module 9	CRAFT: MY MINDFUL WORK OF ART	CRAFT: MY HEARTFUL WORK OF ART
Online Session 23 (1hour)	▪ Help students appreciate the individual discipline, the commitment, and the energy put into this 23-week process. ▪ Talk about and reflect on the experience. Clarify any remaining issues or concerns about applying CRAFT to their Higher Music Studies or daily life. Reflect on what each student found useful and will carry forward. ▪ Make the students reflect on their own contribution to themselves and the world. ▪ Guide the students through the practice of the Creative Meditation: "From that day until now". ▪ Make the students reflect on all the personal work they did and be aware of all their changes through the practice: "My mindful craft work here and from now on"	▪ Help students appreciate the individual discipline, the commitment, and the energy put into this 23-week process. ▪ Talk about and reflect on the experience. Clarify any remaining issues or concerns about applying CRAFT to their Higher Music Studies or daily life. Reflect on what each student found useful and will carry forward. ▪ Make the students reflect on their own contribution to themselves and the world. ▪ Guide the students through the practice of the Creative Meditation: "From that day until now". ▪ Make the students reflect on all the personal work they did and be aware of all their changes through the practice: "My heartfelt craft work here and from now on"

Appendix E2. Supplementary Material (Chapter 4)

Table App. 2

Demographic Characteristics of included versus excluded CRAFT participants

Variables	CRAFT _{Included}	CRAFT _{Excluded}	Test statistic	<i>p</i>
<i>n</i>	26	18	$\chi^2(1)=1.45$	.228
Age	22.35 $\pm$ 4.17	22.61 $\pm$ 2.85	$F(1, 42)=0.72$	.82
Years of Musical Practice	14.19 $\pm$ 3.56	13.36 $\pm$ 2.58	$F(1, 42)=0.05$	.40
Gender			$\chi^2(1)=0.36$	
Females	15 (58%)	12 (67%)		.55
Level of Education			$\chi^2(2)=0.98$	.61
High School	21 (81%)	14 (78%)		
Bachelor's Degree	4 (15%)	4 (22%)		
Master's Degree	1 (4%)	0 (0%)		
Grade Year			$\chi^2(3)=3.82$	.28
First	4 (15%)	2 (11%)		
Second	4 (15%)	7 (39%)		
Third	13 (50%)	5 (28%)		
Fourth	5 (19%)	4 (22%)		
CRAFT-based Elective Subjects Enrollment				
Mindfulness	16 (62%)	4 (22%)	$\chi^2(1)=6.25$	.012
Emotional Intelligence	5 (19%)	10 (56%)	$\chi^2(1)=6.63$	.01
Mindfulness and Emotional Intelligence	5 (19%)	4 (22%)	$\chi^2(1)=0.06$	.81
Yoga/Meditation Experience	6 (23%)	4 (22%)	$\chi^2(1)=0.004$	.95
CRAFT (2017-19)	1 (3.8%)	1 (6%)	$\chi^2(1)=0.07$	.79
Other Yoga/Meditation	5 (19%)	3 (17%)	$\chi^2(1)=0.05$	.83

Note. Values are mean $\pm$ SD with respective *p*-values computed with one-way ANOVA, or n (%) with respective *p*-values computed with chi-square. Bold font denotes significance. Percentages reported are mutually exclusive.

Appendix E3. Supplementary Material (Chapter 6)

Table App. 3

Course Outline for CRAFT-based Elective Subjects (2018/2019; 2020-2023)

Modules	CRAFT-based Elective Subject of Mindfulness		CRAFT-based Elective Subject of Emotional Intelligence	
Sessions (hr)	Objectives & Contents	Practices	Objectives & Contents	Practices
Module 0	<i>Introduction to the Subject</i>		<i>Introduction to the subject</i>	
Session 0 (1 hr)	Introduce students to the CRAFT program, its four foundations (Mindfulness, Yoga, Emotional Intelligence, and Positive Psychology), and its five elements (e.g., Consciousness; Relaxation, Breathing, and Regulation; Attention, Happiness, and Transcendence) in relation to mindfulness and their academic music studies. <u>Explore and inquire into:</u> ▪ what mindfulness is ▪ the relevance of being present making connections with the five CRAFT elements ▪ agency, self-engagement, and self-responsibility towards developing holistic health and well-being <u>New practices:</u> 1. Experiential self-introduction. 2. Reflection and inquiry into Mindfulness		Introduce students to the CRAFT program, its four foundations (Mindfulness, Yoga, Emotional Intelligence, and Positive Psychology), and its five elements (e.g., Consciousness; Relaxation, Breathing, and Regulation; Attention, Happiness, and Transcendence) in relation to emotional intelligence and their academic music studies. <u>Explore and inquire into:</u> ▪ what emotional intelligence is ▪ The relevance of emotional intelligence and its relation to the five CRAFT elements ▪ agency: self-engagement and self-responsibility towards developing empathy, social skills, and well-being <u>New practices:</u> 1. Experiential self-introduction. 2. Reflection and inquiry into Emotional Intelligence	

(Continued)

Table App. 3 (continued)
Course Outline for CRAFT-based Elective Subjects (2018/2019; 2020-2023)

Modules	CRAFT-based Elective Subject of Mindfulness		CRAFT-based Elective Subject of Emotional Intelligence	
Sessions (hr)	Objectives & Contents	Practices	Objectives & Contents	Practices
Module 1	Consciousness		Self-Awareness & Consciousness	
Sessions 1-4 (4 hrs)	<u>Explore and inquire into:</u>	<u>Keep practicing:</u>	<u>Explore and inquire into:</u>	<u>Keep practicing:</u>
	▪ the concepts of consciousness, inner and outer awareness, witness consciousness, and perception ▪ how to observe, label, and investigate non-judgementally one's bodily sensations and one's mental and emotional events and states and their relationships ▪ the specific vocabulary to label physical, mental, and emotional states, sensations, and feelings. ▪ the relationship between the physical and mental posture through <i>tadasana</i> being aware of the body as psychophysical unity. ▪ FEM meditation	2 <u>New practices:</u> 3. FEM meditation (impartial observation of physical, mental, and emotional states) 4. Body Scan 5. CRAFT psychophysical protocol-<i>tadasana</i> 6. Self-reflection and inquiry about the session 7. CRAFT weekly log	▪ the concepts of consciousness, inner and outer awareness, witness consciousness, and perception. ▪ how to observe, label, and investigate non-judgementally their bodily sensations as well as their mental and emotional events and states and their relationships ▪ the specific vocabulary to label physical, mental and emotional states, sensations and feelings ▪ the five components of emotional intelligence, their relevance for students' daily life, and their association with the five CRAFT elements. ▪ the felt-sense of emotions and feelings within the body ▪ FEM meditation	2 <u>New practices:</u> 3. FEM meditation (impartial observation of physical, mental, and emotional states) 4. Identification of the felt-sense of emotions and feelings within the body 5. Open-monitoring meditation 6. Self-reflection and inquiry about the session 7. CRAFT weekly log

(continued)

Table App. 3 (continued)

Course Outline for CRAFT-based Elective Subjects (2018/2019; 2020-2023)

Modules	CRAFT-based Elective Subject of Mindfulness		CRAFT-based Elective Subject of Emotional Intelligence	
Sessions (hr)	Objectives & Contents	Practices	Objectives & Contents	Practices
Module 2	Relaxation-Breathing-Regulation		Self-Awareness: Consciousness, Perception, & Emotions	
Sessions 5-8 (4 hrs)	<u>Explore and inquire into:</u>	<u>Keep practicing:</u>	<u>Explore and inquire into:</u>	<u>Keep practicing:</u>
	- the concepts of emotion, basic emotions, different types, components, and characteristics of emotions as well as systems and strategies for emotional self-regulation - the emergent basic emotions, feelings, thoughts, and bodily sensations observing with equanimity their influences on the breath, body, and mind - the difference between relaxation at a physical, emotional, and mental level vs. tension at a physical, emotional, and mental level - the notion of perception and its influence on our body, mind, and possible responses - the ability to <i>respond</i> instead of <i>reacting</i> in various contexts - the physical and psychological root causes and consequences of stress	3-7. In 5, deepen into the variants of <i>tadasana</i> <u>New practices:</u> 8. Pranayama practices I (e.g., <i>Sitali</i>, <i>Bhramari</i>) 9. invigorating body-mind postures 10. Yoga <i>Nidra</i>	- the concepts of emotion, basic emotions, different types, components, and characteristics of emotions as well as systems and strategies for emotional self-regulation - the emergent basic emotions, feelings, thoughts, and bodily sensations observing with equanimity, compassion, and a letting go attitude their influences on the mind and body - the notion of perception and its influence on our body, mind, and possible responses - the relevance of locating, perceiving, and labeling one's emotions - the ability to <i>respond</i> instead of <i>reacting</i> in various contexts - Strengths and virtues	3-7. In 7 report pleasant & unpleasant experiences <u>New practices:</u> 8. Breath awareness & shamatha meditation 9. Jacobson's Progressive Relaxation vs invigorating body-mind postures 10. Explore basic emotions

(continued)

Table App. 3 (continued)
Course Outline for CRAFT-based Elective Subjects (2018/2019; 2020-2023)

Modules	CRAFT-based Elective Subject of Mindfulness		CRAFT-based Elective Subject of Emotional Intelligence	
	Objectives & Contents	Practices	Objectives & Contents	Practices
Module 3	Mindfulness/Full Attention (Part 1)		Self-Regulation, Relaxation & Breathing (Part 1)	
Sessions 9-11 (3 hrs)	<u>Explore and inquire into:</u> - the origins, concept, benefits, axioms, & attitudes of mindfulness - formal and informal meditation - developing attentional regulation strategies and mindful attitudes. - how to dissociate from maladaptive cognitive and emotional regulation strategies and promote the adoption of adaptive ones through formal and informal meditation - present moment awareness and the ability to bring one's attention to the present moment and shift the object of concentration - shifting from doing to being - the ability to <i>respond</i> instead of <i>reacting</i> in various contexts (deepening) - pranayama practices to enhance one's focus and pulmonary functions - mindful expression of positive and negative thoughts and emotions - CRAFT psycho-emotional protocol for difficult situations and entire sequence of CRAFT psycho-physical protocol	<u>Keep practicing:</u> 3-10. In 4, emphasis on developing body-breath awareness with an equanimous attitude. In 5, the whole sequence of postures is practiced <u>New practices:</u> 11. Conscious minute 12. Conscious pleasures 13. Informal meditations (e.g., mindful eating) 14. Pranayama practices II (e.g., <i>Nadi Shodhana</i>) 15. CRAFT psycho-emotional protocol	<u>Explore and inquire into:</u> - what Full Emotional Intelligence is - one's limiting beliefs, assumptions, thoughts, emotions, and feelings as well as how they are linked with their behaviors and attitudes. - developing emotional regulation strategies and abilities to perceive, recognize, understand, and regulate one's basic emotions. - how to dissociate from maladaptive cognitive and emotional regulation strategies and promote the adoption of adaptive ones through formal and informal meditation. - the ability to <i>respond</i> instead of <i>reacting</i> in various contexts. - promoting one's strengths and virtues to deal with difficult situations - deepening into the basic emotions: fear & anger; sadness & happiness - mindful expression of positive and negative thoughts and emotions - CRAFT psycho-emotional protocol for difficult situations	<u>Keep practicing:</u> 3-10. In 7, observe if reaction or response occurs upon pleasant and unpleasant experiences. In 5, internal & external types <u>New practices:</u> 11. Identification of one's strengths & virtues 12. Exploring limiting beliefs 13. sadness & happiness 14. fear & anger 15. CRAFT psycho-emotional protocol

