

**Differences and Similarities between Buddhism and  
Psychology in the Conceptualisation of Mindfulness**

Xuan (Joanna) Feng

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Auckland University of Technology

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## **Abbreviations**

### **Sutta Abbreviations**

AN-Anguttara Nikāya

DN- Digha Nikāya

Iti- Itivuttaka

MN- Majjhima Nikāya

SN-Samyutta Nikāya

### **Other Abbreviations**

ACT - Acceptance and commitment therapy

AUT - Auckland University of Technology

AUTEC - Auckland University of Technology Ethics Committee

CAMS-R - Cognitive and Affective Mindfulness Scale-Revised

CFA - Confirmatory factor analysis

CFI- Comparative Fit Index

CI - Confidence intervals

DBT - Dialectical behaviour therapy

DV - Dependent variable

EM - Expectation-maximization

FFMQ - Five Facet Mindfulness Questionnaire

FMI - Freiburg Mindfulness Inventory

IV - Independent variable

KIMs - Kentucky Inventory of Mindfulness Skills

MAAS -The Mindful Attention Awareness Scale

MBCT - Mindfulness-Based Cognitive Therapy

MBSR- Mindfulness-Based Stress Reduction

MHC-SF - Mental Health Continuum Short Form

MVA - Missing value analysis

NAS - Non-attachment Scale

PHLMS - Philadelphia Mindfulness Scale

RLE - Survey of Recent Life Experiences  
RMSEA - Root Mean Square Error of Approximation  
SCBCS - Santa Clara Brief Compassion Scale  
SEM- abstract  
SISRI - Spiritual Intelligence Self-Report Inventory  
SMQ - Southampton Mindfulness Questionnaire  
SPSS - Statistical Package for the Social Sciences  
SRMR - Standardised Root Mean Square Residual  
TMS - Toronto Mindfulness Scale  
WHO - World Health Organisation

## 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, nor material which to a substantial extent has submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Xuan Feng



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## Abstract

The current thesis aimed to contribute to the conceptualisation of mindfulness in psychology by investigating the differences and similarities in mindfulness between Buddhism and psychology. Mindfulness is the English translation for the Pali word *sati* in Buddhism, which literally means remembering. Mindfulness is a central element of Mindfulness-Based Interventions (MBIs), in which mindfulness is commonly viewed, among other characteristics, as non-judgmental present-centred awareness. Although there is an agreement in psychology on some characteristics of mindfulness, the field of psychology has not reached a consensus on the nature and the construct of mindfulness. The conceptual unclarity of mindfulness may have hindered progress in identifying the mechanisms of mindfulness by which it exerts health benefits.

Study 1 investigated differences in mindfulness between Buddhism and Western psychology by interviewing Buddhists. Five senior clergy from three branches of Buddhism were interviewed for their opinion on the Mindfulness Attention and Awareness Scale (MAAS), Kentucky Inventory of Mindfulness Skills (KIMS), Five Factor Mindfulness Questionnaire (FFMQ), and Freiburg Mindfulness Inventory-30 (FMI-30). The interviewees also rated the questionnaire items for an ideal Buddhist in their tradition, in order to provide a stimulus for discussion and to collect quantitative data along with the qualitative data. Eight themes in relation to the elements and features of Buddhist mindfulness emerged from thematic analysis. The themes indicated that there are considerable differences between Buddhist mindfulness and mindfulness as presented by items in the questionnaires. While mindfulness in psychology is frequently conceptualised as non-judgmental, present-centred awareness, Buddhist mindfulness contains elements of attentional flexibility, skillfulness, purposefulness, wisdom, and ethics. Buddhist mindfulness not only involves awareness of the present

but also the past and future. It not only focuses on self but also on others. The quantitative results revealed that the MAAS and the FMI-30 appeared less incongruent with Buddhist mindfulness than the KIMS and the FFMQ. Any differences highlighted in Study 1 provide avenues for future research as aspects unique to Buddhist mindfulness practice may be linked to psychological benefits also in secular contexts, thus assisting efforts to investigate to what extent secularisation of mindfulness practice may have resulted in loss of some potentially beneficial characteristics.

Based on the findings of Study 1 and Buddhist theories, Study 2 proposed and tested a model in which non-attachment mediated between three predictor variables (ethics, concentration, and wisdom) and well-being in 546 participants. The results indicated that both ethics and wisdom predicted well-being beyond mindfulness in psychology. Ethics, however, showed weak positive effects on well-being, and became redundant after wisdom was included in the model. Also, the model containing wisdom and concentration had a better model fit than the model including ethics, concentration, and wisdom. This may suggest that ethics was not an important component of mindfulness that contributed to secular well-being. Wisdom, on the other hand, was a strong predictor of non-attachment and well-being in the model. This indicated that wisdom could be extended from Buddhism to secular context, and may be a component of mindfulness that is potentially useful for psychology. As to suitable mediators, non-attachment in Study 2 partially mediated between mindfulness and well-being, which indicated that other mediators likely exist. Although a complete model has not been achieved, Study 2 provided useful information on potential components of mindfulness, and mechanisms of mindfulness.

# **Chapter 1: Literature Review-Introduction to Buddhism**

## **1.1 Introduction**

Buddhism is one of the largest religions in the world today. It originated during the 5<sup>th</sup> and 6<sup>th</sup> centuries BCE around the Ganges Delta and then spread across India and other Asian countries. Although Buddhism arose in the area of today's Nepal and India, it did not remain there after the Muslim invasions from 986 CE (Harvey, 2013). After many centuries of evolving, three main branches of Buddhism, namely, Mahāyāna, Theravāda, and Vajrayāna known as eastern Buddhism, southern Buddhism, and northern Buddhism, respectively, became established (Gethin, 1998). At the end of the 19<sup>th</sup> century, Buddhism attracted the attention of western scholars and has grown substantially in popularity in western countries since the Second World War (Gethin, 1998).

Buddhism is based on the teachings of Gautama Buddha, who achieved enlightenment after years of meditation to a way of ending the cycle of death and rebirth (Mahathera, 1998). The teachings of the Buddha reveal the law of the universe called *Dhamma* (Sanskrit: *Dharma*), which describes how people suffer from attachment to this world and how to be free from clinging through meditation. In this chapter, a brief history of Theravāda, Mahāyāna, and Vajrayāna Buddhism will be presented, followed by some core teachings of Buddhism.

## **1.2 Brief history of Theravāda, Mahāyāna, and Vajrayāna Buddhism**

Three months after the Buddha passed away in 404 BCE, 500 disciples who had attained enlightenment (Pali: *arahant*) gathered in Rājagaha for a communal recitation of the teachings of the Buddha (Gethin, 1998). Both discourses (Pali: *sutta*) of the

Buddha and the discipline (Pali: *vinaya*) of the Buddhist monks were recited and agreed as the word of the Buddha. In the early stages of Buddhism, the teachings of the Buddha were only preserved and transmitted orally. From 20 years after the Buddha passed away, several schisms occurred, mainly due to disputes about the monastic code of discipline, and two Buddhist groups formed as a result (Harvey, 2013). One group was the minority of reformists called *Sthaviras* (Pali: *thera*) which means *the Elders*. The other group was the conservative majority called *Mahāsāṃghikas* that later died out, with few historical records remaining.

During the 3<sup>rd</sup> century BCE, the Sthaviras split into a further three schools, the Pudgalavāda, Sarvāstivāda, and Vibhajjavāda (Harvey, 2013). The Pudgalavāda school did not endure. The Sarvāstivāda school was dominant in north India in the late first or early second century CE and spread to central Asia and China. The Vibhajjavāda school was found in south India, and the Theravāda tradition has descended from one of its branches called the Tāmraparnīya. The Theravāda school remained in south India until the 17<sup>th</sup> century and then continued its influence in Sri Lanka. Nowadays, Theravāda is one of three largest branches of the Buddhism that is commonly found in Burma, Sri Lanka, Cambodia, Laos, Thailand, and Myanmar (Gethin, 1998).

The Theravāda Canon known as *Three Baskets* (Pali: *Tipitaka*) is the most complete and original early canon that survived in the ancient Indian Pali language (Harvey, 2013). Tipitaka consists of the Basket of Discipline (Pali: *Vinaya Pitaka*), the Basket of Discourses (Pali: *Sutta Pitaka*) that is divided into five collections (Pali: *Nikāya*), and the Basket of Ultimate Doctrine (Pali: *Abhidhamma Pitaka*). The five *Nikāyas* are the collection of long discourses (Pali: *Digha Nikāya/DN*), the collection of middle length discourses (Pali: *Majjhima Nikāya/MN*), the grouped collection (Pali: *Samyutta Nikāya/SN*), the numbered collection (Pali: *Anguttara Nikāya/AN*), and the minor

collection (Pali: *Khuddaha Nikāya*). *Suttas* and *vinaya* were recorded in writing during 20 BCE, after being preserved orally for over 400 years since the communal recitation (Harvey, 2013). The *Abhidhamma* was added into canons later by a few schools as authentic higher teachings from the Buddha (Gethin, 1998).

The Mahāyāna tradition arose between 150 BCE and 100 CE (Williams, 2009), and it is not from a direct lineage of any early Buddhist schools (Harvey, 2013). Mahāyāna accepted new literature that had emerged after the communal recitation, while it was denied by Theravāda as authentic discourses from the Buddha (Harvey, 2013). The canonical scriptures of Mahāyāna were composed from the 1<sup>st</sup> century BCE in Sanskrit, the other historical Indian language (Harvey, 2013). However, Chinese and Tibetan versions of the Mahāyāna Canon are the predominant versions that have been preserved. The Mahāyāna doctrines include a wider range of literature. It not only has *Tipitaka* (except for parts of the fifth *Nikāya*), but also has *suttas* that belong exclusively to Mahāyāna, such as *The Perfection of Wisdom* and *The Lotus Sutta*. Commentaries, histories, and treatises are also included into scriptures of Mahāyāna Buddhism. Mahāyāna Buddhism is prevalent in countries of East Asia such as China, Korea, Vietnam, and Japan (Gethin, 1998).

Tibet made first significant contact with Buddhism during the 7<sup>th</sup> century CE, and Buddhism was established as the state religion in 779 CE (Harvey, 2013). Tibetan Buddhism has two paths in terms of practice, and both are within the general Mahāyāna philosophical framework (Gethin, 1998). One is the conventional Mahāyāna gradual path of the *perfections*. The other esoteric path of the *tantras* is a more specific orientation of the Tibetan Buddhism known as Vajrayāna Buddhism. *Tantras* are texts of esoteric meditation practices which are viewed as extremely effective. They are generally treated as a secret teaching directly from the Buddha, although modern

scholarship believed that it was produced 1000 years after the Buddha (Gethin, 1998). The Tibetan doctrines consist of partial Mahāyāna and Theravāda suttas, commentaries, treatises, and literature written by Tibetans, as well.

The primacy of the four great *Nikāyas* of the Basket of Discourses (Pali: *Sutta Pitaka*) is agreed by all schools (Gethin, 2001). The Pali Canon has been translated into English entirely, whereas only parts of the Mahāyāna Canon have been translated into English (Harvey, 2013). According to Gethin (1998), Theravāda Buddhism is closer to the early Buddhism in India, compared with the Mahāyāna and Tibetan traditions.

### **1.3 Core teachings of Buddhism**

#### ***1.3.1 The Four Noble Truths***

In 1967, a statement representing common grounds between the Theravāda and the Mahāyāna traditions was announced during the first congress of the World Buddhist Sangha Council held in Colombo, Sri Lanka (Rahula, 1974). It declared that different Buddhist beliefs and practices were only external forms and expressions that should not be confused with the fundamental teachings of the Buddha, such as *The Four Noble Truths* accepted by all Buddhist traditions (Rahula, 1974).

*The Four Noble Truths* are the foundation of Buddhism that was preached at the first sermon by the Buddha after his enlightenment (Samyutta Nikāya: SN 56:11 as translated from the Pali by Bodhi, 2000). It deals with dependent origination and cessation of *dukkha*, a Pali word translated as suffering, stress, or pain. The first noble truth states that life is full of *dukkha*. It is not a pessimistic statement suggesting people are leading a miserable life. Rather, it is a realistic view of the human condition that happiness that is dependent on this world is fleeting and that all beings will inevitably at

some point experience aging, disease, sadness, disappointment, and death. The second noble truth points out that the root of *dukkha* is craving (Pali: *tanhā*). It is not this world, but our own desire in this world, that creates our suffering. Everything in the world exists dependent upon certain conditions. Thus it is subject to changes. One's self is not static, either, because human beings are constituted by impermanent physical and mental phenomena. Happiness built on the impermanent is fleeting, and grasping it inevitably brings suffering. Thus, the third noble truth states that cessation of craving is cessation of *dukkha*. The remedy for craving and *dukkha*, namely, *the Noble Eightfold Path*, is offered in the fourth noble truth. Generally, it represents training on morality, concentration, and wisdom that purify mind and behaviour. People complete the trainings to reach *nibbāna* (Sanskrit: *nirvāṇa*), a Pali term that literally means *extinguishing* and connotes the profound peace of mind that is of deliverance from craving and suffering (Gethin, 1998).

*The Noble Eightfold Path* and *The Four Noble Truths* are the principles that cover the essence of the Buddha's teachings, the *Dhamma*. *The Four Noble Truths* is the doctrine that elicits conceptual understanding of the reality, and the *Noble Eightfold Path* is the discipline that calls for and guides practice. *The Four Noble Truths* are the underlying reason for practising the *Noble Eightfold Path*.

### **1.3.2 The Noble Eightfold Path**

*The Noble Eightfold Path* consists of *right view, right intention, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration* (SN56:11, translated from the Pali by Bodhi, 2000). Based on the *Culavedalla Sutta* (MN44, translated by the Thanissaro, 2012), these eight factors are under three divisions as shown in Table 1.1. The three divisions represent three stages of trainings on

morality (Pali: *sīla*), concentration (Pali: *samādhi*), and wisdom (Pali: *paññā*). Right view and right intention, are classified into wisdom. Right view is the first path factor, or the forerunner, which refers to understanding the Four Noble Truths. Right intention refers to the intentions of renunciation, good will, and harmlessness. Right speech, right action, and right livelihood are grouped with morality, which is the foundation of the noble path. Right effort, right mindfulness, and right concentration form concentration, namely one-pointed stillness of the mind. Right mindfulness is being mindful to abandon a wrong view, wrong resolve, wrong speech, wrong action, and wrong livelihood, and to enter into and retain the right ones (MN117, translated from the Pali by Thanissaro, 2008). Right mindfulness assists in establishing concentration by holding a meditative object (*Visuddhimagga: The Path of Purification*, translated by Nanamoli from the Pali, 2011). Training to concentrate prepares a still mind for further developing insight and wisdom of the nature of reality through investigating body and mind. Morality, concentration, and wisdom are the essential qualities developed by all Buddhist traditions despite any differences in practices across schools and traditions (Gethin, 1998).

**Table 1.1**

*Three divisions of The Noble Eightfold Path (NEP)*

The NEP factors	Three divisions of the NEP
Right speech	
Right action	Morality ( <i>Sīla</i> )
Right livelihood	
Right effort	
Right mindfulness	Concentration ( <i>Samādhi</i> )
Right concentration	
Right view	
Right intention	Wisdom ( <i>Paññā</i> )

The training of higher morality (*sīla*) is the foundation of training on higher consciousness that develops concentration (*samādhi*). This training is the basis of training on higher wisdom (*paññā*) (Cousins, 1984). The practitioner who has completed all three trainings is an *arhat* (Pali: *arahant*) and thus free from the cycle of rebirth. Although the three trainings on *sīla*, *samādhi*, and *paññā* are presented linearly, they dynamically interact with each other in practice (Coleman, 1980; Gethin, 1998). While *sīla* restrains one's behaviour and speech that serves as preparation for a unified mind in meditation, progress in *samādhi*, and *paññā* facilitates *sīla* to mature from effortful good conduct to effortless good conduct. The association between the eight path factors is expounded in *Maha-cattarisaka Sutta: The Great Forty* (MN117, translated from the Pali by Thanissaro, 2008). The establishment of right concentration is said to be based on the support of all the other seven factors. Developing right view,

right intention, right speech, right action, and right livelihood involve making effort and being mindful to abandon wrong view, wrong intention, wrong speech, wrong action, and wrong livelihood. Thus, right view, right effort, and right mindfulness accompany the development of each of those path factors. It also means wisdom and virtue are developed with the support of right view, right effort, and right mindfulness.

Three trainings of morality (*sīla*), concentration (*samādhi/samatha*) and wisdom (*paññā*) are antidotes for craving and, more importantly, ignorance. Ignorance denotes not knowing the message contained in *Four Noble Truths*, and it is the ultimate root of suffering (SN12:2, translated from the Pali by Thanissaro, 2010). Craving and ignorance are manifested as unwholesome mental states of greed, hatred, and delusion, which are the three fundamental defilements obscuring the inherently pure and radiant mind (Gethin, 1998). The defilements exist in three forms (Bodhi, 1998): The coarse form is bodily and verbal conducts, followed by subtle form of thoughts, emotions, and intention in consciousness, and the subtlest form of the defilement is latent tendency in unconsciousness (Waldron, 2003). Morality denotes perfecting precepts, and it deals with the defilements that are manifested as misconducts. Concentration is a state of wholesome one-pointedness of mind. It removes defilements of craving in consciousness, suppresses arising of unwholesome mental factors, and encourages wholesome mental factors. Insight (*vipassanā*) refers to the intuitive understanding of impermanence, suffering, and lack of an inherent self nature of conditioned phenomena through meditative observing, investigating, analysing, and discerning of mental and bodily processes. Insight matures in wisdom (*paññā*) to realise *nirvāna* and in turn eradicate ignorance as a latent tendency. Insight and wisdom do not refer merely to intellectual knowledge of reality but to intuitive knowledge, described as *seeing*. In

short, the three trainings of higher morality, higher consciousness, and higher wisdom purify not only defilements manifested by gross behaviours but also subtle cognition.

## **1.4 Conclusion**

Buddhism is a religious and philosophical tradition with over 2,500 years of history (Gethin, 1998). Theravāda, Mahāyāna, and Vajrayāna are the three main traditions of Buddhism today. Although these three traditions differ in scriptures and practices to some extent, fundamental teachings of the Buddha, such as the *Four Noble Truths*, remain the same. Buddhism concerns the origin of *dukkha*, and provides a pragmatic means to cease *dukkha* through the *Noble Eightfold Path*. Although the *Four Noble Truths* reveal the universality of suffering, Buddhism also provides hope to eliminate suffering and achieve eternal happiness (Mahathera, 1998). Buddhist happiness is claimed to be based not on external stimuli, and to be a genuine and everlasting happiness arising from a perfectly balanced mental state (Ekman, Davidson, Richard, & Wallace, 2005).

## **Chapter 2: Literature Review-*Sati*/Mindfulness in Early Theravāda Buddhism**

### **2.1 Introduction**

Right mindfulness is one of the eight noble path factors (Table 1). *Mindfulness* is the English translation for the Pali word *sati* in Buddhist scriptures. *Sati* is derived from *sarati*, which denotes *to remember* (Anālayo, 2003). The well-accepted English term now for *sati* is *mindfulness*, translated by T.W. Rhys Davids in 1881 (Gethin, 2011). Rhys Davids noted that it was hard to find a corresponding English term for *sati*, and his translation of mindfulness connoted remembering the natural laws of phenomena in Buddhism, such as impermanence, which mirrored a Christian value of remembering to do everything to the glory of God (Gethin, 2011). Prior to that, there were other English translations for *sati*, such as recollection, calling to mind, or even conscience (Gethin, 2011).

In this chapter, *sati*/mindfulness in the Pali Canon and the post-canonical Pali literature will be presented, followed by meditation in early Buddhism. The Pali Canon is the collection of scriptures in the Theravāda tradition. The reason that the present thesis refers to this canon in depth is that it is the most complete extant early Buddhist Canon and has been fully translated into English (Harvey, 2013). Also, the practice that influences mindfulness in psychology most substantially is from the Theravāda tradition (Gilpin, 2008). It does not necessarily mean that classic mindfulness in other traditions will be different: As Chapter 1 mentioned, most collections of discourse (*Sutta Pitaka*) are the same across the various schools (Gethin, 2001). Two post-canonical well-known texts referred to in this chapter are *Visuddhimagga* (*The Path of Purification*, translated

by Nanamoli from the Pali, 2011) and *The Milinda Panha (The Questions of King Milinda*, translated by T.W. Rhys Davids from the Pali, 1890).

## 2.2 Mindfulness in the Pali Canon

### 2.2.1 *The faculty of mindfulness*

*Indriya* is the Pali term for *faculty*, which means “controlling principle, directive force” (Rhys Davids & Stede, 1921, p.138). In the *Dhammasangani*, the faculty of mindfulness is defined as follows:

The mindfulness which on that occasion is recollecting, calling back to mind; the mindfulness which is remember-ing, bearing in mind, the opposite of superficiality and of obliviousness; mindfulness as faculty, mindfulness as power, right mindfulness — this is the faculty of mindfulness that there then is (*The Dhammasangani: A Buddhist Manual of Psychological Ethics*, translated from the Pali by C.A.F. Rhys Davids, 1900, p.85).

The faculty of mindfulness is defined in the Samyutta Nikāya (SN) 48:9 and the SN48:10 as “remember[ing] and recollect[ing] what was done and said long ago” (SN48:9 & SN48:10, translated by Bodhi from the Pali, p.1671-1672, 2000). Thus, it is an ability of retrieving information from long-term memory. This definition relates to some meditations to develop concentration that require recalling one’s own behaviours (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). For example, for the *recollection of virtue* meditation, the meditative object is the meditator’s own moral conducts. The meditation of *recollection of deities* requires the meditator to recollect his/her own quality of faith. Also, for *cemetery contemplations*, the meditator needs to remember how he/she gets to and comes back from the cemetery, what he/she did there

so that absorption can be attained by recalling those details after he/she arrives home. Overall, the memories are built upon the right practices and are retrieved to serve the right purpose of developing concentration.

