

**Investigating the impact of the COVID-19 pandemic on psychologists' professional quality of life
in Aotearoa New Zealand.**

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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 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.”

Signed: *Jodie Rahman*

Date: *9/11/2022*

Abstract

Psychologists are at known risk of work-related stress, secondary trauma, and burnout, due to their work with people experiencing trauma, mental health, and other difficulties. The current COVID-19 pandemic has increased stress and anxiety for communities around the world and subsequently, increased demand for mental health services. This study aims to examine the impact of COVID-19 on psychologists' professional quality of life, personal psychological symptoms, and work-related stress. It expands on previous burnout and quality of life studies amongst psychologists by further exploring the influence of COVID-19.

A total of 110 registered psychologists were recruited via the communication channels of the various psychological institutions, including the New Zealand Psychological Society and the New Zealand College of Clinical Psychologists. The data collected included psychologists' symptoms of Compassion Fatigue and Satisfaction, Psychological Distress, COVID-19-Related Stress and Resilience. Additionally, their professional and personal circumstances during the third year of the pandemic were considered.

The results showed that over 80% of respondents either experienced a significant increase in work and caseload intensity, or it remained the same. New Zealand psychologists reported that they received little to no additional support to help meet their professional and personal obligations during this time. High rates of Compassion Fatigue and low Resilience were reported. In addition, three factors were identified as significant predictors of Compassion Fatigue: COVID-19-Related Stress, Years' Experience and Working with High risk Clients. In contrast, high Compassion Satisfaction scores were reported, and approximately 95% of respondents indicated that they had no intentions of leaving the profession in the foreseeable future.

As Compassion Fatigue continues to be a concern within this profession, the current findings advocate for increased professional support, for example, additional supervision, encouraging psychologists to be more open about their struggles, implementing standardised practices for monitoring levels of burnout and stress, maintaining minimum safe staffing levels, and recruiting additional psychologists in order to match the demand. Considering the importance of this service to mental health, it is crucial to support the people who provide it.

Key words: Psychologists, COVID-19, Pandemic, Compassion Fatigue, Professional Quality of Life, Depression, Anxiety, Stress.

Introduction

COVID-19 Lockdowns and Restrictions

The global coronavirus disease (COVID-19) was identified in December 2019. In late January 2020, the World Health Organization (WHO) had labelled the outbreak as a public health emergency of worldwide significance (WHO, 2020). Many countries enforced stringent measures to contain the spread of the virus. These included social distancing, closing schools and businesses considered as nonessential, and enforcing stay-home restrictions (Thu et al., 2020). COVID-19 has been considered one of the most severe worldwide pandemics encountered in recent history (Patterson et al., 2021). As the spread progressed, comparisons have been made to the devastating influenza pandemic of 1918 (New Zealand History, n.d.). Aotearoa New Zealand implemented a four-tiered alert level system to manage the outbreak (New Zealand Medical Journal, 2020). On 23 March 2020, the Aotearoa New Zealand government declared a Level 3 emergency and, within 48 hours, moved to a complete Level 4 lockdown where the entire nation went into self-isolation (Unite Against COVID-19, n.d.). This included the closure of all non-essential businesses, with only primary production, food distribution, health, and emergency services able to operate in person (Unite Against COVID-19, n.d.). Psychologists were considered essential but required to work remotely, with all out-patient mental health and counselling services conducted via teletherapy, the first time many psychologists used this format (New Zealand Psychologists Board, n.d.).

The COVID-19 response in Aotearoa New Zealand has been widely considered to be one of the strictest and most effective in managing the spread of the virus. Since the beginning of the pandemic in early 2020, Auckland, New Zealand's largest city, has spent a total of approximately 188 days (over six months) at alert Level 4 or 3 (Unite Against COVID-19, n.d.), adding its name to the list of cities with the longest lockdowns in the world (Mayron, 2021). Aotearoa New Zealand then moved to the Protection Framework (traffic light system), from December 2021 to September 2022. At Red, capacity limits were enforced for in and outdoor gatherings, and social distancing and vaccination passes were a requirement. These public health precautions allowed for the reopening of early childhood programmes, schools, and Kura, although people were still urged to work from home (Unite Against COVID-19, n.d.). In mid-April, New Zealand moved from Red to Orange, which provided increased flexibility on gathering limits and movement until mid-September 2022 (Unite Against COVID-19, n.d.). Psychologists were able to practice at all levels of the traffic light system, provided that QR codes were prominently displayed, contact tracing records were kept, and risk assessments were done. The provider was responsible for assessing health risks and determining whether they were significant enough to continue operating under restrictions, (New Zealand Psychologists Board, n.d.), for example, via telehealth. Aotearoa New Zealand has primarily been safeguarded from the rapid spread of the virus as a result of responding quickly and implementing prudent government strategies. However, an increase in mental health difficulties has also been observed during this period (Every-Palmer et al., 2020).

Impact of COVID-19 on Aotearoa New Zealanders' Mental Health

In July 2020, a literature review published by New Zealand Ministry of Social Development identified populations at greater risk of experiencing psychological difficulties during the pandemic based on previous research. It reported that being in quarantine and isolation, two common methods of disease containment, can be traumatic for families (Anderson et al., 2020). Psychological effects, including post-traumatic stress, depression, stress, emotional dysregulation, insomnia, low mood, irritability, annoyance, and anger, have been reported by many families, with symptoms continuing even after the isolation period (Brooks et al., 2020). In a recent New Zealand study of residents subject to Managed Isolation and Quarantine (MIQ), some reported experiencing such effects, while others found that being mentally prepared to enter isolation made the experience less stressful (Gray et al., 2022). These residents stated that accurate and consistent communication and information from government health officials assisted them in coping better with the situation. A study in China also found that residents with higher resilience attributed it, in part, to having clarity about COVID-19 and in understanding local quarantine measures than those who did not (Shen et al., 2020).

The rapid spread of COVID-19, with symptoms ranging from mild to fatal, has resulted in widespread fear of the pandemic (Ministry of Health, 2022; Every-Palmer, et al., 2020; Officer et al., 2022). With the most recent COVID-19 variant, Omicron, the country saw case numbers double every two to four days. As of mid-March 2022, there had been 206,405 cases reported since its outbreak (Ministry of Health, 2022). Throughout the pandemic, increased fear and anxiety of the virus, death, illnesses, international disruptions, closed borders, restricted trade, financial instability, and many other factors contributed to the rise in mental health difficulties (Every-Palmer, et al., 2020; Officer et al., 2022). Hospitals also saw a rise in self-harm presentations and ambulance dispatches relating to mental health issues (Officer et al., 2022). Reduced family, and social contact and fewer recreational opportunities reportedly played an important role in this decline (Bell et al., 2022). According to Statistics New Zealand (2021), the percentage of people with poor mental wellbeing increased from 22 percent in 2018 to 28 percent in 2021.

Some groups within the population reported higher rates of mental health issues. One example is frontline healthcare workers. During the pandemic, they reported significantly higher rates of fatigue, social detachment, and anxiety when caring for patients with fevers. In addition, they experienced difficulty concentrating or making decisions, which resulted in a decline in productivity, a reluctance to work and thoughts of resigning from the profession (Brooks et al., 2020; Anderson et al., 2020; Every-Palmer et al., 2020). Another example is the elderly and those with pre-existing illnesses or disabilities. The extra measures taken to keep these groups safe, such as the reduction of participation in a variety of social activities (much less than when compared to the general population), reported to have perpetuated their sense of alienation, and increased their vulnerability to the myriad of other negative effects on their wellbeing (Anderson et al., 2020; Every-Palmer et al., 2020). Lastly, higher rates of poor mental

wellbeing were reported among single parents and people who identified as LGBT+ (Statistics New Zealand, 2022). According to Statistics New Zealand (2022), the percentage of individuals who reported feeling lonely increased from 39% in 2018 to 43% in 2021. This proportion increased from 27% in 2018 to 36% in 2021 for those aged 65 and older (Statistics New Zealand, 2022). Thus, since the COVID-19 outbreak, the pressures on mental health service providers have significantly increased, which is expected to continue throughout the pandemic (ASMS, 2021). In contrast, despite evidence indicating a decline in New Zealanders' psychological wellbeing since 2018, overall, most New Zealanders still reported being satisfied with their lives, with an average life satisfaction score of 7.7 out of 10 (Statistics New Zealand, 2022). This score remained unchanged since the 2018 survey. In addition, the number of New Zealanders lost to suicide has decreased significantly, with the most recent statistics showing the lowest rate in the past three years (New Zealand Parliament, 2022). There were 538 reported suicide deaths in the year, ending June 30, 2022, a decrease from last year's total of 607 and 628 the year before that. For three years in a row, the number of deaths by suspected suicide has decreased (New Zealand Parliament, 2022).

Impact on Psychologists

Prior to the pandemic, New Zealand psychologists were already thought to be at risk for burnout, with emotional exhaustion being the most frequently reported aspect of burnout according to research.. For example, the He Ara Oranga Report of the Government Inquiry into Mental Health and Addiction (2018) identified a shortage of psychologists in Aotearoa New Zealand (Rucklidge et al., 2018). This is believed to have put a strain on the mental health system, making it difficult for clinicians to treat the growing number of people who need help with mental health difficulties (Rucklidge et al., 2018). In 2021, the New Zealand Psychologists Board (n.d.) listed 3,682 registered psychologists with annual practising certificates. However, according to the New Zealand Medical Journal, the ratio of psychologists to those who could benefit from treatment was estimated at 1:312, and one clinical psychologist for every 145 patients suffering from a serious mental illness (estimated to be 5% of the population; Rucklidge et al., 2018). In addition, the Psychology Workforce Task Group (2016) reported that approximately 190 psychologists enter the workforce every year, however, nearly half of this amount (approximately 90 psychologists) also leave each year (NZCCP, 2017). Thus, Aotearoa New Zealand's mental health professionals continue to report an unsustainable demand and a lack of professionals to meet community needs (Cardwell, 2021).