(continued)

Table App. 3 (continued)*Course Outline for CRAFT-based Elective Subjects (2018/2019; 2020-2023)*

Modules	CRAFT-based Elective Subject of Mindfulness		CRAFT-based Elective Subject of Emotional Intelligence	
	Sessions (hr)	Objectives & Contents	Objectives & Contents	Practices
Module 4		<i>Mindfulness/Full Attention (Part 2)</i>	<i>Self-Regulation, Relaxation & Breathing (Part 2)</i>	
		<u>Explore and inquire into:</u>	<u>Explore and inquire into:</u>	<u>Keep practicing:</u>
		- explore one's scenic presence and one's ability to perform with a mindful attitude, proper postural alignment, and an attentive mind - the meaningfulness of shifting from doing to being and applying it to real-life situations - other types of meditations - attentional regulation strategies and mindful attitudes (deepening) - mindful and conscious communication (listening, speaking, watching) in group work	- what causes stage fright, its consequences, and how it can be managed through the application of the CRAFT-based contents and practices learned so far - the importance of visualization, breathing, and relaxation techniques as self-regulatory resources to cope with stage fright - Full emotional intelligence (deepen understanding) - mindful and conscious communication (listening, speaking, watching) in group work - one's limiting beliefs, assumptions, thoughts, emotions, and feelings as well as their association with one's demeanor and attitudes, using one's strengths and virtues to deal with difficult daily life situations - paying attention to the meaning and purpose of emotions	3-15 at their own needs <u>New practices:</u> 16. <i>Nada</i> yoga (sound meditation) 17. Walking meditation (<i>Kinhin</i>) 18. Open-monitoring meditation 19. Contemplative practices 20. Mindful musical practice
Sessions 12-14 (3 hrs)		Deepen into the contents and objectives of module 3	Deepen into the contents and objectives of module 3	

(continued)

Table App. 3 (continued)
Course Outline for CRAFT-based Elective Subjects (2018/2019; 2020-2023)

Modules	CRAFT-based Elective Subject of Mindfulness		CRAFT-based Elective Subject of Emotional Intelligence	
Sessions (hr)	Objectives & Contents	Practices	Objectives & Contents	Practices
Module 5	<i>Happiness/Bliss</i>		<i>Motivation & fulfillment</i>	
	<u>Explore and inquire into:</u>	<u>Keep practicing:</u>	<u>Explore and inquire into:</u>	<u>Keep practicing:</u>
	- the concepts of flow, happiness, and bliss in relation to mindfulness, full-awareness, psychological well-being, <i>eudaimonia</i>, fulfillment, <i>savoring</i>, and meaningful living - the meaning of flow in relation to motivation, creativity, happiness, and bliss - empathy, forgiveness, and compassion; - how to deal with perfectionism through compassion - new perspectives about perceiving one's mistakes and problems as opportunities to grow and promote solutions - the CRAFT psychophysical protocol identifying the quality of equanimity within the physical-mental two-sided postures to deal with both pleasant/easy and unpleasant/difficult situations - sound and mantra meditation	3-20 at their own needs with an emphasis on those from module 4. In 5, identify the equanimous attitude <u>New practices:</u> 21. Mantra meditation 22. Mindful creative concerts (flow) 23. <i>Shamatha-Metta</i> meditation towards oneself 24. CRAFT meditation to cope with my present moment situation	- what positive psychology is, its purposes, exponents, and components - the concepts of motivation, flow, happiness, and bliss in relation to psychological well-being, <i>eudaimonia</i>, fulfillment, <i>savoring</i>, and meaningful living - the strengths associated with motivation - the meaningfulness of transcendence for developing resilience and cope with difficult situations - creativity, humor, hope, gratitude, and beauty as transforming strengths to develop new perspectives to cope with challenging situations - motivating abilities and resources for self-motivation and motivate others; and - sound and mantra meditation	3-20 at their own needs with an emphasis on those from module 4. <u>New practices:</u> 21. Mantra meditation 22. <i>Shamatha-Metta</i> meditation towards oneself 23. Emotional creative concerts (flow) 24. CRAFT meditation to cope with my present moment situation

(continued)

Table App. 3 (continued)

Course Outline for CRAFT-based Elective Subjects (2018/2019; 2020-2023)

Modules	CRAFT-based Elective Subject of Mindfulness		CRAFT-based Elective Subject of Emotional Intelligence	
	Objectives & Contents	Practices	Objectives & Contents	Practices
Module 6	Transcendence		Empathy & Social Skills	
Sessions 19-22 (4 hrs)	<u>Explore and inquire into:</u>	<u>Keep practicing:</u>	<u>Explore and inquire into:</u>	<u>Keep practicing:</u>
	- the meaningfulness of transcendence for developing resilience and cope with difficult situations - the concepts of creativity, humor, and beauty to develop transcendence in relation to motivation and harmonious passion exploring creative perspectives to challenging situations - conscious communication from the self - the concepts of equanimity, kindness, generosity, selfless service, and gratitude to develop transcendence - resilience, assertiveness, growth mindset vs fixed mindset - the different types of meditation practices seen so far with emphasis on <i>shamatha-metta</i> meditation and their application to cope with adversity, uncertainty, and stage-fright - Metta meditation towards a beloved person, oneself, a neutral person, a difficult person, and all sentient beings (<i>Metta Bhavana</i>)	3-24 at their own needs with an emphasis on those from module 5. In 5, deepen into the equanimous attitude and creativity. <u>New practices:</u> 25. Pranayama practices III (e.g., kapalbhathi) 26. Mindful communication 27. <i>Metta Bhavana</i> meditation (loving-kindness)	- empathy, forgiveness, loving-kindness and compassion - Metta meditation towards a beloved person, oneself, a neutral person, a difficult person, and all sentient beings (<i>metta bhavana</i>) - love and compassion as links to connect and empathize with others - the different types of meditation practices seen so far with emphasis on <i>samatha-metta</i> meditation and their application to cope with adversity, uncertainty, and stage-fright. - The concepts of equanimity, kindness, generosity, selfless service, and gratitude - resilience, assertiveness, growth mindset vs fixed mindset - mindful and conscious communication in personal relationships Deepen into contents and objectives of module 5	3-24 at their own needs with an emphasis on those from module 5. <u>New practices:</u> 25. Practical case (I) 26. Practical case (II) 27. <i>Metta Bhavana</i> meditation (loving-kindness)

(continued)

Table App. 3 (continued)*Course Outline for CRAFT-based Elective Subjects (2018/2019; 2020-2023)*

Modules		CRAFT-based Elective Subject of Mindfulness		CRAFT-based Elective Subject of Emotional Intelligence	
Sessions (hr)		Objectives & Contents	Practices	Objectives & Contents	Practices
Module 7		<i>My CRAFT Daily Routine</i>		<i>My CRAFT Daily Routine</i>	
		<u>Inquire into:</u>	<u>New practices:</u>	<u>Inquire into:</u>	<u>New practices:</u>
Session 23 (1 hr)		- the most effective practices I have experienced - strengths and limitations of the practices - mindful and effective time management - the planning and schedule of my daily routine	28. My CRAFT daily routine 29. Time management hints	- the most effective practices I have experienced - strengths and limitations of the practices - mindful and effective time management - the planning and schedule of my daily routine	28. My CRAFT daily routine 29. Time management hints
Module 8		<i>CRAFT: My Mindful Work of Art</i>		<i>CRAFT: My Heartful Work of Art</i>	
		<u>Reflect into:</u>	<u>New practices:</u>	<u>Reflect into:</u>	<u>New practices:</u>
Session 24 (1 hr)		- Your personal CRAFT program experience within you and your daily life - How the program has benefited you - How you can benefit the world after your CRAFT program experience	30. My mindful CRAFT work here and from now on	- Your personal CRAFT program experience within you and your daily life - How the program has benefited you - How you can benefit the world after your CRAFT program experience	30. My heartful CRAFT work here and from now on

Appendix E4. Supplementary Material (Chapter 8)

The CRAFT-based Elective Subjects of Mindfulness and Emotional Intelligence

The CRAFT's four foundations and five elements, described in detail elsewhere (Bartos et al., 2021, 2022; Posadas & Bartos, 2022), guided the specific theoretical and practical content imparted in both subjects. To that end, the program developer employed a wide range of practices, philosophical principles, and theories chosen from, adapted from, and/or inspired by the four CRAFT foundations, including various practices created by themselves (Bartos et al., 2022). Drawing from a previous study in which the feasibility of CRAFT imparted as CRAFT-based elective subjects was examined (Bartos et al., 2022), key contents and practices imparted in both courses are described below. However, for a more comprehensive overview and periodization of the specific contents, objectives, activities, and home-based practice recommendations delivered in both subjects across the five CRAFT elements through the academic year, we advise readers to consult the supplementary material of Bartos et al. (2022) in Table App. 3 (Appendix E3).

Higher emphasis was placed on yoga- and mindfulness-based instruction in Mindfulness, while empathy, compassion, positive psychology, and emotional intelligence theory and practice were prioritized more in Emotional Intelligence. For instance, specific resources drawn from yoga, such as *pranayama* or breathing practices (i.e., *nadi shodhana*, *bhramari*, *kapalabhati*; Satyananda, 1967), the meditative relaxation technique of yoga *nidra*, and *nada yoga* (i.e., sound meditation; Yogatirthananda, 2023), were emphasized more in the Mindfulness subject. Additionally, mindfulness components, such as the body scan (Kabat-Zinn, 1990), *Kinhin* (i.e., walking Zen meditation; Heine & Wright, 2008), the three axioms of mindfulness (i.e., intention, attention, and attitude; Shapiro et al., 2006), and the nine attitudes of mindfulness (i.e., non-judging, beginner's mind, trust, non-striving, accepting, letting go, gratitude, and generosity; Kabat-Zinn, 1990) were also underscored more in this subject. By contrast, teaching related to specific components of emotional intelligence, such as empathy, social skills, and emotional regulation (Goleman, 1998); and positive psychology, such as flow states (Csikszentmihalyi, 1997)—promoted through mindful concerts designed by the program developer (Posadas & Bartos, 2022)—as well as strengths and virtues (i.e., *identifying signature strengths*, Seligman et al., 2005) were emphasized more in Emotional Intelligence. Moreover, inquiry into the four immeasurables through loving-kindness and compassion meditations (i.e., loving-kindness, compassion, sympathetic joy, and equanimity, Hofmann et al., 2011) were given more preference in Emotional Intelligence. One of the main differences between the two subjects was that physical practices based on hatha yoga, including a psychophysical protocol designed by the creator of the program were only imparted in Mindfulness (Posadas & Bartos, 2022). Conversely, to meaningfully delve into the five components of emotional intelligence (Goleman, 1998), specific practical cases of guided discovery through role-play developed by the program developer were exclusively imparted in Emotional Intelligence (Posadas & Bartos, 2022).