The SN48:10 also relates the faculty of mindfulness to meditation on body, feeling, mind, and mental qualities as follows:

There is the case where a monk, a disciple of the noble ones, is mindful, highly meticulous, remembering & [sic] able to call to mind even things that were done & said long ago. He remains focused on the body in & of itself — ardent, alert, & mindful — putting aside greed & distress with reference to the world. He remains focused on feelings in & of themselves... the mind in & of itself... mental qualities in & of themselves — ardent, alert, & mindful — putting aside greed & distress with reference to the world. This is called the faculty of mindfulness (SN48:10, translated by Thanissaro from the Pali, 2010).

### ***2.2.2 Mindfulness in terms of Satipatthāna practice***

The practice in the SN48:10 above is *Satipatthāna* practice (SN48:10, translated by Thanissaro from the Pali, 2010) written in the *Mahā-satipatthāna Sutta* (DN22, translated by Thanissaro from the Pali, 2011) and the *Satipatthāna Sutta* (MN 10, translated by Thanissaro from the Pali, 2010). The *Satipatthāna Sutta* is particularly important in relation to mindfulness in the modern period as it is claimed to be the canonical source of the modern insight/mindfulness meditation that prevails in the West (Sharf, 1995; Dhammaratana, 1984; Anālayo, 2012). *Four Foundation of Mindfulness* is the well accepted and commonly used translation now for *Satipatthāna*. Alternative translations for *Satipatthāna* are *Four Earnest Meditations* by Rhys Davids in 1886, and *Four Intent Contemplations* translated by Henry Clarke Warren in 1896 (Wilson, 2014).

*Upatthāna* denotes *establishment* (*The Path of Purification*, translated by Nanamoli from the Pali, 2011) or *presence* (Anālayo, 2003), and thus the *Satipatthāna* is also translated as *establishment of mindfulness* or *presence of mindfulness*. *Satipatthāna* practice develops both concentration and insight, and is praised by the Buddha as the direct path of overcoming suffering.

The *Satipatthāna* is practised on body, feelings, mind, and mental quality (DN22, translated by Thanissaro from the Pali, 2011). These four aspects of the *Satipatthāna* are noted by the Buddha as the proper range of attention (SN47:6, translated by Thanissaro from the Pali, 1997). The mind is tied on those four objects to focus inwardly to gain insight of impermanence, suffering, and no-self. The purpose of *Satipatthāna* practice is to see the truth of body, feelings, mind, and mental quality. Body is viewed as ugly, suffering is detected in pleasure, mental states are seen as impermanent, and there is no unchanging self (Gethin, 2001). Gethin (2001) believed that *sati* in the *Satipatthāna* practice was recollecting the relative value of everything properly so that misconception and attachment to body, feeling, mind, and self is abandoned. *Sati* in this way may better be described as *wise mindfulness* (Dreyfus, 2011, p.50), as it is bound with clear comprehension with the ability of discerning.

As mentioned previously, *right mindfulness* as one of the path factors (Table 1) denotes remembering to develop right path factors and to abandon its opposite wrong factors. In the Pali canon, right mindfulness refers to mindfulness that is morally right or wholesome (Stanley, 2015). Right mindfulness is also expounded in terms of the *Satipatthāna* practice as follows:

And what is right mindfulness? There is the case where a monk remains focused on the body in & of itself — ardent, alert, & mindful — putting aside greed & distress

with reference to the world. He remains focused on feelings in & of themselves... the mind in & of itself... mental qualities in & of themselves — ardent, alert, & mindful — putting aside greed & distress with reference to the world. This is called right mindfulness (DN22, translated by Thanissaro from the Pali, 2013).

There are seven factors of enlightenment, namely, mindfulness, keen investigation of the dhamma, energy, happiness, tranquillity, concentration, and equanimity (Piyadassi, 1960). Those are the qualities that are conducive to enlightenment. Mindfulness is the first enlightenment factor, and the SN46:3 states that it is aroused when the teachings of Buddha are remembered and reflected on (SN46:3, translated from the Pali by Ireland, 2008). Lack of mindfulness underlies unsystematic reflection that does not see the nature of phenomena as impermanent, suffering, and no-self (Piyadassi, 2006). Fostering appropriate attention to virtue and right view encourages the arising and growth of the enlightenment factor of mindfulness (SN46:51, translated from the Thanissaro from the Pali, 2008).

### ***2.2.3 Protective and governing functions of mindfulness***

In the *Nagara Sutta*, mindfulness is described as a gatekeeper in the way that it distinguishes wholesome qualities and unwholesome qualities (AN7:63, translated from the Pali by Thanissaro from the Pali, 2004):

Just as the royal frontier fortress has a gate-keeper — wise, experienced, intelligent — to keep out those he doesn't know and to let in those he does, for the protection of those within and to ward off those without; in the same way a disciple of the noble ones is mindful, highly meticulous, remembering & able to call to mind even things that were done & said long ago. With mindfulness as his gate-keeper, the disciple of

the noble ones abandons what is unskillful, develops what is skillful, abandons what is blameworthy, develops what is blameless, and looks after himself with purity.

In the *Beauty Queen Sutta* (SN47:20, translated by Thanissaro from Pali, 2010), the guarding function of mindfulness was illustrated by the Buddha asking monks to think about the following situation. A man with a bowl full of oil on his head was walking between an excited crowd where a beauty queen was dancing and singing. If one drop of oil was spilled, his head would be cut off by a person following him with a sword. The Buddha asked monks if the man would pay attention to the crowd and the beauty queen instead of the bowl. Certainly, the man must be highly concentrated on the bowl and not distracted by the external stimuli to avoid death. The bowl with oil is likened by the Buddha to mindfulness immersed in body. The story tells us that mindfulness means, firstly, restraining one's senses not to be attracted and disturbed by the external deathful sensual stimuli; secondly, bearing in mind what leads to beneficial outcomes and what leads to negative consequences; and thirdly, always paying unwavering proper attention to the object that leads to beneficial outcomes.

Mindfulness not only protects the mind from getting distracted or entering unwholesome mental states, but also deals with existing unwholesomeness. The *Sacitta Sutta* (AN10:51, translated from the Pali by Thanissaro from the Pali, 2013) encourages practitioners to investigate mind to identify if any unwholesome qualities such as anger exist. Mindfulness works together with other mental factors such as effort and diligence to abandon the existing unwholesome qualities. Thus, *sati* protects the mind by making moral judgment, and restraining the senses. Kuan (2008) has classified this type of *sati* as protective awareness.

In addition to protecting the mind in the present, *sati* is said to be the governing principle for all phenomena (AN10:58, translated by Thanissaro from the Pali, 2004) as it determines future direction of practice:

And how is mindfulness the governing principle? The mindfulness that 'I will make complete any training with regard to good conduct that is not yet complete, or I will protect with discernment any training with regard to good conduct that is complete' is well established right within. The mindfulness that 'I will make complete any training with regard to the basics of the holy life that is not yet complete, or I will protect with discernment any training with regard to the basics of the holy life that is complete' is well established right within. The mindfulness that 'I will scrutiny[s]e with discernment any Dhamma that is not yet scrutiny[s]ed, or I will protect with discernment any Dhamma that has been scrutiny[s]ed' is well established right within. The mindfulness that 'I will touch through release any Dhamma that is not yet touched, or I will protect with discernment any Dhamma that has been touched' is well established right within. (AN4:245, translated by Thanissaro from the Pali, 2012).

Generally, *sati* in the Pali canon was presented as a mental factor that has different functions. *Sati* originates from faith in the teachings and proper attention (AN 10:61 & 62, translated by Nyanaponika and Bodhi from the Pali, 1990), and it is not only related to present activities but also the future direction of practice. As Gethin (2011) pointed out, remembering is an important aspect of *sati* in early Buddhism. The faculty of mindfulness that denotes remembering and memory seems to form a basis for operational functions of *sati*. By bearing in mind the differences between

wholesomeness and unwholesomeness, mindfulness guards the mind as a gatekeeper, and deals with existing defilements. *Sati* also prevents future arising of unwholesomeness by governing the direction of developing good conduct in the future. Thus, *sati* in Buddhism is said to be associated with conscience (Gethin, 2011). By remembering and truly seeing what you are doing in every moment, thoughts and behaviours driven by defilements were said to become impossible. Also, in meditations, mindfulness helps to establish a sustained mind by remembering what you should be doing and the correct way of doing it. In *Satipatthāna* practice for cultivating insight, *sati* observes phenomena and reflects Buddhist teachings of nature of reality on them. *Sati* in this sense is closely related to wisdom (Gethin, 2001). Overall, *sati* in the Pali canon presented itself as ethical and wise.

### **2.3 Mindfulness in the Post-Canonical Pali Literature**

*The Path of Purification* is a classic Theravāda treatise written in the 5th CE by the great commentator named Buddhaghosa (Gethin, 1998). *The Path of Purification* says that “mindfulness is one ‘in eight ways’ since it is the four foundations of mindfulness, a faculty, a power, an enlightenment factor, and a path factor” (*The Path of Purification*, translated by Nanamoli from the Pali, 2011, p.710). According to this conceptualisation, therefore, mindfulness is viewed as a multi-faceted concept.

*Sati* is explained in the *Path of Purification* as follows:

By its means they remember (*saranti*), or it itself remembers, or it is just mere remembering (*saraṁā*), thus it is mindfulness (*sati*). It has the characteristic of not wobbling. Its function is not to forget. It is manifested as guarding, or it is manifested as the state of confronting an objective field. Its proximate cause is strong perception,

or its proximate cause is the foundations of mindfulness concerned with the body, and so on. It should be regarded, however, as like a pillar because it is firmly founded, or as like a door-keeper because it guards the eye-door, and so on (*The Path of Purification*, translated by Nanamoli from the Pali, 2011, p.471).

It is obvious that remembering is an important aspect of mindfulness. Buddhaghosa explained that *sati* is remembering the meditative object and the truth of impermanence, suffering, and no-self (Piyadassi, 1960). *Sati* is like a rope that ties the mind on the meditative object to develop concentration (*The Path of Purification*, translated by Nanamoli from the Pali, 2011).

In addition, *right mindfulness* is defined in relation to remembering the right view:

When he exerts himself thus, the non-forgetfulness in his mind, which is associated with that right view, shakes off wrong mindfulness, and that is called right mindfulness. It has the characteristic of establishing. Its function is not to forget. It is manifested as the abandoning of wrong mindfulness (*The Path of Purification*, translated by Nanamoli from the Pali, 2011, p.525).

*The Milinda Panha* dates from the 1st or 2nd century BCE recording the dialogues between King Milinda and a Buddhist sage (Hinuber, 1996). In *The Milinda Panha*, the meaning of *sati* is similar to the western concept of conscience or moral sense (C.A.F. Rhys Davids, 1900). The characteristics of *sati* in this post-canonical text are described by the sage Nāgasena as “repetition” and “keeping up” (*The Questions of King Milinda*, translated from the Pali by T.W. Rhys Davids, 1890, p.58). *Sati* is portrayed as repeatedly reminding oneself about wholesome and unwholesome qualities, remembering to develop the qualities that should be cultivated, and discriminating between unwholesome and wholesome qualities within self in order to abandon

unwholesome ones. The contemporary Buddhist scholar Gethin (2001) believed that *sati* in *The Milinda Panha* suggested that *sati* allows remembering the full range of teachings and thus was aware of the relative value of things.

## 2.4 Meditation in Early Buddhism

The Buddha was quoted to say that “[p]urity [and] impurity are one’s own doing. No one purifies another” (*Dhammapada* 165, translated by Thanissaro from the Pali, 1998, p.67). The path to salvation is pointed to by the Buddha, but spiritual perfection is gained through personal efforts, not an external authority. People are invited to meditate and practice the path to investigate reality and understand the Buddhist teachings experientially. There is no precise corresponding Pali term for *meditation*, and several Pali terms including *bhāvanā*, *jhāna*, *yoga*, and *kammatthāna* have been suggested (Gethin, 2004). *Bhāvanā* literally means *bring into being*, *cultivation*, or *development*, which refers to exercises that cultivate wholesome mental qualities. *Jhāna* is a state of deep mental unification, and the word derives from *dhyā* (deep thought). *Yoga* denotes *work* or *effort* and it encompasses all meditative techniques of spiritual practices. *Kammatthāna* refers to objects and methods of meditation practice. *Bhāvanā* is more frequently used by scholars as the corresponding term for meditation (Cousins, 1996; Shaw, 2006). Compared with the term *meditation*, which refers to the meditative practice explicitly cultivating concentration/calm abiding (*samādhi/samatha*) and insight (*vipassanā*), *bhāvanā* indicates a wider range of activities and practices not only including concentration and insight meditation but also chanting and studying teachings (Cousins, 1996).

*The Path of Purification* illustrates 40 meditations that develop different levels of concentration (Translated by Nanamoli from the Pali, 2011). Together with the

*Satipatthāna* practice in the canon, they cover all the formal meditations in the Theravāda scriptures that cultivate concentration and insight/wisdom. Both concentration and insight are essentially the qualities required for enlightenment. It is said that the mind is developed if concentration is cultivated, and wisdom is developed when insight is cultivated (AN 2:30, translated by Thanissaro from the Pali, 2010). Concentration has the function to remove the defilements manifested as emotions and thoughts and in turn brings the mind back to its original stillness and clarity. A mind without the hindrances such as ill will and worry is like a bowl of clear water that can reflect a person's face clearly (SN46:55, translated by Walshe from the Pali, 2010). Through developing concentration, attention ability is refined so that even subtle phenomena can be investigated, and the nature of reality can be seen. When the mind is enlightened through wisdom during meditation, it sees everything in this world being constituted of conditioned phenomena. Subjective experience is broken up into discrete consciousness moments instead of the coherent flow of consciousness reflecting reality (Gethin, 1998).

Craving and ignorance, in essence, are mental afflictions that are eliminated through concentration and wisdom cultivated by meditation. There are different ways in terms of the sequence of cultivating concentration and insight (Harvey, 2015). The vehicle of serenity, which is the most common way of developing meditation, refers to developing serenity before cultivating insight. In contrast, practitioners who take the vehicle of insight cultivate insight before developing serenity. Meditations can be classified into concentration meditation that aims to develop serenity, and insight meditation that aims to cultivate insight of the nature of phenomena (Harvey, 2015). Meditators usually recede to a quiet place, sit with legs crossed and direct attention to their chosen object of

meditation. For the practice of developing concentration, attention is directed to and fixed on a certain object in order to establish an un-scattered mind. For example, mindfulness of death is practised through contemplating on a dead person with a previously enjoyable life and reciting “death, death” (*The Path of Purification*, translated by Nanamoli from the Pali, 2011, p.226). Mindfulness (*sati*) acts as a rope that ties the mind onto the object (*The Path of Purification*, translated by Nanamoli from the Pali, 2011), and the wandering mind should be brought back to the object. Insight meditations are more analytical than concentration meditations (Harvey, 2015). In insight meditation, the nature of phenomena is being contemplated, and the mind is not fully focused on a chosen object.

#### ***2.4.1 Forty meditative objects and jhāna***

Concentration meditation develops absorption after obstructive factors are abandoned, and factors composing absorption are acquired. The state of *access concentration* is achieved when bodily pain and the five hindrances (lust, ill will, stiffness and torpor, agitation and worry, uncertainty) are subdued and the mind ceases to be scattered. This is the stage prior to *jhāna* and it is likened to a walking toddler that could easily fall down because factors possessed in the *access concentration* such as happiness and bliss are not as strong as those in the *jhāna*. The indicator of *access concentration* is recalling the meditative object accurately with eyes closed after fixing the mind on an object with eyes open. Concentrating on the visualised image activates the mental factors determinative of *jhāna*. At this stage, however, the strength of *jhāna* factors is not sufficient to give the state of full absorption. As *access concentration* deepens, the factors become stable and the mind enters a state of full absorption, which is the *first jhāna*. In *jhāna*, the mind remains continuously in concentration.

In total, there are eight *jhānas*, including four material *jhānas* and four immaterial *jhānas*. The immaterial *jhānas* are higher meditative states than the four material *jhānas*. Objects for material *jhānas* are forms or concepts, while immaterial *jhānas* are attained through formless objects such as boundless consciousness. The first *jhāna* possesses five factors, namely, applied thought, sustained thought, happiness, bliss, and concentration. Applied thought is a mental factor that directs the mind towards an object, and sustained thought fixes the mind on the object. Applied and sustained thought subside when one enters the second *jhāna* that has happiness, bliss, concentration, and established faith with full clarity and serenity. After the fading away of happiness, the third *jhāna* is obtained. Among the five *jhāna* pertaining to the first *jhāna*, bliss and concentration remain at this stage. Mindfulness (*sati*), and clear comprehension (*sampajāna*) are not evident until the third *jhāna* (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). The fourth *jhāna* is attained after bliss is abandoned. In that state, the mind is entirely pure and still. From the first to the fourth *jhāna*, gross factors are eliminated step by step, and the remaining factors become subtler, peaceful, and more profound than before. Equanimity and mindfulness present in lower *jhānas* but they are not pure. In the fourth *jhāna*, both equanimity and mindfulness are purified, and equanimity is associated with equanimous neutral feelings.

The 40 meditation objects shown in Table 2.1 are illustrated in *The Path of Purification*. The 40 meditation objects encompass *ten recollections, one perception, and one defining of the four elements, ten kinds of foulness, four divine abiding, ten kasinas, and four immaterial states*. The ten recollections shown in the table mainly involved memory and thoughts to induce positive feelings conducive for concentration. One perception is the repulsiveness of food. *One defining of the four elements* refers to the

defining of earth, water, fire, and air that constitute the body. The physical body is analysed into the four elements and associated characteristics. For example, hair and teeth are classified as the earth element with the characteristic of solidness. *The ten kinds of foulness* are meditations of a corpse to reduce sensual lust. *The four divine abiding* develop loving-kindness, compassion, sympathetic joy and equanimity towards all sentient beings. A *kasina* is a visual object with a particular quality to be gazed upon to develop concentration. The object can be a natural form or a device that is made for meditation. For example, a bowl of water or sea can be an object of *water kasina meditation*. *The four immaterial states* are the base of boundless space, the base of boundless consciousness, the base of nothingness, and the base of neither perception-nor-non-perception. Four immaterial *jhānas* arise from contemplating on the four immaterial states.

**Table 2.1**

*Forty concentration meditation objects in relation to levels of concentration*

Meditation objects		Access concentration	Material jhānas				Immaterial jhānas			
			1st	2nd	3rd	4th	5th	6th	7th	8th
The ten kinds of recollection	Recollection of the Buddha	√								
	Recollection of the Dhamma (the Law)	√								
	Recollection of the Sangha (the Community)	√								
	Recollection of virtue	√								
	Recollection of generosity	√								
	Recollection of deities	√								
	Recollection (or mindfulness) of death	√								
	Recollection of peace	√								
	Mindfulness occupied with the body	√	√							
	Mindfulness of breathing	√	√	√	√	√				
One perception	The perception of repulsiveness in nutriment	√								
One defining	The defining of the four elements	√								
The ten kinds of foulness with mindfulness of the body	The bloated	√	√							
	The livid	√	√							
	The festering,	√	√							
	The cutup	√	√							
	The gnawed	√	√							
	The scattered	√	√							
	The hacked and scattered	√	√							
	The bleeding	√	√							
	The worminfested	√	√							
	A skeleton	√	√							
Four divine abiding	Loving-kindness	√	√	√	√					
	Compassion	√	√	√	√					
	Gladness	√	√	√	√					
	Equanimity						√			
The ten kasinas together with mindfulness of breathing	Earth kasina	√	√	√	√	√				
	Water kasina	√	√	√	√	√				
	Fire kasina	√	√	√	√	√				
	Air kasina	√	√	√	√	√				
	Blue kasina	√	√	√	√	√				
	Yellow kasina	√	√	√	√	√				
	Red kasina	√	√	√	√	√				
	White kasina	√	√	√	√	√				
	Light kasina	√	√	√	√	√				
	Limited-space kasina	√	√	√	√	√				
The four immaterial states	The base consisting of boundless space						√			
	The base consisting of boundless consciousness							√		
	The base consisting of neither perception nor non-perception									√

Meditation on the perception of repulsiveness in nutriment, the defining of the four elements, and the ten recollections except mindfulness occupied with the body and

mindfulness of breathing only leads to *access concentration*. Four immaterial *jhānas* arise from contemplating on the four immaterial states. In addition, different meditation objects suit different personality types. For example, *loving kindness* meditation is suitable for a hating type (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). Mindfulness of breathing suits all types of personality and is especially useful in reducing discursive thinking. Loving kindness meditation and mindfulness of breathing are commonly practiced today (Cousins, 1996).

The above-listed 40 meditations are not exclusively for developing concentration (*samādhi/samatha*). For example, mindfulness of breathing develops both concentration and insight (Anālayo, 2015). Mindfulness of breathing includes 16 steps of practice that are classified into four tetrads. The fourth tetrads develop insight by contemplating impermanence, contemplating fading away, contemplating cessation, and contemplating letting go (Anālayo, 2015). Through the practice, the insights of not only the nature of breath, but also the nature of all aspects of experience are obtained. When mindfulness of breathing is practised as a concentration meditation, practitioners focused attention on the peaceful aspect of breath to develop *jhānas* (Shaw, 2006).

#### ***2.4.2 The Satipatthānāpractice***

As mentioned previously, the *Satipatthānāpractice* is complimented by the Buddha as the direct path to awakening and is usually translated as the four foundations of mindfulness (DN22, translated by Thanissaro from the Pali, 2011). The practice is an introspection that contemplates on impermanence, suffering and no-self of body, feelings, mind, and all conditioned phenomena. *Satipatthāna* practice is defined in terms of right mindfulness in the *Maha-SatipatthānaSutta* (DN22, translated by

Thanissaro from the Pali, 2011) and thus the right path factors will be developed through its practice. Through the *Satipatthāna* practice, diligence (*ātāppa*), mindfulness (*sati*), clear comprehension (*sampajāna*), and being free from desire and aversion are established (Anālayo, 2003; Thanissaro, 2012). Diligence denotes right effort aimed at acquiring skillful qualities. Clear comprehension is not the simple awareness of present activities of mind and body only. Rather, it concerns comprehensive understandings of the purpose and suitability of activities, the range of the right practice, and the true reality reflected by the activities (Soma, 1998; Nyanaponika, 2005; Anālayo, 2003). In the *Abhidhamma*, clear comprehension pertains to the mental factor of wisdom (Shaw, 2006), and *sati* is almost synonymous with clear comprehension (Rhys Davids & Stede, 1921). The association between *sati* and clear comprehension is not surprising. In the *Satipatthāna* practice, a role of *sati* is keeping the object and purpose of proper attention in mind (Thanissaro, 2010a). Without remembering to pay proper attention, the clear comprehension of current activities would not be possible. In addition, some scholars treated clear comprehension as one type of mindfulness which refers to effortless watchfulness of body and mind, and sometimes *sampajāna* was translated as mindfulness of purpose (Lomas & Jnanavaca, 2015).