Workload has been identified as one of the key contributors to Compassion Fatigue in New Zealand psychologists (Di Benedetto et al., 2014; McCormack et al., 2018; Kercher & Gossage, 2022). Compassion Fatigue has been defined as the cost associated with caring, empathy and emotional commitment when assisting those suffering (Figley, 2002). Burnout and Secondary Traumatic Stress (STS) are the two key factors of Compassion Fatigue (Stamm, 2010). Burnout is referred to as a state of

mental, emotional, and physical exhaustion as a result of prolonged exposure to emotionally taxing work (Di Benedetto et al., 2014), and STS occurs as a direct result of listening to clients talk about emotionally disturbing content (Canfield, 2005). This is the impact on the therapist when supporting traumatised victims which results in indirect exposure to traumatic content, thus distinguishing STS from burnout (Larsen & Stamm, 2008). Research shows that there are many stressful and traumatising events that psychologists are exposed to when providing therapeutic services, and this can lead to symptoms of Compassion Fatigue which can affect their mental, physical, and overall wellbeing (Sabo, 2011). In particular, psychologists who frequently work with traumatised clients display symptoms of psychological distress that resembles posttraumatic stress disorder. The nature of psychologist's work necessitates a service and care that can also put them at risk of developing not only Compassion Fatigue (McCormack et al., 2018), but other mental health issues as well.

Compassion Fatigue is also a strong predictor of depression, anxiety, and stress, and psychologists are no exception (Turna et al., 2021; McCormack et al., 2018). Pope and Tabachnick (1994) surveyed 800 psychologists and found that 61% had clinical depression, 29% expressed suicidal tendencies, and 4% reported attempting suicide. Almost one-fifth of those surveyed identified depression or unhappiness as the primary issue. In a more recent study by Victor et al. (2022), over 80% of psychologists had reported a lifetime prevalence of psychological difficulties, and 48% reported having a diagnosed mental disorder. According to a survey by the British Psychological Society (2016), almost 70% of psychologists and psychotherapists reported symptoms of burnout and high stress levels, with 46% experiencing clinical levels of depression (as seen in McCormack et al., 2018). Compassion Fatigue is associated with exhaustion, irritability, negative coping mechanisms such as alcohol or drug misuse, anger, diminished ability to feel empathy and sympathy, and a decreased sense of enjoyment or job satisfaction (Cocker & Joss, 2016). When a mental healthcare professional suffers from Compassion Fatigue, their ability to sustain ethical standards of care for their patients may be at risk (Sabo, 2011), and studies have shown that since the COVID-19 pandemic, there has been an increase in the risk of compassion fatigue in Aotearoa New Zealand's mental healthcare professionals (ASMS, 2021).

Preliminary research on the effects of COVID-19 indicates that psychologists are experiencing higher levels of Compassion Fatigue and other work-related stress (Langdon et al., 2021; Kercher & Gossage, 2022). An American study found that psychologists were busier than ever, with some reporting the highest rate of appointments held in the history of their practice (American Psychological Association, 2020). Psychologists needed to establish telehealth infrastructures to meet the growing demand for frequent appointments from existing patients and the increasing number of new patient inquiries. Contributing to this, psychologists also reported feeling anxious about COVID-19 and the effects of imposed restrictions (Rathod et al., 2020), and other economic factors (Every-Palmer, et al., 2020). Work-related stress, when combined with other pressures, results in increased symptoms of mental health difficulties (American Psychological Association, 2020; Langdon et al., 2021; Kercher & Gossage, 2022).

Varied Impacts of the Pandemic Experience
The Aotearoa New Zealand response to the COVID-19 pandemic has clearly had beneficial effects. For instance, the number of recorded cases and fatalities were substantially lower than in other countries. Between 3 January 2020 and 4 November 2022, New Zealand reported 1,832,894 confirmed cases of COVID-19 and 2,106 deaths, which is approximately 43.69 deaths per 100,000 people (WHO, 2022). When compared to Peru of 4,159,951 confirmed cases and 217,062 deaths, which is 658.33 deaths per 100,000 people, or the United Kingdom, with 24,155,154 confirmed cases and 210,680 deaths, which is 310.34 deaths per 100,000 people (WHO, 2022; Johns Hopkins University & Medicine, n.d.). Aotearoa New Zealand's commitment to containing the virus has contributed to the country's low bereavement rates, which in turn has alleviated some pressure on the mental health services, as several disorders, such as depression, anxiety or substance use are linked to the sudden loss of a loved one (Keyes et al., 2014).

Furthermore, Aotearoa New Zealand, health organisations have incorporated resilience and stress management training and initiatives to promote and increase employee wellness, growth, and performance (Ministry of Health, 2020). District Health Boards, primary care institutions, General Practitioners and allied health organisations, have recognised the importance of enhanced employee well-being communication, implemented resilience and stress training, and strongly enforced staying home when unwell. In addition, they provided Employee Assistance Programs, a combination of professional and personal counselling services, to support and enhance staff well-being, development, and performance. However, they also recognised that the medium and long-term impact of working with COVID-19 as healthcare professionals were yet to be determined and may necessitate new perspectives on how personnel are supported while working in the healthcare profession (Ministry of Health, 2020).

Another advantage is that the requirement to work from home resulted in a better work-life balance (Cartmill, 2020). Remote working was recognised as a critical tool for establishing work-life balance as early as the turn of the twentieth century (Hein, 2005). Working remotely enables a range of family duties to be fulfilled and is especially beneficial for parents of young children, as it enables them to nurse and watch over their children when they are unwell or need to be supervised, including during school holidays (Hein, 2005); this would appear to be an added financial benefit for parents who ordinarily would pay for assisted childcare. Additionally, working from home saves money on travel expenses and time spent commuting to and from work (Hein, 2005). Some surveys indicate that employees may choose to continue working remotely after the post-lockdown era because of the added benefits (Cartmill, 2020). For example, a recent MIT study shows that approximately 50% of people now work remotely (Brynjolfsson et al., 2020). An increasing number of organisations, including Facebook and Twitter, are allowing their staff to work remotely permanently, after demonstrating that quality work can be accomplished, and productivity can be increased, even in roles previously thought to be incapable of being done virtually. Lastly, other studies have shown that some experienced significant improvement in marital and family relations (Günther-Bel et al., 2020).

Aside from the negative effects already mentioned, the pandemic has had additional disadvantages. For example, not every family's experience was a good one. A Hong Kong study reported that staying at home during the pandemic led to increased mental health issues as a result of spending more time with family members (Wong et al., 2021). In addition, research indicates that working from home has had a negative professional impact on women in particular. Women are more inclined to take on additional household obligations while working flexibly, whilst men are more likely to focus on expanding their professional connections (Ibarra et al., 2020). Consequently, despite company practices to promote a better work-life balance, it has not necessarily led to a rise in the progression of women to senior levels, instead, it has resulted in a greater retention rate of women at lower management levels (Ibarra et al., 2020).

The Current Study

How psychologists are faring in Aotearoa New Zealand is less known. Demand for mental health services has risen in these uncertain and stressful times, as have pressures on healthcare workers (ASMS, 2021). Thus, the current study aims to explore the impact of COVID-19 on New Zealand psychologists' professional quality of life, and resilience. To the best of the author's knowledge, no recent studies have specifically examined the impact of COVID-19-Related Stress on Professional Quality of Life, Psychological Distress, and Resilience in New Zealand psychologists. This research seeks to fill this gap and facilitate the improvement of support to this vital workforce.

Hypotheses

In considering the impact COVID-19 has had on psychologists in other countries, it is hypothesised that: (1) New Zealand psychologists will be experiencing high levels of Compassion Fatigue, Psychological Distress and COVID-19 Related Stress; (2) New Zealand psychologists will be experiencing low levels of Compassion Satisfaction and Resilience; as a result, this workforce is at risk of psychologists leaving the profession; and (3) COVID-19-Related Stress would be a key contributor in increasing the prevalence of Compassion Fatigue and Psychological Distress, while simultaneously playing a role in the decrease of Compassion Satisfaction and Resilience levels.

Method

Participants

Participants were 110 registered psychologists with current practising certificates in Aotearoa, New Zealand. Of these, 99 completed the survey; 11 participants did not complete the questionnaire and were thus excluded as missing cases. In this sample, 92% were female, and 8% were male, with a median age range of 41 – 45. 82% identified as Pakeha (of European descent), 1% Māori, 1% Pasifika, 5% Asian and 11% from other cultural and ethnic backgrounds. 84% were married or in de facto relationships, and 16% were single, divorced, or widowed. In this sample, 48.0 % reported having no children under the age of 18 living in their home, 40.8% had two or less and 11.2% had three or more. The majority of this group (90.8%) did not provide care for other family members (e.g., relatives with disabilities or illnesses) during this time. More than half, (55.1 %) received little to no support with personal/family responsibilities (e.g., childcare and caregiving, household responsibilities), whereas 23.4% received some to adequate support and 21.5% received good to excellent support. Most respondents (67.3%) reported no additional personal stressors (e.g., health problems, housing or financial hardships, domestic violence, etc.), whereas 32.7% reported they experienced one or more additional stressors. Professional characteristics varied as shown in Table 1. Participants reported an average range of 11 – 15 years in practice. Although more than half stated they did not receive funding for professional development, over 95% reported receiving fortnightly to monthly one-hour supervision. Overall, this sample represents approximately 2.7% of the 3,682 registered and actively practising psychologists who held an annual practising certificate in 2021 (New Zealand Psychologists Board, n.d.).

Table 1

Professional characteristics reported in this sample (N=99)

	<i>n</i>	<i>%</i>
<i>Workplace</i>		
Government/health funded organisation/ACC	46	49.50
Private practice (group, self-employed or contractor, including medical centres)	42	45.20
Other (non-government organisation/schools)	5	5.40
Belonged to more than one of the above	6	
<i>Scope of Practice</i>		
Clinical psychologists	58	61.70
General psychologists	16	17.0
Educational psychologists	12	12.80
Other fields (counselling, neuropsychology, etc.)	8	8.50
Missing	5	
<i>Location</i>		
Worked in a major city	72	73.50
Worked in a small city or rural area	26	26.50

Measures

Outcome Variable – Professional Quality of Life Scale (ProQOL)

The Professional Quality of Life (ProQOL) scale by Stamm (2010) is widely used for assessing both Compassion Fatigue (CF) and Compassion Satisfaction (CS). Its purpose is to evaluate the positive and negative aspects of working in a helping profession. The ProQOL scale comprises three subscales: CS, Secondary Traumatic Stress (STS), and Burnout (BO), with the latter two comprising the CF construct (Stamm, 2010). The ProQOL presents 30 statements on a five-point Likert scale (1=Never, 5=Very often). A higher score indicates a greater level of CF and satisfaction. The Cronbach's alpha of 0.77 for BO indicated adequate internal consistency, STS was 0.83, and CS was 0.89 indicating high internal consistency. Studies by De La Rosa et al. (2018) and Heritage et al. (2018) have confirmed the validity and reliability of this scale. Notably, this measure was chosen to account for both negative (BO, STS) and positive (CS) professional experiences concurrently.