Furthermore, reflective problem-solving debates, devised by the program developer, were employed in both subjects to promote CRAFT participants' inquiry into how they could meaningfully integrate what they learned in class into their daily lives, addressing personal, well-being, music, academic, and professional real-life concerns (Posadas & Bartos, 2022). Commonly employed practices in both subjects with approximately equal frequency were *shamatha* meditation (Wallace, 2011), focused and open-monitoring meditations (Fox et al., 2016), informal meditations (e.g., mindful eating, showering, listening; Santorelli, 2014), visualization and relaxation techniques, and a practice created by the program developer to develop choiceless awareness of

physical, emotional, and mental states (i.e., PEM; Posadas & Bartos, 2022). In addition, reflection on concepts, such as eudaimonic happiness, creativity, humor, and beauty (Seligman, 2011) was cultivated in both subjects. A typical class in the CRAFT-based elective subjects would begin with participants undertaking a conscious observation of their physical, mental, and emotional states, followed by each participant expressing how they felt at these levels (i.e., PEM practice). Then, a reflection of the contents and practices covered during the past week would take place. Subsequently, during the main part of the session, new theoretical concepts and/or practical activities would be imparted, and lastly, a closing meditation would be guided to end the class. In the Mindfulness subject, after the initial conscious observation, participants would be instructed in the corresponding stage of the psychophysical protocol. Moreover, CRAFT participants were encouraged to complete 2 hr of weekly home-based practice to further work on the contents covered in class. This included engaging in formal and informal meditation, keeping a practice log, and conducting an independent exploration of the contents that would be imparted in the next class. In addition, CRAFT participants in the Mindfulness subject were systematically urged to perform the psychophysical protocol.

The Alexander Technique-Based Elective Subject

The major focus of this course was learning the Alexander Technique through a practiced-based approach as it relates to student musicians' lives and music practice and performance. In addition, study techniques and ergonomic principles applied to higher music education were covered in this subject. Particular emphasis was placed on covering the main principles of the Alexander Technique (e.g., habit recognition, inhibition and non-doing, identification of defective sensory awareness, provision of directions, and primary control) to enable participants to identify and free themselves from detrimental neuromuscular tensions, reactions, and patterns (Chance, 2013; Conable & Conable, 1995; Davies, 2020). For instance, through inhibition and the non-doing principle, students were trained to develop a non-judgmental kinaesthetic awareness of their present moment experience along with a voluntary inhibition to consciously become aware and refrain from using maladaptive automatic behaviors. Primary focus was also given to nurture the primary control (i.e., a balanced and dynamic relationship between the head-neck-spine axis with the other parts of the body) through the employment of directions (i.e., mental messages sent to the body). At the core of the learning process was the cultivation of the use of the self (i.e., referring to the idea of holistically leveraging the entire psychophysical self in all the movements and activities performed), as well as undoing the habitual tendency of striving to accomplish a particular result without carefully attending to the process. In-class discussions were also arranged to relate and apply these principles within participants' postural interaction with their instruments as well as other aspects of their musical practice and performance experience.

The course instructor combined the traditional Alexander Technique's teaching approach of chair work (i.e., one-on-one manual guidance and verbal instructions) and table work (Chance, 2013; Woods et al., 2020) with different psychomotor group activities and dynamic games. All the practices implemented in class were derived from, adapted from, and/or inspired by the teachings and tenets of the Alexander Technique with various activities being developed by the course instructor (Chance, 2013; Conable & Conable, 1995). All principles of the Alexander Technique were worked on across these practices. A typical class would consist of an exploratory game followed by the so-called active rest (i.e., table work). In the exploratory games, participants would perform basic motor skills (e.g., walking, arm moves, coordination of different movements, throwing objects, etc.) with full bodily awareness to develop kinesthesia, proprioception, and better use of the self to identify and release

unnecessary tensions that would allow them to execute these tasks more consciously and efficiently. In the active rest, participants would lie down in a semi-supine position and perform a type of mindful body scan using bodily and breath awareness as the cornerstone tool to both detect and indirectly release any tension. (Chance, 2013; Woods et al., 2020). This class structure of exploratory games and active rest was consistently applied with several variations for the first four months to acquaint participants with the main principles of the Alexander Technique. The individualized approach was added in the midst of the academic year with the touched-based guidance as an assistive stimulus to further increase students' awareness of their maladaptive neuromuscular reactions and tensions. Intertwined with these activities, main notions of the anatomy of the skeletal and respiratory systems were taught, mostly at the beginning of the academic year. Participants were systematically encouraged to practice at home the content covered in class, particularly the active rest, between study sessions, rehearsals, and before and after music performance situations.

Table App. 4

Normality Assessment by Examining Time 1, Time 2, and Change Scores' Values of Skewness and Kurtosis for Demographic and Outcome Measure Variables

Variables	<i>n</i>	Time 1		Time 2		Change (Time 1 - Time 2)	
		<i>G</i> ₁	<i>G</i> ₂	<i>G</i> ₁	<i>G</i> ₂	<i>G</i> ₁	<i>G</i> ₂
Demographics							
Age	93	3.03**	13.05**	NA	NA	NA	NA
Years of musical practice	93	1.01*	1.03*	NA	NA	NA	NA
Weekly hours of physical activity	48 ^a /50 ^b	1.40*	2.17*	.74	.34	NA	NA
Weekly minutes of home-based Practice	55	NA	NA	3.16**	11.68**	NA	NA
Lg10 transformed (weekly minutes of home-based practice) ^c	55	NA	NA	-.17	.38	NA	NA
Frequency of daily life application	60	NA	NA	-.60*	.31*	NA	NA
Outcome Measures							
FFMQ-SF-24							
Total	93	.07	-.42	-.26	.13	.35	.53
Observe	93	-.44	-.33	-.15	-.72	-.52	.23
Describe	93	-.52	-.52	-.27	-.17	.42	1.11*
Act Aware	93	-.37	-.38	-.60	-.01	-.21	.65
Non-React	93	.44	-.35	-.32	.22	.07	.53
Non-Judge	93	.34	-.51	-.71	-.03	.20	.11
KMPAIR							
Proximal	93	-.30	-.43	-.03	-.08	-.26	-.15
Dread/Scrutiny	93	-.60	-.05	-.06	-.37	-.21	.20
Memory	93	.44	-1.07	-.74	.61	-.59	1.39
Anxious	93	.06	-.90	-.10	.10	-.07	.39
SPWS	93	-.52	-.26	.52	-.84	-.01	.79
ERQ							
Reappraisal	93	-.56	.21	-.30	-.26	.35	.17*
Suppression	93	-.09	-.94			.97	1.5*
DASS-21							
Total	93			-.95	-.05		
Depression	93	.40	-.94	-.00	.69	.46	2.03*
Anxiety	93	.54	-.90	-.02	.96	.31	2.37*
Stress	93	.67	-.27	-.05	.08	.26	1.35*
SRT	86	.17	-.90	-.75	-.06	-.22	.37
SBTR	85	.04	-.42	-.58	-.17	-.77	3.1**
Lg10 transformed (SBTR) ^c	85	4.82**	27.64**	6.67**	2.61**	2.22*	8.55**
SBTL	85	.93	1.22*	-.10	.77	.43	.52
Lg10 transformed (SBTL) ^c	85	3.12**	12.21**	7.64**	2.56**	1.94*	6.06**
	85	.88	.29	-.51	.69	.54	1.18*

Note. *G*₁ = Skewness; *G*₂ = Kurtosis; FFMQ-SF-24 = Five Facet Mindfulness Questionnaire Short Form; KMPAIR = Kenny Music Performance Anxiety Inventory-Revised; SPWS = Subjective Psychological Well-Being Subscale; ERQ = Emotional Regulation Questionnaire; DASS-21 = Depression, Anxiety, and Stress Scale; SRT = Sit and Reach Test; SBTR = Stork Balance Test Right Leg; SBTL = Stork Balance Test Left Leg.

Normality was assessed by examining the extent to which data from all the current study continuous variables deviated from normality according to whether absolute values of *G*₁ and *G*₂ fell within either mild (0-1); * moderate (1-2.3), or ** high (>2.3) departure from normality cut-off benchmarks (Lei & Lomax, 2005).

^a*n* for Time 1; ^b*n* for Time 2; ^cDue to severe departures from normality, a logarithmic (base 10) transformation was performed on each data value of the SBTR, SBTL (Time 1 and Time 2), and minutes of home-based practice (Time 2).

Table App. 5

Between-Group Comparison of Time 2 Scores Controlling for Time 1 Scores using Planned Contrasts from one-way ANCOVAs and Cohen's d ESs $\pm$ 95% CIs