The first *Satipatthāna* practice is the contemplation of the body that begins with practicing the first tetrad of mindfulness of breathing in and out (Pali: *Ānāpānasati*). The meditator should be aware of his or her breathing while maintaining attention on the nostrils. After gaining concentration from mindfulness of breathing which is a seated meditation, the practice is extended in everyday life through insight practice on body postures including walking, standing, sitting or lying. This is to contemplate that it is not a static self that is involved in different postures but mentality and a physical form

(Soma, 1998). The contemplation on body continues on bodily movements, such as going forward and returning, looking ahead and looking around, eating, drinking etc., with the emphasis on *sati* and clear comprehension of those activities. As mentioned earlier, *sati* is often coupled with clear comprehension. Clear comprehension here refers to understanding the purpose of an activity and whether the activity is the best way to achieve the goal, understanding the associations between an activity and the meditative range of right mindfulness, and understanding the true nature of reality based on no-self (Anālayo, 2003).

The subsequent contemplations of the first *Satipatthāna* practice are contemplations on the 32 parts of the body, nine cemetery contemplations on the decomposition of the body, and the analysis of the physical body into the elemental modes of solidity, fluidity, heat, and oscillation. These practices are the practices listed in the above 40 meditations (Table 2.1). Overall, the practices deal with attachment to the beauty of the body and the perception of body as “I” and “self”. Perception of body’s beauty, craving for sensuality and delusion of permanence of self-existence are abandoned through the practice. The practice is also intended to reveal that the true character of the body is a repulsive material object subjected to change and decay.

The second *Satipatthāna* practice is the contemplation of feelings (Pali: *vedanā*). Feelings arise from contacting stimuli through the sense bases (SN 36:7, translated by Thanissaro from the Pali, 1997). People usually crave pleasant feelings, resist unpleasant feelings, and neglect neutral feelings (MN137, translated by Thanissaro from the Pali, 2013). During this contemplative practice, habitual reactions to feelings are held back and the meditator simply registers and observes whether bodily and mental

feelings are pleasant, unpleasant, or neutral. Arising and passing away of feelings is then observed, and feelings are contemplated as transient as they are born from an impermanent body. The realisation arrives that clinging to fleeting feelings inevitably brings unhappiness. Hence, habitual responses to feelings are changed to non-clinging reactions.

The third *Satipatthāna* practice is the contemplation of mind that covers 16 unwholesome mental states such as anger and wholesome mental states of mind such as concentration. The presence or absence of different states of mind are observed and discerned. Origination and passing away of the phenomena that induce the state of mind are also observed. For example, pleasant sights and sounds may distract the mind. The awareness is not passive but associated with the aim to achieve mental balance and to replace unwholesome mental states with wholesome ones (Thanissaro, 2012).

According to the *Abhidhamma*, coherent awareness experience is made of discrete consciousness, arising and dissolving from moment to moment (Gethin, 1998). As concentration deepens, state of mind is not identified as self or owned by self.

The last practice is the contemplation of mental quality including the five hindrances, five aggregates, the six sense bases, the seven enlightenment factors, the four noble truths, and the eightfold path. The five hindrances are the unwholesome qualities mentioned above that hinder absorption attainment. This practice involves noting the conditions that lead to the arising and dissolving of the mental qualities, and also the conditions that prevent the arising of the hindrances and encourage the enlightenment factors. The five aggregates are material form, feeling, perception, mental formation, and consciousness, which all together constitute human body and experience. Arising

and passing away of the aggregates are contemplated, and the aggregates are seen as conditioned. Impermanence, suffering, and no-self of the aggregates are also to be contemplated.

While the hindrances denote qualities to be abandoned in *Satipatthāna* practice, the seven enlightenment factors refer to wholesome mental qualities that should be cultivated. As mentioned early in this chapter, these are mindfulness, energy, happiness, keen investigation of the dhamma, tranquillity, concentration, and equanimity (Piyadassi, 1960). During meditation, when the mind is lethargic, the practitioner is encouraged to stimulate his or her mind by developing energy, happiness, and investigation of *dhamma* instead of tranquillity, concentration, and equanimity. On the other hand, when the mind is agitated, one should develop a calm mind through tranquillity, concentration, and equanimity (SN46:53, translated by T. Bhukku from the Pali, 2012). *Satipatthāna* practice goes through seven stages of purifications, and eight knowledges from seeing the rise and fall of dhamma to the knowledge of equanimity with regard to formations are gained before achieving enlightenment (Gethin, 1998). *Satipatthāna* practice culminates with the breakthrough seeing *nirvāna* (Pali: *nibbāna*) as the unconditioned. The fourth stage of the path is *arahantship* that craving and ignorance are eradicated.

## **2.5 Conclusion**

The meaning of *Sati* is generally communicated in a consistent fashion in the discourses and classic commentaries. *Sati* in early Buddhism is the ability of recollecting, remembering the right view and the right object, remembering the range of wholesome and unwholesome phenomena, and the quality established through *Satipatthāna* practice.

It guards the mind against unwholesomeness, holds the proper object in mind for developing concentration and helps to discern the true reality for developing wisdom. In essence, it is remembering, applying, and reflecting on the Buddhist teachings.

Meditation in early Buddhism includes meditations on 40 objects and the *Satipatthāna* practice to develop concentration and insight. Different levels of concentration are developed through different meditations. Concentration itself, however, cannot eradicate ignorance, which is the ultimate root of suffering. Ignorance can only be discarded by wisdom in meditation and seeing that only conditioned elements are involved in subjective experience. Mindfulness retains the object for meditation to develop concentration and is coupled with clear comprehension to discern reality. Mindfulness is the factor required all the time during meditation.

## Chapter 3: Literature Review-Modern Mindfulness

### 3.1 Introduction

Nowadays in the West, mindfulness that is claimed to be rooted in Buddhism is prevalent in various aspects of everyday life (Wilson, 2014). Specifically, mindfulness was successfully introduced to mainstream psychology, and the interpretation of *sati*/mindfulness as “*non-judgmental awareness*” and “*bare attention*” have remained dominant. The rise in the popularity and influence of mindfulness in the United States since the 1970s is associated with the *Insight Meditation Movement*, which is a revival of *Satipatthāna* practice in Buddhism (Cousins, 1996). The *Insight Meditation Movement* is a lay-oriented reform movement that emerged in the 19<sup>th</sup> century in Burma and then spread to the southern Buddhist countries such as Sri Lanka, Thailand, and India, and also western countries such as England, Germany, and the United States since the last century (Cousins, 1996).

The *Insight Meditation Movement* emphasises the importance of developing insight (Pali: *Vipassana*). Today, modern Burmese insight meditation continues to exert a dominant influence on accounts of meditation in the West (Cousins, 1996). Insight is the intuitive understanding of conditioned phenomena through meditative observing, investigating, analysing, and discerning of mental and bodily processes. It does not result from intellectual knowledge but only develops with continued meditation practice. There are three approaches taught by Mahāsi Sayadaw, Satya Narayan Goenka, and Pa Auk Sayadaw, respectively, and all three approaches claim that the *Satipatthāna* sutta is their canonical basis (Sharf, 1995). Mahāsi Sayadaw’s approach is the most influential insight meditation in the West (Cousins, 1996). The concept of *bare attention* that features highly in his approach had a very large impact on how psychology

conceptualises mindfulness. The prominent Theravāda monk Henepola Gunaratana is also an important figure in the *Insight Meditation Movement* (Seager, 1999).

In addition to *Insight Meditation Movement*, Zen has also had great influence on American Buddhism (Seager, 1999) and mindfulness in psychology (Kabat-Zinn, 2011). Zen as known to the West, is a modern form of Zen that is different from classic approaches (Japanese *zen*; Chinese *chán*) that originated from China. Harvey (2015) claimed that mindfulness defined by Kabat-Zinn was influenced by Zen teachings. Mindfulness in psychology was instructed to be practised with a non-striving attitude of classic Zen (Kabat-Zinn, 2011), and Thich Nhat Hanh, a Zen master's teachings on everyday mindfulness was incorporated into a popular mindfulness scale (Baer, Smith, & Allen, 2004).

In this chapter, the Mahāsi Sayadaw's approach, and *bare attention*, based on the technique of Mahāsi Sayadaw's approach will be presented first, followed by discussions on mindfulness by Henepola Gunaratana and other insight meditation teachers. Subsequently, Zen will be illustrated, by mainly presenting teachings of D.T. Suzuki and Shunryu Suzuki who introduced modern Japanese Zen to the West, and Thich Nhat Hanh, who emphasised cultivating mindfulness in everyday life for living fully rather than retreating from the world for a spiritual goal.

## **3.2 Insight Meditation Movement**

### ***3.2.1 Mahāsi Sayādaw's approach***

*The Insight Meditation Movement* can be traced back to a Burmese monk, Ledi Sayādaw (1846-1923), who started to accept lay Buddhists to study Buddhist texts and practise meditation in centres he founded throughout Burma (Sharf, 1995). The modern

insight meditation was initiated later by Mingun Sayādaw who developed the principles and details of the practice from studying the *Satipatthāna sutta*. *The Insight Meditation Movement* emphasised meditative experience, thus promoting meditation in lay practitioners and de-emphasising scriptural learning and devotional practices (Sharf, 1995). Burmese insight meditation is prevalent in the West (Sharf, 1995). The insight meditation aims to develop insight of no-self, suffering, and impermanence, which characterise the truth of reality according to the Buddhist teachings (SN56:11, translated from the Pali by Bodhi, 2000).

Three approaches of insight meditation are taught by Mahāsi Sayādaw, S.N. Goenka and Pa Auk Sayādaw, respectively (Anālayo, 2012). Although all of the three modes claim to be based on the *Satipatthāna sutta*, specific practices and views on developing *jhāna*, a state of absorption, are different (Anālayo, 2012). Mahāsi Sayādaw's approach focuses on mindfulness of bodily postures. S.N. Goenka tended to teach more about mindfulness of feelings, and Pa Auk Sayādaw's approach tended to place more emphasis on mindfulness of the four elements that constitute the body. In addition, Mahāsi Sayadaw's approach disregarded formal development of *jhāna*, whereas S.N. Goenka's approach provided some formal training on mental tranquillity, and Pa Auk Sayādaw's approach requires much time to be spent on developing mental tranquillity. The approach popularised by Mahāsi Sayadaw was the first influential insight meditation approach in the West (Anālayo, 2012).

Mahāsi Sayādaw's approach bypasses the cultivation of *jhāna* and emphasises the importance of developing insight (Cousins, 1996). Insight, in his approach, is based on the lowest level of concentration called momentary concentration established through attending consistently to how phenomena change. This dynamic concentration flows from object to object with a constant degree of intensity. Mahāsi Sayādaw argued that

momentary concentration executes power equivalent to the level of concentration traditionally required for the goal of enlightenment (Cousins, 1996). His mode is portrayed by its adherents as a superior mode compared with concentration-oriented meditation (Cousins, 1996). They believed that concentration-oriented meditation that develops *jhāna* existed before the Buddha, and *jhāna* alone does not lead to enlightenment. It is insight, the Buddha's particular achievement that leads to liberation. Mahāsi Sayādaw's approach concerns the moment of perceiving that is usually accompanied with wrong views of self and concrete reality (Mahāsi Sayādaw, 1990). Subjective experience was said to occur when sense bases, stimuli, and consciousness meet. For instance, the experience of seeing involves the eye, a visible form, and eye-consciousness (MN148, translated by Thanissaro from the Pali, 2013). People, however, tend to believe that there is a concrete self with sense organs that perceives, instead of realising that impermanent mentality and materiality constitute the subjective experience. Through mindfulness, which was viewed by Mahāsi Sayādaw as "*concentration attention*" (Mahāsi Sayādaw, 1978, p.20), bodily and mental process can be distinguished by realising that the bodily movement is one process, and the knowing of it is another (Mahāsi Sayadaw, 1978). The main techniques of Mahāsi Sayādaw's approach to deal with this are observing and labelling immediate experience in terms of impermanent mentality and materiality (Mahāsi Sayādaw, 1990).

Mahāsi Sayādaw's approach breaks the mental process into the sense organs, the object, and consciousness to prevent the arising of view of self. The meditative technique is just observing and registering perceiving such as "seeing, seeing" or "hearing, hearing" without referring to self. The term of *bare attention* was mentioned by Mahāsi Sayādaw for this technique of observing. Beginners start from the practice of observing the rising and falling of the abdomen while breathing. Movements of the abdomen are labelled as

“rising, falling”, and the meditator also contemplates that the air element is the prominent factor of movement. Observing also applies to sitting that is noted as “sitting, sitting”. If the mind wanders or sensations occur, the meditator should only notice and register them and return to the rising and falling of the abdomen. The same techniques of observing and labelling applies to other exercises including mindful walking, lying down, washing, and eating. Every detail in the action is attended and noted.

According to Cousins (1996), the beginner’s practice of observing the rising and falling of the abdomen is Mahāsi Sayādaw’s own innovation to develop concentration. As concentration ability develops, the meditator in the advanced stage will see that perception is based on the materiality of the sense bases and the mentality of consciousness. In this way, the views of self and tangible reality are counteracted. Consistent observing will progress into clear seeing of the fact that the mental process only constitutes an endless course of arising and passing away of mentality and materiality. This leads to the insight of impermanence, suffering, and no-self, which then eliminates craving and ignorance. Thus, the beginner’s practice concentrates on fostering attention and awareness on body posture and bodily movements while the more advanced stage involves developing insight through observing and contemplating mental processes.

Ven. Mahāsi Sayādaw’s approach is a mode of *dry insight* that does not view developing *jhāna* and even access concentration as necessary for enlightenment (Cousins, 1996). Insight in this approach is developed based on momentary concentration. This path is less smooth and pleasurable than the paths which cultivate *jhāna*. The earliest textual evidence for insight meditation as a separate meditation is the term *dry insight* found in *The Path of Purification* (Cousins, 1996). While developing concentration prior to insight is the most common way of the path in ancient times, the

revival and spread of insight meditation in Burma and abroad has seen that the insight/mindfulness meditation, especially *dry insight* meditation, has nearly become a synonym for Theravāda meditation in the West today (Cousins, 1996). Concentration-oriented meditation is much less popular than modern insight meditation or even treated as inferior to insight meditation (Cousins, 1996). Although downplaying *jhāna* has been criticised by some Buddhist scholars (Gethin 2004, Thanissaro, 1999; Sujato, 2001; Chandako, 1997), Mahāsi Sayādaw's approach prevails in the West.

### **3.2.2 Bare attention**

Mahāsi Sayādaw's approach has shaped modern mindfulness through the definition of mindfulness based on the technique of his approach. The most influential interpretation of *sati* in the West was proposed in 1962 by Ven. Nyanaponika Thera who discussed *sati* in terms of *bare attention* in his well-known book, *The Heart of Buddhist Meditation*. *Bare attention* refers to simply registering the bare facts perceived by a purely receptive mind in the present moment without judgment and emotional reaction (Nyanaponika, 2005). *Bare attention* was said to have a threefold value of knowing the mind by attending to the mental processes objectively and patiently, shaping the mind by stopping the spontaneous self-centred reaction, and liberating the mind through increasing peace and harmony of non-attachment for developing insight.

Although Nyanaponika Thera (2005) provided a lengthy discussion on *bare attention*, he did not tend to treat *bare attention* as a theoretical definition of *sati*/mindfulness. Nyanaponika Thera (2005) mentioned that the original meaning of *sati* is *remembrance*. He noted that the normal use of *sati* in the canon is *right attention*, which is identical to *right mindfulness* in the *Noble Eightfold Path*. He explicitly stated that mindfulness in his book refers to *right attention/right mindfulness*. Nyanaponika Thera (2005) further

illustrated that *sati* in the form of *bare attention*, and *clear comprehension* (Pali: *sampajāna*), which is a discriminative awareness, both constitute *right mindfulness*. *Bare attention* and *clear comprehension* were described as the two modes of the *Satipatthāna* practice that enhance each other. Ven. Nyanaponika Thera practised with Ven. Mahāsi Sayādaw (Gethin, 2011), and the term *bare attention* that he coined was based on the meditative technique of the initial stage of that practice (Mahāsi Sayādaw, 1990). This was acknowledged in the notes of a treatise that was written by Mahāsi Sayādaw and translated by Nyanaponika Thera (Mahāsi Sayādaw, 1954/1965).

Nyanaponika Thera stated that *bare attention* in the treatise and his book is identical to *noticing*, and the corresponding Pali term is *sallakkheti*, which means *to observe clearly*. Also, non-action, non-activity, and watchful attitude of noticing all refer to *bare attention* in his book (Mahāsi Sayādaw, 1954/1965). Nyanaponika Thera (2005) stressed that *bare attention* is mainly practised during meditation, as it is hard to maintain *bare attention* during everyday life. In daily life, the second component of *right mindfulness*, *clear comprehension*, should function. Bhikkhu Bodhi, who was living with Nyanaponika Thera in the last ten years of Nyanaponika Thera's life, stated that Ven. Nyanaponika himself did not regard *bare attention* as "capturing the complete significance of *satipatthāna*, but as representing only one phase, the initial phase, in the meditative development of right mindfulness" (Wallace & Bodhi, 2006, p.4). Therefore, *bare attention* in Nyanaponika Thera (2005) is clearly a meditative technique in insight meditation. Nyanaponika Thera (2005) did emphasise the power of *bare attention*, and even claimed that "[b]are attention has the same threefold value as attributed earlier to the Buddha's Mind-Doctrine and to [r]ight [m]indfulness" (Nyanaponika, 2005, p.34). However, it seemed that he did not intend to equate *bare attention* with *sati*, especially as *sati* was viewed by him as *right mindfulness*. Therefore, *sati* in the form of *bare*

*attention* as a practice mode at the beginning stage of meditation should be distinguished from *sati* as *right mindfulness*.

### **3.2.3 Henepola Gunaratana**

Another important figure in the *Insight Meditation Movement* is Henepola Gunaratana who is a Sri Lankan monk and had his tertiary education in the United States (Seager, 1999). He was born in 1927, and first came to the United States in 1968. He taught Buddhism at university and also founded a retreat centre in the United States where he served as president (Seager, 1999). His popular book *Mindfulness in Plain English*, published in the early 1990s, discussed mindfulness in detail. This work further promoted the term of *bare attention*, and thus may have caused more misunderstanding and confusion about the term *sati*. Bhikkhu Bodhi (2011) criticised Henepola Gunaratana for defining mindfulness as *bare attention* theoretically. Bhikkhu Bodhi (2011) believed that this conflated immediate pre-conceptual cognition and *sati*, which are actually two distinct mental functions.

Henepola Gunaratana (2011) took a vague approach towards the definition of *sati*. He stated that “[s]ati is an activity” (2011, p. 131) and cannot be precisely defined. He did acknowledge that *sati* refers to *remembering*, and also pointed out that another Pali word that was also translated as mindfulness is *appamada*, which means non-negligence or absence of madness. Henepola Gunaratana (2011), however, claimed that *bare attention* was the English term for *sati*, and further described *bare attention/mindfulness* as non-conceptual fleeting pure awareness:

When you first become aware of something, there is a fleeting instant of pure awareness just before you conceptualize the thing, before you identify it. That is a state of awareness. Ordinarily, this state is short-lived. It is that flashing split second

just as you focus your eyes on the thing, just as you focus your mind on the thing, just before you objectify it, clamp down on it mentally, and segregate it from the rest of existence. It takes place just before you start thinking about it before your mind says, “Oh, it’s a dog. That flowing, soft-focused moment of pure awareness is mindfulness” (Gunaratana, 2011, p.132).

Henepola Gunaratana (2011) treated the above non-conceptual awareness as *bare attention*. Thus, *non-conceptual awareness*, *bare attention*, and *sati/mindfulness* refer to the same thing in his book. Although Henepola Gunaratana (2011) followed Nyanaponika Thera (2005) to use the term *bare attention*, the meaning of the term in both books are somewhat different. Nyanaponika Thera (2005) did not treat *bare attention* as the English corresponding term for *sati*, and did not see *bare attention* as non-conceptual awareness. Rather, he proposed *bare attention* as a meditative technique, and mentioned the technique of labelling experiences together with *bare attention*. Henepola Gunaratana (2011), however, defined *sati* as *bare attention* which was viewed by him as non-conceptual awareness, and he did not associate the labelling technique with *bare attention*.

Henepola Gunaratana (2011) stated that the fleeting awareness before perception can be prolonged by practising insight meditation. Mindfulness was said to be the goal of insight meditation and also the means to achieve it. Mindfulness can also be experienced during insight meditation. He further illustrated several characteristics of mindfulness (Gunaratana, 2011). Mindfulness was said to be unbiased and to honestly reflect what is happening in the present moment. It is also a non-judgmental, non-egoistic observation that sees the true nature of phenomena. Mindfulness observes all internal experiences taking place from moment to moment. It is observational awareness that does not interfere but simply watches.

According to Henepola Gunaratana (2011), there are three fundamental activities of mindfulness. The first activity links to the reminding function of mindfulness. Mindfulness reminds the wandering mind during meditation to return to the object of meditation. During everyday life, mindfulness simply notices what comes to the mind, and also reminds the mind to notice. In short, mindfulness reminds us to pay attention to the proper object of observation. The second activity of mindfulness is seeing things as they really are. This activity is related to *bare attention* which was said to see things without adding any concept and idea to initial perception. The third activity of mindfulness is seeing the true nature of all phenomena which is impermanence, suffering, and no-self. Mindfulness is a non-superficial way to investigate this reality. When mindfulness is present, no hindrance arises.