Depression, Anxiety, Stress Scale (DASS-21)

Psychological Distress was measured using the DASS-21 scale by Lovibond and Lovibond (1995). The instrument presents 21 statements, with 7 items for each subscale for Depression, Anxiety, and Stress, answered on a four-point Likert scale (0=never, 1=sometimes, 2=often, 3=almost always). A higher score indicated a greater level of Psychological Distress on the corresponding subscale. The Cronbach's alpha of 0.85 for Depression showed high internal consistency, and adequate for Anxiety (0.77), and Stress (0.76). The DASS-21 scale is widely recognised for its robust psychometric properties with well-established validity and reliability (Medvedev et al., 2020).

Connor-Davidson Resilience Scale (CD-RISC-10)

The 10-item Connor-Davidson Resilience Scale (CD-RISC-10) is an instrument for measuring Resilience (stress coping ability) (Connor & Davidson, 2003). CD-RISC-10 is assessed on a Likert scale (0 =not true at all; 4 = true nearly all the time). The final score is the sum of the responses to each item (range between 0-40). A high score indicates a higher level of Resilience. This measure has shown good psychometric properties and has been validated in studies by Nartova-Bochaver et al. (2021), Coates et al. (2013) and Notario-Pacheco et al. (2011). The Cronbach's alpha of 0.80 indicated adequate internal consistency.

COVID-19-Related Stress (CVRS)

The CVRS was developed for the current study specifically to assess the negative impact of the COVID-19 pandemic on those working in the mental healthcare sector. Five questions were based on the findings of a qualitative report by the British Psychological Society (2020), which assessed numerous aspects of the impact of COVID on psychologists, plus two questions were created by the authors. The measure

presents seven statements on a five-point Likert scale (0=not true at all, 4=true nearly all the time, see Appendix A). A higher score indicates a greater level of COVID-19-Related Stress. The reliability of this scale was established by Rahman et al. (in preparation), with a Cronbach's alpha of 0.83 which indicated high internal consistency. In addition, Kaiser–Meyer–Olkin (KMO) tests and Bartlett's tests of sphericity confirmed the adequacy of the data for an Exploratory Factor Analysis (EFA).

Survey Questions

The survey also asked about psychologists' personal and professional circumstances, which may influence their well-being and stress levels. The types of work and clients, therapeutic practices, supervision, and training available, and personal factors such as demographics, family and caring responsibilities and personal support were examined.

Procedure

Participation in the study was entirely voluntary, with participants recruited indirectly to protect their anonymity. The New Zealand Psychological Society and other psychological institutions, including the New Zealand College of Clinical Psychologists, were asked to distribute the survey to their members via email and social media invitations, which included a link to the online survey. All correspondence consisted of the researcher's contact information, inviting questions as needed, and referral information for support services was provided. No identifying information was recorded, and data was collected anonymously through Qualtrics and analysed using Jamovi. Informed consent was obtained from all participants after they were made aware of the purpose of the study. Participants were informed that they were not required to answer questions that caused them discomfort and may withdraw from the study at any time. Ethical approval was granted by the Auckland University of Technology Ethics Committee (AUTEK 21/184, 08/04/2022).

Data Analysis

All analyses were conducted using the software package Jamovi Version 1.6.23. ProQOL questions 1, 4, 15, 17 and 29 were reverse coded; DASS – 21 all items were recoded to: 1=0, 2=1, 3=2, 4=3, and each subscale total multiplied by two; and all CD-RISC items were recoded to: 1=0, 2=1, 3=2, 4=3, 5=4 and totalled. A reliability analysis was conducted for all the scales before further research. In addition, an Exploratory factor analysis (EFA) for the COVID-19-Related Stress Scale (CVRS) was carried out using Principal Axis Factoring extraction and Obliman rotation. Based on eigenvalues more than one, it showed that the unidimensional one-factor solution was justified with all factor loadings larger than .40. The Bartlett's Test of Sphericity ($p < 0.01$) and KMO Measure of Sampling Adequacy (above 0.5) verified that the dataset was adequate for this type of analysis.

Spearman's rho correlations were computed to measure the strength of association between COVID-19-Related Stress, Psychological Distress, CF, CS and Resilience. This test was chosen as the data was not normally distributed. A multiple linear regression analysis (MLR) was conducted to examine the impact that COVID-19-Related Stress, Psychological Distress, and key workplace characteristics had on CF. The dependent variable in this analysis was CF. Preliminary analyses were done to ensure there was no violation of assumptions. Multicollinearity was checked as several variables were correlated; however, with variance inflation factors (VIF) less than 5, this was not a concern. In addition, an MLR was conducted to determine what factors contributed to COVID-19-Related Stress, with CVRS as the dependent variable. Preliminary assumptions were met with all VIFs less than 5. Lastly, one sample t-tests were performed to determine how the outcomes of this study compared with those of prior studies and the general population.

Results

Descriptive Statistics

A summary of the mean values of each scale is provided in Table 2. These results show higher than baseline levels of CF, CS and COVID-19-Related Stress, and low levels of Resilience. Psychological Distress was within normal ranges. Some of the significant ways in which the pandemic affected psychologists' professional quality of life are depicted in Figure 1.

Table 2

Descriptives statistics of each scale (N = 99).

Variables	<i>M</i>	<i>SD</i>	Range	Normal range ^a	Mild range	Moderate range	Severe range	Extremely severe range
DASS -21 Depression	7.49	6.12	0-38	0-9	10-13	14-20	21-27	28+
DASS -21 Anxiety	4.79	5.6	0-18	0-7	8-9	10-14	15-19	20+
DASS -21 Stress	13.27	6.63	0-40	0-14	15-18	19-25	26-33	34+
CD-RISC Resilience	27.87	4.42	9-40					
CVRS – Covid stress	19.15	5.51	7-28					
				Low range ^b	Moderate range	High range		
ProQOL								
BO	24.54	5.18	3-40	1-19	20-27	28+		
STS	20.70	5.57	13-39	1-13	14-21	22+		
CS	37.61	5.76	22-50	1-33	34-41	42+		

Note. Normal = aligned with population mean; mild = above the population mean but below the typical severity.

Figure 1

Effects of COVID-19 lockdowns and restrictions on New Zealand psychologists (N = 99).

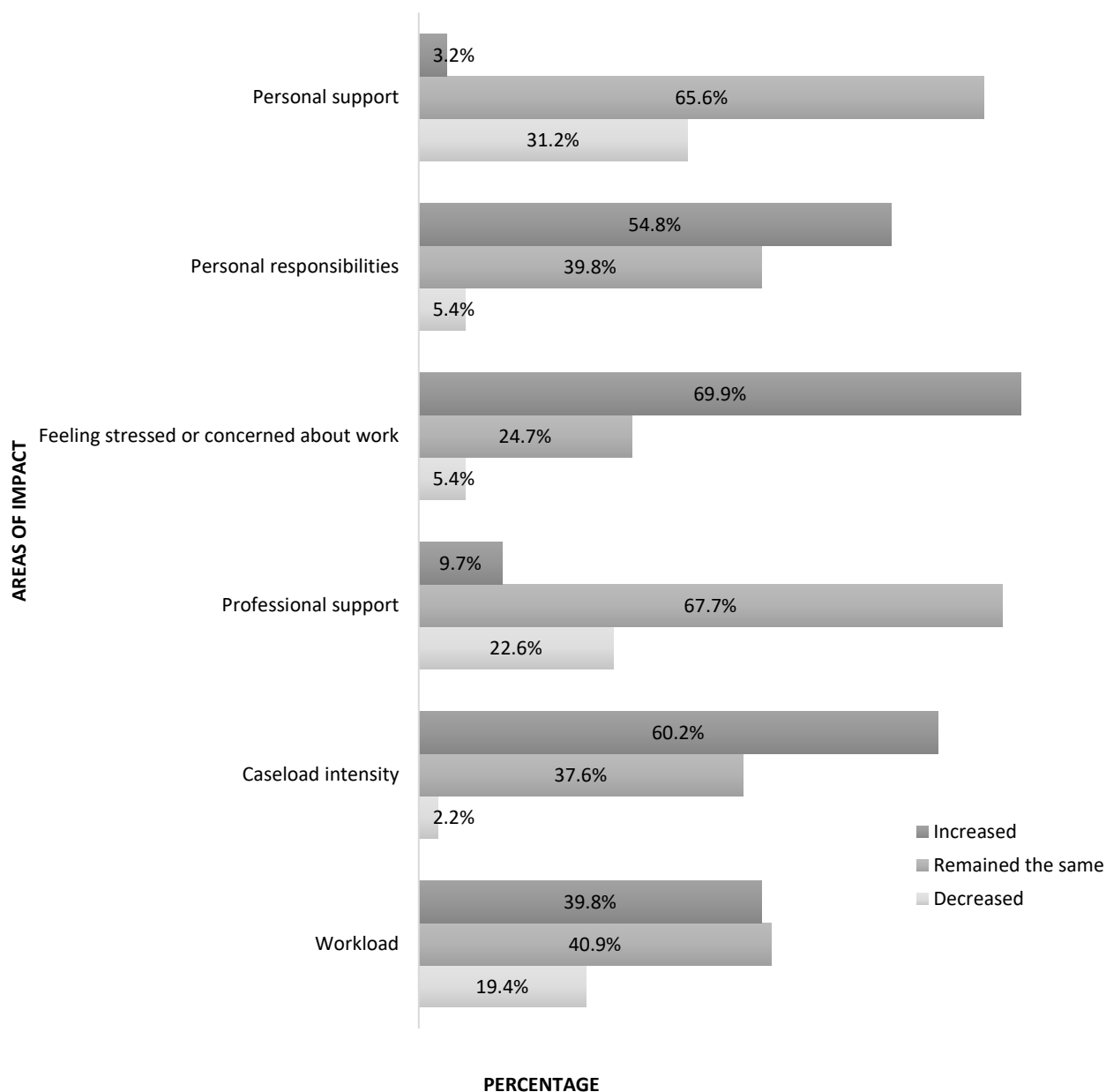


Table 3 shows the top 10 clientele during the pandemic. When asked about the work-related challenges experienced, the highest rated issues were with remote work and telehealth (82%), ethical or legal concerns relating to telehealth (for example, privacy of sessions from home or client's home, security of telehealth software) (77%), clients having technical difficulties or difficulties with access to technology (58%) and client's reduced income or ability to pay for therapy (44%).