Outcome Measures	CRAFT Group (<i>n</i> =28) ^a				Active control group (<i>n</i> =32)				Inactive control group (<i>n</i> =33) ^b				CRAFT versus active control group ^{c, d}						CRAFT versus inactive control group ^{c, d}					
	<i>M</i> _{T1}	<i>SD</i> _{T1}	<i>M</i> _{T2(E)}	<i>SE</i> _{T2(E)}	<i>M</i> _{T1}	<i>SD</i> _{T1}	<i>M</i> _{T2(E)}	<i>SE</i> _{T2(E)}	<i>M</i> _{T1}	<i>SD</i> _{T1}	<i>M</i> _{T2(E)}	<i>SE</i> _{T2(E)}	<i>p</i> _{T1}	<i>P</i> _{T2(E)}	<i>d</i> _{T2(E)}	95% CI		<i>p</i> _{T1}	<i>P</i> _{T2(E)}	<i>d</i> _{T2(E)}	95% CI			
																LL	UL				LL	UL		
FFMQ-SF-24																								
Total (24-120)	75.21	11.49	85.05	9.40	75.97	12.05	75.84	10.09	75.05	12.00	75.05	8.14	.81	<.001	1.06	0.52	1.60	.39	<.001	1.15	0.61	1.69		
Observe (4-20)	13.68	3.64	15.17	0.58	14.34	3.62	13.16	0.54	13.45	4.00	14.00	0.53	.50	.01	0.66	0.14	1.18	.82	.14	0.38	-0.13	0.88		
Describe (5-25)	16.61	3.74	18.28	0.59	16.13	3.90	16.51	0.55	16.15	4.58	16.87	0.55	.65	.03	0.57	0.05	1.09	.67	.08	0.49	-0.02	1.00		
Act Aware (5-25)	16.14	4.05	18.10	0.70	16.28	4.97	17.21	0.65	17.21	4.04	16.53	0.64	.90	.35	0.27	-0.24	0.78	.35	.10	0.43	-0.08	0.93		
Non-Judge (5-25)	15.61	4.83	17.34	0.57	14.84	4.38	15.66	0.53	14.09	4.25	15.23	0.52	.51	.028	0.58	0.06	1.10	.19	.007	0.72	0.20	1.24		
Non-React (5-25)	13.18	3.90	16.02	0.58	14.38	3.95	13.55	0.56	11.70	4.31	12.24	0.55	.26	.003	0.79	0.27	1.32	.16	<.001	1.21	0.67	1.76		
KMPAIR																								
Proximal (0-60)	41.64	13.10	31.03	1.55	32.34	13.56	32.45	1.47	39.09	12.63	35.63	1.41	.007	.51	-0.17	-0.68	0.34	.45	.03	-0.56	-1.08	-0.05		
Dread/Scrutiny (0-40)	33.43	6.33	26.59	1.23	28.69	10.04	28.94	1.18	34.61	9.22	31.56	1.14	.03 ^f	.17	-0.36	-0.87	0.15	.56 ^f	.004	-0.76	-1.28	-0.24		
Memory (0-12)	5.18	3.79	4.53	0.46	5.44	3.67	4.49	0.43	4.12	4.01	5.26	0.43	.79	.95	0.02	-0.49	0.52	.29	.25	-0.30	-0.80	0.21		
Anxious (0-18)	10.14	4.31	8.47	0.56	8.97	4.28	8.22	0.52	9.24	3.97	8.78	0.52	.28	.75	-0.08	-0.42	0.59	.40	.69	-0.11	-0.61	0.39		
SPWS	117.79	14.37	117.17	2.45	115.53	18.72	114.84	2.27	108.88	17.47	113.86	2.27	.61	.49	0.18	-0.32	0.69	.04	.33	0.25	-0.25	0.76		
ERQ																								
Reappraisal (6-42)	26.57	6.96	30.11	1.01	28.25	6.06	25.69	0.95	26.70	7.59	27.08	0.93	.35	.002	0.82	0.30	1.35	.94	.030	0.57	0.05	1.08		
Suppression (4-28)	14.04	5.57	13.32	0.78	15.66	5.23	14.02	0.73	14.73	5.73	15.58	0.72	.26	.51	-0.17	-0.68	0.34	.63	.035	-0.55	-1.06	-0.03		
DASS-21																								
Total (0-126)	47.36	25.63	41.55	3.14	39.87	23.87	40.83	2.97	51.10	22.68	55.27	2.91	.23	.87	0.04	-0.46	0.55	.55	.002	-0.82	-1.35	-0.30		
Depression (0-42)	12.78	9.57	11.18	1.37	12.31	9.61	11.89	1.28	13.93	9.74	16.92	1.26	.85	.70 ^f	-0.10	-0.61	0.41	.64	.003 ^f	-0.79	-1.32	-0.27		
Anxiety (0-42)	14.57	10.02	10.93	1.37	11	8.50	11.69	1.30	16.12	9.41	17.27	1.28	.14	.69	-0.10	-0.61	0.40	.52	.001	-0.87	-1.39	-0.34		
Stress (0-42)	20	9.03	19.62	1.13	16.56	9.75	16.77	1.07	21.03	7.67	21.39	1.05	.14	.07	0.47	-0.04	0.99	.65	.25	-0.29	-0.80	0.21		
SRT (cm)	17.95	8.78	19.88	0.86	14.42	9.15	19.09	0.72	19.19	10.89	16.90	0.71	.19	.48	0.19	-0.32	0.69	.65	.009	0.69	0.17	1.21		
SBTR (s) ^e	8.42	12.66	17.94	2.29	3.51	3.04	6.47	1.84	5.92	7.55	6.21	1.82	.01	.007 ^f	0.79	0.26	1.32	.26	.001 ^f	0.92	0.39	1.45		
SBTL (s) ^e	4.85	4.61	16.38	1.56	5.11	5.83	4.51	1.26	5.35	8.20	5.99	1.26	.84 ^f	<.001 ^f	1.84	1.23	2.44	.72 ^f	<.001 ^f	1.74	1.15	2.33		

Note. T1 = Time 1 scores; T2(E) = Time 2 scores (estimates); FFMQ-SF-24 = Five Facet Mindfulness Questionnaire Short Form; KMPAIR = Kenny Music Performance Anxiety Inventory-Revised; SPWS = Subjective Psychological Well-Being Subscale; ERQ = Emotional Regulation Questionnaire; DASS-21 = Depression, Anxiety, and Stress Scale; SRT = Sit and Reach Test; SBTR = Stork Balance Test Right Leg; SBTL = Stork Balance Test Left Leg; CI = Confidence interval of Cohen's d values; UL = Upper Limit; LL = Lower Limit.

^a $n=22$ for SRT and $n=21$ for SBTR and SBTL; ^b $n=32$ for SRT, SBTR, and SBTL.

Bold font denotes significance.

^cStatistical significance was achieved if $p < .05$; levels of statistical significance for within-group differences in mean change scores are represented by asterisks, $*p < .05$, $**p < .01$, $***p < .001$.

^dPractical significance was attained if $d \geq$ minimum practical significant effect (MPSE) of $d = \pm 0.55$ with the 95% CI not containing the null value (Coe, 2002) and interpreted following Cohen's d (1988) ES benchmarks of small ($0.2 \leq d < 0.5$), medium ($0.5 \leq d < 0.8$), and large ($d \geq 0.8$). The standard deviations of the estimated marginal means required to compute Cohen's d were calculated by multiplying the SE by the square root of the sample size.

^eDue to severe departures from normality, a logarithmic (base 10) transformation was performed on each Time 1 and Time 2 data value of the SBTR and SBTL to compute their respective change scores. The new transformed change scores, upon meeting normality assumptions, were used for determining statistical and practical significance. However, the original means and standard deviations of the SBTR and SBTL have been presented here to facilitate a meaningful interpretation of these data according to their actual units (s).

^fhomoscedasticity not assumed.

Table App. 6*Within-Group Results by Outcome Measures*

Outcome Measures	Main Group Results by Outcome Measures									
	n	Time 1		Time 2		Test Statistics ^a		Effect Sizes ^b		
		M	SD	M	SD	t	p	g	95% CI	
								LL	UL	
CRAFT group										
FFMQ-SF-24										
Total (24-120)	28	75.21	11.49	85.54	12.10	5.81	<.001	1.10	0.62	1.56
Observe (4-20)	28	13.68	3.64	15.07	3.05	2.32	0.03	0.44	0.05	0.82
Describe (5-25)	28	16.61	3.74	18.50	4.08	2.61	0.02	0.49	0.10	0.88
Act Aware (5-25)	28	16.14	4.05	17.93	3.57	2.33	0.03	0.44	0.05	0.83
Non-Judge (5-25)	28	15.61	4.83	17.96	3.92	3.69	<.001	0.70	0.28	1.11
Non-React (5-25)	28	13.18	3.90	16.07	3.21	4.63	<.001	0.88	0.43	1.31
KMPAIR										
Proximal (0-60)	28	41.64	13.10	33.86	11.70	-4.41	<.001	-0.83	-1.26	-0.40
Dread/Scrutiny (0-40)	28	33.43	6.33	27.46	7.38	-4.80	<.001	-0.91	-1.34	-0.46
Memory (0-12)	28	5.18	3.79	4.71	3.36	-0.77	0.45	-0.15	-0.52	0.23
Anxious (0-18)	28	10.14	4.31	8.93	3.96	-1.71	0.10	-0.32	-0.70	0.06
SPWS	28	117.79	14.37	120.25	12.98	1.22	0.23	0.23	-0.15	0.60
ERQ										
Reappraisal (6-42)	28	26.57	6.96	29.89	6.28	2.42	0.02	0.46	0.06	0.84
Suppression (4-28)	28	14.04	5.57	12.82	4.93	-1.42	0.17	-0.27	-0.64	0.11
DASS-21										
Total (0-126)	28	47.36	25.63	42.36	18.82	-1.33	0.20	-0.25	-0.63	0.13
Depression (0-42)	28	12.78	9.57	11.00	6.61	-1.47	0.15	-0.28	-0.65	0.10
Anxiety (0-42)	28	14.57	10.02	11.36	9.03	-2.03	0.05	-0.38	-0.76	0.00
Stress (0-42)	28	20	9.03	20	7.26	0.00	1	0.00	-0.37	0.37
SRT (cm)	22	17.95	8.78	20.66	9.05	2.60	0.02	0.56	0.10	1.00
SBTR (s) ^c	21	8.42	12.66	19.79	20.38	2.94	0.01	0.64	0.16	1.11
SBTL (s) ^c	21	4.85	4.61	16.11	12.20	5.72	<.001	1.25	0.67	1.82
Active Control Group										
FFMQ-SF-24										
Total (24-120)	32	75.97	12.05	76.88	12.96	0.51	0.62	0.09	-0.26	0.44
Observe (4-20)	32	14.34	3.62	13.5	4.51	-1.43	0.16	-0.25	-0.60	0.10
Describe (5-25)	32	16.13	3.90	16.41	3.83	0.49	0.63	0.09	-0.26	0.43
Act Aware (5-25)	32	16.28	4.97	17.09	4.29	1.03	0.31	0.18	-0.17	0.53
Non-Judge (5-25)	32	14.84	4.38	15.69	4.31	1.76	0.09	0.31	-0.05	0.66
Non-React (5-25)	32	14.38	3.95	14.19	4.00	-0.31	0.76	-0.05	-0.40	0.29
KMPAIR										
Proximal (0-60)	32	32.34	13.56	28.88	12.91	-2.43	0.02	-0.43	-0.79	-0.06
Dread/Scrutiny (0-40)	32	28.69	10.04	26.41	10.73	-1.78	0.08	-0.32	-0.67	0.04
Memory (0-12)	32	5.44	3.67	4.84	3.10	-1.22	0.23	-0.22	-0.56	0.14
Anxious (0-18)	32	8.97	4.28	7.94	3.79	-1.79	0.08	-0.32	-0.67	0.04
SPWS	32	115.53	18.72	116.16	18.53	0.25	0.81	0.04	-0.30	0.39
ERQ										
Reappraisal (6-42)	32	28.25	6.06	26.06	5.33	-1.87	0.07	-0.33	-0.68	0.03
Suppression (4-28)	32	15.66	5.23	14.53	5.24	-1.64	0.11	-0.29	-0.64	0.07
DASS-21										
Total (0-126)	32	39.87	23.87	36.81	21.70	-0.99	0.33	-0.18	-0.52	0.18
Depression (0-42)	32	12.31	9.61	11.38	9.93	-0.65	0.52	-0.12	-0.46	0.23
Anxiety (0-42)	32	11	8.50	9.88	7.55	-0.92	0.37	-0.16	-0.51	0.19
Stress (0-42)	32	16.56	9.75	15.56	7.78	-0.72	0.48	-0.13	-0.48	0.22
SRT (cm)	32	14.42	9.15	16.66	9.39	3.67	<.001	0.65	0.26	1.03
SBTR (s) ^c	32	3.51	3.04	5.07	5.41	2.47	0.02	0.44	0.07	0.80
SBTL (s) ^c	32	5.11	5.83	4.49	5.36	-1.02	0.32	-0.18	-0.53	0.17

(continued)