In addition to *Mindfulness in Plain English*, Henepola Gunaratana also published *Beyond Mindfulness in Plain English* (2009). This book focuses on concentration, and Henepola Gunaratana discussed mindfulness in relation to concentration as follows:

Mindfulness...is your first and most important tool for starting to build the foundation of *jhāna* and *jhāna* itself. You must make a mindful effort to understand unwholesome things as unwholesome and wholesome things as wholesome. You must make a mindful effort to overcome the unwholesome and to cultivate every wholesome thought, word, and deed that you can. When you practice *jhāna*, you must make mindful effort to understand what you are doing, to prepare the mind to attain *jhāna* (Gunaratana, 2009, p.35).

Mindfulness was said to be the basis of concentration in the book. Through mindfulness, the unwholesome thoughts and attachment that are obstacles to gaining concentration

are recognised. Mindfulness and concentration enhance each other, and mindfulness is coupled with concentration for seeing things as they really are (Gunaratana, 2009).

To establish a clear link between the above-mentioned statements of Gunaratana (2009; 2011) is difficult. For example, it is hard to associate mindfulness as non-conceptual awareness with the above-mentioned functions of mindfulness that inevitably involve ideas and judgements. Also, comparing both books written by Henepola Gunaratana, there are some contradictory statements about mindfulness. For instance, *Mindfulness in Plain English* says that a hindrance cannot arise when mindfulness is present (Gunaratana, 2011), whereas *Beyond Mindfulness in Plain English* says mindfulness recognises hindrances (Gunaratana, 2009). Mindfulness was said to be non-conceptual awareness in Gunaratana (2011) while mindfulness also knows the distinction between unwholesome and wholesome things in Gunaratana (2009).

As Henepola Gunaratana (2011) acknowledged, he tended to write a book about meditation techniques and principles that can be easily understood by the general population. Although this intention and strategy popularised mindfulness to a general audience, it may have led to inaccurate use of terms, and mindfulness could be loosely used to represent different things in different contexts. This suggests that in order to obtain an accurate full picture of mindfulness in Buddhism, certain statements should not be isolated from their contexts and taken as the only source for understanding mindfulness. Describing mindfulness as non-conceptual awareness by Henepola Gunaratana (2011) does not suggest that value-free mindfulness is a key to enlightenment. Instead, Henepola Gunaratana stressed the importance of ethics in an interview:

Every rule prescribed by the Buddha is for our own benefit. Every precept we observe is in order to cleanse the mind. Without mental purification, we can never gain concentration, insight, wisdom, and will never be able to remove psychic irritants (Tworkov, 1995, para. 9).

Huge interest has been drawn to *bare attention* instead of *right mindfulness*. *Bare attention* has influenced how psychologists conceive of *sati*, and mindfulness defined as *bare attention* is related to both *bare attention* in Nyanaponika Thera (2005) as a technique, and *bare attention* in Henepola Gunaratana (2011) as non-conceptual pure awareness. For example, Brown, Ryan, and Creswell (2007a) illustrated mindfulness as *bare attention* and *pure awareness* with a reference of Henepola Gunaratana's work. Brown et al. (2007a) also held the view that mindfulness is non-conceptual and non-discriminative awareness. In addition, Baer (2003) claimed that mindfulness is "the non-judgmental observation of the ongoing stream of internal and external stimuli as they arise" (Baer 2003, p.125). Gethin (2011) pointed out that non-judgmental awareness defined by psychologists for mindfulness may refer to *bare attention* as a meditative technique proposed by Nyanaponika Thera (2005). Likewise, Gilpin (2008) argued that non-elaborative awareness in psychology resembles *bare attention*.

Equating *bare attention* with mindfulness has been heavily criticised by some Buddhist scholars. Wallace (2008) pointed out that there was no evidence in Pali or Tibetan scriptures supporting this interpretation. The closest Pali term for *bare attention* is *manasikara*, which is ethically neutral, but *bare attention* without ethics could be wrong mindfulness (Wallace, 2008). Bhikkhu Bodhi (2011) argued that *bare attention* was only acceptable for a pragmatic use instead of being a doctrinal description of mindfulness. While Nyanaponika Thera did not attempt to propose *bare attention* as a theoretical meaning of *sati*, it was a mistake to use the term *bare attention* as this mixed

*manasikara* (attention) with *sati*, which was misleading and caused confusion on the meaning of *sati* (Bodhi, 2011). Thanissaro (2010a) believed that attention was never bare, and Buddhist practice is governed by appropriate attention supported by *sati* that remembers the right path. Gethin (2011) also argued that the primary aspects such as remembering, reminding and presence of mind of *sati* in traditional Buddhist texts were downplayed or neglected in the modern Burmese Buddhist tradition. He claimed that ultimately, *sati* reminds us of our value and who we are.

The above discussion highlights the importance of recognising the context in which concepts are defined. While mindfulness observes inner experiences without self-centred judgement during insight meditation, defining mindfulness as *bare attention* limits the role of mindfulness in other contexts. Disregard for such context may have created confusion about the theoretical meaning of *sati*. Debates on *bare attention* are also related to the question whether definitions of mindfulness in secular contexts should be mirrored on right mindfulness (Pali: *samma sati*) or only the attention aspect of mindfulness such as *concentration attention* and *bare attention*. As discussed in the previous chapters, *right mindfulness* in Buddhism involves wholesome consciousness. If *right mindfulness* should be adopted by secular conceptualisations of mindfulness, *bare attention* and *concentration attention* would only be partial definitions of mindfulness as they tend to be value-neutral (Nyanaponika, 2005).

#### ***3.2.4 Prominent insight meditation teachers in the West***

In addition to the above-mentioned Theravāda monks, some Western lay teachers played an important role in the *Insight Meditation Movement* by helping Theravāda-based lay insight meditation enter quickly into the American mainstream. Joseph Goldstein, Jack Kornfield, and Sharon Salzberg are notable western insight meditation

teachers who had training with Theravāda teachers in Asia (Seager, 1999). In 1975, they founded the *Insight Meditation Society* in the United States, which became the flagship of the *Insight Meditation Movement*. Jon Kabat-Zinn, who was instrumental in introducing mindfulness to mainstream psychology, had received his training in the *Insight Meditation Society* (Gilpin, 2008). Another important lay figure in *Insight Meditation Movement* is Sylvia Boorstein. Her books such as *It's Easier Than You Think: The Buddhist Way to Happiness* and *Don't Just Do Something, Sit There*, are some of the most widely known introductory classics of insight meditation (Seager 1999).

Mindfulness as defined by Joseph Goldstein, Jack Kornfield, Sharon Salzberg, and Sylvia Boorstein is summarised in Table 3.1. All the definitions are generally related to the use of mindfulness in modern insight meditation. For example, mindfulness was described as observing the flow of inner experiences (Goldstein, 1987). The simply noticing technique resembles the description of bare attention by Nyanaponika (2005), which is the function of mindfulness in insight meditation. In addition, Boorstein (1996; 1997) described mindfulness as a practice that involves open awareness to the present moment with acceptance. While mindfulness defined by insight meditation teachers in the early days tended to be centred on techniques in insight meditation, recent definitions have tended to define mindfulness in terms of attention and awareness. For instance, Kornfield (2007) equated mindfulness to attention, and Salzberg (2011) named mindfulness as wise attention. When mindfulness is defined as awareness, it is sometimes conflated with *vipassanā/insight*. For example, mindfulness was defined as “seeing how things are, directly and immediately seeing for oneself that which is present and true” (Goldstein & Kornfield, 2001, p.76). Although there were no distinctions between attention and awareness, and between mindfulness and

mindfulness practice in their definitions, non-judgmental, present-centred, and insight-oriented characteristics were common to their definitions of mindfulness.

**Table 3.1**

*Some mindfulness definitions by Joseph Goldstein, Jack Kornfield, Sharon Salzberg, and Sylvia Boorstein*

Author	Book	Definition of mindfulness
Jack Kornfield	<i>Modern Buddhist Masters, 2007</i>	In the development of wisdom, one quality of mind above all others is the key to practice. This quality is mindfulness, attention or self-recollection. The most direct way to understand our life situation, who we are and how our mind and body operate, is to observe with a mind that simply notices all events equally. This attitude of non-judgmental, direct observation allows all events to occur in a natural way (p.14).
	<i>Modern Buddhist Masters, 2007</i>	Mindfulness focuses on the moment of the process rather than on the reflection of it in concepts. Awareness is directed at the present moment, to the process itself, the only place where the understanding of reality's true nature can be gained (p.14).
Joseph Goldstein	<i>The Experience of Insight, 1987</i>	Mindfulness . . . means being aware of what is happening in the present moment. It means noticing the flow of things . . . Whatever the object is, to notice it, to be aware of it, without grasping, which is greed, without condemning, which is hatred, without forgetting, which is delusion, just observing the flow, is observing the process (p.13).

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Joseph Goldstein & Jack Kornfield	<i>Seeking the Heart of Wisdom, 2001</i>	The first factor for our enlightenment, ...is the quality of mindfulness, a clear awareness of what is happening each moment...Mindfulness means seeing how things are, directly and immediately seeing for oneself that which is present and true. It has a quality of fullness and impeccability to it, a bringing of our whole heart and mind, our full attention, to each moment (p.76).
	<i>Seeking the Heart of Wisdom, 2001</i>	Mindfulness is that quality of attention which notices without choosing, without preference; it is a choiceless awareness that, like the sun, shines on all things equally (p.19).
Sharon Salzberg	<i>Real Happiness: The Power of Meditation, 2011</i>	Mindfulness refines our attention so that we can connect fully and directly with whatever life brings (p.12).
	<i>Real Happiness: The Power of Meditation, 2011</i>	Mindfulness, also called wise attention, helps us see what we're adding to our experiences, not only during meditation sessions but also elsewhere (p.78-79).
Sylvia Boorstein	<i>It's Easier Than You Think: The Buddhist Way to Happiness, 1997</i>	Mindfulness is the aware, balanced acceptance of present experience. It isn't more complicated than that. It is opening to or receiving the present moment, pleasant or unpleasant, just as it is, without either clinging to it or rejecting it (p.60).
	<i>Don't Just Do Something, Sit There, 1996</i>	The principal meditative practice the Buddha taught is called mindfulness: relaxed, nonclinging, nonaversive awareness of present experience (p.8).

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### 3.3 Modern Zen

#### 3.3.1 Japanese Zen

Zen Buddhism was popularised in the United States by Japanese intellectuals who contributed to Zen reformation in the 19<sup>th</sup> century (Seager, 1999). The Chinese character for Zen (禪) is equivalent to the Pali word *jhāna* or Chán in China (Dumoulin, 2005), which refers to “mental absorption” (Seager, 1999, p.27). Chán/Zen, however, is different to *jhāna* (Wu, 2003). It originated from China under the influence of Taoism, and the essence of Chán/Zen is sudden realisation of the pure self-nature. In contrast to traditional Chán/Zen that involves ritual performance and doctrinal learning, modern Zen focuses on mystical meditative experience (Sharf, 1993).

The Zen/Chán school dated its beginning by a monk named Bodhidharma who arrived in China from India in the sixth century C.E. (Chen, 1964). Bodhidharma is known for practising wall contemplating for nine years, and he is regarded as the first patriarch of the Chinese Chán school. The main text transmitted by Bodhidharma to the next patriarch illustrates that non-duality is achieved by people who have realised inner enlightenment. It also teaches that teachings can be transmitted by facial expressions or gestures instead of language. The aim of Chán is to discover the Buddha nature which is said to be pure and bright, and is inherent in all beings (Dumoulin, 2005). The Buddha nature is a synonym for wisdom. It is a natural and spontaneous faculty that can only be apprehended intuitively through a calm mind without conscious thoughts (Chen, 1964).

After the fifth patriarch passed away in the late seventh century, Chán was split into the Northern School led by Shen-Hsiu and the Southern School led by Hui Neng (Chen, 1964). The main difference between the two schools is that the Northern School of Chán employed gradual enlightenment training, whereas sudden enlightenment was said

to be held by the Southern School of Chán. Pure wisdom was argued by the Southern School of Chán as “indivisible and undifferentiated, to be realised completely and instantly or not at all” (Chen, 1964, p.354). Sudden enlightenment is said to be based on sudden cessation of normal successive thoughts. The Southern School flourished and became dominant in the late eighth century. What history afterwards refers to as Chán is primarily the Southern School of Chán.

The teachings and stories of Hui Neng (638-713) are recorded in *The Platform Sutra of the Sixth Patriarch* (Translated by Yampolski from Chinese, 1967). It is the most well-known text of Chán (Schlütter, 2007), and is the only piece of Chinese Buddhist literature that carries the title of a “*sutta*” in the Mahāyāna canon (Wu, 2003). *No-thought* (Chinese: 無念), *non-form* (Chinese: 無相), and *non-abiding* (Chinese: 無住) are the core teachings of Hui Neng. He defined the meaning of the first character “no” here as “*the separation from the dualism that produces the passions*” (*The Platform Sutra of the Sixth Patriarch*, translated by Yampolski from Chinese, 1967, p.139) and the second character “*thought*” as “*thinking of the original nature of the true reality*” (*The Platform Sutra of the Sixth Patriarch*, translated by Yampolski from Chinese, 1967, p.139). *No-thought* thus represents a mind which is pure without discursive thoughts. *Non-form* refers to the impermanent and formless characteristics of worldly things, and *non-abiding* refers to the non-clinging characteristic of the mind. Chinese Chán is rooted in the thought and spirit of Laozi and Zhuangzi of Daoism, and Chán is the manifestation of the combination of Buddhism and Daoism (Wu, 2003).

Chán in China later had five branches that are all derived from Hui Neng (Wu, 2003). They have different techniques of training (Chen, 1964). For example, the Lin-Ji branch employs shock therapy, and Cao-Dong branch’s approach is silent introspection which

observes the mind in tranquillity. A master who conducts shock therapy on practitioners would shout at or beat them in order to interrupt their normal conceptual and analytical way of thinking. In this way, the Buddha nature is expected to return. Similar effects can be also achieved by another technique of kung-an (Chinese: 公案, transliterated in Japanese as *kōan*), which is a riddle that could not be solved by conventional intellectual thinking. An example would be “What is the sound of one hand clapping?” (Chen, 1964, p. 359).

According to the discourses of Chán Master Hsu Yun who is an influential teacher of the 19<sup>th</sup> and 20 centuries, the prerequisite for the Chán training is to stop false thinking (Translated by Luk from Chinese, 1964). He pointed out that looking into a hua tou was introduced as a new technique to deal with the thinking process after it was thought to have become harder for people to calm the mind. Hua tou may be translated as word head, and looking into hua tou is looking into mind. Examples of hua tou are “[w]ho is the repeater of Buddha’s name?” and “[w]ho is wearing a robe?” (Translated by Luk from Chinese, 1960, p.23). The answer is always “[i]t is mind” (Translated by Luk from Chinese, 1960, p.23). When looking into hua tou, the mind should concentrate on the doubt of “who” after giving rise to the doubt. This generates pointed concentration, which controls the wandering mind, and prepares the mind for self-realisation.

Chinese Chán was not established in Japan as a separate school until the 12<sup>th</sup> century (Hoover, 1980). Rinzai is the Japanese line of the Chinese Lin-Ji branch, and Soto is the Japanese line of the Chinese Cao-Dong branch. Both are the two main schools in Japan (Seager, 1999). According to Sharf (1993), contemporary Zen as viewed by the West emerged from the Westernisation and modernisation of Japan in the Meiji period (1868-1912). Buddhism during the Meiji period was reconstructed and promoted as essentially scientific and empirical. Different to classical Zen, modern Zen downplays ritual

performance and doctrinal learning (Sharf, 1993). The popular view of Zen as transcendent of personal experience was introduced to the West by Japanese intellectuals who were under great influence of Western culture and science during the Meiji Period.

Rinzai Zen became well-known in the West through the works of D.T. Suzuki (Seager, 1999). He was one of the influential people who contributed to a kind of Zen boom of the 1950s in the United States. D.T. Suzuki (1964) was strongly against formal meditation of paying attention to an object, which he believed to be dualistic and superficial. He emphasised freedom for Zen, and claimed that Zen is to perceive and feel in the most direct way possible. Zen was not portrayed as a religion or a philosophy. Rather, it was presented as pure experience itself underlying all religious teachings and as such compatible with scientific progress (Sharf, 1993). Zen experience is subjective mystic experience that is claimed to correspond to religious transformation experiences of Christianity. Pure experience was explained by Nishida Kitarō as follows:

To experience means to know facts just as they are, to know in accordance with facts by completely relinquishing one's own fabrications....., so by *pure* I am referring to the state of experience just as it is without the least addition of deliberative discrimination. The moment of seeing a color or hearing a sound, for example, is prior not only to the thought that the color or sound is the activity of an external object or that one is sensing it, but also to the judgment of what the color or sound might be. In this regard, pure experience is identical with direct experience. When one directly experiences one's own state of consciousness, there is not yet a subject or an object, and knowing and its object are completely unified. This is the most refined type of experience (*An Inquiry into the Good*, translated by Abe & Ives from Japanese, 1990, p.3-4).

Pure experience is what Nishida Kitarō identified as the Buddhist experience of enlightenment (Rambelli, 2013), which is also the revelation of one's inherent Buddha nature (Shunryu Suzuki, 1995). Similar to Nishida Kitarō, Zen experience was emphasised by D.T. Suzuki, and *satori* (enlightenment; Chinese: 悟) is central to D.T. Suzuki's understanding of Zen experience. He claimed that “[s]atori is the *raison d'être* of Zen, without which Zen is no Zen” (D.T. Suzuki, 1964, p.95). In *An introduction to Zen Buddhism, and Manual of Zen Buddhism*, D.T. Suzuki (1964) explained *satori* as follows:

Without the attainment of *satori* no one can enter into the truth of Zen. *Satori* is the sudden flashing into consciousness of a new truth hitherto undreamed of. It is a sort of mental catastrophe taking place all at once, after much piling up of matters intellectual and demonstrative..... Religiously, it is a new birth; intellectually, it is the acquiring of a new view point. The world now appears as if dressed in a new garment, which seems to cover up all the unsightliness of dualism, which is called delusion in Buddhist phraseology (D.T. Suzuki, 1964, p.95).

*Satori* was described as sudden enlightenment, and it is a nondual state of mind. It is intuitive looking-into reality that does not have intellectual and logical understanding involved (D.T. Suzuki, 1964). Enlightenment was believed to be pursued without sustained discipline (Seager, 1999).

Both *satori* described by D.T. Suzuki and *pure experience* defined by Nishida Kitarō for Zen experience are enlightenment experiences. The above description of *pure experience* is similar to *non-conceptual pure awareness* illustrated by the Henepola Gunaratana (2011) for mindfulness. *Satori*, *pure experience*, and *non-conceptual pure awareness* have the same intuitive, non-dual, and non-conceptual characteristics. D.T.

Suzuki (1964) did not explicitly discuss mindfulness in his book. Harvey (2015) has linked the non-dual characteristic of *satori*/Zen experience to non-judgmental features of secular mindfulness. It should be addressed here that *satori* is sudden enlightenment awareness. This type of awareness is different to mindfulness/*sati*, or non-judgmental awareness defined based on *bare attention* as a meditative technique. Since non-judgmental awareness has been linked to both *satori* and bare attention, those using mindfulness as non-judgmental awareness may need to clarify which connotation it refers to.

Soto Zen is generally believed to resemble Chinese Chán more closely than Rinzai Zen (Hoover, 1980). The Soto lineage also became influential in the United States at the end of the 20<sup>th</sup> century due to the influence of Soto priests such as Shunryu Suzuki (Seager, 1999). The book named *Zen Mind, Beginner's Mind*, written by Shunryu Suzuki of Soto Zen is a Buddhist classic in America (Seager, 1999). Zen mind was said to be the beginner's mind that is open, compassionate, and does not have self-centred thoughts (Shunryu Suzuki, 1995). The book contains three sections of right practice, right attitude, and right understanding. *Zazen*, a form of concentration meditation, was explained in the book as the right practice, and the attitude of non-striving of *zazen* was addressed. Concentration is cultivated in order to observe and see things as they are, and also letting go of things. When practising *zazen*, the mind is supposed to be aware of breathing without referring to self, and to let thoughts come and go. Right understanding is not philosophical understanding, but refers to actual *zazen* practice itself. As same as Rinzai Zen, non-dual awareness was emphasised by Shunryu Suzuki stating that "*the most important thing is not to be dualistic*" (Shunryu Suzuki, 1995, p.21). Non-dualism does not mean that ethics is not involved and judgments are not made. The precepts were said to keep themselves under a self-sufficient original mind

that is not greedy. Instead of thinking “*this is bad, so I should not do this*”, just think “*not-to-do*” (Shunryu Suzuki, 1995, p.30).

Shunryu Suzuki (1995) explained that *zazen* practice itself was expressing the self’s true nature directly. *Zazen* should be practised without thinking “*I am doing this*” (Shunryu Suzuki, 1995, p.47) as the idea affects the naturalness of *zazen*. This seems to be opposite to the Burmese insight meditation in which mindfulness knows what is happening in the present moment (Nyanaponika, 2005). The naturalness of *zazen* does not mean thinking is completely abandoned. In *Zen Mind, Beginner’s Mind*, mindfulness is discussed in terms of thinking in the section of right understanding,

Our mind should be soft and open enough to understand things as they are. When our thinking is soft, it is called imperturbable thinking. This kind of thinking is always stable. It is called mindfulness. Thinking which is divided in many ways is not true thinking. Concentration should be present in our thinking. This is mindfulness (Shunryu Suzuki, 1995, p.115).

If we are prepared for thinking, there is no need to make an effort to think. This is called mindfulness. Mindfulness is, at the same time, wisdom. By wisdom we do not mean some particular faculty or philosophy. It is the readiness of the mind that is wisdom (Shunryu Suzuki, 1995, p.115).