Table 3*Descriptives statistics of top 10 client group (N = 99).*

Group	n	%
Moderate mental health difficulties	72	72.7
Trauma	67	67.7
Clients reporting self-harm	54	54.5
Mild mental health difficulties	53	53.5
Clients at risk of suicide	53	53.5
Children and young people	49	49.5
General adult practice	41	41.4
Intellectually impaired, neurodiverse or TBI	39	39.4
Adults at risk (from self or others)	39	39.4
Severe mental health difficulties	37	37.4

Correlation Analyses

To explore the relationship between COVID-19-Related Stress (CVRS), Psychological Distress (Depression, Anxiety, and Stress), CF (BO and STS), CS and Resilience, a Spearman's rho correlation analysis was conducted. The results, as shown in Table 4 indicate significant positive correlations between CVRS, Depression ($p < .001$), Anxiety ($p < .001$), Stress ($p < .001$), and CF ($p < .001$). Thus, reflecting that as one increased, so did the others. CS was negatively correlated with CVRS ($p = .013$), CF ($p < .001$) and Depression ($p = .002$); indicating that as CS increased, CVRS, Depression and CF decreased. Lastly, CS and Resilience were positively correlated ($p < .001$). We also explored the relationship between CF and the CVRS items. As shown in Table 5, significant relationships were observed with six items and one slightly above the threshold of significance, indicating a strong correlation between CF and COVID-19-Related Stress.

Table 4

Spearman's rho correlation coefficient between CVRS total score, Psychological Distress, Compassion Fatigue, Compassion Satisfaction and Resilience for psychologists in New Zealand (N = 99).

	CVRS	Depression	Anxiety	Stress	CF	CS	Resilience
CVRS	—						
Depression	0.386***	—					
Anxiety	0.362***	0.387***	—				
Stress	0.475***	0.474***	0.539***	—			
CF	0.479***	0.47***	0.39***	0.485***	—	-0.5***	-0.183
CS	-0.257*	-0.303**	-0.02	-0.106		—	
Resilience	-0.033	-0.194	-0.093	-0.145	-0.183	0.371***	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5

Spearman's rho correlation coefficient between CF and CVRS Items, and within CVRS Items (N = 99).

	CF	Q1	Q2	Q3	Q4	Q5	Q6	Q7
CF	—							
Q1 – Difficulty focusing on work whilst dealing with personal sickness, bereavement, stress or worry due to COVID-19.	0.36***	—						
Q2 – The lack of physical separation between work and home has made maintaining boundaries between professional and personal life difficult.	0.33**	0.42***	—					
Q3 – The lack of work-home separation has negatively impacted my family relationships	0.28**	0.36***	0.65***	—				
Q4 – The loss of informal support and face-to-face contact with colleagues - felt isolated, lacked confidence and motivation.	0.33**	0.26*	0.42***	0.28**	—			
Q5 – The prolonged impact of the pandemic on usual ways of working, have left feeling physically fatigued, emotionally drained and exhausted	0.53***	0.48***	0.42***	0.37***	0.41***	—		
Q6 – The lack of adequate access to some of self-care or stress-relieving activities increased levels of stress	0.24*	0.47***	0.36***	0.43***	0.36***	0.6***	—	
Q7 – Bad habits increased (alcohol consumption, recreational drugs, binge eating)	0.2	0.25*	0.28**	0.36***	0.26*	0.44***	0.5***	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Multiple Linear Regression Analyses

MLR was conducted to ascertain how much of a variance in CF can be explained by CVRS, Psychological Distress (DASS-21), caseload intensity, workload, working with high risk clients and years' experience. The results are represented in Table 6 and indicate that 42% of the variance in CF was explained by these variables. CVRS, DASS total, High risk clients and Years' Experience positively predicted CF. Contrary to expectations, Caseload intensity and workload did not significantly predict CF in this sample.

Table 6

Variables predicting CF (N=99).

Variable	<i>B</i>	<i>SE</i>	95% CI	β	<i>t</i>	<i>p</i>
(Intercept)	22.21	5.28	[11.71, 32.72]	0.00	4.21	< .001
CVRS	0.39	0.18	[0.03, 0.75]	0.22	2.17	.033
DASS total	0.31	0.06	[0.18, 0.43]	0.49	4.84	< .001
Caseload intensity	1.04	1.84	[-2.61, 4.69]	0.06	0.57	.573
Workload	-2.10	1.35	[-4.79, 0.60]	-0.16	-1.55	.125
High risk clients	2.34	1.10	[0.14, 4.53]	0.19	2.12	.037
Years' experience	1.32	0.59	[0.15, 2.49]	0.20	2.24	.028

Note. Results: $F(6,83) = 10.2, p < .001, R^2 = .42$

MLR was used to determine the factors associated with COVID-19-Related Stress. The results were significant, $F(8,73) = 7.28, p < .001, R^2 = .44$, indicating that 44.4% of the variance in CVRS was explained by the variables listed in Table 7. DASS-21, CF and caring for children u18 were significant predictors of CVRS. The results showed that as these variables increased, so did CVRS. Support with personal or family responsibilities was a significant negative predictor, that is, as this variable increased, CVRS decreased. Contrary to expectations, working with high risk clients, home location (within or outside of Auckland), supervision and employer support were not associated with CVRS.

Table 7*Variables predicting CVRS (N=99).*

Predictor	<i>B</i>	<i>SE</i>	95% CI	β	<i>t</i>	<i>p</i>
(Intercept)	17.99	4.72	[8.58, 27.40]	0.00	3.81	< .001
DASS total	0.11	0.04	[0.04, 0.18]	0.32	2.96	.004
CF	0.13	0.06	[0.004, 0.25]	0.24	2.06	.043
High risk clients	-1.03	0.65	[-2.32, 0.27]	-0.15	-1.58	.118
Supervision	-1.66	0.90	[-3.45, 0.12]	-0.18	-1.85	.068
Employer support	0.37	0.29	[-0.20, 0.95]	0.13	1.30	.196
Home location	-1.65	1.05	[-3.74, 0.44]	-0.15	-1.57	.121
Children u18	1.12	0.43	[0.28, 1.97]	0.25	2.64	.010
Personal/family support	-0.65	0.31	[-1.27, -0.03]	-0.20	-2.10	.039

We also investigated whether psychologists were considering leaving the profession as a result of decreased mental wellbeing. Our results showed that 62% of respondents intended to remain in practice until retirement and 31% intended to continue for another 6 – 15 years. Only 7% intended to leave the profession sometime in the next five years. Moreover, 71% of psychologists reported feeling proud of the work that they do, regardless of the impact of COVID-19.

Independent Sample T-Tests

Finally, one sample t-tests were used to determine how New Zealand psychologists compared to other populations. CF scores were high in this study, and this was comparable to last's year sample of 149 New Zealand psychologists (Kercher & Gossage, 2022), with burnout, $t(246)=0.32$, $p>.05$ and STS, $t(232)=0.96$, $p>.05$. However, it was significantly higher than a 2014 study by McCormick that included 224 New Zealand psychologists, burnout, $t(321)=6.16$, $p<.0001$ and STS, $t(135)=7.12$, $p<.0001$. CS scores were also high and similar to that of Kercher & Gossage, (2022), $t(232)=.05$, $p>.05$ and McCormick (2014) $t(318) = 1.06$, $p>.05$.

Average Psychological Distress scores were within normal range in this study. Depressive $t(230)=0.36$, $p>.05$, and Stress, $t(221)=1.24$, $p>.05$ symptoms were consistent with Kercher and Gossage's (2022) findings, indicating no significant differences. However, Anxiety symptoms $t(168)=1.98$, $p<.05$, had increased compared to Kercher and Gossage (2022). When compared with an Australian community sample (Crawford et al., 2011) psychological distress was significantly higher, Depression $t(138)=3.70$, $p<.001$, Anxiety, $t(882)=2.63$, $p<.01$, and Stress, $t(141)=7.14$, $p<.001$.

Lastly, Resilience scores were similar to that of Kercher and Gossage (2022), $t(228)=0.64$, $p>.05$. However, it was significantly lower than the averages reported in the McCormick (2014) study, $t(321)=3.69$, $p<.001$.

Discussion

While evidence shows that the New Zealand population has seen a rise in mental health issues during the pandemic, the extent to which this has affected those working in mental health services is unknown. The purpose of this study was to understand the impact of COVID-19 on Aotearoa New Zealand psychologists' professional quality of life. The present study focused on psychologists' experience in the third year of the pandemic and hypothesised that New Zealand psychologists would be experiencing high levels of Compassion Fatigue, Psychological Distress and COVID-19 Related Stress. In addition, it was expected that New Zealand psychologists experienced low levels of Compassion Satisfaction and Resilience during this period, as a result, this workforce could be at risk of psychologists leaving the profession. Lastly, it was hypothesised that COVID-19-Related Stress was a key contributor in increasing the prevalence of Compassion Fatigue and Psychological Distress, while simultaneously contributing to the decrease of Compassion Satisfaction and Resilience levels among New Zealand psychologists. The data partially supported these hypotheses.

Compassion Fatigue still an Issue

In order to ensure that their clients receive the best care possible, psychologists, like other mental health professionals continue to put their wellbeing at risk; however, they are struggling. The findings from this study indicated that New Zealand psychologists experienced higher levels of Compassion Fatigue whilst under COVID-19 lockdowns and restrictions. This was comparable to the results reported by Kercher and Gossage (2022). During this time, the majority of respondents reported having either the same or a larger workload. This resulted in longer wait-times (Bell et al., 2022) and the public experiencing increased difficulty with access to mental health services (Officer et al, 2022). For example, a respondent in Officer et al.'s study stated that their mother's call to the Mental Health Helpline had to go through two telephone conversations and wait of 25 minutes before anyone answered, "I understand that there is pressure on this sector due to not having enough service available . . . How many of our people have . . . ended their life because they haven't been able to talk to someone?" (2022, p.12.). Officer et al. (2022) reported that some people, even after a suicide attempt, did not feel they could seek help from mental health services due to it being so under-resourced.