Table App. 6 (continued)*Within-Group Results by Outcome Measures*

Within-Group Results by Outcome Measures										
Outcome Measures	<i>n</i>	Time 1		Time 2		Test Statistics ^a		Effect Sizes ^b		
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>	<i>g</i>	95% CI	
									LL	UL
Inactive Control Group										
FFMQ-SF-24										
Total (24-120)	33	72.61	12.00	73.64	11.58	0.73	0.47	0.13	-0.22	0.47
Observe (4-20)	33	13.45	4.00	13.76	3.96	0.51	0.61	0.09	-0.25	0.43
Describe (5-25)	33	16.15	4.58	16.79	4.36	1.13	0.27	0.20	-0.15	0.54
Act Aware (5-25)	33	17.21	4.04	16.79	4.26	-0.51	0.62	-0.09	-0.43	0.26
Non-Judge (5-25)	33	14.09	4.25	14.73	4.74	1.01	0.32	0.18	-0.17	0.52
Non-React (5-25)	33	11.70	4.31	11.58	3.66	-0.16	0.87	-0.03	-0.37	0.31
KMPAIR										
Proximal (0-60)	33	39.09	12.63	36.70	11.54	-1.44	0.16	-0.25	-0.60	0.10
Dread/Scrutiny (0-40)	33	34.61	9.22	33.27	8.38	-1.12	0.27	-0.20	-0.54	0.15
Memory (0-12)	33	4.12	4.01	4.76	3.90	1.49	0.15	0.26	-0.09	0.61
Anxious (0-18)	33	9.24	3.97	8.67	4.12	-1.11	0.28	-0.19	-0.54	0.15
SPWS	33	108.88	17.47	109.97	22.03	0.44	0.67	0.08	-0.27	0.42
ERQ										
Reappraisal (6-42)	33	26.70	7.59	26.91	5.90	0.17	0.86	0.03	-0.31	0.37
Suppression (4-28)	33	14.73	5.73	15.52	5.75	0.86	0.39	0.15	-0.19	0.49
DASS-21										
Total (0-126)	33	51.10	22.68	58.48	26.14	2.31	0.03	0.40	0.05	0.76
Depression (0-42)	33	13.93	9.74	17.58	12.18	2.56	0.02	0.45	0.09	0.80
Anxiety (0-42)	33	16.12	9.41	18.67	10.86	1.70	0.10	0.30	-0.06	0.64
Stress (0-42)	33	21.03	7.67	22.24	6.51	1.31	0.20	0.23	-0.12	0.57
SRT (cm)	32	19.19	10.89	18.80	10.46	-0.54	0.59	-0.10	-0.44	0.25
SBTR (s) ^c	32	5.92	7.55	6.40	7.28	0.17	0.87	0.03	-0.32	0.38
SBTL (s) ^c	32	5.35	8.20	6.19	10.49	1.06	0.30	0.19	-0.16	0.54

Note. FFMQ-SF-24 = Five Facet Mindfulness Questionnaire Short Form; KMPAIR = Kenny Music Performance Anxiety Inventory-Revised; SPWS = Subjective Psychological Well-Being Subscale; ERQ = Emotional Regulation Questionnaire; DASS-21 = Depression, Anxiety, and Stress Scale; SRT = Sit and Reach Test; SBTR = Stork Balance Test Right Leg; SBTL = Stork Balance Test Left Leg; CI = Confidence interval of Cohen's *d* values; UL = Upper Limit; LL = Lower Limit.

Bold font denotes significance

^aStatistical significance was achieved if $p < .05$.

^bPractical significance was attained if $d \geq$ minimum practical significant effect (MPSE) of $d = \pm 0.55$ with the 95% CI not containing the null value (Coe, 2002) and interpreted following Cohen's *d* (1988) ES benchmarks of small ($0.2 \leq d < 0.5$), medium ($0.5 \leq d < 0.8$), and large ($d \geq 0.8$).

^cDue to severe departures from normality, a logarithmic (base 10) transformation was performed on each Time 1 and Time 2 data value of the SBTR and SBTL to compute their respective change scores. The new transformed change scores, upon meeting normality assumptions, were used for determining practical and statistical significance. However, the original means and standard deviations of the SBTR and SBTL have been presented here to facilitate a meaningful interpretation of these data according to their actual units (s).

Table App. 7*Descriptive Statistics and Between Group Differences at Time 1 for Demographics and Outcome Measures across Time 1-Time 2 Assessed Participants and Time 2 Unassessed Participants*

Demographic Variables	Time 1-Time 2 Assessed Participants				Time 2 Unassessed Participants				<i>p</i>
	CRAFT Group (<i>n</i> =28)	Active Control Group (<i>n</i> =32)	Inactive control Group (<i>n</i> =33)	Total (<i>n</i> =93)	CRAFT Group (<i>n</i> =10)	Active Control Group (<i>n</i> =10)	Inactive control Group (<i>n</i> =27)	Total (<i>n</i> =47)	
Age	21.00 ± 4.50	20.84 ± 3.31	18.76 ± 2.45	20.15 ± 3.58	21.30 ± 3.92	19.90 ± 2.33	19.04 ± 1.48	19.70 ± 2.47	.44
Years of musical practice	13.39 ± 2.56	13.34 ± 2.88	11.85 ± 2.42	12.83 ± 2.70	13.80 ± 2.21	11.50 ± 1.43	11.78 ± 1.69	12.15 ± 1.93	.09 ^g
Gender									.32
Females	12 (43%)	13 (41%)	16 (48%)	41 (44%)	5 (50%)	2 (20%)	11 (40%)	18 (38%)	
Males	16 (57%)	19 (59%)	17 (52%)	54 (55%)	5 (50%)	7 (70%)	16 (60%)	28 (60%)	
Other	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (10%)	0 (0%)	1 (2%)	
CRAFT-based elective subjects' enrolment									.17
Mindfulness	19 (68%)	NA	NA	19 (20%)	5 (50%)	NA	NA	5 (10%)	
Emotional Intelligence	6 (21%)	NA	NA	6 (6%)	5 (50%)	NA	NA	5 (10%)	
Mindfulness and Emotional Intelligence	3 (11%)	NA	NA	3 (3%)	0 (0%)	NA	NA	0 (0%)	
Education level									
High school	24 (86%)	30 (94%)	33 (100%)	87 (94%)	9 (90%)	8 (80%)	23 (85%)	40 (85%)	.07
Bachelor's degree	1 (4%)	1 (3%)	0 (0%)	2 (2%)	1 (10%)	1 (10%)	4 (15%)	6 (13%)	
Master's degree	3 (11%)	0 (0%)	0 (0%)	3 (3%)	0 (0%)	1 (10%)	0 (0%)	1 (2%)	
Ph.D.	0 (0%)	1 (3%)	0 (0%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	
Grade year									
First	9 (32%)	11 (34%)	33 (100%)	53 (57%)	2 (20%)	5 (50%)	9 (33%)	16 (34%)	.01
Second	10 (36%)	11 (34%)	0 (0%)	21 (23%)	3 (30%)	2 (20%)	18 (67%)***	23 (49%)	
Third	8 (29%)	7 (22%)	0 (0%)	25 (16%)	2 (20%)	3 (30%)	0 (0%)	5 (11%)	
Fourth	1 (4%)	3 (9%)	0 (0%)	4 (4%)	3 (30%)	0 (0%)	0 (0%)	3 (6%)	
Engagement in Physical Activity									
Time 1	15 (54%)	21 (66%)	16 (48%)	52 (60%)	5 (50%)	7 (70%)	14 (52%)	26 (55%)	.95
Hours per week	6.31 ± 4.69	4.74 ± 3.09	4.07 ± 2.34	4.97 ± 3.46	5.62 ± 4.50	6.10 ± 2.65	11.50 ± 8.49**g	9.06 ± 7.19	.015 ^g

Continued

Table App. 7 (continued)*Descriptive Statistics and Between Group Differences at Time 1 for Demographics and Outcome Measures across Time 1-Time 2 Assessed Participants and Time 2 Unassessed Participants*

Outcome Measures	Time 1-Time 2 Assessed Participants				Time 2 Unassessed Participants				<i>p</i>
	CRAFT Group (<i>n</i> =28) ^a	Active Control Group (<i>n</i> =32)	Inactive control Group (<i>n</i> =33) ^b	Total (<i>n</i> =93)	CRAFT Group (<i>n</i> =10) ^c	Active Control Group (<i>n</i> =10) ^d	Inactive control Group (<i>n</i> =27)	Total (<i>n</i> =47)	
FFMQ-SF-24									
Total (24-120)	75.21 ± 11.49	75.97 ± 12.05	72.61 ± 12.00	74.55 ± 11.83	79.40 ± 9.73	76.70 ± 10.40	79.33 ± 10.64*	78.79 ± 10.24	.038
Observe (4-20)	13.68 ± 3.64	14.34 ± 3.62	13.45 ± 4.00	13.83 ± 3.75	15.80 ± 2.04	16.00 ± 3.20	13.70 ± 2.83	14.64 ± 2.92	.20
Describe (5-25)	16.61 ± 3.74	16.13 ± 3.90	16.15 ± 4.58	16.28 ± 4.07	17.20 ± 3.71	16.30 ± 2.95	18.26 ± 3.30*	17.62 ± 3.35	.05
Act Aware (5-25)	16.14 ± 4.05	16.28 ± 4.97	17.21 ± 4.04	16.57 ± 4.38	16.00 ± 3.43	14.70 ± 3.02	18.11 ± 4.17	16.94 ± 4.00	.63
Non-Judge (5-25)	15.61 ± 4.83	14.84 ± 4.38	14.09 ± 4.25	14.81 ± 4.47	15.10 ± 4.43	16.00 ± 2.62	15.70 ± 4.51	15.64 ± 4.10	.29
Non-React (5-25)	13.18 ± 3.90	14.38 ± 3.95	11.70 ± 4.31	13.06 ± 4.18	15.30 ± 3.92	13.70 ± 4.08	13.56 ± 4.04	13.96 ± 4.00	.23
KMPAIR									
Proximal (0-60)	41.64 ± 13.10	32.34 ± 13.56	39.09 ± 12.63	37.54 ± 13.53	37.30 ± 10.86	38.30 ± 18.55	32.85 ± 11.96	34.96 ± 13.32	.29
Direct/Scrutiny (0-40)	33.43 ± 6.33	28.69 ± 10.04	34.61 ± 9.22	32.22 ± 9.06	30.90 ± 7.16	32.20 ± 11.81	25.85 ± 8.81***	28.28 ± 9.46	.02
Memory (0-12)	5.18 ± 3.79	5.44 ± 3.67	4.12 ± 4.01	4.89 ± 3.83	4.60 ± 2.90	2.90 ± 2.92*	4.56 ± 3.43	4.21 ± 3.25	.27 ^g
Anxious (0-18)	10.14 ± 4.31	8.97 ± 4.28	9.24 ± 3.97	9.42 ± 4.17	10.20 ± 4.80	9.10 ± 5.63	8.37 ± 4.32	8.91 ± 4.67	.52
SPWS	117.79 ± 14.37	115.53 ± 18.72	108.88 ± 17.47	113.85 ± 17.30	123.40 ± 14.40	111.50 ± 21.90	117.81 ± 19.29	117.66 ± 19.98	.24
ERQ									
Reappraisal (6-42)	26.57 ± 6.96	28.25 ± 6.06	26.70 ± 7.59	27.19 ± 6.87	31.00 ± 5.23	27.80 ± 7.05	28.70 ± 4.62	29 ± 5.33	.12
Suppression (4-28)	14.04 ± 5.57	15.66 ± 5.23	14.73 ± 5.73	14.84 ± 5.49	14.60 ± 6.00	16.30 ± 6.04	15.04 ± 5.30	15.21 ± 5.52	.70
DASS-21									
Total (0-126)	47.36 ± 25.63	39.87 ± 23.87	51.10 ± 22.68	46.11 ± 24.22	45.20 ± 15.53	40.49 ± 19.77	39.63 ± 21.38*	40.98 ± 19.67	.18 ^g
Depression (0-42)	12.78 ± 9.57	12.31 ± 9.61	13.93 ± 9.74	13.03 ± 9.67	10.40 ± 4.60	12.60 ± 8.43	10.07 ± 8.60	10.68 ± 7.80	.15
Anxiety (0-42)	14.57 ± 10.02	11 ± 8.50	16.12 ± 9.41	13.89 ± 9.46	14.40 ± 6.85	11.00 ± 8.01	11.70 ± 8.75	12.13 ± 8.15	.28
Stress (0-42)	20 ± 9.03	16.56 ± 9.75	21.03 ± 7.67	19.18 ± 8.95	20.40 ± 7.93	16.80 ± 7.49	17.85 ± 9.23	18.17 ± 8.54	.52
SRT (cm)	17.95 ± 8.78	14.42 ± 9.15	19.19 ± 10.89	17.10 ± 9.87	20.30 ± 5.39	14.23 ± 6.26	18.68 ± 10.95	17.90 ± 9.64	.66 ^f
SBTR (s) ^e	8.42 ± 12.66	3.51 ± 3.04	5.92 ± 7.55	5.63 ± 8.14	3.16 ± 3.42	4.04 ± 2.91	4.21 ± 4.76	4.05 ± 4.21	.12 ^f
SBTL (s) ^e	4.85 ± 4.61	5.11 ± 5.83	5.35 ± 8.20	5.14 ± 6.52	3.42 ± 2.54	3.42 ± 2.24	5.16 ± 8.38	4.56 ± 6.93	.73 ^f