Based on the above descriptions, thinking associated with right understanding is encouraged. Mindfulness is a type of thinking that entails concentration and readiness for understanding truth of reality. It is remarkably different to *satori*, *bare attention*, *pure experience* or *pure awareness*. Since Shunryu Suzuki (1995) did not refer to a Pali word for mindfulness, it should be noted here that comparisons between mindfulness

that he explained and other descriptions of mindfulness/*sati* should be cautiously made, as mindfulness illustrated by Shunryu Suzuki might not directly equate to *sati* in early Buddhism.

### **3.3.2 Thich Nhat Hanh**

Although modern Zen played a major role in shaping American Buddhism, the concept of mindfulness was rarely discussed explicitly as a central topic in Japanese Zen. Perhaps it is through Thich Nhat Hanh, a Vietnamese Zen Buddhist monk, that mindfulness gained a great deal of attention from Zen. As a central figure in the emergence of Buddhist social activism, the status of Thich Nhat Hanh in the West is said to be comparable to that of the Dalai Lama (Seager, 1999). Thich Nhat Hanh promotes peace and advocates engaged Buddhism for personal and social responsibility. Mindfulness is cultivated for active involvement with society rather than retreating from the world. Thich Nhat Hanh published several books on mindfulness: *The Miracle of Mindfulness* written in 1974 was his earliest work on mindfulness. The title itself indicates how much Thich Nhat Hanh emphasises mindfulness. In the book, Thich Nhat Hanh used mindfulness as “*keeping one’s consciousness alive to the present reality*” (Hanh, 1974, p.11). He suggested that mindfulness is both a seed and a fruit of practice. It is a seed because, through practising mindfulness, concentration is developed for further contemplating on the nature of phenomena. It is also a fruit as mindfulness itself is the presence of awareness and remembrance, which makes people live more fully. Hanh popularised some traditional meditations such as mindfulness of breathing, mindfulness of corpses, mindfulness of dhamma, and compassion meditation (Hanh, 1974). Apart from mindfulness of walking, standing, sitting, and lying down, which are the four activities in the *Satipatthāna* practice, Hanh (1974) also emphasised practising

mindfulness in everyday life. Everything related to self in daily life such as breathing, thoughts, and feelings can be an object of mindfulness. Mindfulness was also required to be practised through daily activities. For example, while walking along a path to a village, the thought of “*I’m walking along the path leading to the village*” should be maintained for practising mindfulness (Hanh, 1974, p.12). It is different to what is taught by Mahāsi Sayādaw (1990) for mindful walking that asks practitioners to repeat “*walking, walking*” without the concept of self being involved. However, both methods have the same purpose of having the mind concentrated. Other mindfulness practices in daily life that Hanh taught involve daily activities such as washing dishes mindfully, drinking tea mindfully, and having a bath mindfully. In short, mindfulness in everyday life is keeping attention focused on the activities or tasks at hand.

Similar to Mahāsi Sayādaw’s approach, Hanh (1974) stated that, when thoughts and feelings arise during meditation, they are simply to be acknowledged instead of to be chased away. For example, when a sad feeling occurs, it should be noticed immediately: “*A feeling of sadness has just arisen in me*” (Hanh, 1974, p.38). Again, this acknowledgement involves the concept of self, which is different to Mahāsi Sayādaw’s approach (1990) of noticing without referring to self, where acknowledgment is said to be enough. Even when an unwholesome thought arises, practitioners should only notice that it is an unwholesome thought without any further action of dealing with it. A non-discriminating mind with no distinction between subject and object is achieved, when insight is perceived.

Some later works of Thich Nhat Hanh include a book about the *Satipatthāna* practice, books of mindful living such as *Peace Is Every Step: The Path of Mindfulness in Everyday Life* (1992), and *Savor: Mindful Eating, Mindful Life* (2010). In contrast to traditional Buddhist mindfulness that aims to develop non-attachment to the world,

Thich Nhat Hanh's teachings on mindfulness in everyday life often associates mindfulness with living fully and joyfully in the present moment. Mindfulness is also promoted as an effective tool to tackle the worldly problems that concern people such as being overweight. Instead of developing insight for spiritual goals, development of insight is promoted for well-being and harmonised relationships with others and the world. In short, Buddhist mindfulness traditionally used for renouncing the world and eliminating attachment to body and self was adapted to suit the needs of lay people for a better engagement with the world.

As with Burmese insight meditation, maintaining bare awareness from moment to moment rather than developing deep concentration is emphasised by Thich Nhat Hanh (2006). He stated that “[t]o be mindful is to be completely aware of what is happening in the present, to be fully aware of all that is going on within ourselves and all that is happening around us, from moment to moment, without judgment or preconceived notions” (Hanh, 2010, p.9). Although Thich Nhat Hanh is a Zen master, his teachings on mindfulness seem not to be so influenced by Japanese Zen. He did not treat mindfulness as non-dual or non-conceptual awareness, and explicitly stated that using one's best judgment can be involved in mindfulness. Non-duality is only employed by him as a principle of mindful observation to realise that “[o]ur feeling is us, and for the moment, we are that feeling” (Hanh, 2010, p.69). It is different to Burmese insight meditation in which detached observation is encouraged, and the labelling technique does not involve the concept of self. Overall, Thich Nhat Hanh's teachings are very similar to those of the Burmese insight meditation tradition, except that he focuses more on mindfulness in everyday life and emphasises less the importance of abandoning the concept of self.

### 3.4 Conclusion

The dominant understanding of mindfulness in the West has been influenced strongly by the *Insight Meditation Movement* and modern interpretations of Zen. Some well-known figures have played an important role in popularising mindfulness. The most well-known of these, Mahāsi Sayādaw's approach of Burmese insight meditation, is based on momentary concentration and is practised on the six sense bases, body postures, and bodily movements. The core techniques of Mahāsi Sayadaw's approach are observing and labelling experience without referring to the concept of self. Insights of impermanence, suffering, and no-self are said to be gained through consistently observing experiences at the sense doors as the combination of impermanent materiality and mentality.

The concept of *bare attention* based on the technique of Mahāsi Sayādaw's approach has been introduced to the west by Nyanaponika Thera in 1962 and has now been widely accepted as mindfulness. *Bare attention* refers to noticing inner experiences from moment to moment without reaction, and mindfulness as defined by prominent insight meditation teachers is generally in line with this conceptualisation. However, *bare attention* has been criticised by some Buddhist scholars as a distorted view of mindfulness in Buddhism. While *bare attention* is an effective technique to deal with habitual self-centred judgments and thoughts, attempting to establish a theoretical equivalency between *bare attention* and *sati* as indicated in Gunaratana (2011) would create confusion on the theoretical meaning of mindfulness (Bodhi, 2011).

Another popular view of mindfulness as pure awareness (Gunaratana, 2011) is similar to non-dual awareness that is emphasised in Modern Zen. Modern Zen was heavily influenced by western thinking, and Zen experience was described in the terms of

mystical religious experience as discussed by western scholars. Since non-dual awareness is enlightenment awareness, any attempt that equates it to *sati* in Buddhism (Gunaratana, 2011) is questionable. D.T. Suzuki and Shunryu Suzuki did not mention *sati* as either non-dual awareness or mindfulness. In contrast to Japanese Zen masters who did not explicitly discuss mindfulness, Thich Nhat Hanh, the Vietnamese Zen master, emphasised the power of mindfulness. His approach is similar to Mahāsi Sayadaw's, but with an emphasis on mindfulness in everyday life.

Contemporary Buddhism in Western world has seen a mindfulness boom and various discussions of mindfulness. While Buddhists from different backgrounds appear to paint rather different pictures of mindfulness, looking into the context of mindfulness discussions suggested that some seemingly contradictory statements may really only represent different roles of mindfulness in different situations. Mindfulness is sometimes discussed in relation to the techniques of meditation, and sometimes is linked to the outcome of meditation. To gain the full and deep understanding of mindfulness, all relevant discussions should be taken into account, and statements should not be singled out from their context. Also, the term "mindfulness" is loosely used in some of the books for lay audiences, and thus may not be a proper source for theoretical meanings of mindfulness as in Buddhism. Overall, the Buddhist discussions on mindfulness explicitly or implicitly suggest that mindfulness in Buddhism encompasses elements of ethics, concentration, and wisdom.

## **Chapter 4: Literature Review-Mindfulness in Psychology**

### **4.1 Introduction**

Buddhist thought has made comprehensive contributions to psychological theory and therapy (Kelly, 2008). In recent years, there has been a surge in mindfulness research (Grossman & van Dam, 2011). Buddhist mindfulness has been integrated into psychological interventions for treating various psychological, psychiatric, and physical problems, such as depression, epilepsy, and chronic pain (Chiesa & Malinowski, 2011). A number of different operational definitions of mindfulness have been proposed (Kabat-Zinn, 1990; 1994; 2003; 2005; Brown & Ryan, 2003; Bishop et al., 2004). Also, some self-report mindfulness questionnaires have been developed to measure mindfulness (Buchheld et al., 2001; Walach et al., 2006; Brown & Ryan, 2003; Baer et al., 2006; Lau et al., 2006).

Psychology, however, lacks a theoretical definition of mindfulness (Dreyfus, 2011).

Almost all the existing definitions are based on the use of mindfulness in the Burmese insight meditation tradition (Gilpin, 2008; Harvey, 2015). The field of psychology has not reached a consensus on the nature and the construct of mindfulness (Baer, 2011).

Mindfulness has been defined as a state (Brown & Ryan, 2003), a trait (Baer, Smith, & Allen, 2004), awareness (Brown & Ryan, 2003), attention regulation (Bishop et al., 2004), a uni-dimensional concept (Brown, & Ryan, 2003) or a multi-faceted one (Baer, et al., 2006). Some factors, such as acceptance and describing, have been argued as redundant (Brown & Ryan, 2004; Grossman, 2008; Baer, 2011), while other aspects, such as concentration (Rapgay & Bystrisky, 2009), memory (Gethin, 2011), insight, and ethics (Dreyfus, 2011), are believed to be missing from the current conceptualisation.

The conceptual unclarity of mindfulness may have hindered progress in identifying the

mechanisms of mindfulness by which it exerts health benefits (Baer, 2011). In this chapter, mindfulness based interventions (MBIs) will be illustrated first, followed by description of definitions of mindfulness and mindfulness scales developed in psychology. The chapter will end with the comparisons between mindfulness in psychology and Buddhism.

## **4.2 Mindfulness-Based Interventions**

Mindfulness was first employed as a central element of psychological interventions by Kabat-Zinn who developed an eight-week programme called *Mindfulness-Based Stress Reduction* (MBSR) in 1979 (Kabat-Zinn, 2011). MBSR was initially designed to help course participants deal with chronic pain and stress-related disorders, and its aim is healing and transformation rather than curing. It is based on the modern insight meditation of the Burmese Buddhist tradition, which claims the *Satipatthāna Sutta* to be its textual resource (Salzberg & Kabat Zinn, 1997). Kabat-Zinn defined mindfulness as “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (Kabat-Zinn, 1994, p.4) and “the awareness [that] emerges from paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003, p145). He stressed that the above definitions were operational definitions that were not strictly consistent with classic Buddhist texts and teachings (Kabat-Zinn, 2011). In other words, above definitions are not theoretical ones but technical ones derived from the MBSR techniques for cultivating mindfulness (Hayes & Wilson, 2003).

MBSR participants typically attend the programme once a week for two and a half hours, and their homework is practising meditation daily for six days a week. In the sixth week, an eight-hour retreat is held to practise mindful sitting, walking, and

eating. Formal meditations including body scan, sitting meditation, and hatha yoga are employed in MBSR (Salzberg & Kabat Zinn, 1997). The body scan begins by teaching the participant to draw attention to the abdomen and the breath, and then awareness is moved to toes, legs, and eventually the whole body. Any sensations are noted, and the mind does not to cling on to them. Participants with medical issues, such as bodily pain, learn to not to judge but instead accept the experience in the problem areas. Sitting meditation in MBSR involves teaching participants to focus on an object, such as sounds, feelings, or thoughts. The object is observed without being absorbed in it. For example, thoughts are viewed as passing events in the field of consciousness rather than as abiding truth. In other words, the process of arising and fading of thoughts instead of the content of thoughts is focused on. Sitting meditation ends with pure awareness without meditative objects. In addition, hatha yoga encourages cultivating mindfulness while moving.

Informal mindfulness meditation practices of MBSR were designed for practising in everyday life. The practices include awareness of pleasant and unpleasant events, awareness of breathing, and awareness of routine activities such as eating, walking, driving, and interpersonal communications (Santorelli, 2014). The MBSR trains people to be attentive to the present moment with a stilled and alert mind. Being in the present and fully alive is advocated by Kabat-Zinn as paramount to western people who normally engage in a hectic mechanical life driven by the mind that is always occupied with desires, expectations, and fear (Salzberg & Kabat-Zinn, 1997). Important qualities to be developed are thus non-judgemental self-observation with attitudes of non-striving for a goal and progress, self-acceptance, and the beginner's mind of seeing every moment as a new moment without relating it to past experience or future expectations (Salzberg & Kabat-Zinn, 1997).

Following MBSR, other MBIs, including *Mindfulness-Based Cognitive Therapy* (MBCT; Segal, Williams, & Teasdale, 2002), *Dialectical Behaviour Therapy* (DBT; Linehan, 1993), and *Acceptance and Commitment Therapy* (ACT; Hayes, Strosahl, & Wilson, 1999), have been developed. MBCT was designed to prevent depression relapse through attention regulation based on the formal meditation techniques of MBSR. Formerly depressed participants learn to observe their thoughts and feelings coming and going non-judgementally to deal with negative thoughts and cease the tendency of developing ruminative patterns. Rather than changing the content of depressive ideation, mindfulness practice focuses on and modifies participants' relationship with negative thoughts and feelings. While MBSR and MBCT incorporate formal meditation (Salzberg & Kabat-Zinn, 1997; Segal et al., 2002), DBT and ACT typically only use informal short mindfulness exercises (Linehan, 1993; Hayes et al., 1999).

Both DBT and ACT involve non-judgemental observation of sensations, feelings, and thoughts in the present moment. Mindfulness exercises in ACT facilitate experiencing the here-and-now without reacting with evaluation and judgement in language. DBT was originally developed for treating borderline personality disorder, which is characterised by unstable intense emotions. Participants of DBT are encouraged to accept themselves and their current situation and also work on modifying cognitions and ineffective behaviours, such as avoidance and escape. Mindfulness skills in DBT include “what” skills, namely observing, describing, and participating, and three mindfulness “how” skills, namely, nonjudgemental, one-mindful, and effective (Linehan, 1993). The DBT mindfulness skills were mainly adapted from Zen practices. For example, “participating” and “one-mindful” are related to Zen practice in everyday life described by Thich Nhat Hanh (Baer et al., 2004), which refer to being

fully engaged into a current activity, and focusing attention on one thing at a time with full awareness. The skill of “effective” involves acting properly in situations to reach goals, and it was said to be related to skillful means in Zen (Linehan, 1993). In essence, non-judgemental detached observation with acceptance and being in the present moment are mindfulness skills common to all the MBIs.

### **4.3 Definitions and conceptualisations of mindfulness**

Definitions and conceptualisations of mindfulness in psychology vary tremendously, as can be seen in Table 4.1. Mindfulness has been defined as a technique (Kabat-Zinn, 1990; Kabat-Zinn, 1994; Baer, 2003), a trait (Brown & Ryan, 2003), a state (Salzberg & Goldstein, 2001), an attention-regulation process (Bishop et al., 2004), or simply awareness (Kabat-Zinn, 2003). A group of psychologists endeavored to meet the need of developing a consensual definition of mindfulness, and, after a series of meetings, a two-component model of mindfulness comprising of self-regulation of attention and a posture of acceptance to the present experience was proposed in 2004 (Bishop et al., 2004). Self-regulation of attention refers to being attentive to breath, and, if thoughts, feelings, and sensations arise, they are registered without elaboration, and attention is brought back to the breath. In other words, volitionally controlled attention is switched between breath and any arising thoughts, feelings, and sensations. The process of attention regulation is bound with awareness of internal stimuli. Mindfulness is characterised as a metacognition skill that regulates attention and monitors the stream of consciousness. The second component of mindfulness highlights an attitude of accepting whatever is in the field of consciousness, which fosters non-avoidance behaviours and awareness of a wide range of experiences that would have gone unnoticed.

**Table 4.1*****Definitions of mindfulness in psychology presented in alphabetical order of authors' names***

Author	Definition	Mainly defined as
Baer (2003)	Mindfulness is the non-judgmental observation of the ongoing stream of internal and external stimuli as they arise (p.125).	Non-judgmental observation
Bishop et al. (2004)	We see mindfulness as a process of regulating attention in order to bring a quality of nonelaborative awareness to current experience and a quality of relating to one's experience within an orientation of curiosity, experiential openness, and acceptance. We further see mindfulness as a process of gaining insight into the nature of one's mind and the adoption of a de-centered perspective (Safran & Segal, 1990) on thoughts and feelings so that they can be experienced in terms of their subjectivity (versus their necessary validity) and transient nature (versus their permanence) (p.234).	Process of self-regulation of attention; Acceptance; Process of gaining insight
Brantley (2003)	Mindfulness is a word that refers to a basic human capacity for nonconceptual, non-judging, and present-moment-centered awareness (p.171).	Basic human capacity for awareness
Brown & Ryan (2003)	Mindfulness can be considered an enhanced attention to and awareness of current experience or present reality (p.822).  Mindfulness is inherently a state of consciousness (p. 824).	Trait
Brown & Ryan (2004)	We have operationally defined mindfulness as an open and receptive awareness of ongoing events and experience (p.245).	

Cardaciotto, Herbert, Forman, Moitra & Farrow (2008)	The tendency to be highly aware of one's internal and external experiences in the contact of an accepting, nonjudgmental stance towards those experiences (p.205).	Non-judgmental Awareness
Germer, Siegel, & Fulton (2005) Cited in Siegel, Germer, & Olendzki (2009)	Awareness, of present experience, with acceptance (p.19).	
Kabat-Zinn (1990)	Mindfulness is basically just a particular way of paying attention. It is a way of looking deeply into oneself in the spirit of self-inquiry and self-understanding (p.12).	A way of paying attention
Kabat-Zinn (1994)	Paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally (p.4).	Paying attention
Kabat-Zinn (2003)	The awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment (p.145)  Mindfulness includes an affectionate, compassionate quality within the attending, a sense of openhearted friendly presence and interest (p. 145).	Awareness
Kabat-Zinn (2005)	Open-hearted moment-to-moment, nonjudgmental awareness (p.24).	Awareness
Marlatt and Karisteller (1999)	Bringing one's complete attention to the present experience on a moment-to-moment basis (p.68);  Mindfulness involves observing one's experiences "with an attitude of acceptance and loving kindness (p.70).	Complete attention  Observation
Salzberg & Goldstein (2001)	The state of being fully present, without habitual reactions.	State

Although Bishop and his colleagues' definition advanced the conceptual and operational definition of mindfulness in psychology (Hayes & Shenk, 2004), it has been criticised in an influential article by Brown and Ryan (2004) for lacking the distinctions between attention and awareness, and between concentration and insight-oriented meditation. They argued that attention and awareness were two interwoven, but different dimensions of consciousness. Attention is narrow in terms of focusing on certain aspects of experience, and awareness refers to broad subjective receptive experience. In their opinion, maintaining attention on a certain object while being curious to where the mind wanders as described by Bishop et al. (2004) for mindfulness is confusing. Regulating attention is contradictory to being open to whatever experience entered into the field of consciousness. They claimed that the former was a feature of concentration meditation and the latter belongs to insight meditation. In their paper, mindfulness is "an open and receptive awareness of ongoing events and experience" (Brown & Ryan, 2004, p.245) which is "inherently a state of consciousness" (Brown & Ryan, 2003, p.824). They believed that, although mindfulness monitored the content of consciousness such as cognition, defining mindfulness as metacognition was misleading (Brown & Ryan, 2004).

Rosch (2007) argued that there is no receptive or non-receptive mindfulness. Mindfulness is simply a mental factor that is present when attention is focused on an object of consciousness. The open and receptive characteristics of mindfulness in Brown and Ryan's (2004) definition tended to be associated with the way that an enlightened mind perceives the world rather than a mind during the process of training towards enlightenment (Rosch, 2007). By describing mindfulness as pure receptive awareness, Brown and Ryan mixed two levels of experience (Rosch, 2007). An ordinary person's mindfulness is not pure awareness experienced by an enlightened

mind. Mindfulness needs to combine with other mental factors such as right intention in order to achieve enlightenment. In other words, they did not draw the line between mindfulness involved in training and pure awareness as an outcome of Buddhist training.

#### **4.4 Mindfulness Scales**

Somewhat mirroring the diversity of definitions in mindfulness, several self-report mindfulness scales have been developed to assess mindfulness. Whether the claimed benefits of MBIs are attributed to an increased level of mindfulness cannot be empirically identified without a measure that accurately represents the conceptualisation of mindfulness. During recent years, efforts have been put into developing reliable and valid mindfulness scales. The *Freiburg Mindfulness Inventory* (FMI-30, Buchheld et al., 2001) is the first mindfulness scale developed in psychology. The items were designed based on readings recommended by major insight meditation centres, and also writings of experts on Buddhism and mindfulness. Items represented cognitive, affective, and behavioural characteristics of mindfulness. The items were evaluated by insight meditation teachers, and were validated in participants at insight meditation retreats. The authors made it clear that the suitable populations for this scale are people who have experience in mindfulness meditation.

Buchheld et al. (2001) administered the FMI-30 to participants both at the beginning and the end of mindfulness retreats. The four factors revealed from factor analysis at the beginning of the retreats are *present-moment disidentifying attention, non-judgmental, non-evaluative attitude toward self and others, openness to negative mind states, and process-oriented, insightful understanding*. Although the factor analysis at the end of the retreats still indicated a four-factor structure, the four factors were

somewhat different. The factors were *disidentifying attentional process of mindfulness*, *accepting*, *open attitude toward experience*, *process-oriented understanding*, and *paying attention to the present moment without distraction*. The authors argued that the unstable factor structure was consistent with the developmental nature of mindfulness, and the mindfulness construct contained one general factor. Walach, Buchheld, Buittenmuller, Kleinknecht, and Schmidt (2006) tested the FMI-30 in a sample including not only meditators, but also non-meditators and people with clinical problems. The study reduced the FMI-30 to 14 items that were believed to be the core of the mindfulness construct, and suitable for people without meditation experience. As with the FMI-30, one general factor with inter-related facets was recommended for the FMI-14. More recently, Kohls, Sauer, and Walach (2009) conducted analyses on the FMI-14, and reported a reduced 8-item version of the FMI with two factors, namely *presence* and *acceptance*.