Working with high risk clients was also found to be a significant predictor of Compassion Fatigue, with almost half of respondents reporting to have done so. This is unsurprising given that the effects of the lockdown contributed to the decline in the mental health of New Zealanders with pre-

existing conditions (Bell et al., 2021). Thus, clients who may not have been deemed a high risk before COVID-19 may have become so during the lockdowns and likely would have needed prioritising alongside the others who were already rated a high risk. In this study, six out of the top ten client groups were considered high risk. Increases in the complexity of caseloads were also observed in psychiatry reports, where an 86 percent rise was reported between 2018 and 2021. They noted an increase in referrals, severity and complexity across the board (ASMS, 2021). An unexpected finding of this study was that ‘years of experience’ was a strong predictor of Compassion Fatigue. According to the survivorship effect, people who are more susceptible to burnout tend to leave early in the profession, and those who have learned to adapt remain (Kercher & Gossage, 2022). For instance, according to a survey done by the Psychology Workforce Task Group (2016), 11% of practising psychologists aged 20-29 years indicated that they intended to leave the profession in the next five years; the same percentage of psychologists aged 60 years and older also indicated that they planned to leave in the same timeframe, but for retirement. This demonstrated that leaving the profession of psychology occurs predominantly early or late in a person's career. Thus, years of experience may be viewed as a protective factor for some (possibly because they are able to adapt), or a risk factor to others (because they are likely to burnout). Furthermore, studies suggest that the effects of Compassion Fatigue can go undetected and sometimes take weeks or years to surface (American Institute of Stress, 2017). In this sample, it is possible that the sentiment of ‘going hard’ progressively took a toll on New Zealand psychologists, and in time, years of experience would present as a predictor of Compassion Fatigue.

COVID-19-Related Stress on Compassion Fatigue

As demand on the workforce and insufficient resources to meet the needs of the community have significantly increased during the pandemic (Cardwell, 2021), it follows that COVID-19 is also a strong predictor of Compassion Fatigue. Each item on the COVID-19-Related Stress scale was strongly correlated with Compassion Fatigue, showing that New Zealand psychologists have struggled during the pandemic. Psychologists endorsed the following: (1) difficulties focusing on work whilst dealing with personal sickness, bereavement, stress, or anxiety due to COVID-19; (2) an impact on usual ways of working, leaving psychologists feeling physically fatigued, emotionally drained and exhausted; (3) a lack of physical separation between work and home has made maintaining boundaries between professional and personal life difficult; (4) loss of informal support and face-to-face contact with colleagues, resulted in feeling isolated, and lacking in confidence and motivation; (5) increased stress due to a lack of adequate access to some of self-care or stress-relieving activities, such as being unable to attend the gym, social events or other activities, or taking breaks from family responsibilities; (6) lack of work-home separation negatively impacted family relationships; and (7) bad habits increased (alcohol consumption, recreational drugs, binge eating). Given that psychologists were already thought to be at

risk of Compassion Fatigue due to the nature of their work, it is unsurprising that combined, with COVID-19 Stressors, these levels increased.

These results demonstrate that psychologists encountered similar professional and personal challenges as reported in the British Psychological Society (BPS) study, despite differences in lockdown periods between the United Kingdom and Aotearoa New Zealand (BPS, 2021; Geddes, 2021). According to the BPS, specific challenges as a result of the pandemic, included personal anxiety and uncertainty and difficulties adjusting to remote working. Many psychologists described their struggles to maintain focus at work while dealing with personal illness, bereavement, or pandemic-related stress and worry. This shows that psychologists were just as susceptible as anyone else to feeling apprehensive or uncertain about themselves, family, friends, or co-workers contracting the virus (BPS, 2020). The adjustment to remote working posed another challenge. For example, many psychologists described feeling stressed and frustrated due to inadequate professional workspaces and boundaries. There were concerns about client confidentiality when other family members were present; boundary violations, such as remembering to hide their caller identity when using their phones to call clients; and the secondary traumatic stress risk due to a lack of separation between professional and personal environments when handling severely distressed clients and information (BPS, 2020). Any variations in levels of Compassion Fatigue and COVID-19-Related Stress between these two studies may, in part, be attributable to the restrictions and length of lockdowns experienced.

The findings on COVID-19-Related Stress in this study have also been observed within the wider Aotearoa New Zealand population. For example, there have been reports of the following: strain on relationships as a result of people being compelled to live in uncomfortable proximity with others; maladaptive behaviours, such as overeating or excessive drinking being adopted as a coping measure; and additional stress as a result of not being able to exercise because of disruptions in routines or not having access to gyms. This was especially difficult for people who viewed exercise as a key stress management strategy or a ‘time out’ from life’s triggers (Officer et al., 2022). The similarities between the experiences of New Zealand psychologists and the general population demonstrate that psychologists, like everyone else, are just as vulnerable to the added stress brought on by the pandemic. However, as only 42 percent of the variance in Compassion Fatigue was explained by the above predictors, this suggests that there were other factors contributing to psychologists experiencing high levels of Compassion Fatigue during the lockdowns and restriction periods.

Resilience

Resilience levels were also impacted by the pandemic. Resilience is the process of successfully adjusting to adversity (Zautra et al., 2008). The findings in this study show that Resilience levels were significantly lower during the third year of the pandemic than earlier estimates (compared with

McCormick, 2014). Aotearoa New Zealand's strict public health approach (and its duration) may be associated with psychologists' reported difficulties. The psychologists most affected were those caring for children under the ages of 18 and managing work commitments while receiving little to no support. These challenges as explained by the BPS (2020) necessitated psychologists changing their working schedules, which meant working nights and weekends. This could become unsustainable in the long term, especially for those without additional support, which approximately 70 percent of respondents reported that they did not have. As social support has proven to increase resilience (Ozbay et al., 2007), it is unsurprising that a lack of it would contribute to decreased levels of resilience during the pandemic. One of many reasons for this may be the requirement to remain within one's 'bubble' (a term coined by the Aotearoa New Zealand government and widely adopted to denote individuals in close contact with each other, mainly household contacts [Bell et al., 2022]).

A lack of additional professional support may have also contributed to New Zealand psychologists experiencing lower resilience, of which approximately 77 percent reported no additional support. In the BPS study (2021), psychologists reported getting "very good support from colleagues or managers, who listened to and validated their worries and feelings, encouraged a compassionate stance to self and others; offered support to address practical concerns where possible and promoted sharing of self-care advice and tips" (BPS, 2020, p.4.). Thus, it stands to reason that similar support may result in increased levels of resilience in Aotearoa New Zealand psychologists.

Psychological Distress

COVID-19-Related Stress was also strongly correlated with Psychological Distress. The higher the COVID-19-Related Stress, the higher the Psychological Distress experienced. This was consistent with the BPS study (2020) where psychologists described their experience as an 'emotional rollercoaster' (p.4.), feeling invigorated but also apprehensive, frustrated, fearful, and angry, and with studies of healthcare workers in Australia who also reported increased DASS-21 scores (Northwood et al., 2021). In addition, by having the same fears and anxieties as their clients, they reported experiencing feelings of imposter syndrome (BPS, 2020). It is probable that New Zealand psychologists felt similar in the earlier years of the pandemic (Kercher & Gossage, 2022), but also in this study where psychologists reported a much greater degree of anxiety. This study showed that average depression and stress levels were similar to the normal population and comparable to levels reported in 2022; however, Anxiety levels had increased. This may in part be attributed to the rapid increase in case numbers, hospitalisations, and COVID-19-related deaths at the time of this research, compared to the last two years (Ministry of Health, 2022). Previous research has demonstrated significant correlations between elevated levels of anxiety and personal awareness of risk, or direct personal experience of COVID-19. For example, fear of COVID-19 and feeling uneasy when hearing to stories or news about the pandemic on social media

were common responses in a Jordanian survey, and this anxiety was significantly correlated with downloading applications that track COVID-19 cases (Abuhammad et al., 2021). Similarly, a cross-cultural study of 23 countries found that personal awareness of the threat of the coronavirus was a major predictor of elevated anxiety in internationally (Burkova et al., 2022). In addition, anxiety levels were shown to be greater among those from countries where the public had experience with the novel coronavirus or previous pandemic diseases, such as in the United Kingdom, United States, Japan, and Germany (Burkova et al., 2022). Overall, given that COVID-19 cases dramatically increased over a short period of time, it was not unexpected that higher levels of anxiety were reported, presumably as a result of personal risk perception or experience.

Compassion Satisfaction

Our findings showed that despite higher levels of Compassion Fatigue and lower levels of Resilience, New Zealand psychologists reported relatively high levels of Compassion Satisfaction. Similarly, the findings in this study and that of Kercher and Gossage (2022) demonstrate that New Zealand psychologists continue to experience satisfaction related to their ability to be effective in their job, despite also reporting higher levels of Compassion Fatigue. The findings of the De La Rosa et al. (2018) review of over 5,600 caring professionals suggest that Compassion Satisfaction scores tend to be higher than Compassion Fatigue scores. One possible explanation is that helping their clients, co-workers, or students to cope during the pandemic, gave many psychologists a sense of purpose and helped to balance some of their own personal anxieties (BPS, 2021). This may be in part, the reason for New Zealand psychologists reporting feeling proud to be a psychologist, with more than ninety percent that stated they had no intention to leave practice anytime in the foreseeable future. These findings were inconsistent with the study on New Zealand psychiatrists, where almost half ($N=161$) reported that if they were able, they would leave the profession. They reported enjoyment of the work but also acknowledged the difficulties, such as staff shortages, inadequate models of care and a lack of resources which have put an immense strain on the profession that 23 percent had a plan to leave within 12 months (ASMS, 2021).

Limitations

The current study had some limitations, such as a small sample size, recall bias, a lack of external validity and type of study. Although efforts were made to increase the sample size, particular care was taken to avoid making psychologists feel pressured into taking part. However, this resulted in a sample size of less than 3 percent of New Zealand's registered psychologists. It is also likely that those severely burnt out would not have had the time to read the invitation, much less, participate in this study. In addition, being limited by the recruitment methods submitted and approved by the Ethics Committee

prior to the study may have contributed to this to some degree, as using other methods would have required an updated submission which would have delayed the process.

Recall bias is another limitation. This is when a person's memory becomes distorted due to their current mental state (Coughlin, 1990). By May 2022, Aotearoa New Zealand was operating under the traffic light system where there was a lot more flexibility in how psychologists worked, and isolation was mandated only for those testing positive with COVID-19 or were considered a close contact. Providing an account during this period of relief from lockdowns, may have differed if the survey was conducted during the lockdown itself. In such instances, an individual's recollection of past events may be skewed to some degree.