Note. FFMQ-SF-24 = Five Facet Mindfulness Questionnaire Short Form; KMPAIR = Kenny Music Performance Anxiety Inventory-Revised; SPWS = Subjective Psychological Well-Being Subscale; ERQ = Emotional Regulation Questionnaire; DASS-21 = Depression, Anxiety, and Stress Scale; SRT = Sit and Reach Test; SBTR = Stork Balance Test Right Leg; SBTL = Stork Balance Test Left Leg; NA = Not Applicable; ^a*n*=22 for SRT and *n*=21 for SBTR and SBTL; ^b*n*=32 for SRT, SBTR, and SBTL; ^c*n*=5 for SRT, SBTR and SBTL; ^d*n*=9 for SRT, SBTR, and SBTL; Values are mean ± SD with corresponding *p*-values computed with one-way ANOVAs; or *n* (%) with respective *p*-values computed with chi-square; ^eDue to severe departures from normality, a logarithmic (base 10) transformation was performed on each Time 1 and Time 2 data value of the SBTR and SBTL to compute their respective change scores. The new transformed change scores, upon meeting normality assumptions, were used for determining statistical significance. However, the original means and standard deviations of the SBTR and SBTL have been presented here to facilitate a meaningful interpretation of these data according to their actual units (s). Bold font denotes significance if *p* < .05; Levels of statistical significance for group differences between participants who completed and did not completed Time 2 assessments within CRAFT, active control, and inactive control groups at Time 1 are represented by asterisks, **p* < .05, ***p* < .01, ****p* < .001; ^f*p*-value from logarithmic (base 10) transformed scores; ^g*p*-value from Welch test due to homoscedasticity not assumed.

References (Appendix E4)

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Appendix F1. PhD Conference Presentations

- Bartos, L. J., Posadas, M. P. (2020, August 23-26). The CRAFT program. *The influence of the CRAFT program on the psychological well-being of higher education student musicians*. The 11th International Conference Education, Research & Development [Onsite oral presentation]. Burgas, Bulgaria. <https://www.sciencebg.net/en/conferences/education-research-and-development/>
- Bartos, L. J., Funes, M. J., Ouellet, M., Posadas, M. P., & Krägeloh, C. (2021, August 10-12). *Enhancing the well-being and academic experience of higher education Students. The CRAFT Program: Theoretical framework and preliminary research* [Virtual oral presentation]. 5th World Conference on Future of Education. Stockholm, Sweden <https://www.wcfeducation.org>
- Bartos, L. J., Funes, M. J., Ouellet, M., Posadas, M. P., & Krägeloh, C. (2022, November 15-18). *Effectiveness of the CRAFT program versus active controls for increasing mindfulness skills and well-being amongst student musicians during pandemic times* [Virtual oral presentation]. International Conference on Mindfulness Asia-Pacific. Melbourne, Australia. <https://www.icmmelbourne2022.org>
- Bartos, L. J., M., Posadas, M. P., Funes, M. J., Ouellet, W., & Krägeloh, C. (2023, May 26-28). *The CRAFT Program: Yoga and Mindfulness for Enhancing the Mental and Emotional Health and Well-being of Student Musicians during Pandemic Times* [Onsite oral presentation]. 6th International Conference on New Trends in Teaching and Education. NTTECONF. Brussels, Belgium. <https://www.ntteconf.org/brussels-2023/>
- Bartos, L. J., M., Posadas, M. P., Wrapson, W., & Krägeloh, C. (2023, December 7-9). *The CRAFT Program: Mindfulness, Yoga, Positive Psychology, and Emotional Intelligence for Enhancing Tertiary students' Resilience and Well-Being* [Onsite oral presentation]. 4th International Scientific Conference 'Changing Life Circumstances Opportunity for Individual and Community Growth'. Department of Psychology Catholic University of Croatia. Zagreb, Croatia. <https://www.unicath.hr/conference2023-psychology>

Appendix F2. The Prelude to a PhD Journey: Background and Positioning for Researching an Art of Being

For a better understanding of the rationale and significance of the present PhD investigation, permit me to begin the content of this thesis with a narration about my personal background and upbringing in relation to the topic of interest. In addition, I will offer a description of the itinerary I followed to become a PhD student at Auckland University of Technology (AUT) aiming to conduct the research herein presented. As Slife (1998) states when conveying the postmodernist assumptions of lived experience and radical holism: “No one, including the most rigorous scientist, gets outside their experiences”; “...In this sense, the whole of experience, including the past, present, and future, is required to understand any portion of experience.” (p. 217).

Being born in the house of a painter, art was the very first discipline I fully immersed myself in in the form of drawing, painting, and crafting, and the one I most performed since I was aware of myself up until I was a teenager. Although, if I may assert, I became a decent drawer by the age of fifteen in pursuit of higher education artistic studies in the field of fine arts, I gave up drawing and painting as soon as I realized that it was not completely an intrinsic interest, but probably the one to please my father or the external approval and praise I was dependent on to keep doing those tasks. Nonetheless, as I became more aware later on, I firmly believe that my childhood artistic exposure initially instilled in by my family nurtured within me a greater sensitivity for appreciating art and feeling the sensations and/or transcendental experiences that could arise when one is involved in either perceiving or performing artistic tasks. For instance, through drawing I was able to experience various moments of complete full absorption, attention, and happiness, frequently accompanied by a peak level of skill in which time seemingly disappeared. Some years later, I understood that such a phenomenon is indeed a meditative state, a flow experience that occurs when the observer who observes the object of concentration is so fully attentive to it that it almost becomes the observed, in this case, drawing itself. Such meditative moments of flow states were repeatedly occurring in my life through the deep involvement in what would consolidate as my main areas of interest as well as academic and professional development prior to engaging in meditative practices: sports, music, and languages.

It was not by chance that since I started walking on the path of tertiary education, as a young adult in search of my own self-reliance, I decided to develop myself across various areas of knowledge in different countries and settings. Such a choice laid the basis of a multifaceted academic and professional career where everything that I learned made sense to me for becoming a researcher along the Ph.D. pathway I am currently moving on. After an earlier bachelor's degree completion in Sports Science in Spain and Italy in parallel conjunction with undertaking classical music studies at the conservatories of Granada and Rome, I carried out various jobs as a physical education, music, Spanish, Italian, and English teacher in Spain, Italy, and England. But even prior to immersing myself in the labor force, as a music and higher education sports science student striving to become a professional classical guitarist and an elite middle-distance runner, I first hand witnessed and suffered from each of the ensuing health and well-being problems and demands commonly experienced by these types of populations. They deserved our attention for their implications with the problem statement of the proposed Ph.D. investigation.

I have frequently referred to musicians as athletes of a particular instrument who in a similar manner to sportsmen and sportswomen need constant muscular repetition to achieve optimal performance levels. Such continuous practice, as I have experienced from playing either role, can lead to musculoskeletal injuries and

severe pain that can hamper their academic and/or professional careers. As far as this particular issue is concerned, more than once I was forced to stay away from training or playing, both in the long and short term, due to musculoskeletal injuries from excessive practice, highly limiting my preparation and ensuing performances whenever they came across. However, as I soon realized, a high level of physical condition would not suffice to meet the various demanding challenges athletes and musicians are exposed to if a certain degree of mastery over the regulation of their mental and emotional processes has not been gained. Along these lines, they need to prepare themselves to produce their best outcomes in front of large crowds or audiences and therefore learn to disengage with the various influences these may exert on their execution. As a competitor and music performer, I can assure this requires a high level of attention and concentration to be in the present moment regardless of the potential difficulties that may arise from poor execution, mistakes, or external reactions out of the performer's own control. Under these stressful circumstances, I have been afflicted by both music and sports performance anxiety, one of the most typical problems affecting student musicians and professional athletes and musicians. In addition, I found within myself and many of my peers an excessive attachment to the final outcome, in which success with happiness versus failure with despondency were contingent on achieving versus not accomplishing some form of performance-related improvement. In this junction of never-ending joy and sorrow, which I was also encountering in other meaningful aspects of my life, the field of yoga was revealed to me not just as an open window to experience true happiness irrespective of the final outcome but also to deeply inquire into the who, why, and what for I am.

This new interest in yoga, which originally sparked within me just before working as a music and physical education high school teacher in England, prompted me to move to India on various occasions looking for initiation, further formation; and specialization as both yoga practitioner and teacher. In such a journey, whereby I had the opportunity to learn from various teachers, gurus, practitioners, and students, I gradually found myself leading the role of both a participant and a researcher of a continuous self-inquiry and realization research process that, in my experience, was not only occurring within the laboratory of my mind, body, and senses. The following personal excerpt illustrates my first contact with meditation in resonance with arts, music, and breath and bodily awareness:

I have often described my first meditation practices as magical experiences whereby the act of mindfully witnessing my breath within an upright sitting stance could invoke a peaceful and joyful sensation of full bodily vibration. I would recall such events in a similar fashion to when I would play a piece of music with full devotion to its interpretation. However, the difference was that nobody appeared to be playing within the silent and static act of performing breath awareness meditation, yet my body resonated like a musical instrument being exquisitely touched by "itself", or perhaps, as I would inquire, may it be through the upper hand of some unknown mysterious player? Though at first, I found myself very much attached to encountering over and over again these pleasant sensations every time I meditated, later on, I learned that even this apparently subtle and bright side of the meditative ladder was there to be transcended in the spiritual trajectory towards self-realization.