The *Mindful Attention Awareness Scale* (MAAS) developed by Brown and Ryan (2003) has been one of the most widely used mindfulness measurements (Sauer et al., 2013). It is a 15-item uni-dimensional scale that assesses the frequency of state of attentiveness and awareness of the present moment in everyday life. In other words, mindfulness was viewed as having a disposition-like quality. Initially, the MAAS was designed as a two-factor scale that included the factor of acceptance. *Acceptance*, however, was then dropped, as it had no incremental explanatory advantage over the factor of *presence*. Thus, Brown and Ryan claimed that acceptance was not a distinct factor but redundant in the way that it inevitably accompanied attention and awareness to the present moment. The MAAS, however, was criticised by Grossman (2011) for only measuring attention lapse, which was not equivalent to mindfulness. Also, Rosch

(2007) claimed that while the MBIs are wisdom-based interventions, the MAAS only measures sanity, not wisdom.

The *Kentucky Inventory of Mindfulness Skills* (KIMs; Baer et al., 2004) was developed based on treating mindfulness as a set of skills that can be taught and practised. Specifically, the items drew heavily on mindfulness skills in DBT. As with the MAAS, the KIMS is a trait mindfulness scale that is intended to assess mindfulness in daily life, and can be used with people who have no prior meditation experience. The scale comprises four facets, namely, *observing*, *describing*, *acting with awareness*, and *accepting without judgment*. Another multidimensional scale is the FFMQ. This scale was developed by Baer et al. (2006) who conducted an exploratory factor analysis of the items from five validated mindfulness scales including the MAAS, the KIMS, the FMI, the Cognitive and Affective Mindfulness Scale (CAMS; Feldman et al., 2007; Hayes and Feldman, 2004), and the Southampton Mindfulness Questionnaire (SMQ; Chadwick et al., 2008). Five factors including *observing*, *describing*, *acting with awareness*, *nonjudging*, and *non-reactivity to inner experience* were extracted from the data of those scales, and this is the *Five Facet Mindfulness Scale* (FFMQ; Baer et al., 2006). Four facets of the FFMQ were as same as the KIMS, which was the longest scale of the five contributing scales.

Based on the definition by Bishop et al. (2004), Lau, Bishop and several other researchers developed the *Toronto Mindfulness Scale* (TMS), which measures mindfulness as a state during formal sitting meditation instead of trait in the MAAS (Lau et al., 2006). The study began with 42 items reflecting the two components of Bishop's definition and a 13-item two-factor model was established. However, the final two factors were *curiosity* and *decentering*, but not the factors of *self-regulation of attention to the immediate experience* and *acceptance* in the definition by Bishop et

al. (2004). *Curiosity* and *decentering* were consistent with the description for the second component of *acceptance* in Bishop's definition, which means the results only supported *acceptance* but not *self-regulation of attention* in their definition.

There are some other self-report mindfulness scales available, including the *Philadelphia Mindfulness Scale* (PHLMS; Cardacitto et al., 2008), the *Cognitive and Affective Mindfulness Scale-Revised* (CAMS-R, Feldman et al., 2007; Hayes and Feldman, 2004), and the *Southampton Mindfulness Questionnaire* (SMQ; Chadwick et al., 2008). The factor structure and theoretical basis of all these scales are summarised in Table 4.2. The MAAS has one factor, namely *present-centered attention awareness*. The CMS-R, FMI-30 and SMQ are uni-dimensional including several aspects of mindfulness. PHLMS has two-factor structure, with *awareness* and *acceptance*. The KIMS comprises four facets, and the FFMQ had five facets resulted from integrating the conceptualisations and operationalisations of the five mindfulness scales. Thus, the factor structure of the mindfulness scales varies from uni-dimensionality to five facets. All scales except the TMS measure mindfulness as a trait instead of a state. All the scales except the FMI are based on definitions of mindfulness in psychology or mindfulness skills of MBIs (Grossman, 2008).

**Table 4.2**

*The factor structure and theoretical basis of the mindfulness questionnaires presented in the order of the year of publication based on authors' statements in the article that introduce the scale*

Name	Factor	Theoretical basis
The Freiburg Mindfulness Inventory (FMI-30)	Uni-dimensional factor (Mindful presence; Non-judgmental acceptance; Openness to experiences)	Vipassana (Insight) meditation (Buchheld et al., 2001)
The Mindful Attention Awareness Scale (MAAS)	One factor: Present-centered attention-awareness	Authors' views, published papers on mindfulness and attention, Conscious states scales; (Cognitive approach) (Brown & Ryan, 2003)
The Kentucky Inventory of Mindfulness Skills (KIMS)	Four factors: Observing; Describing; Acting with awareness; Accepting without judgment.	Mindfulness skills in the DBT (Behavioural descriptions of mindfulness) (Baer et al., 2004)
The Five Facet Mindfulness Scale (FFMQ)	Five factors: Non-reactivity to inner experience; Observing; Describing; Acting with awareness; Nonjudging;	Combined the MAAS, the FMI, the KIMS, the CAMS, and the SMQ (Baer et al., 2006)
The Toronto Mindfulness Scale (TMS)	Two factors : Curiosity; Decentering	Bishop et al. (2004)'s definition (Cognitive approach) (Lau et al., 2006)
The Cognitive and Affective Mindfulness Scale (CAMS-R)	Uni-dimensional factor (including four aspects of mindfulness : Attention; Awareness; Present-focus; Acceptance/nonjudgment)	Kabat-Zinn (1990)'s definition (CAMS-R, Feldman et al., 2007)
The Philadelphia Mindfulness Scale (PHLMS)	Two factors: Awareness; Acceptance	Authors' own definition mainly based on Brown and Ryan (2004) and Bishop et al. (2004) (Cardacitto et al., 2008)
The Southampton Mindfulness Questionnaire (SMQ)	Unidimensional factor (Decentered awareness; Remaining attention with difficult cognitions; Non-judgmental acceptance; Non-reactivity to difficult cognitions )	Kabat-Zinn (1990); Safran & Segal (1996); Teasdale et al. (2002) (Chadwick et al., 2008)

## 4.5 Comparisons between Mindfulness in Psychology and Mindfulness in Buddhism

As indicated from Table 4.1 and Table 4.2, the conceptualisation of mindfulness in psychology varies to some extent. Mindfulness in psychology was derived from Buddhism. As Baer (2011) pointed out, “[i]t is possible that something important is lost when mindfulness is translated into Western psychological terms. If psychologists can understand more clearly what is lost, we may find ways to mitigate the losses and optimise our assessments and interventions, while maintaining a secular and scientific perspective” (Baer 2011, p.256). Increasingly, more scholars have made efforts in comparing mindfulness in psychology and mindfulness in Buddhism empirically (Christopher, Woodrich, & Tiernan, 2012), or theoretically (Monteiro, Muten, & Compson, 2015).

Compared with mindfulness in Buddhism, mindfulness in psychology is different from it in many ways. The *Insight Meditation Movement* has greatly influenced how psychology conceptualises mindfulness (Harvey, 2015). MBSR is based on modern Burmese insight meditation (Salzberg & Kabat-Zinn, 1997), except that the progressive stage of insight meditation that penetrates the truth of reality (impermanence, suffering, and no-self) is not explicitly incorporated. Harvey (2015) pointed out that both Kabat-Zinn and Bishop et al.’s definitions reflected the use of mindfulness in insight meditation. Mindfulness in psychology is sometimes conflated with insight or insight meditation (Gethin, 2014). In contrast to the emphasis on the form of mindfulness in insight meditation, mindfulness in Buddhism is employed in both concentration and insight meditation. Two paramount qualities developed by Buddhist meditation for enlightenment are concentration and wisdom (Harvey, 2013; SN45:159, translated by Walshe from the Pali, 2010). During the process of developing concentration, mindfulness functions as remembering and retaining the meditative object (*The Path of Purification*, translated by Nanamoli from the Pali,

2011). Attention is regulated by mindfulness to focus on the object suitable for that moment. For developing insight, mindfulness is coupled with clear comprehension to contemplate the nature of the body, feeling, mind, and mental quality to cultivate wisdom. Generally, mindfulness is what keeps the practice on the right track, by remembering the purpose, the right path, the relationships between things, and the proper object for the present moment.

The common view of mindfulness as non-judgmental awareness to immediate experience seems to resemble insight meditation's technique of attending here and now that develops momentary concentration and awareness rather than the theoretical meaning of *sati*. Gilpin (2008) claimed that defining mindfulness as being non-judgmental mirrors *bare attention* defined by Nyanaponika Thera as a meditative technique at the beginning stage of insight meditation. Mindfulness in the advanced stage of Buddhist insight meditation, however, is introspective awareness not bare attention. Kabat-Zinn's definition, as he addressed, was an operational guide to practice rather than a theoretical definition (Kabat-Zinn, 2011). In fact, psychology does not provide a theoretical definition of mindfulness. Relying on the popular contemporary meditation books rather than classical Buddhist texts for conceptualising mindfulness would inevitably lead to confusion on the meaning of *sati*, and the difficulties of defining mindfulness systematically. As Hayes and Shenk (2004) pointed out, Kabat-Zinn's definition is "more linked to lay psychology than to psychology as a discipline" (Hayes & Shenk, 2004, p.250).

The term *nonjudgmental* first proposed in Kabat-Zinn's definition (Kabat-Zinn, 1994) has been criticised by Buddhist scholars: While non-judgmental aspects may be part of meditation instructions, daily mindfulness practice in Buddhism was conducted in conjunction with ethical guidelines and precepts, which did include elements of

evaluation, self-appraisal, and judgment (Bodhi, 2011; Dreyfus, 2011). As indicated in Chapter 2, mindfulness in Buddhism is remembering wholesome and unwholesome qualities, and guards the sense bases. *Bare attention* in Buddhism sometimes serve a function of restraining senses so that they are not attracted by charming objects and not repelled by unpleasant objects. The bare facts of objects are simply perceived without further conceptualising. For example, when a monk sees a woman smiling to lure him, *bare attention* means not getting the signs of woman or beauty but only noticing bone as the bare fact of her teeth (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). In this way, lust is not triggered, for the purpose of leading an ethical life of a monk. Mindfulness guards the sense bases by confronting and turning away the unwholesome stimuli to prevent unwholesomeness arising in the mind. Thus, ethics is underlying *bare attention* which inhibits information processing. *Bare attention* in psychology is not framed within the context of ethics. The role of mindfulness in developing virtue is not explicitly mentioned in psychology.

Non-judgmental or receptive mindfulness in psychology tends to be passive and present centered. Mindfulness in Buddhism, in contrast, can be active and future oriented. Buddhist mindfulness is not always passively being attentive and aware of whatever comes into the mind from moment to moment. Rather, by remembering the right path, it determines direction of future development. In this sense, it has an attention monitoring function. Self-regulated attention is the first component of Bishop et al.'s (2004) definition but the emphasis is maintaining attention on the here-and-now experience, not experience aligned with future goals. Also, mindfulness in Buddhism is not only being aware of immediate experiences but creating experiences based on the situation through switching attention. For example, when body and mind are tired during meditation, attention should be directed to a happy image to induce

happiness and joy so that the body is relaxed and mind becomes unified. After that, attention should be brought to the previous object (SN47:10, translated by Olendzki from the Pali, 2013). The mind thus needs to be flexible in responding to different situations to achieve its goal of practice.

The attitude of acceptance is commonly regarded as an important part of mindfulness in psychology. In Buddhism, acceptance may be implied by some practices but it is not an intrinsic aspect of mindfulness (Mikulas, 2010). Non-reactive awareness with the attitude of acceptance and detachment described for mindfulness in psychology seems similar to equanimity in Buddhism. Equanimity is the state of unshakable neutral mind that is neither glad on a desirable object nor sad on an undesirable object (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). Equanimity is evident after the second *jhāna* and it is the last enlightenment factor which means it can only be achieved after a large amount of formal practice (*The Path of Purification*, translated by Nanamoli from the Pali, 2011).

#### **4.6 Conclusion**

The definitions of mindfulness in psychology are all operational definitions, which mainly rely on secondary sources, and certain techniques of modern insight meditation instead of classic Buddhist texts. Although there is an agreement in psychology on some characteristics of mindfulness, there is no consensus on the nature of mindfulness and on the components of mindfulness. Since mindfulness in psychology is derived from Buddhist mindfulness, aspects of Buddhist mindfulness that are potentially beneficial to well-being could have been lost during adaptation. Comparing mindfulness in psychology with Buddhist mindfulness merits consideration, and has revealed some differences. In early Buddhism, the

remembering aspect of mindfulness is salient. Also, Buddhist mindfulness encompasses morality, concentration, and wisdom.

Mindfulness has entered mainstream psychology as a skillful means to introduce *dhamma*, and has mainly been reduced to bare attention and awareness of the immediate experience. The use of mindfulness in refining attention and awareness was adopted by psychology from Buddhism, however the active role of mindfulness in developing ethics and wisdom was largely ignored. Whether ethical and wisdom aspects of mindfulness should be adopted by secular mindfulness needs further theoretical consideration and empirical investigation. While the term mindfulness in psychology may not need to be replaced, the meaning of it perhaps should be extended to cover all the three sections of the *Noble Eightfold Path*.

## **Chapter 5: Study 1- Investigating Similarities and Differences Between Western and Buddhist Conceptualisations of Mindfulness through Interviewing Senior Ordained Buddhists**

### **5.1 Introduction**

*Mindfulness* rooted in Buddhism has been employed as a central element of some psychological interventions since 1979 (Kabat-Zinn, 2011). *Mindfulness* is an English translation for the Pali word *sati*, which is literally *remembering* (Gethin, 2001). In Buddhism, *right mindfulness* is one of the eight factors of the *Noble Eight-fold Path* that represents three-fold training in ethics, concentration, and wisdom to achieve enlightenment (MN44, translated by Thanissaro from the Pali, 2012). *Right mindfulness* denotes remembering to abandon unwholesomeness and to enter into and retain right path factors (MN117, translated from the Pali by Thanissaro, 2008). As discussed in Chapter 1, *right mindfulness* together with *right effort* and *right concentration* form the concentration group of the *Noble Eight-fold Path*. *Right mindfulness* also works in conjunction with *right view* and *right effort* to support developing ethics and wisdom. Therefore, in the Buddhist perspective, mindfulness needs to be seen within the context of the *Noble Eight-fold Path* and cannot be isolated from other path factors. Irrespective of any differences in Buddhist traditions and practices, ethics, concentration, and wisdom are always conjointly required to be developed for the ultimate goal of enlightenment (Gethin, 1998; Rahula, 1974).

The *Noble Eight-fold Path* is realised with the aid of Buddhist meditation. Mindfulness has an essential function of sustaining continuous attention on the meditative object (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). Unwavering

attention on a fixed object leads to absorption, which is an experience of oneness. Traditional *Satipatthāna* practice, normally translated as *Four Foundations of Mindfulness*, includes contemplations of body, feeling, mind, and dhamma to develop wisdom that discerns the true nature of things (DN22, translated by Thanissaro from the Pali, 2011). The *Satipatthāna* practice involves keeping the mind grounded in the present moment for introspection through keen awareness of mental and physical phenomena.

According to the influential Mahāshi Sayadaw approach of modern insight meditation based on the *Satipatthāna* practice, mindfulness initially operates in a mode that simply notes immediate experience to develop a certain degree of concentration and is then integrated with clear comprehension to become wise attention and to cultivate wisdom (Sayadaw, 1990). In this context, the German-born Theravāda monk Nyanaponika coined bare attention in his teachings of mindfulness (Nyanaponika, 2005). Bare attention was said to be “kept to a bare registering of the facts observed, without reacting to them by deed, speech or by mental comment which may be one of self-reference (like, dislike, etc), judgment or reflection” (Nyanaponika 2005, p.32). Nyanaponika (2005) viewed bare attention as one aspect of sati, but he never treated bare attention as a translation of sati (Bodhi, 2011). Bodhi (2011) pointed out that bare attention as a technique for cultivating mindfulness may be useful, but it cannot be a conceptualisation of mindfulness itself as Buddhist mindfulness practice involves evaluation of wholesome and unwholesome mental states for ethical practice.

The concept of mindfulness derived from Buddhism was first integrated into a psychological intervention called *Mindfulness-Based Stress Reduction* (MBSR) by

Kabat-Zinn (Kabat-Zinn, 1990). Commonly conceived as non-judgmental present awareness, according to the proposal by Kabat Zinn, mindfulness becomes a core element of *Mindfulness-Based Interventions* (MBIs) (Kabat-Zinn, 1990; Segal, William, & Teasdale, 2002; Linehan, 2015; Hayes, Strosahl, & Wilson, 1999). Conceptualisations of mindfulness in psychology, however, vary to a relatively large extent (Bishop et al., 2004; Brown & Ryan, 2003; Baer, Smith, & Allen, 2004; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). For example, Baer et al. (2004) conceptualised mindfulness as a set of skills from a behavioural approach, and designed a scale to measure mindfulness skills such as *describing* and *observing* as taught in *Dialectical Behaviour Therapy* (DBT) (Baer et al., 2004).

Bishop and his colleagues (2004) proposed that mindfulness has a state-like quality, and defined mindfulness as an attention regulation process with curious, open, and acceptance attitudes based on meditation practices in MBIs. The *Toronto Mindfulness Scale* (TMS; Lau et al., 2006) was developed on the basis of Bishop et al.'s definition to measure attainment of a mindful state. However, the first component of attention regulation of Bishop et al. (2004)'s definition was not supported by factor analyses of the TMS (Lau et al., 2006). Two factors of the TMS, *curiosity and decentering*, were said to be only consistent with *orientation to experience* which is the second component of the Bishop et al. (2004)'s definition. In contrast to Bishop et al.'s definition, Brown and Ryan (2003) viewed mindfulness as a trait and argued that *acceptance* was redundant. Brown and Ryan's definition of mindfulness only involved open and receptive awareness that was claimed by them as the core characteristic of Buddhist mindfulness. They developed the unidimensional *Mindfulness Attention and Awareness Scale* (MAAS) that assesses one factor named *present-centred awareness and attention*

(Brown & Ryan, 2003). For various constructs of other mindfulness scales in psychology, please refer to Table 4.2 in Chapter 4.

The considerable discrepancies in the conceptualisation of mindfulness in psychology hinder systematic investigations of the mechanism by which MBIs are assumed to exert their health benefits (Baer, 2011). Studies employ different mindfulness questionnaires to investigate the benefits of MBIs, and although these scales measure somewhat different constructs, the efficacy of MBIs is generally attributed to the same term of “*mindfulness*” (Shapiro, Brown, & Biegel, 2007; Birnie, Speca, & Carlson, 2010; Keng, Smoski, Robins, Ekblad, & Brantley, 2012; Kuyken et al., 2010). In addition, secularised mindfulness in psychology has been criticised by Buddhist scholars who claimed that Buddhist mindfulness is not ethically neutral and passive as implied by the definitions of mindfulness in psychology (Wallace, 2008; Dreyfus, 2011; Bodhi, 2011; Thanissaro, 2010b). Instead, Buddhist mindfulness distinguishes between wholesomeness and unwholesomeness, keeps proper objects in mind, and actively regulates attention so that the right path towards the goal of enlightenment is maintained. Also, as discussed in Chapter 2, Buddhist mindfulness is not only related to the present moment, but also the past (SN48:10, translated by Thanissaro from the Pali, 2010) and future (AN 4:245, translated by Thanissaro from the Pali, 2012).

While proponents of MBIs have also acknowledged that being aware of one’s conduct in relation to its potential to harm others is important in the cultivation of mindfulness (Kabat-Zinn 2011), such secular programs cannot prescribe a single set of ethical guidelines to avoid conflict with belief systems of participants from diverse religious backgrounds (Cullen 2011). To what extent the kind of mindfulness taught in MBIs

now differs from the type of mindfulness that it was originally derived from has increasingly become a topic of debate in theoretical scholarship (Bodhi 2011; Dreyfus 2011; Shonin et al. 2015). However, hardly any empirical work has been conducted to compare Buddhist mindfulness and mindfulness in psychology. One exception is a recent study by Christopher, Woodric, and Tiernan (2014) who evaluated the cultural validity of the *Five Facet Mindfulness Questionnaire* (FFMQ) (Baer et al., 2006) and *Toronto Mindfulness Scale* (TMS) (Lau et al., 2006) with six ordained and eight lay Zen Buddhists. Cognitive interviewing was conducted with the participants to identify areas of concern and strength of these two mindfulness questionnaires. For instance, aspects of intention to return awareness to the present moment as well as awareness of aversion and suffering were found missing from the FFMQ and TMS. The former was said to be the aspect of remembering of Buddhist mindfulness, and the latter was insightful understanding. Extending beyond one's self was also identified as an aspect of Buddhist mindfulness that was missing from the FFMQ and TMS.

Although Christopher et al. (2014) provided valuable empirical information on some of the differences in mindfulness between Buddhism and psychology, their study was limited to a comparison with the Zen Buddhist tradition. The current study explored how mindfulness is conceptualised in Buddhism through analysing opinions of Buddhists not only from Mahāyāna traditions but also from Theravāda and Vajrayāna traditions on four commonly used mindfulness questionnaires in psychology. In this way, a link between the conceptualisation of mindfulness in Buddhism and in psychology can be established, and specific information on Buddhist mindfulness in relation to the items of the mindfulness scales in psychology can be revealed. Additionally, we presented participants with the three most commonly used mindfulness

questionnaires (MAAS, KIMS, and FFMQ), as well as the *Freiburg Mindfulness Inventory-30* (FMI-30) as this scale was developed explicitly based on Buddhist insight meditation (Buchheld et al. 2001). Thematic analysis was employed to analyse the interview transcripts to extract the specific and unique aspects or characteristics of Buddhist mindfulness. In addition, participants in the current study rated each individual item of the four mindfulness scales to provide detailed information about where the Buddhist understanding of mindfulness might differ from what is assessed in mindfulness questionnaires. A more detailed understanding of the differences between Buddhist and secular conceptualisations of mindfulness may help pinpoint areas for future research, particularly potentially beneficial aspects that have not been carried over into secular practice. To date, most of such comparisons have been limited to theoretical discussion. Our study adds much needed empirical data to this debate.