Given the lack of diversity in this sample, (as most participants were clinical psychologists, female, or Caucasian), it may lack external validity. For example, Māori and Pasifika psychologists were significantly underrepresented in this study (despite invitations being extended). Their participation would have made a huge difference as learning about the challenges faced by psychologists of different backgrounds would help in bringing about more practical solutions. Lastly, the type of study was a limitation in that it was cross-sectional; thus, causation could not be inferred and the relationship between variables may be bidirectional.

Directions for Future Research

Future research may consider using the Rasch algorithms developed by Medvedev et al. (2020) for the DASS-21 scale which produces ordinal-to-interval conversion algorithms. This may be considered for use with non-clinical samples to increase the measure's accuracy and reliability. The Rasch conversion was not used in this study as the comparable data reported the raw scores of Psychological Distress; thus, using the same method made comparing data simpler. In addition, while this study was able to measure levels of Compassion Fatigue, Satisfaction, Psychological and COVID-19-Related Stress, explanations of possible causes relied on qualitative research conducted in different studies. Therefore, future research may consider an integrated approach for a more accurate and holistic understanding of mental healthcare workers experiences.

Although the COVID-19 lockdown era may have ended, the manner in which people work has drastically changed, with remote working as a continued possibility. Thus, future research may consider expanding the CVRS scale to assess factors such as zoom fatigue (as a result of teletherapy), boundary difficulties, and a lack of separation between work and home life as a mental health professional working remotely. In addition, future research should also consider potential benefits of remote work, for those psychologists continuing to do so. It is important to consider the extent to which these difficulties persist beyond the pandemic. Additional psychometric analyses were conducted as the CVRS was developed and will be published separately.

COVID-19 has had implications on a global scale, with varying experiences seen in different nations. Therefore, using the CVRS scale, future studies should explore the experiences of psychologists worldwide, taking into account contextual factors, including the length and level of COVID-19 restrictions, the effects on local mental health services, and differences in mortality rates.

The current study examined psychologists as a homogenous and stratified sample of mental health care professionals. Given the challenges facing mental health systems in Aotearoa New Zealand, it will be important to consider rate of Burnout and Compassion Fatigue among our colleagues in other mental health care professions. Additionally, the current study focused on personal experiences during the COVID-19 pandemic, however, specific workplace factors such as organisational dynamics or workplace structures and management strategies were not assessed. These factors have a known influence on the experience of burnout (McCormack et al., 2018) and need to be considered. Thus, future research should look at broadening the CVRS scale to other professions and examining the influence of workplace factors in Burnout and Compassion Fatigue.

Implications

Ultimately, these findings can be considered significant as they highlight the fact that although New Zealand psychologists are under resourced and understaffed, and experiencing high levels of Compassion Fatigue, it is not to the degree that they would leave the profession in the next 10 years (contrary to reports about psychiatrists). However, it is clear that they need better support in managing work demands; therefore, there are implications to consider for the mental health sector to improve professional quality of life for New Zealand psychologists. For example, as COVID-19 has shown, there is a severe lack of psychologists in mental health, and sudden events like natural disasters, terrorism, and pandemics (as seen in recent years) can put tremendous pressure on an already overburdened profession. Recent events have resulted in psychologists working at capacity, and yet the number of qualified psychologists has not increased in tandem. Thus, the two most important suggestions are for more effective provision and access of support and for additional psychologists to be recruited.

Additional professional support as recommended by the British Psychology Society (2021) includes having management and leadership that values its employees' well-being and works to accommodate personal and professional stressors and having regular check-ins whilst remote working continues. In addition, the provision of frequent case supervision is essential as indicated here, particularly for those working with high risk clients. It provides psychologists with the opportunity to reflect on the emotional impact of the role, promotes self-compassion, acknowledgement, and normalising of emotional reactions (recognising that psychologists are human too). It also encourages psychologists to be more open about their own struggles, and strengthen their boundaries (BPS, 2020;

Kercher & Gossage, 2022; McCormick, 2014). In addition, has been associated with increased Compassion Satisfaction, Resilience, supervision and employer support (Kercher & Gossage, 2022).

Furthermore, efforts should continue to monitor and report on psychologist's workloads and mental wellbeing. Formal, standardised practices for monitoring burnout, stress and Compassion Fatigue levels should be implemented, as well as establishing and maintaining minimum safe staffing levels in order to ensure that the professional quality of life for psychologists is improved (ASMS, 2021). For example, by implementing the Britain's Health and Safety Executive (HSE) that measures perceived workplace expectations, as well as measures of peer and management support. It offers a reliable evaluation of factors including workload, work schedule, and workplace setting, as well as resources, and support from superiors and co-workers (Cousins et al., 2004). A ratio of one psychologist for 312 clients, or one clinical psychologist for every 145 patients with severe mental illness should be addressed.

Finally, as the need for mental health services continues to grow, it is important to recruit and train more people to work in this field as highlighted in the ASMS (2021) Report. Otherwise, the next unforeseen event is likely to have a further detrimental impact on this sector. The shortage of psychologists in Aotearoa New Zealand is also impacting other mental health professions. For example, New Zealand psychiatrists indicated that due to a considerable lack of psychologists and an unwillingness or reluctance to recruit more, they are frequently required to treat complicated cases without the aid of psychological therapies. They are also expected to manage the poor mental states of their patients that are not related to any mental diseases, for example, caused by social pressures (ASMS, 2021). In September 2021, constituents delivered a petition to Parliament requesting increased funding for psychology training (Cardwell, 2021). According to Aotearoa New Zealand Psychology Workforce Task Group (2017), the mental health system is short by an estimated 1,000 psychologists. Based on their projections, an extra 268 psychologists are needed across all 20 District Health Boards, and another 672 are needed in the primary health and general practise sector. This would meet the current demand, without taking into account the ongoing demand for psychologists as mental health awareness grows (NCCP, 2017; Cardwell, 2021). Thus, to reduce Compassion Fatigue symptoms and lower the current statistics of burnout and secondary traumatic stress in New Zealand psychologists, this profession needs better support, more manageable workloads, and additional staff.

Conclusion

The coronavirus disease was first identified in December 2019, and by the end of January 2020, it had been labelled a global pandemic. Aotearoa New Zealand's response to the outbreak has been praised as one of the world's most stringent and effective in containing the virus. There were many benefits and challenges with this approach. For example, some benefits included low case numbers and deaths reported when compared to other countries; the incorporation of resilience and stress

management training and initiatives in Aotearoa New Zealand health organisations to promote and increase employee wellness; and the requirement to work from home resulted in a better work-life balance for many. However, some of the challenges included increased mental health difficulties. The extended lockdowns and restrictions contributed to the significant decline in mental health reported during this period. Those at higher risk included people in quarantine or isolation, frontline healthcare workers, the elderly, those with pre-existing mental illnesses, single parents, and minority groups. As a result of the decline in mental wellbeing, the demand on mental health services significantly increased. Psychologists in New Zealand were already considered to be at risk of Compassion Fatigue due to an unsustainable workload and personnel shortages, even before the pandemic. Given the reports on mental health difficulties, the current study explored how psychologists in New Zealand were faring three years into the pandemic.

The findings showed that most New Zealand psychologists experienced the same or an increased workload, as well as increased caseload intensity (six out of the top ten client groups were considered high risk), while receiving little to no additional support to help them meet their professional and personal responsibilities. Thus, higher levels of Compassion Fatigue and lower levels of Resilience were reported. Working with high risk clients was a significant predictor of Compassion Fatigue, as was years of experience and COVID-19 Related Stress. Each item on the COVID-19-Related Stress scale strongly correlated with Compassion Fatigue, showing that New Zealand psychologists had struggled during the pandemic. In addition, Aotearoa New Zealand's go-hard early approach may have contributed to the low resilience levels reported in this study, as well as a lack of additional professional support during this time. Depressive and stress levels had not changed considerably from the previous year, but anxiety levels had increased, possibly linked with the significant increase in New Zealand's number of COVID-19 cases, hospitalisations and deaths. Compassion Satisfaction levels related to psychologist's ability to be effective in their jobs remained relatively high. Furthermore, the majority of respondents indicated that they had no intention to leave the profession in the near future. Overall, the current findings support the need for increased professional support, namely additional supervision, and processes to monitor Stress, Burnout and Compassion Fatigue levels, and seeking to employ additional psychologists to help meet client demand. The current study identified some limitations, such as a small sample size, recall bias, a lack of diversity and the cross sectional nature of the study. Directions for future research include the following: applying an integrated approach for a more holistic understanding of psychologists' experiences; expanding of the CVRS scale to assess issues relating to remote working; extending the study to consider rate of Burnout and Compassion Fatigue among the wider mental health professions; and using the CVRS scale to explore the experiences of psychologists worldwide.

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Appendices

Appendix 1 – Results of the Exploratory Factor Analysis for CVRS.

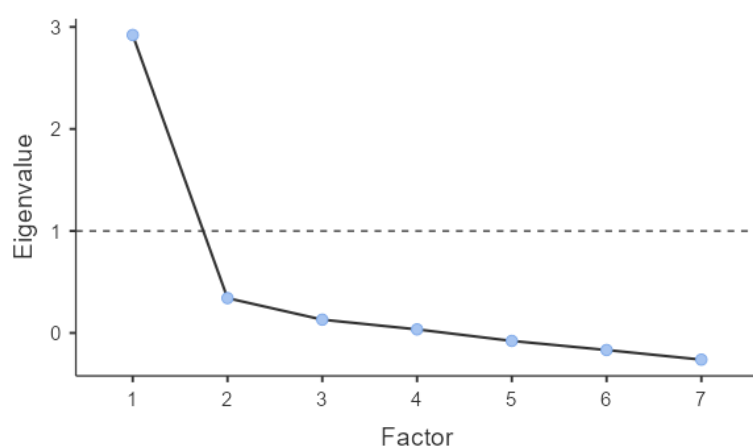
Which statement is mostly accurate about your experience during the pandemic?