In this intervention I consented to participate and conduct each time since I started undergoing yoga practices, I could explore and determine in my own experience various types of effects across physical, cognitive, emotional, and spiritual dimensions. An accurate self-evaluation report of who I was and who I have become through my commitment to yoga is out of the scope of this narrative. However, I can broadly recount

that it brought me about a holistic development in terms of synergistically experiencing at physical, mental, and emotional levels a significantly higher degree of balance, strength, flexibility, resilience, awareness, and self-regulation; as well as a transformation in the way I conceived and behaved with myself and the world around me. This also encompasses the integration within my daily life of a self-rooted paradigm of empowerment and agency that was reflected in a self-inquiry, self-knowledge, self-responsibility, self-caring, and self-problem-solving attitude far away from selfishness but rather for the benefit of nurturing a more conscious society. Moreover, each path of yoga (i.e., *raja*, *hatha*, *karma*, *bhakti*, and *jnana* yoga; Lidell et al., 1983) lent me a meaningful learning process. For instance, through the ethical, postural, breathing, sense withdrawal, and meditative practices of *raja* and *hatha* yoga, I learned to self-regulate the various physical, cognitive, emotional, and behavioral processes happening within the body-mind complex in its interaction with the environment; Through *karma* yoga, I submerged myself in the selfless service of giving and expecting nothing in return, realizing that giving means receiving if one is aware of it; Through *bhakti* yoga, I delved into the path of unconditional love and devotion to be devoid of myself yet with full devotion, attention, care, and love to the task at hand regardless of the outcome; Through *jnana* yoga, I intensely searched for, by self-inquiry, answers to transcendental questions such as the who, why, and what for I am. Lastly, I could not end this summarized personal disclosure of yoga-related benefits without mentioning how my exposure to yoga changed my perception and conception of reality. Though this shift in perspective was later on confirmed, furthered, and deeply experienced and embodied through mindfulness meditation, it really initiated and seeded within me through my first intense yoga meditative practices. In this process of witnessing my mind and body through meditation, I became highly aware of the fleeting impermanent reality, deep down realizing that everything we perceive through our senses and experience within the mind-body complex (e.g., thoughts and emotions) is subject to the law of change. Being a non-evaluative witness of the content of my mind (e.g., thoughts and emotions) with acceptance positioned me first further away from it as if it were an external event different from me. Thus, the “I”, was progressively less identified with whatever the content of my mind was (e.g., thoughts, emotions) allowing thoughts and emotions to emerge but also dissolve in continuation. The more I engaged in such a witness observation, the more I could feel as if the distance between the “I” and the mental-emotional occurrences increased, the frequency and fluency of the latter reduced, and a greater experience of peace and tranquility emerged coupled with increasingly subtler and subtler sublime sensations. As the practices went deeper the inquiry process between each practice increased as to what, in actuality, the “I” is. if the “I” is not the content of the mind, nor the thinker, nor the feeler, would it be the witness of all it? Who am I? Swami Vishnudevananda signals straightforwardly the way towards the answer to the question:

When the surface of a lake is still you can see the bottom very clearly, but it is impossible to do so when the surface is agitated by waves. In the same way, when the mind is still with no desires and no thought waves you can see your Self. That is called 'yoga' (Vishnudevananda, 2011, p. 309).

In *Samkhya*, which stands as one the main philosophical foundations of yoga, this Self, the actual Self, is coined by the yogis *purusha*, the infinite never changing pure consciousness, while the ever-changing reality *prakriti* (Lidell et al., 1983; Satyananda, 2013). Through meditation, I immersed myself in the pure essence and meaning of yoga—defined by the sage Patanjali, in accordance with the above-mentioned Swami Devananda’s words, as stilling the mind from its various oscillations (Gard et al., 2014; Satyananda, 2013)—and into the discrimination between *prakriti* and *purusha*. In that process of discernment laid the basis of an immense

change in my conception of the sensorially perceived reality, which gradually far away from real started to reflect an illusion, to which I became aware I was unconsciously attached and/or identified with in a wide range of forms and to various degrees of extent. At that point, it sounded to me contradictory and paradoxical that a reality that is constantly changing (i.e., *prakriti*) could be defined as real, authentic, or truthful. Then, what would it be the advantage of identifying with and/or attaching to that which never remains the same and sooner or later is bound to disappear (e.g., body, mind, memory, thoughts, emotions, physical and mental qualities, human beings, wildlife, houses, cars, sensations, feelings, family, nationalities, religions, conditions, states, etc.)? In my experience, from identification with and/or attachment to *prakriti* springs the never-ending circle of pain and pleasure.

The cultivation of a non-judgmental and acceptance-based witness attitude not only during my meditations but in all areas of my life played a crucial role in developing discrimination between *prakriti* and *purusha*. This practice over time brought me closer to the *actual yoga* towards Self-realization and my current belief that, beyond matter, the isness of my truest Self lies within an actual reality unaffected by the law of change pervading everything and to which everything belongs (e.g., *purusha*): “spirit or pure consciousness in man is whole, without division, infinite in its nature, inactive and unchanging...the same spirit is found in everything...from mineral to man” (Devananda, 2011, p.6). Through nurturing the aforementioned witness attitude, as when someone observes the traffic from the terrace rather than from inside the car, I increasingly became more aware of my maladaptive behaviors and developed my resilience to better cope with adversity by dis-identifying to a greater extent with my *prakriti*-related concerns. In this personal evolutionary process, which is still ongoing and in which various ups and downs have occurred, I have progressively become less identified with *prakriti* for the benefit of being more connected with *purusha*. As part of this shift in perspective and identification, I am highly aware that nothing “I” have accrued is mine, nor the vehicle and its driver that symbolizes this body and mind currently involved in writing this dissertation, nor anything I will be accruing including this potential PhD work. This entails the belief that I will not be carrying anything I am and I will manifest in matter to the other side of it when returning this borrowed body to mother earth. However, such a conviction does not exempt me from having responsibility within the manifested world (i.e., *prakriti*) but rather signifies an even higher motivation in terms of performing meaningful and righteous actions with myself and others; maintaining and further developing equanimity and awareness along with a non-judgmental and acceptance-based witness attitude; keeping my commitment to yoga and holistic therapies as a constant in my daily life while disseminating it across different settings and communities; contributing to the research fields of yoga, other holistic therapies, neuroeducation, and well-being and its curricular inclusion within relevant educational providers; engaging in selfless service, living a purposeful life in alignment with my spiritual pursuits, and as part of the latter deepening into the experiential understanding and realization of true happiness, inner peace, and unconditional love.

Nonetheless, as may have been already anticipated by the preceding contents, the findings conveyed through these personal exemplar responses entailed a different approach and attitude towards the act of doing compared to other previous results I yielded. Along these lines, attention to the final outcome with its implicit future projection ahead of the now progressively ceased to be the main ultimate purpose for the benefit of, instead, shifting the emphasis of mindfully focusing on the process of accepting, living, and experiencing non-judgmentally the present moment as it was unfolding it to me with a unique non-dual contentment. Such a

unique contentment, which I first understood within the boundaries of being content with whatever physical, cognitive, emotional, and spiritual change I would be experiencing at any given moment through my yoga lifestyle, was later on magnified, through the lenses of extensive *vipassana* practice, encompassing also the wedding of sharpening awareness with equanimity. Needless to say that since I decided to cross over the threshold illumined by the consciousness department doorway, I have encountered various turns and ups and downs. However, the awareness that this is a way of no return has never abandoned me.

The extraordinary impact that my exposure to yoga induced within me as a subject recipient of subjective experiences appeared not to suffice my positivistic side in search of confirming objectively what I proved subjectively. Probably, this was still fuelled by reminiscences rooted in my previous experiences as a competitive athlete and ardent student musician looking for concrete objective results and performances. Thus, eager also to rigorously communicate, upon relevant investigation, about the numerous benefits of yoga to a research, educational, and general audience, I decided to commit to the path of yoga research by pursuing postgraduate studies in Kinesiology at Bowling Green State University (BGSU, States). Throughout the 2-year master's degree at BGSU and its wide variety of research courses, I diligently endeavored to acquire the necessary skills that would allow me to contribute to the field of yoga research. The effort well paid off over the course of the first year and a half, whereby I could proudly tell I had completed with excellence almost the entire postgraduate curriculum. This included courses such as research methods, advanced research methods, statistics, applied sports psychology, and exercise physiology. In all of these courses, which I always related to yoga research topics for any of the required written assignments, my learning process was exclusively guided to become accustomed to writing papers following the tenets of the traditional scientific method. Back then, I probably did not even truly know that there were other research perspectives and approaches other than those derived from the quantitative method for I believe I cannot recall in any of my lectures a single mention of other research possibilities. Certainly, but unknowingly, I was regarding and adopting the quantitative method as infallible without even inquiring into the reasons for it or its suitability to address my research topic, questioning any of its foundations, and really understanding what it is and how it came about. I continued moving in this one-sided unconscious direction until one day my advisor gave me an article written by Slife (1998) that completely changed and opened my mind and consciousness about research.

Through this article entitled "Raising Consciousness of Researchers: Hidden Assumptions in the Behavioral Sciences" (Slife, 1998), I learned about the epistemology and ontology of science, the modernist (i.e., atomism, materialism, universalism) and postmodernist (i.e., radical holism, lived experience, contextuality) assumptions on which quantitative and qualitative methods respectively are grounded, and deeply reflect onto their connections with my selected field of research (i.e., yoga). Through extensive reflections, I became aware of how well postmodernist assumptions resonate with the essence and method of yoga through which knowledge is defined in and derived from antithetical manners in contrast with the scientific method. I strongly realized the relevance of connecting with yoga practitioners' lived experiences, not only for a greater understanding of the potential yoga-related effects that could be found quantitatively but also to capture other occurrences that may spring from different sources to the splice of rationalism and empiricism. Throughout this process of questioning and inquiring into my research foundations for the first time in conjunction with those of yoga, I attempted to somehow reconcile the emergent conflict between concomitantly positioning myself as both an objectivist and a subjectivist for providing a more complete contribution to the field of yoga research.

Such a process is described in detail in my previous master's capstone research project (Bartos et al., 2015), whereby the adoption of a mixed methods approach was the final product of a conscious decision resolving my postmodernist/modernist research dilemmas.

Despite being highly motivated to pursue further academic studies in the context of a PhD in America, a relevant setback prior to the aforementioned process of questioning my research assumptions sent me back to Europe upon completion of my master's degree. For the next two years, I worked in Norway as a full-time physical education, Spanish, and guitar high school teacher at Children's International School (CIS). Throughout this period, my commitment to yoga continued not only integrated within my personal lifestyle but also in terms of sharing it with my closest communities. As part of such dedication, I included yoga within the physical education curriculum of all high school grade year levels at CIS while imparting it extracurricularly for all CIS-interested teachers. In executing this labor, I felt better equipped for I was aware that my inner realization of the numerous benefits of yoga was in resonance with the increasingly growing research evidence I thoroughly reviewed at BGSU endorsing it in a variety of settings, populations, and health and well-being contexts. In addition, in my holiday time away from CIS in France, I completed an advanced teacher training yoga certification and my first intense mindfulness course named *vipassana*. Even before I started my master's degree in America at BGSU, I had heard of mindfulness and especially *vipassana* with increasing curiosity. Furthermore, along the way of searching yoga articles for my master's degree courses, mindfulness papers appeared to me repeatedly as well. Back then, not only did I use this knowledge to create a novel mindfulness training project for athletes but also to pre-conceive the idea of a potential intervention combining and/or comparing yoga and/or with mindfulness components for health and well-being purposes. Despite time constraints in America prevented me from developing it further as part of my master's research project, the idea was not left in oblivion and made greater sense to me a posteriori.