## **5.2 Method**

### ***5.2.1 Participants***

Data were collected from five senior Buddhist clergy: two female ministers from Mahāyāna traditions (Zen and Won Buddhism), one male monk from the Thai forest tradition of Theravāda, one female ordained teacher of a Theravāda-based tradition named Triratna, and one nun from the Vajrayāna tradition (see Participant Information Sheet in Appendix B). Four of the participants were Westerners and one Asian. All of them were advanced Buddhist practitioners who engage in Buddhist practice daily. Among them, one had 31 years of experience, two had 30 years' experience, one 19 years, and one 12 years of experience. The youngest participant was 34 years old, and the oldest participant was 73 years old. Two participants were in their early 50s (51 and

52), and another participant was 55 years old. Participants were visited in their temples or meditation centres in the wider area of Auckland, New Zealand, except for the Asian participant, who joined from South Korea via videoconferencing. Participants were recruited through convenience and snowball sampling by contacting individuals through the primary supervisor's networks and by referral after having contacted the New Zealand Buddhist Council. Inclusion criteria required that participants are senior ordained clergy who speak sufficient English to understand and express nuances around mindfulness. To maintain anonymity of the participants, they will be referred to as Participants 1 to 5.

According to the consensus theory proposed by Romney, Batchelder, and Weller in 1986, complete and accurate information can be obtained from as few as four experts in the area of inquiry (Guest, Bunce, & Johnson, 2006). The final number of participants was determined by emergence of data saturation. When similar views were brought up in different interviews, it indicated that new information was less likely to emerge and thus no more interviews were conducted after that.

### ***5.2.2 Interview format***

Individual interviews were conducted by using existing mindfulness questionnaires from psychology (see Appendix C) to elicit participants' views on Buddhist mindfulness (see consent form in Appendix D). These were the MAAS (Brown & Ryan, 2003), the FMI-30 (Buchheld, Grossman, & Walach, 2001), the *Kentucky Inventory of Mindfulness Skills* (KIMS; Baer et al., 2004), and the FFMQ (Baer et al., 2006). After explaining the purpose of the interviews, each participant was given the combined mindfulness questionnaire with the instruction not to rate themselves but an ideal Buddhist in their tradition. This could be an idealised person or a teacher. Participants

were not required to reveal who they were imagining. These instructions were explicitly discussed with the participants, and it was explained that the purpose was for the participants not to discuss and rate these items in terms of their own judged levels of mindfulness but from the perspective of their aspirations.

Participants were given sufficient time to complete the 91-item questionnaire, which typically took 20 to 25 minutes. To each item, the participants responded on a 6-point Likert scale ranging from 1(almost never) to 6 (almost always). As participants were asked to rate an ideal Buddhist, one would expect a high rating if an item captures content relevant to Buddhist mindfulness. In the case of positively worded items, this means a rating of at least 5 (very frequently), and for negatively worded items a rating of 2 (very infrequently) or below. Following the participants' questionnaire ratings, participants were asked to comment on the items, particularly when answers indicated that the item did not assess content relevant to Buddhist mindfulness practice. The interview was flexible, and participants who preferred to talk through the items while completing the questionnaire were welcome to do so. The participant joining via videoconferencing had completed the questionnaire prior to the interview and reported their score verbally to the interviewers, while also talking about their answers item by item. Towards the end of the interview, participants were also invited to discuss the following general questions on mindfulness in Buddhism:

- Could you please comment on the questionnaire?
  
- To what extent are these questions about mindfulness as you understand it in your Buddhist tradition?
  
- Are there items missing?

### 5.2.3 Measures

The questionnaire used for the interview consists of four well-established mindfulness scales in psychology: the MAAS (Brown & Ryan, 2003), the FMI-30 (Buchheld et al., 2001), the KIMS (Baer et al., 2004), and the FFMQ (Baer et al., 2006). To make the format of the four mindfulness scales consistent, the six-point Likert scale ranging 1 (*almost never*) to 6 (*almost always*) of the MAAS was adopted throughout the whole questionnaire. Originally, items of the FMI-30 are rated on a 4-point Likert scale ranging from *almost never* to *almost always*, and both KIMS and the FFMQ items are typically rated from 1 (*never or very rarely true*) to 5 (*very often or always true*).

The MAAS developed by Brown and Ryan (2003) is the most widely used mindfulness measurement tool (Sauer et al., 2013). It is a 15-item uni-dimensional scale that assesses the frequency of the state of attentiveness and awareness of the present moment in everyday life. All the items assess ‘mindlessness’, and thus ratings are reverse scored so that high scores represent a high level of mindfulness. An example item is “*I could be experiencing some emotion and not be conscious of it until some time later*”. The MAAS has one factor named *present-centred attention awareness*. The scale exhibits good internal consistency indicated by Cronbach’s alpha coefficients of above 0.80 in different samples. Convergent validity, discriminant validity, and incremental validity were examined by Brown and Ryan (2003) and supported by the results.

The 30-item FMI was the first mindfulness questionnaire in psychology, and it is the only questionnaire developed explicitly on the basis of Buddhist insight meditation (Buchheld et al., 2001). A four-factor solution found through pre-retreat data was not replicated by using the data of post-retreat, and uni-dimensionality of the construct was suggested by the authors. Based on post-retreat scores, the FMI-30 assesses the

following four dimensions: *dis-identifying attentional process of mindfulness, accepting and open attitude toward experience, process-oriented understanding, and paying attention to the present moment without distraction*. Items include “*I accept myself as I am*” (*accepting and open attitude toward experience*), and “*I know I am not identical to my thoughts*” (*dis-identifying attentional process of mindfulness*). Excellent internal consistency was reported for both pre-retreat (Cronbach alpha coefficients of 0.91) and post-retreat scores (Cronbach alpha coefficients of 0.94). Familiarity with Buddhist meditation is required to meaningfully understand items of the FMI-30. Thus, the FMI-30 is suitable for experienced meditators, and only measures the effect of continued practices. If the FMI-30 is used in beginner practitioners, a response shift could occur as they may subsequently interpret questions differently after having some experience with meditation.

The KIMS comprises 39 items measuring four factors of mindfulness, namely, *observing, describing, acting with awareness, and accepting without judgment* (Baer et al., 2004). The authors reported internal consistencies of 0.76 to 0.91 for the four subscales and the expected correlations with other constructs were obtained. The design of the KIMS is essentially based on the mindfulness skills reflected in DBT. Items include “*I pay attention to whether my muscles are tense or relaxed*” (*observing*), “*I’m good at thinking of words to express my perceptions, such as how things taste, smell, or sound*” (*describing*), “*When I’m doing something, I’m only focused on what I’m doing, nothing else*” (*acting with awareness*), and “*I tend to evaluate whether my perceptions are right or wrong*” (*accepting without judgment*). The scale measures the general tendency to be mindful in daily life with language intended to be understandable by individuals without Buddhist meditation experience.

The FFMQ (Baer et al., 2006) is a 39-item instrument based on the MAAS, the FMI, the KIMS, the *Cognitive and Affective Mindfulness Scale* (CAMS; Feldman, Hayes, Kumar, & Greeson, 2004; Hayes & Feldman, 2004), and the *Mindfulness Questionnaire* (MQ; Chadwick, Hember, Mead, Lilley, & Dagnan, 2005). Five factors including *observing*, *describing*, *acting with awareness*, *non-judging of experience*, and *non-reactivity to inner experience* were extracted from the pooled data of those scales. The internal consistencies of the subscales range from 0.75 to 0.91. Thirty-two items of the FFMQ overlap with the MAAS, the FMI, and the KIMS. Therefore, employing the FFMQ in this study means adding another seven items from the CAMS and the MQ to the combined questionnaire. Items from the CAMS and the MQ include “*I am easily distracted*” (*acting with awareness*), and “*Usually when I have distressing thoughts or images, I feel calm soon after*” (*non-reactivity to inner experience*), respectively. Refer to Appendix C for the questionnaire that shows the original source of each question.

### **5.3 Data Analysis**

#### ***5.3.1 Quantitative data analysis: inter-rater reliability analysis***

Inter-rater reliability analysis was first conducted through the methods of percentage agreement. Answers to negatively worded questions were reverse coded so that for all items higher scores indicated a higher level of mindfulness. Items that had been rated 5 or 6 on the 6-point Likert scale were indicative of capturing content relevant to a Buddhist perspective of mindfulness, and ratings of 1 to 4 indicated that content was irrelevant or ambiguous. Analyses distinguished between items rated consistently by all participants as relevant or irrelevant to Buddhist mindfulness and items where there was no agreement among participants. The criterion for an item being classified as a high agreement item was that the difference between the score of the participant with the

highest rating and the score of the participant with the lowest rating was no more than 1. When the range of ratings was larger than 1, or if at least one participant did not provide a rating, the item was identified as a low agreement item. The percentage of low agreement items of each scale was calculated, and the scale that had the lowest percentage of low agreement items was considered to have the highest inter-rater reliability.

Inter-rater reliability was further examined by calculating Gwet's AC1, which is a chance-corrected agreement measure that can be applied to multiple raters and categories (Gwet 2014). It was designed to be less affected by skewed distributions of categories compared to other inter-rater reliability measures such as Cohen's Kappa. Since the participants in the present study were required to rate an ideal Buddhist, and the data presented ceiling effects, Gwet's AC1 was believed to be the most appropriate measure for the dataset of the present study.

To calculate Gwet's AC1, all the ratings were recoded, and classified into three nominal categories. Ratings 1 and 2 on the 6-point Likert scale were recoded as 1, and were classified into the category of "Irrelevant to a Buddhist perspective of mindfulness". Ratings 3 and 4 were recoded as 2, and classified into the category of "Neither irrelevant nor relevant to a Buddhist perspective of mindfulness". When a participant did not rate an item, or commented that it depended on the situation, the item was recoded as 2. Ratings 5 and 6 were recoded as 3 and classified into the category of "Relevant to a Buddhist perspective of mindfulness". The Gwet's AC1 values were generated by running a free Gwet's AC1 syntax for SPSS that was available at <http://www.ccitonline.org/jking/homepage/Gwet.sps>. Gwet's AC1 was calculated for all the items of the four mindfulness scales, and separately for each scale. According to Altman's (1991) criteria, values of inter-rater reliability ranging from 0.41 to 0.60

indicate moderate inter-rater reliability, good inter-rater reliability requires the value to be at least 0.61, and the value from 0.81 and above suggests very good inter-rater reliability. In addition, values <0.20 and 0.21–0.40 represent poor and fair agreement, respectively.

The primary purpose of questionnaire rating was to provide a stimulus for discussion, such as triggered by the content of the questions themselves or by the actual ratings.

Despite the small sample size, the quantitative results were analysed and reported, but interpreted in conjunction with the qualitative information provided by the participants.

### *5.3.2 Qualitative data analysis*

Each interview was recorded on audiotape, transcribed, and analysed by two researchers together, one being the principal investigator. Thematic analysis (Braun & Clarke, 2006) was used to examine the interview transcripts about what Buddhist mindfulness is and the themes that represent Buddhist mindfulness were extracted. These may include statements mentioned in several contexts though expressed in different ways but which reflect a common theme.

Thematic analysis is interpretive. It is a foundational method for qualitative analysis to help identifying, analysing and reporting patterns (themes) within dialogue (Braun & Clarke, 2006). The key advantage of thematic analysis compared with other analytical methods for searching themes and patterns such as grounded theory is that thematic analysis is not bound within a theoretical framework. For the current project, thematic analysis was conducted in a deductive way at a semantic level. A deductive approach is driven by the researcher's theoretical interest in the research area, which in this case, is the difference in mindfulness between psychology and Buddhism. Analysis of data at

the semantic level means that the analysis did not go beyond what participants had stated in order to explore any underlying ideas and assumptions.

Thematic analysis was based on the guidelines provided by Braun and Clarke (2006). Firstly, the interview data were transcribed into a written form. Two researchers read the transcripts repeatedly to familiarize themselves with the data. Initial ideas about the patterns were noted down. Secondly, initial codes were generated manually by the two researchers who worked independently. Since this stage was to code for as many potential themes as possible, when two researchers coded the same data extract differently, both codes were retained for further analysis on themes. In addition, an extract can be coded more than once for many potential themes. For example, one participant commented that “[i]t depends on the situation because there’re some situations where it’s appropriate to be giving all your attention to just one thing and you don’t need to pay attention to other things, but there are other times, you know, when we are not meditating, for example, then you need to have a wide mindfulness”. The codes of “situation dependent mindfulness”, “flexible mindfulness”, and “wide mindfulness” were generated for the comment. Thirdly, after all data were initially coded, the relationships between codes were investigated, and relevant codes were combined for potential themes. The two researchers worked together from this stage. Fourthly, the potential themes were reviewed and refined. A theme should be distinct, and should not overlap too much with other themes. In addition, the data extracts of each theme were inspected to see if the themes contained coherent data. As a result, a candidate theme could be discarded, and a new theme also could be created. Lastly, each theme was defined and named. Each theme as well as data extracts were written on separate pieces of paper, and were shuffled around to see if a data extract could be organised into a previously identified theme that it belonged to. The final themes should

reflect data extracts accurately and also can be defined clearly. All the themes together delineated a picture of Buddhist mindfulness. In addition, we made reasonable attempts to contact participants to provide feedback on the themes extracted in the data. Names and descriptions of themes were emailed to participants to make sure that the themes were satisfactory to them.

The final number of participants was determined after emergence of data saturation. Data saturation is more likely when interviewing experts in the area of inquiry and may be reached after interviewing as few as four individuals (Guest et al., 2006). Fusch and Ness (2015) pointed out that data saturation was about the quality and quantity of data, not the sample size. The indicator of data saturation was that no new codes and themes could be identified. In the current study, the transcripts of the first three interviews were analysed. Subsequently, the fourth and fifth interviews were analysed to see if there were data extracts that were relevant to the research question but could not be assigned to the already emerged themes. The fourth interview yielded only little additional information, and for the fifth interview all the relevant data extracts were covered by the finalised themes. As a result, the two researchers concluded that data saturation had been achieved.

## **5.4 Results**

### ***5.4.1 Qualitative data results***

The data analysis resulted in the following eight themes: *scope of attention and awareness, skillful mindfulness, purposeful mindfulness, profound mindfulness, wise judging, ethical and compassionate mindfulness, subtlety and effort in mindfulness, and irrelevance to Buddhist mindfulness*. These eight themes delineate from different angles

the differences between mindfulness as conceptualised by Buddhism and that by Western psychology.

**5.4.1.1 Scope of attention and awareness.** One theme that emerged was *scope of attention and awareness*. According to the participants, mindfulness can be at times a narrow-focused attention on an object, and at other times a broad and general awareness that is open to the emergence of internal and external stimuli. In other words, one's scope of attention varies depending on the situation one is currently in, and thus neither narrow attention nor broad awareness is a definitive indicator of mindfulness.

In psychology, undivided attention that represents narrow attention is often used as an indicator of mindfulness and is measured for example by the KIMS item 38 "*I get completely absorbed in what I'm doing, so that all my attention is focused on it.*"

Participant 3 responded to the item by commenting:

It depends on the situation because there're some situations where it's appropriate to be giving all your attention to just one thing and you don't need to pay attention to other things, but there are other times, you know, when we are not meditating, for example, then you need to have a wide mindfulness, you know, [one that] takes in the whole environment.

Participant 5 explicitly stated that "I think mindfulness can be a spread out one or it can be a narrower one". Relatedly, Participant 2 mentioned two states of mind:

But from a Zen point of view, we can talk about mindfulness; mindfulness is always mindfulness of something. But we also talk about no-mindedness, which is where you can just completely be one with experience.

Participant 2 also commented that “I guess the truly awakened state is being able to shift back and forth between being aware and being mindful, and non-minded, just complete kind of uniting with one’s experience”. Further supporting the theme, Participant 1 elaborated from the perspective of the categories of Buddhist meditation:

I guess, meditation falls into the two categories, ..... *Samatha* practice is about developing concentration, it’s more that, that focused awareness, ....and with *Vipassana* practice or insight practice, I’m training myself to notice, say, sensations coming and gone, and reflect the impermanence and so on, so that’s a more broad awareness, ....So those two different types of practices are training two different mindfulness capacities.....then we use two capacities in everyday life as we move between situations.

In the questionnaire, the multi-tasking item 22 “*I tend to do several things at once rather than focusing on one thing at a time*” was designed to assess the opposite of undivided attention and thus signify low levels of mindfulness. However, the participants disagreed. Participant 3 stated that “This doesn’t indicate whether someone is mindful or not. A mindful person can do several things at once with high degree of mindfulness.” Participant 4 commented that “...you should be mindful of both, if that’s what you have to do.” Similarly, Participant 2 added that “....you know modern life, often we’re doing more than one thing at a time, and um, when we’re doing two things, then we’re doing two things.”

**5.4.1.2 Skillful mindfulness.** Whether mindfulness is focused attention or broad awareness, it should be suitable to the situation. This is another theme that emerged, namely *skillful mindfulness*. It denotes responding appropriately to the present situation through skillful application of either narrow-focused attention or broad awareness.

Participant 3 commented that:

...how broad that (mindfulness) goes will be different for different situations, right? So, when we're just sitting meditating, our responsibility for being mindful is essentially just within this body and mind, right? We don't have to pay attention to sounds,.... But, if a different situation, ....our responsibilities change, ..... The teacher would say 'you're not being mindful', you are not responding appropriately to the situation, so this is the key aspect of mindfulness.....when we're talking about mindfulness, we're not just talking about being aware, because it's, or let's say, there are guests arriving, then the young monks will have the duty to go receive,... and if they're just sitting watching their breath, they might be mindful of their breath, but they're not mindful of the whole situation, so in that case, they would be criticised, teacher says "you're not being mindful".

Participant 5 responded to the item "*I tend not to notice feelings of physical tension or discomfort until they really grab my attention*" by stating that, although ideal Buddhists would notice those feelings, if "it wasn't appropriate at the time, they would do something else and deal with it later".

Relatedly, Participant 1 talked about the cognitive flexibility of switching between focused attention and broad awareness through an example that shows how an ideal Buddhist would respond to an interruption while working:

They'll be really focused on the work at hand and able to move really easily in terms of open receptive broader awareness and then to move back, and back without the jarring feeling that most of us have.

**5.4.1.3 Purposeful mindfulness.** Purposeful mindfulness is another theme that emerged from the participants' comments. As mentioned above, focused attention is typically associated with Buddhist practices to develop concentration, and broad awareness is associated with practices that develop insight. In other words, concentration and insight are the *aims* of practice and thus *qualities* to be developed. In addition to that, mindfulness is purposeful in the way that it bears in mind one's long-term life purpose and also short-term purposes such as developing wholesome habits or dealing with unwholesome mental states.

Participant 1 pointed out that mindfulness of purpose was missing from the mindfulness questionnaire, and stressed that remembering one's life purpose was important because it guided one's thoughts and actions in the present moment:

I think in the Buddhist tradition, quite a few words have been translated from the Pali into the English word "mindfulness". Um, so one of them, one of them was *Smriti*, s-m-r-i-t-i, and that really means mindfulness as a purpose. It's a better translation than just mindfulness. It's about bearing in mind where one is going in life, I suppose, so that's not mindfulness on purpose in terms of one's doing in the next hours, but in terms of overall purpose, overall life purpose, and in the way that becomes recollecting the past, the present and the future. It's a broad awareness of, sort of, sort of um, trajectory of one's life, where one's been, where one wants to go, ... this was sort of setting an intentionality in every moment.

The above participant also stated that the intention in the present moment guided by purposeful mindfulness was wholesome. She elaborated that if she got irritated when people interrupted her work, it would indicate that she lacked wholesome intention of being patient to others due to forgetting her life purpose in that moment. Relatedly,

three other participants commented that mindfulness served the purpose such as developing wholesome habits and eliminating unwholesome habits:

I think it's also interesting that Won Buddhism mindfulness is that you set in advance what you want to be mindful of, because I notice that most people when they choose their item of mindfulness that it relates to something, for example, the precepts, or something, our habits, they want to change about themselves.

... so that's where the whole motion of, of developing wholesome states comes from. We want the habits that contribute to happiness, generate wellbeing for us and others. And mindfulness is one of those, you know, we develop it through directing our mind to the breath.

...every time we start to get angry and irritated, if we catch it right at the very beginning, then we reduce the habits, so our habits becomes less and less likely to get angry easily, right? So that can change the cause and effect relationship..... initially we have to start by making better habits, wholesome habits.

According to the participants, the object of mindfulness varies depending on the purpose. For instance, the item "*I notice how foods and drinks affect my thoughts, bodily sensation and emotion*" is designed to measure the observing aspect of mindfulness, and Participant 2 reacted to it by commenting:

... when you deeply, say, you're working on a *kōan*, (which is a succinct paradox to be meditated upon in Zen), um, it's one of the questions, the existential questions, if you really are, are deeply absorbed in a *kōan*, you may not be, um, tasting the food you're eating, in the sense of being thinking to yourself "I am tasting sourness or something bitter".

Therefore, when eating and drinking, not paying attention to the object associated with food and drink is not necessarily absence of mindfulness, if one's mind is working towards another specific goal such as trying to solve a *kōan*. Instead, mindfulness is expressed appropriately in the way that objects irrelevant to the purpose are ignored. The same participant summarised that “mindfulness is being a practice, um, bring one's attention, directing one's attention to something, the chosen something”.