	Factor	
	1	Uniqueness
I have struggled to focus on work whilst dealing with personal sickness, bereavement, or stress and worry caused by the pandemic. (CVRS1)	0.600	0.639
The lack of physical separation between work and home has made maintaining boundaries between professional and personal life difficult. (CVRS2)	0.662	0.562
The lack of work-home separation has negatively impacted my family relationships. (CVRS3)	0.657	0.569
The loss of informal support and face-to-face contact with colleagues has resulted in feelings of isolation and loss of confidence and motivation. (CVRS4)	0.538	0.711
The prolonged impact of the pandemic on my usual ways of working, have left me physically fatigued, and feeling emotionally drained and exhausted (CVRS5)	0.734	0.462
The lack of adequate access to some of my self-care or stress-relieving activities which has increased my levels of stress (CVRS6)	0.739	0.454
I increased less healthy habits during the pandemic, for example, alcohol consumption, recreational drug use or binge eating (CVRS7)	0.564	0.682

Note. 'Minimum residual' extraction method was used in combination with a 'oblimin' rotation

Figure 5

Scree plot of exploratory factor analysis



Appendix 2 – Ethics Approval



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

8 April 2022

Amy Kercher
Faculty of Health and Environmental Sciences

Dear Amy

Re: Ethics Application: **21/54 Psychologists' stress, burnout and resilience in Aotearoa New Zealand**

Thank you for your request for approval of amendments to your ethics application.

A new round of data collection and the inclusion of a student for an honours dissertation has been approved.

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.
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. When the research is undertaken outside New Zealand, you need to meet all ethical, legal, and locality obligations or requirements for those jurisdictions.

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: lisa.gossage@aut.ac.nz; tgb6944@autuni.ac.nz

Appendix 3 – Advertisement


TE WĀNANGA ARONUI
O TAMAKI MAKAU RAU

Invitation to participate in research

Psychologists' stress, burnout and resilience during COVID-19, in Aotearoa New Zealand

Kia ora psychologists,

You are invited to participate in a study being undertaken by Dr Amy Kercher, clinical psychologist and lecturer in psychology at Auckland University of Technology, and Jodie Rahman, BHSc honours student.

In 2021, we asked psychologists about their experiences of stress, burnout and resilience (paper in preparation). Since then, Aotearoa NZ has experienced an extended COVID-19 lockdown and largest outbreak yet, while psychologists have anecdotally been under greater demand than ever. We understand that your experiences may have changed – anecdotal reports of exhaustion, stress and overwork are common.

We would like to gauge the *impact of the ongoing COVID-19 pandemic on psychologists* in Aotearoa NZ.

Even if you completed our survey before, we would be very grateful for your time in telling us how you have been feeling and experiencing your work lately, since the most recent lockdown and outbreak. No identifying information has been collected, so rather than comparing individual responses, all responses will be collated and compared on average.

Participation is anonymous and voluntary and will take approximately 30 minutes to complete an online survey.

The research aims to consider practising psychologists' recent experiences of stress, anxiety, depression, compassion fatigue, compassion satisfaction, burnout, resilience, caseload, support, family, and personal factors, and in particular, the impact of COVID-19. The objective is to survey the **wellbeing and risk of burnout of the psychology workforce** in Aotearoa New Zealand, with a view to improving professional support, training, and practices for a strong and well supported mental health sector in the future.

As a mental health workforce, psychologists are vital to the wellbeing of Aotearoa New Zealand but are often overlooked. Please help us to understand your experiences and how we might better train and support psychologists to provide a sustainable and strong workforce.

Please click the following link if you would like to contribute to this important research:
https://aut.au1.qualtrics.com/jfe/form/SV_6D2k0cbkwkqel8

Ngā mihi,
Amy


TE WĀNANGA ARONUI
O TAMAKI MAKAU RAU

Dr Amy Kercher
Lecturer and Clinical Psychologist (she/her)
Department of Psychology and Neuroscience
School of Clinical Sciences
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Appendix 4 – Questionnaire

Demographics and Personal Characteristics

How many years have you worked in psychological practice?

0-5

6-10

11-15

16-20

20+

How old are you?

20-25

26-30

31-35

36-40

41-45

46-50

51-55

56-60

61-65

66+

What is your gender?

Male

Female

Non-binary

Prefer not to say

What is your cultural/ethnic background?

Māori

Pakeha/European

Pasifika

Asian

Middle Eastern

Latin American

African

Other ethnicity

Where do you work?

Major city

Small city

Rural area

To consider the impact of personal pressures and circumstances:

What is your relationship status?

Single

Married/de facto

Divorced

Widowed

How many children (under 18) do you have living in your home?

0

1

2

3

4

5

6+

Are you a carer of other family members (e.g. relatives with disabilities or illnesses)?

Yes, full time/primary carer

Yes, part-time carer

No

Do you receive support with personal/family responsibilities (e.g. childcare and caregiving, household responsibilities)?

0 – none

1 – a little support

2 – some support

3 – adequate support

4 – good support

5 – excellent support

Do you experience additional personal stressors such as the following?

- Serious health problems or disability (self)
- Moderate health problems or disability (self)
- Housing insecurity
- Financial hardship
- Domestic violence
- Drug and alcohol problems - self
- Drug and alcohol problems - family member

Yes - one of the above

Yes - more than one of the above

No

Workplace Characteristics

In which setting do you work? If more than one, please select the workplace where you work for the majority of the time.

Government/health funded organisation (e.g. DHB, hospital, Oranga Tamariki, PHO, prisons)

Non-government organisation (e.g. charity counselling service)

Private industry (e.g. EAP)

ACC funded service

School

Private practice (group, employed or contractor, including medical centres)

Private practice (solo, self-employed)

What is your registration/scope of practice? If more than one, please select the capacity in which you conduct most of your work.

Intern/trainee psychologist

General psychologist registration

Clinical psychologist

Counselling psychologist

Educational psychologist

Neuropsychologist

How much professional supervision do you receive for your work?

Weekly supervision (1 hour+)

Fortnightly supervision (1 hour)

Monthly supervision (1 hour)

Do you receive additional support for your work?

Yes, ad hoc supervision or informal support (e.g. debriefing with colleagues, internet-based peer supervision)

No

Do you receive funded professional development from your employer?

Yes

No

How well supported do you feel by your employer, in managing workplace stress and concerns?

Not at all supported

Minimal support

Adequate support

Good support

Excellent support

Not applicable, self-employed

How often do you work with clients at serious risk of harm (from themselves or others)?

Never

Occasionally

Fairly often

Very often

What is the nature of your work/client group? Select all that apply.

Severe mental health difficulties

Moderate mental health difficulties

Mild mental health difficulties

No mental health difficulties

Domestic Violence

Children and young people

Older adults

Drug, alcohol or gambling

Māori tāngata whaiora

Pasifika clients

Other cultural minority groups

Intellectually impaired, neurodiverse or TBI

Prison or forensic

ACC injury

Children at risk (from self or others)

Adults at risk (from self or others)

General paediatric practice

General adult practice

Couples therapy

Family therapy

Trauma

Clients reporting self-harm

Clients at risk of suicide

What forms of therapy/intervention do you practice? Select all that apply.

Psychometric testing

Counselling

Couple and family therapy

CBT

DBT

ACT

Mindfulness Based Cognitive Therapy

Psychoanalytic Psychotherapy

Narrative Therapy

Systems Therapy

EMDR

TF-CBT

Other form(s) of therapy described below

Other form(s) of therapy (please describe)

How long do you intend to remain in practice in psychology?

0-1 years - I intend to leave soon

2-5 years

6-10 years

10-15 years

Upon retirement

How have the COVID-19 pandemic and lockdowns affected your experience?

Did your workload

1 – decrease

2 – remain the same

3 – increase

Did the intensity (e.g. clinical risk, severity) of your caseload

1 – decrease

2 – remain the same

3 – increase

Did you experience additional work-related challenges through COVID-19? Select all that apply.

Remote work/telehealth

Technical difficulties or difficulties with access to technology – self

Technical difficulties or difficulties with access to technology – clients

Reduced access to outside resources, e.g. emergency referral services, escalation of care options

Reduced access to supervision and collegial support

“Zoom fatigue”

Ethical or legal concerns relating to telehealth (e.g. privacy of sessions from home/client’s home, security of telehealth software)

Funding concerns during lockdown, including client’s reduced income/ability to pay for therapy

None of the above

Did your personal responsibilities (e.g. childcare and caregiving, family responsibilities, health concerns, financial concerns)

1 – decrease

2 – remain the same

3 – increase

Did your personal support (e.g. assistance with childcare and caregiving, household responsibilities)

1 – decrease

2 – remain the same

3 – increase

DASS-21 SCALE

1. I found it hard to wind down

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 the time

3 - Applied to me very much, or most of the time

2. I was aware of dryness of my mouth

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 the time

3 - Applied to me very much, or most of the time

3. I couldn't seem to experience any positive feeling at all

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 the time

3 - Applied to me very much, or most of the time

4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)

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 the time

3 - Applied to me very much, or most of the time

5. I found it difficult to work up the initiative to do things

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 the time

3 - Applied to me very much, or most of the time

6. I tended to over-react to situations

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 the time

3 - Applied to me very much, or most of the time

7. I experienced trembling (eg, in the hands)

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 the time

3 - Applied to me very much, or most of the time

8. I felt that I was using a lot of nervous energy

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 the time

3 - Applied to me very much, or most of the time

9. I was worried about situations in which I might panic and make a fool of myself

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 the time

3 - Applied to me very much, or most of the time

10. I felt that I had nothing to look forward to

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 the time

3 - Applied to me very much, or most of the time

11. I found myself getting agitated

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 the time

3 - Applied to me very much, or most of the time

12. I found it difficult to relax

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 the time

3 - Applied to me very much, or most of the time

13. I felt down-hearted and blue

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 the time

3 - Applied to me very much, or most of the time

14. I was intolerant of anything that kept me from getting on with what I was doing

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 the time

3 - Applied to me very much, or most of the time

15. I felt I was close to panic

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 the time

3 - Applied to me very much, or most of the time

16. I was unable to become enthusiastic about anything

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 the time

3 - Applied to me very much, or most of the time

17. I felt I wasn't worth much as a person

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 the time

3 - Applied to me very much, or most of the time

18. I felt that I was rather touchy

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 the time

3 - Applied to me very much, or most of the time

19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)

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 the time

3 - Applied to me very much, or most of the time

20. I felt scared without any good reason

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 the time

3 - Applied to me very much, or most of the time

21. I felt that life was meaningless

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 the time

3 - Applied to me very much, or most of the time

PROQOL SCALE

1. I am happy.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

2. I am preoccupied with more than one person I help.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

3. I get satisfaction from being able to help people.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

4. I feel connected to others.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

5. I jump or am startled by unexpected sounds.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

6. I feel invigorated after working with those I help.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

7. I find it difficult to separate my personal life from my life as a psychologist.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I help.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

9. I think that I might have been affected by the traumatic stress of those I help.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