My first *vipassana* retreat was a breathtaking experience that I will never forget. The 10-hour-10-day meditation course signified a journey that firmly strengthened my yoga foundations and through which I gradually felt within myself the impermanence and duality of reality in various forms and stages. The events may be tentatively overall outlined as part of multiple continua ranging from gross to subtle, earthy to gassy, fullness to emptiness, totality to nothingness, darkness to lightness, heavy to light, movement and blast to stillness, separation to union, doing to not doing, excruciating pain to sublimated ecstasy, attachment to the pleasant to aversion to the unpleasant, past-present-future, and from the manifested to a touchy glimpse of the unmanifested. Just the mere act of quietly sitting still and uprightly in full awareness of my mind and body, an activity that could be well categorized through some materialistic lenses as doing 'nothing', opened to me a window of true knowledge, insight, and wisdom that reflected a conscious symbolism of everything that I had encountered in my daily life. In other words, a doorway into the who I am, who I am not, what the nature of the reality we perceive is, and how we can liberate ourselves from the never-ending pleasure-attachment-happiness versus pain-aversion-suffering fluctuation that typically dwells within human beings' experiences. The method of *vipassana*, commonly referred to as *the art of living*, revealed to me the relevance of cultivating one of the most important qualities required in the process of seeking answers to the previous transcendental queries, that is to say, equanimity.

Along with my school duties and yoga formation and teaching, during my two-year Norwegian stop, whenever I could, I kept my research activities alive in the field of yoga research preparing conference

presentations and potential manuscript submissions with my former supervisor from America remotely. As a result of such work and ensuing scholarly connections, an opportunity to move to New Zealand to initiate PhD studies at the University of Waikato emerged in the midst of my second year living in Norway. Although I was fully immersed, well-accommodated with a permanent working position, and very satisfied with my personal life in Norway, an inner voice kept telling me that I had to resume the path I initiated in America to become a researcher and contribute to the field of yoga research and holistic therapies for health and well-being promotion. Therefore, I did not hesitate to hand in my notice at CIS and prepare myself to embark upon PhD studies in New Zealand. Not long after accepting the PhD offer of place from the University of Waikato, still in Norway, I re-connected with Pilar Posadas, a long-term friend I had not seen since I left Europe to relocate to America.

Since we first met when I was a second-year undergraduate sports science student and student musician, Pilar was an inspiration and mirror of two of my true greatest passions at the time: languages and music. Later on, however, our professional paths intertwined even more as both parties, though unknowingly to each other for a while, walked intensely and deeply through the path of yoga. In a similar fashion to what I had carried out at CIS as far as yoga dissemination is concerned, Pilar—a professor of pedagogy and singing of the Royal Conservatory of Music Victoria Eugenia (Granada, Spain), translator, and advanced certified yoga and mindfulness teacher—has also been integrating yoga and mindfulness at this music institution. In addition to teaching several yoga and postural alignment courses adapted for music teachers and musicians, the same academic year we reconnected, Pilar started implementing a novel program she created based on yoga, mindfulness, positive psychology, and emotional intelligence at the same Royal Conservatory. The program was baptized as an *Art of Being* named CRAFT (Posadas, 2019), the acronym of which stands for the following five Spanish terms synthesizing its five elements: Consciencia (i.e., Consciousness), Relajación (i.e., Relaxation), Atención (i.e., Attention), Felicidad (i.e., Happiness/Fulfillment), and Transcendencia (i.e., Transcendence). CRAFT: The Art of Being, reflected the long-lived experience of the developer as an artist ardently involved, from a very young age, in the learning and teaching of the ancestral practices of yoga and mindfulness but also inspired by the tenets of the modern psychological approaches of emotional intelligence and positive psychology (Posadas & Bartos, 2022). Similarly to what happened to me through my deep involvement with yoga and mindfulness, Pilar experienced first-hand how useful the practices springing from these four disciplines were in terms of developing herself as a human being; fostering true inner happiness, holistic well-being, and intrinsic human abilities and values; as well as coping with her personal and professional daily life problems including those particularly related to her lived experiences as a student and professional musician. Therefore, in a similar fashion to what I was doing at the time as far as bringing yoga to the forefront of the physical education study plan at CIS, she decided to make the necessary efforts to integrate CRAFT as part of the academic curriculum of the Royal Conservatory of Music of Granada for the benefit of the student community. The program was initially imparted as a short version called the *CRAFT's 7 mindful minutes* for only seven minutes in the subjects English for Musicians and Chamber Music during the academic year 2016/2017. The CRAFT seven mindful minutes experience was widely acclaimed amongst the student body and Pilar's proposal for integrating the CRAFT program as part of the conservatory's curriculum as a CRAFT-based elective subject of Mindfulness was well-received and accepted by the board of directors. As for all elective

subjects, the CRAFT-based elective subject of mindfulness would be imparted once a week for one hour during the academic year 2017-2018.

Along with this educational initiative, Pilar had put forward a research project application to the Regional Government of the South of Spain to investigate the health and well-being benefits of this new application of the program with researchers from the Department of Experimental Psychology of the University of Granada. The research project was approved and funded for the academic year 2017/2018 and Pilar invited me to be part of the research team just a few months before my incorporation at the University of Waikato in March 2018. Indeed, I could not imagine another project that could better match my previous lived experiences in the fields of arts, music, yoga, and mindfulness than the one conceived by the person that possibly best mirrors exactly such a multidisciplinary background. Hence, coming to terms with Pilar and the CRAFT program could not be easier and I therefore eagerly started contributing to the CRAFT research project with my best endeavors alongside paving the way towards my upcoming PhD journey at the University of Waikato.

Working remotely for the CRAFT-based research project from New Zealand while developing a full PhD research proposal at the University of Waikato turned out to be a challenging task. In addition to focusing on two research projects simultaneously, my commitment to the University of Waikato included also teaching Spanish classes for the Spanish department, yoga lessons at the recreation center, and serving as a teaching fellow for a translation course I was in charge of. My proposed PhD investigation in the Faculty of Arts and Social Sciences of the University of Waikato was consolidating it to investigate the influence of yoga on the health and well-being of university students through a mixed method design. This was in partial alignment with the initial research proposal I submitted when I was still in Norway and the previous intricate reflections during my master's degree in America that ended up in the adoption of a mixed methods design to better encapsulate the whole essence of yoga. Notwithstanding, deep down I felt there were parts in the PhD research puzzle I was involved in that either were missing, impeding, or not fitting in the way I would have desired. Despite being aware of the various hindrances, I kept moving ahead with my PhD work at the University of Waikato obtaining along the way ethics approval and confirmation of candidature with excellence. However, when I was on the brink of commencing data collection, I realized that I was not convinced let alone pleased with the research I was about to conduct nor with other eventualities surrounding it. Thus, under such circumstances, I decided to suspend my enrolment and take a temporary break to make up my mind.

Throughout that process of confusion, I met various professors from different universities in New Zealand and Australia looking for advice and potentially a change in various aspects of my research design. Amongst them, Professor Chris Krägeloh at the Department of Psychology and Neuroscience of AUT stuck out to me not only for his magnificent expertise and talent as a mindfulness researcher but also for his humbleness and exquisite human values, arguably, in my view, rarely found anywhere but particularly in academics. As I previously mentioned, the idea of mixing and comparing yoga and mindfulness components as part of a potential research design was already at the front of my mind in the midst of my master's degree at BGSU. The idea grew stronger over time as a result of my subsequent experiences with mindfulness, the CRAFT program, and the need for further longitudinal research in alternative and complementary therapies including active control groups. I rapidly sensed that Chris could be a perfect fit for that potential research scenario for I could rely on my yoga expertise but not much as far as mindfulness-based research was concerned. Chris openly listened to such an idea viewing realistic chances to move forward with a novel contribution to the pertinent

literature within the framework of a PhD. Certainly, meeting Chris at that moment was highly providential and a breath of fresh air into the critical moment I was experiencing within the PhD journey I had already undertaken. Therefore, with renewed enthusiasm, I submitted a PhD proposal at AUT in accordance with the aforementioned research topic and under the guidance of Chris Krägeloh as a chief supervisor along with a doctoral AUT scholarship application.

Thereafter, in a period of questioning and doubting about professional and personal affairs, I decided to travel to India and stayed there for 3 months at various locations. The trip included a long stay at the Bihar School of Yoga, whereby I immersed myself in voluntary and selfless service for the ashram; a fortnight in Varanasi where I also caught up on CRAFT research-related work remotely; and a stop at a meditation center in Bodh Gaya in which I completed my second 10-day mindfulness *vipassana* retreat. From India, I returned to Spain to visit my family and take care of duties regarding the CRAFT program. Not long after I landed in Spanish terrain, I heard from AUT in succession, thrilled to learn that I was awarded first, an offer of a place, and second, a Vice Chancellor's Doctoral Scholarship to undertake PhD studies at this university. I could not be happier with the outcome and filled with renewed joy and energy I started planning my come back to New Zealand. However, as it will be next explained, a series of unforeseeable events prevented me from making such a move.

The original objective of this PhD investigation was to examine the influence of yoga and mindfulness on the health and well-being of higher education students through a mixed methods approach. This was explicitly stated in the initial proposal I submitted before embarking upon PhD studies at AUT. Along the lines of executing this original plan, Chris and I had already discussed the possibility of conducting this research at AUT with participants from various faculties that would be involved in either a yoga (experimental group 1) or a mindfulness (experimental group 2) program and participants from the School of Sports and Recreation who would serve as an active control group. However, urgent family circumstances followed by the unexpected emergence of the COVID-19 pandemic and ensuing restrictions did not allow me to travel to NZ and start this original idea, also conceived as part of the preliminary research work I completed at the University of Waikato. Therefore, since I accepted the AUT doctoral scholarship I was awarded and officially formalized my PhD enrolment, I began to work remotely with Chris towards reconfiguring this research based on the possibilities I had available in Spain. As already conveyed, since 2017, I have been working closely with Dr. Pilar Posadas and other researchers from the University of Granada on a research project funded by the Regional Government of the South of Spain. This project was conceived to investigate the well-being effects of CRAFT among tertiary student musicians following the program in the context of CRAFT-based elective subjects imparted at the Royal Conservatory of Music of Granada, Spain. Moreover, similar research projects were further approved and funded by the same governmental institution in the subsequent academic years before the onset of the COVID-19 pandemic. As a result, up until I started my PhD, there was already a substantial amount of data collected relative to these projects for which I progressively became the main researcher. CRAFT, as a program highly based on yoga and mindfulness, and the aforementioned research projects, involving higher education student musicians, shared a lot of commonalities with my original research idea. Therefore, Chris and I decided to work on reconfiguring a PhD study with the CRAFT program as the main independent variable (replacing both the initially conceived yoga and mindfulness programs), while keeping the original idea of employing both quantitative and qualitative methods. To that end, the initial reaction was to work first with the data that was

already collected in previous CRAFT-based investigations linked to the above-mentioned research projects. Along these lines, the preliminary PhD objective was to ascertain through examining these data closely whether CRAFT could be a feasible intervention to be implemented as part of a large main PhD trial to enhance tertiary student musicians' well-being and academic experience. However, the unexpected emergence of the COVID-19 pandemic led to the rapid design of a serendipitous line of research, prioritizing the exploration of the feasibility phase of CRAFT from new data collected and analyzed in the context of this unprecedented event.