10. I feel trapped by my job as a psychologist.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

11. Because of my work, I have felt "on edge" about various things.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

12. I like my work as a psychologist.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

13. I feel depressed because of the traumatic experiences of the people I help.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

14. I feel as though I am experiencing the trauma of someone I have helped.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

15. I have beliefs that sustain me.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

16. I am pleased with how I am able to keep up with psychological techniques and protocols.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

17. I am the person I always wanted to be.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

18. My work makes me feel satisfied.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

19. I feel worn out because of my work as a psychologist.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

20. I have happy thoughts and feelings about those I help and how I could help them.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

21. I feel overwhelmed because my case work load seems endless.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

22. I believe I can make a difference through my work.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

23. I avoid certain activities or situations because they remind me of frightening experiences of the people I help.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

24. I am proud of what I can do to help.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

25. As a result of my work, I have intrusive, frightening thoughts.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

26. I feel "bogged down" by the system.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

27. I have thoughts that I am a "success" as a psychologist.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

28. I can't recall important parts of my work with trauma victims.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

29. I am a very caring person.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

30. I am happy that I chose to do this work.

1 - Never

2 - Rarely

3 - Sometimes

4 - Often

5 - Very Often

CD-RISC-10 SCALE

1. I am able to adapt when changes occur.

0 - Not true at all

1 - Rarely true

2 - Sometimes true

3 - Often true

4 - True nearly all the time

2. I can deal with whatever comes my way.

0 - Not true at all

1 - Rarely true

2 - Sometimes true

3 - Often true

4 - True nearly all the time

3. I try to see the humorous side of things when I am faced with problems.

0 - Not true at all

1 - Rarely true

2 - Sometimes true

3 - Often true

4 - True nearly all the time

4. Having to cope with stress can make me stronger.

0 - Not true at all

1 - Rarely true

2 - Sometimes true

3 - Often true

4 - True nearly all the time

5. I tend to bounce back after illness, injury, or other hardships.

0 - Not true at all

1 - Rarely true

2 - Sometimes true

3 - Often true

4 - True nearly all the time

6. I believe I can achieve my goals, even if there are obstacles.

0 - Not true at all

1 - Rarely true

2 - Sometimes true

3 - Often true

4 - True nearly all the time

7. Under pressure, I stay focused and think clearly.

0 - Not true at all

1 - Rarely true

2 - Sometimes true

3 - Often true

4 - True nearly all the time

8. I am not easily discouraged by failure.

0 - Not true at all

1 - Rarely true

2 - Sometimes true

3 - Often true

4 - True nearly all the time

9. I think of myself as a strong person when dealing with life's challenges and difficulties.

0 - Not true at all

1 - Rarely true

2 - Sometimes true

3 - Often true

4 - True nearly all the time

10. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.

0 - Not true at all

1 - Rarely true

2 - Sometimes true

3 - Often true

4 - True nearly all the time

CVRS SCALE

Which statement best describes your experience during the pandemic?

I have struggled to focus on work whilst dealing with personal sickness, bereavement, or stress and worry caused by the pandemic.

Not true at all

Rarely true

Sometimes true

Often true

True nearly all the time

The lack of physical separation between work and home has made maintaining boundaries between professional and personal life difficult.

Not true at all

Rarely true

Sometimes true

Often true

True nearly all the time

The lack of work-home separation has negatively impacted my family relationships.

Not true at all

Rarely true

Sometimes true

Often true

True nearly all the time

The loss of informal support and face-to-face contact with colleagues has resulted in feelings of isolation, loss of confidence and/or motivation.

Not true at all

Rarely true

Sometimes true

Often true

True nearly all the time

The prolonged impact of the pandemic on my usual ways of working, have left me physically fatigued, and feeling emotionally drained and exhausted.

Not true at all

Rarely true

Sometimes true

Often true

True nearly all the time

The lack of access to some of my self-care or stress-relieving activities has increased my feelings of stress. (For example, being unable to attend the gym, social events or other activities, or take breaks from family responsibilities, due to lockdown or pandemic restrictions).

Not true at all

Rarely true

Sometimes true

Often true

True nearly all the time

Have you increased any less healthy habits during the pandemic, for example increased alcohol, recreational drug use or binge eating?

Not true at all

Rarely true

Sometimes true

Often true

True nearly all the time

I feel proud to be part of a profession that has contributed positively to New Zealand's response to the pandemic.

Not true at all

Rarely true

Sometimes true

Often true

True nearly all the time



Thank you for your participation. The survey is now complete and your response has been recorded.

Measures included:

The Depression, Anxiety, Stress Scale 21-item version (public domain) – Lovibond & Lovibond, (1995), www.psy.unsw.edu.au/dass/
The DASS questionnaire is public domain, and so permission is not needed to use it. The DASS questionnaires and scoring key may be downloaded from the DASS website and copied without restriction.

The Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (used with permission), © B. Hudnall Stamm (2009), https://proqol.org/uploads/ProQOL_5_English.pdf
© B. Hudnall Stamm, 2009. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). /www.isu.edu/~bhstamm or www.proqol.org. This test may be freely copied as long as (a) author is credited, (b) no changes are made, and (c) it is not sold.

The Connor-Davidson Resilience Scale 10 (used with permission) – Connor & Davidson (2003), <http://www.connordavidson-resiliencescale.com/index.php>
All rights reserved. No part of this document may be reproduced or transmitted in any form, or by any means, electronic or mechanical, including photocopying, or by any information storage or retrieval system, without permission in writing from Dr. Davidson at mail@cd-risc.com. Further information about the scale and terms of use can be found at www.cd-risc.com. Copyright © 2001, 2018 by Kathryn M. Connor, M.D., and Jonathan R.T. Davidson, M.D. This version of the scale was developed as a work made for hire by Laura Campbell-Sills, Ph.D., and Murray B. Stein, M.D.

COVID-19 impact questions derived from the British Psychological Society (2020), *Impact of covid-19 on the wellbeing of psychologists*. BPS. <https://www.bps.org.uk/coronavirus-resources/professional/impact-wellbeing-psychologists>

As you know, everyone experiences the sorts of feelings/thoughts discussed here to some degree, but if you are experiencing them frequently and strongly, you should consider seeking professional support, via your professional supervisor or AUT counselling via <http://www.aut.ac.nz/being-a-student/current-postgraduates/your-health-and-wellbeing/counselling>.

Appendix 5 – Participant Information Sheet



AUT
TE WĀNANGA ARONUI
O TĀMANI MĀKAU RAU

Participant Information Sheet

Date Information Sheet Produced:
5 April 2022

Project Title
Psychologists' stress, burnout and resilience during COVID-19, in Aotearoa New Zealand

An Invitation
You are invited to participate in a small study being undertaken by Dr Amy Kercher, clinical psychologist and lecturer in psychology at Auckland University of Technology, and Jodie Rahman, BHSc honours student.
We know that psychologists have faced increasing demands for their time and expertise during the COVID-19 pandemic, while facing the same stressors and challenges as others - we want to know how you are doing.
Last year, we surveyed the wellbeing, stress and professional quality of life of NZ psychologists (paper in preparation). In 2022, we seek to understand the impact of increased demand, extended lockdowns and ongoing COVID-19 stressors.

What is the purpose of this research?
The research aims to consider the impact of the COVID-19 pandemic on practising psychologists' own experiences of stress, anxiety, depression, compassion satisfaction, burnout, resilience, caseload, support, family and personal factors. As no identifying information is being collected, responses will be averaged, and compared with average responses in the earlier survey. This will allow us to explore the changes brought by prolonged lockdown and pandemic conditions, and what this means for the support of both psychology clients and practising psychologists in the future.

How was I identified and why am I being invited to participate in this research?
All psychologists registered with the NZ Psychologists Board are invited to participate in this research. Your responses are voluntary and entirely anonymous, with no contact information provided to the researcher.

How do I agree to participate in this research?
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.
By completing the survey, you indicate your consent to participate in the research and for your anonymous responses to be collated for analysis and publication.

What will happen in this research?
Participation involves completion of an anonymous, secure online survey. The survey includes standardised measures of depression, anxiety, stress (the DASS-21), compassion satisfaction, compassion fatigue and burnout (The Professional Quality of Life scale, ProQOL), and resilience (The Connors-Davidson Resilience Scale, CD-RISC 10). Survey questions will also consider client and therapy factors, supervision and support, changes related to COVID-19, and personal factors such as family and carer commitments, and demographics.

What are the discomforts and risks?
Self-reflection is a vital part of our practice as psychologists, however questions about mental health and wellbeing can cause discomfort.

How will these discomforts and risks be alleviated?
Participation in this survey is entirely voluntary, and you are free to discontinue at any time. Should you experience any concerns following completion of the survey, please contact your supervisor, or your GP for referral.
AUT Health Counselling and Wellbeing is able to offer three free sessions of confidential counselling support for adult participants in an AUT research project. These sessions are only available for issues that have arisen directly as a result

of participation in the research and are not for other general counselling needs. To access these services, you will need to:

- drop into our centres at WB219 or AS104 or phone 921 9992 City Campus or 921 9998 North Shore campus to make an appointment. Appointments for South Campus can be made by calling 921 9992
- let the receptionist know that you are a research participant, and provide the title of my research and my name and contact details as given in this Information Sheet

You can find out more information about AUT counsellors and counselling on <http://www.aut.ac.nz/being-a-student/current-postgraduates/your-health-and-wellbeing/counselling>.

What are the benefits?

This research aims to benefit professional psychologists through better understanding our shared challenges, risk and resilience factors. In the future, we hope to consider better support and training programs for psychologists in practice in New Zealand, to ensure a resilience and sustainable workforce.

How will my privacy be protected?

Participation in this research is entirely anonymous. No identifying information is sought in the questionnaire, and your contact details will not be collected. Standard processes for data collection, analysis and storage will be followed, with data destroyed after 10 years.

What are the costs of participating in this research?

Participating in this research will take approximately 30 minutes.

What opportunity do I have to consider this invitation?

The survey will be available online for one month.

Will I receive feedback on the results of this research?

Yes. A summary of findings will be distributed to psychologists via the NZ Psychological Society and the NZ College of Clinical Psychologists, and online at <https://academics.aut.ac.nz/amy.kercher>. Research findings will also be published in professional journals and conferences, and via professional publications such as newsletter for the above organisations.

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 researcher, Dr Amy Kercher, amy.kercher@aut.ac.nz, (+649) 921 9999, ext 5186.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Dr Amy Kercher, amy.kercher@aut.ac.nz, (+649) 921 9999, ext 5186.