The same view was expressed through other participants' reactions to other observing items. For example, for the KIMS item 13/ the FFMQ item 6 “*When I take a shower or a bath, I stay alert to the sensations of water on my body*”, they commented that sensation of water may not necessarily always be the chosen object of attention. Participant 3 said ideal Buddhists “can be fully mindful, but paying attention to something besides the water, because there are many things happening”. Participant 5 shared the similar reaction by commenting “maybe they are going to the shower to get washed, .....but then maybe they decide going to shower thinking something really important”. Likewise, for the item “*I tend not to notice feelings of physical tension or discomfort until they really grab my attention*”, the same participant commented that if the ideal Buddhist was focusing on someone else, such as giving the person right instruction, the ideal Buddhist's attention was not on oneself and thus would not notice feelings of tension or discomfort of self.

**5.4.1.4 Profound mindfulness.** Another theme that emerged is *profound mindfulness*, which refers to looking at things from different angles to challenge egoistic perceptions and to understand cause and effect. *Profound mindfulness* is introspective awareness that goes beyond simply being aware in the present moment in order to investigate the truth of reality, and it nurtures insight which is the critical quality developed through Buddhist practice.

Participant 3 commented that:

..... we start to look at things from different angles, different perceptions, um, it's like challenging perceptions, we're talking about, I mean, perceive, this is good, this is bad, this beautiful, this is ugly, but why is that? You know, can I look at it from a different angle, and mindfulness, if we just start to look at the things we normally don't look at, or we start to look at things from a different angle, then you're shining our light of mindfulness in a much more wider range, and then we get more information, and then wisdom starts to develop naturally.

The above participant explained that the reason of questioning perceptions was:

Our perceptions are conditioned by our mood, by our cultural upbringing, by our attachments, by our identifications, all of these things, so yeah, when someone is practicing, they are constantly challenging their perceptions, they are not just believing the face value.

Participant 2 supported that perception and thoughts are questionable as they are limited and distorted in some way. Based on understanding the truth of reality and the deceptiveness of perception and thoughts, the ideal mind state in her tradition is a nondual awareness that goes beyond the notion of subject and object, and just experiencing and being one with experience.

With regards to feelings, Participant 3 stated that being mindful of causes and conditions and drawbacks of negative feelings helps tackling negative feelings:

.....fear arises according to causes and conditions, and if we understand that and we're mindful of that, then it doesn't grow out of proportion..... initially we have to start by making better habits, wholesome habits, uhuh, and, because we can't just say

I'm not gonna get angry anymore, that's unrealistic, it won't happen, but what we can do is try to understand our anger better, where it comes from, how it arises, and as soon as it does arise, know it right there, and know the drawbacks of anger, so that we're much more likely to say, uh, I don't want to follow this anger, never mind, just settle down, it's only gonna lead to my own suffering by getting angry, right?

Presenting a similar view on anger, Participant 5 stated that mindfulness brought awareness of suffering of the mind, the impermanent nature of anger, and also a human being's potential ability to overcome it. She noted that "the reason why I'm angry with this person is because I have the ignorance, OK, and that ignorance is only really changed by wisdom of the nature of reality". Similarly, Participant 1 said mindfulness practice involved noticing sensations coming and going, and reflecting on the insight of impermanence, suffering and no-self. Participant 4 also shared that being aware of causes and conditions was a huge part of their mindfulness practice.

Ultimately, enlightenment is realised in wisdom through the *Noble Eight-fold Path*.

Mindfulness, as suggested by participants, is always practiced within the context of the *Noble Eight Fold Path* and cannot be separated from the other seven noble path factors. Participant 3 commented that "...within the way of the Buddha teaches mindfulness, it goes together with the other seven steps of the noble eight-fold path, so you can't have, you can't just take one step out and get the same results". He later added that "... it's really helpful if you're practicing it together with wisdom, right effort, morality in a larger context."

**5.4.1.5 Wise judging.** *Wise judging* is another important theme that emerged. All participants agreed that mindfulness involves a wise form of judging, which recognises unwholesome and wholesome qualities and their consequences. Wise judging is

different from the judging based on defilements such as personal likes or dislikes rooted in greed, hatred, and delusion that enhance ego.

In psychology, mindfulness is non-judgmental awareness which is measured by items such as “*I tend to make judgments about how worthwhile or worthless my experiences are.*” Participant 3’s reaction to the item was:

I think from an enlightened point of view, there is some of the judging going on, um, but it’s coming from wisdom, not from delusion. ....I think this question is assuming that people who are mindful don’t judge things, which I think is a mistake.

Similarly, for the item “*I see my mistakes and difficulties without judging them*”, the same participant said:

....there is a wise form of judging, right? ...so, it really depends whether wisdom is present or not. If we follow our defilements, say, if we make mistakes based on greed, based on our desires, or selfishness, and then we recognise that, then we may, a wise person gets, can judge, not with like the heavy guilt ridden type of judging that we might associate within the West, but just judge as recognising it’s not wholesome, it has bad results, um, I don’t want to, it’s not smart to do it again, that was not a wise thing to do, they will judge in that way.

The theme of *wise judging* was also strongly supported by other participants. Participant 4 emphasised the importance of wise judging by sharing that in their tradition, “it’s not just present awareness or judgmental but there is an aspect of keeping in mind what’s wholesome and unwholesome. That’s very important”. Participant 5 commented that mindfulness catches anger, hatred, and jealousy in order to deal with them as those feelings were judged as negative. Similarly, unwholesome thoughts also should be

judged and dealt with actively, according to another participant. Participant 2 explained that there is no judgment in the state of absorption, but there are other situations where evaluation is required, and anger is unwholesome that should be overcome through Buddhist practice.

**5.4.1.6 Ethical and compassionate mindfulness.** Another theme, *ethical and compassionate mindfulness*, denotes being mindful of making ethical choices.

Participant 1 stated that people should be “mindful of the ethical implications of one’s actions from moment to moment”, and mindfulness is “awareness of actions and consequences”. Two other participants elaborated an unethically mindful behaviour by using the same example of a bank robber. Participant 3 said:

So, for example, if you’re a bank robber, you have to be very mindful to be a good bank robber, but obviously the *sīla*, or the morality aspect is not developed, so the results aren’t gonna be very good..... So that’s the example of, well, if you take something out of its context, you know, even something good then it can be twisted, and then can cause harm.

He later added that ethical awareness is recognising the negative consequences of unwholesome attention:

.....if I have unwholesome attention, that tends to become bad karma, and then they can be unbeneficial or can harm someone else, hurt other people’s feelings, or not good for ourselves, and so then, so OK, we can say we can recognise ...that’s something that we don’t want to develop.

Participant 5 also pointed out that a bank robber was mindful but “it’s not got any kind of teachings behind it, you know, conscientiousness”, whereas Buddhist mindfulness

helps “you see that you’ve been unskilful”. She further elaborated that in her tradition, an ideal Buddhist such as her teacher not only does no harm to others but “got to a point, and he’s genuine that he only wants to serve others to...make all others happy.”

**5.4.1.7 Subtlety and effort in mindfulness.** The seventh theme relates to different levels of mindfulness practice. Beginners start from gross objects and also need to make effort to be mindful of the object. With practice, mindfulness becomes increasingly effortless, and subtle objects can be noticed. In responding to the item “*I intentionally stay aware of my feelings*”, Participant 3 said:

... for one who is fully enlightened, they don’t have to make that intention anymore. It happens automatically. ....for one who is training and practicing, they have to bring up that attention, it’s like keep reminding themselves.

Participant 2 expressed the same view when commenting on the item “*When I’m walking, I deliberately notice the sensations of my body moving*”:

I guess I would see the ideal is being in the beginning of the course one has to do these things deliberately, but that the training of the mind that happened through the deliberate application of noticing, eventually moves into just noticing without being deliberate... So the ideal was to move to something that’s completely natural, which actually is a true way of functioning but we have to get the naturalness by, um, through training, because of because our minds are being untrained.

The same participant also described mindfulness as “an ability to put your attention to where you want to go, to direct your attention, and do so and more and more at a more subtle level.” Participant 5 stated that mindfulness measured in psychology was gross mindfulness whereas in Buddhism, gross mindfulness evolves into subtle mindfulness

with practice. She shared the role of natural mindfulness in the extreme subtle mind state called *rigpa* in their tradition:

they recognise their own very very subtle mind states. When this happens, there is no other practice to do but abide continuously in this *rigpa*, subtle wisdom mind state and *rigpa* alone, this is accomplished through mindfulness, however, there are two kinds of mindfulness, contrived and natural, this practice cannot be achieved through contrived mindfulness, ..... you need mindfulness even in very subtle mind states to stick on it, ..... but it's very, it's like almost natural.

**5.4.1.8 Irrelevance to Buddhist mindfulness.** The remaining theme that emerged is *irrelevance to Buddhist mindfulness*. More specifically, the *describing* factor of the FFMQ and the KIMS, and items on *accepting oneself*, are not indicators of Buddhist mindfulness. All five participants expressed their concern for the *describing* items. Participant 1 commented that “mindfulness is about being aware of one’s feelings and thoughts, not necessarily about being able to describe them.” Sharing similar reactions, Participant 2 said that “my emphasis in Zen is, um, to go beyond words, immediate experience rather than the descriptions of experience.” Participant 3 believed that it depended on the individual and “even some fully enlightened teachers, they’re just not that eloquent, they don’t speak that much”. Participant 5 gave an interesting comment by stating that “I’m sure they are very good at describing their feelings, but they would never describe them”.

Further supporting this theme, Participant 1 pointed out that not only *describing* but also *accepting self* were irrelevant to Buddhist perspective of mindfulness:

I was really struck by two things, emphasis on putting things into words, and emphasis on whether you accept yourself, or whether you label your emotions as good or bad. Those two things don't fall into Buddhist definition of mindfulness.

Sharing the same concern for *accepting oneself*, for item 43 (“*I accept myself as I am*”), Participant 3 commented:

Someone can just accept themselves as they are but be very foolish. I mean they may be doing terrible things, and they just accept themselves as they totally are... that would be an unwise way of accepting oneself just as they are.

Relatedly, Participant 2 reacted to item 30 (“*I can appreciate myself*”) by stating that “the ideal would be to go beyond the notion of self and, and appreciation, just be experiencing things without thinking themselves, or dropping themselves firstly.

#### ***5.4.2 Quantitative data results***

Table 5.1 shows the number of high agreement items and low agreement items, and the percentage of low agreement items of the MAAS, the FMI, the KIMS, and the FFMQ. The MAAS had the smallest percentage of low agreement items compared to the other three scales. It only had one low agreement item, which accounted for 6.67% of the 15-item MAAS scale. The largest percentage of low agreement items was for the 39-item KIMS, where 29 items (74.36%) had low agreement patterns. Of the four KIMS sub-scales, the percentage of low agreement items for the *observing* factor was the highest (91.67%), followed by 87.50% for the *describing* factor. *Acting with awareness* and the *accepting without judging* factors of the KIMS had 50% and 66.67% of low agreement items, respectively. The FMI-30 had six low agreement items which represented 20% of the total items. The high percentage of low agreement items of the FFMQ (61.54%) was

mainly attributed to the high percentage of low agreement items of the KIMS as the FFMQ has 24 items overlapping with the KIMS. Among the five factors of the FFMQ, all items of the *observing* factor were low agreement items whereas none of the items in the factor *acting with awareness* were low agreement items. Overall, the results indicated that the MAAS and the FMI-30 were the scales that had the smallest percentage of low agreement items.

**Table 5.1**

*The number of high agreement and low agreement items, and percentage of low agreement items of the MAAS, FMI, KIMS, and FFMQ*

Scale	Number of high agreement items	Number of low agreement items	% of low agreement items
MAAS	14	1	6.67%
FMI-30	24	6	20%
KIMS	10	29	74.36%
KIMS-Observing	1	11	91.67%
KIMS-Describing	1	7	87.50%
KIMS-Awareness	5	5	50%
KIMS-nonjudging	3	6	66.67%
FFMQ	15	24	61.54%
FFMQ-Nonreactivity	3	4	57.14%
FFMQ-Observing	0	8	100%
FFMQ-Awareness	8	0	0%
FFMQ-Describing	1	7	87.50%
FFMQ-Nonjudging	3	5	62.50 %

The results using percentage agreement were confirmed by Gwet's AC1 as a measure of inter-rater reliability. Gwet's AC1 for all the items overall was 0.69, which indicated an

overall good inter-rater reliability for items presented to the raters. Gwet's AC1 of 0.97 for the MAAS was the highest, whereas Gwet's AC1 of 0.49 for the KIMS was the lowest. The FFMQ and the FMI had Gwet's AC1 values of 0.60 and 0.89, respectively. This indicated that both the FFMQ and the KIMS had moderate inter-rater reliability, and both the MAAS and the FMI had very good inter-rater reliability. The inter-rater reliability of the MAAS was the highest among the four scales.

Table 5.2 shows high agreement and low agreement items of the four scales. All high agreement items of each scale had ratings no less than five, which indicated that those items were also items consistent with the Buddhist perspective of mindfulness. The only low agreement item of the MAAS was item 5 (*"I tend not to notice feelings of physical tension or discomfort until they really grab my attention"*). Although the first four participants' reversed scores were "6"s, the last participant commented that the phrase *"grab my attention"* was not applicable to ideal Buddhists as their attention was always under control and cannot be *grabbed*. She also noted that an ideal Buddhist would notice physical tension and discomfort, but only when it was appropriate to pay attention to his/her body.

**Table 5.2**

*Responses to items of the MAAS, the KIMS, the FMI, and FFMQ, shown separately for each participant. Based on the results, items were group into high agreement and low agreement items. When participants did not provide a rating for an item, a brief description of their stated reason is shown*

Scale	Type	Item	Participant				
			1	2	3	4	5
MAAS	High agreement item	<i>1 (experiencing emotion not be conscious of it)</i>	5	6	6	6	6
		<i>2 (break or spill things)</i>	6	6	6	6	6
		<i>3* (difficult stay focused on what's happening)</i>	6	6	6	6	6
		<i>4 (walk quickly without paying attention)</i>	6	5	6	6	6
		<i>6 (forget person's name)</i>	5	5	5	6	6
		<i>7* (running on automatic)</i>	5	6	6	6	6
		<i>8* (rush through activities)</i>	6	6	6	6	6
		<i>9 (focused on goal lose touch now)</i>	5	6	6	6	6
		<i>10* (do jobs automatically)</i>	6	6	6	6	6
		<i>11 (listening and doing something else)</i>	5	6	6	6	6
		<i>12 (drive on automatic pilot)</i>	6	6	6	6	6
		<i>13 (preoccupied with future or past)</i>	6	6	6	6	6
		<i>14* (doing without paying attention)</i>	6	6	6	6	6
		<i>15 (snack without being aware)</i>	6	6	6	6	6
			Low agreement Item	<i>5 (not notice physical tension)</i>	6	6	6
FMI	High agreement item	<i>1 (open to present moment)</i>	5	6	6	6	6

<i>2 (self not identical to thoughts)</i>	5	6	6	6	6
<i>4 (when notice absence of mind, return to here and now)</i>	5	6	6	6	6
<i>7 (remain present with sensations and feelings)</i>	5	6	6	5	6
<i>8 (pay attention to what's behind actions)</i>	5	6	6	6	6
<i>9 (easily get lost in thoughts and feelings)</i>	5	5	6	6	6
<i>10 (don't need to react to whatever pops into mind)</i>	6	5	6	6	6
<i>11 (watch thoughts without identifying with them)</i>	5	6	6	6	6
<i>12 (observe thoughts come and go)</i>	5	5	6	6	6
<i>13 (let thoughts run away with me)</i>	6	6	6	6	6
<i>14 (aware how brief experience is)</i>	6	6	6	6	6
<i>15 (consider things from different perspectives)</i>	5	5	6	6	6
<i>16 (see how create own suffering)</i>	6	5	6	6	6
<i>18* (perceive feelings and emotions without reaction)</i>	5	5	6	5	6
<i>20 (examine unpleasant and pleasant sensations and perceptions)</i>	6	6	6	6	6
<i>21 (feel connected to here-and-now)</i>	6	6	6	6	6
<i>22 (accept unpleasant feelings)</i>	6	6	6	6	6
<i>23 (observe experiences arise and fade away)</i>	5	5	6	6	6
<i>24 (friendly to self when things go wrong)</i>	5	6	6	6	6
<i>25* (watch feelings without becoming lost in them)</i>	5	6	6	6	6
<i>26* (pause without immediate reacting)</i>	6	5	6	6	6

		<i>27 (avoid unpleasant feelings)</i>	6	6	6	6	6
		<i>28 (inner peace when things get hectic)</i>	5	5	6	6	6
		<i>29 (impatient with self and others)</i>	5	5	6	6	6
	Low agreement item	<i>3 (sense body)</i>	5	6	6	6	Depends
		<i>5 (appreciate self)</i>	5	4	6	6	6
		<i>6 (notice emotions express through body)</i>	5	5	6	4	N/A
		<i>17 (see mistakes without judging)</i>	5	6	Wise judging Needs fuller explanation	6	6
		<i>19 (accept self)</i>	1	6		6	6
		<i>30 (smile when self makes life difficult)</i>	4	5	N/A	5	N/A
KIMS-Observing	High agreement item	<i>39 (notice when moods begin to change)</i>	5	6	6	6	6
	Low agreement item	<i>1 (notice changes in my body)</i>	6	6	6	5	Depends
		<i>5 (pay attention to muscles)</i>	5	5	6	5	Depends
		<i>9* (notice sensations of body moving when walking)</i>	5	4	6	5	N/A
		<i>13* (when taking shower, stay alert to water on body)</i>	5	5	6	2	Depends
		<i>17* (notice how foods and drinks affect thoughts sensations, emotions)</i>	4	4	6	5	N/A
		<i>21* (pay attention to sensations)</i>	5	5	6	6	Depends
		<i>25* (pay attention to sounds)</i>	5	5	Depends	6	Depends
		<i>29* (notice smells and aromas)</i>	5	6	Depends	6	Depends
		<i>30 (aware of feelings)</i>	5	5	N/A	6	1

KIMS- Describing	High agreement item	<i>33* (notice visual elements in art or nature)</i>	6	5	Depends	6	Depends
		<i>37* (pay attention to how emotions affect thoughts and behaviour)</i>	6	5	6	6	N/A
		<i>14* (hard to find words to describe thinking)</i>	5	5	6	5	6
	Low agreement item	<i>2* (good at finding words to describe feelings)</i>	4	5	Depends	4	N/A
		<i>6* (easily put beliefs, opinions, and expectations into words)</i>	4	5	Depends	5	N/A
		<i>10 (good at thinking of words to express perceptions)</i>	4	4	Depends	6	N/A
		<i>18* (have trouble thinking of right words to express feelings)</i>	4	5	6	5	6
		<i>22* (difficult to describe sensation)</i>	5	5	6	4	6
		<i>26* (even when upset, can find a way to put it into words)</i>	4	6	N/A	5	N/A
		<i>34* (natural tendency is to put experiences into words)</i>	4	2	Depends	6	1
KIMS- Awareness	High agreement item	<i>3* (mind wanders off)</i>	6	6	6	6	6
		<i>11 (drive on automatic pilot)</i>	6	6	6	6	6
		<i>23* (don't pay attention to what's doing)</i>	6	6	6	6	6
		<i>27 (daydream when doing chores)</i>	5	6	6	6	6
		<i>35 (working on something, part of mind is occupied with other topics)</i>	5	6	6	6	6

	Low agreement item	7 ( <i>only focused on what I'm doing</i> )	6	6	6	6	Depends
		15 ( <i>when reading, focus all attention</i> )	5	5	6	6	Depends
		19 ( <i>when do things, get totally wrapped up in them</i> )	2	5	Needs fuller explanation	3	1
		31 ( <i>tend to do several things at once</i> )	5	3		6	6
		38 ( <i>get completely absorbed in what I'm doing</i> )	4	6	Needs fuller explanation	6	Depends
KIMS-Nonjudging	High agreement item	4* ( <i>criticize myself for having irrational or inappropriate emotions</i> )	5	5	6	6	6
		12* ( <i>tell self that shouldn't be feeling that way</i> )	5	5	6	6	6
		16* ( <i>believe some of thoughts are abnormal</i> )	5	6	6	6	6
	Low agreement item	8 ( <i>tend to evaluate perceptions as right or wrong</i> )	2	3	6	1	6
		20* ( <i>make judgments about thoughts</i> )	3	6	Wise judging	6	6
		24 ( <i>tend to make judgments about worth of experience</i> )	4	6	Wise judging	3	6
		28* ( <i>tell self that shouldn't be thinking that way</i> ).	4	5	6	5	6
		32* ( <i>think some emotions are bad</i> )	5	6	N/A	6	6
		36* ( <i>disapprove of self for irrational ideas</i> )	4	6	N/A	6	6

FFMQ- Nonreactivity	High agreement item	<i>4* (perceive feelings and emotions without reacting)</i>	5	5	6	5	6
		<i>9* (watch feelings without getting lost in them)</i>	5	6	6	6	6
		<i>21* (pause in difficult situations)</i>	6	5	6	6	6
	Low agreement item	<i>19 (step back and aware of distressing thought or image)</i>	4	5	N/A	6	6
		<i>24 (feel calm soon after distressing thoughts or images)</i>	5	5	N/A	6	6
		<i>29 (notice distressing thoughts or images without reacting)</i>	5	6	N/A	6	6
		<i>33 (notice distressing thoughts or images, and let them go)</i>	6	5	N/A	6	6
FFMQ- Observing	Low agreement item	<i>1* (notice the sensations of my body moving when walking)</i>	5	4	6	5	N/A
		<i>6* (when taking shower, stay alert to the sensations of water on body)</i>	5	5	6	2	Depends
		<i>11* (notice how foods and drinks affect thoughts, bodily sensations, emotions)</i>	4	4	6	5	N/A
		<i>15* (pay attention to sensations)</i>	5	5	6	6	Depends
		<i>20* (pay attention to sounds)</i>	5	5	Depends	6	Depends
		<i>26* (notice smells and aromas)</i>	5	6	Depends	6	Depends
		<i>31* (notice visual elements in art and nature)</i>	6	5	Depends	6	Depends
		<i>36* (pay attention to how emotions affect thoughts and behaviour)</i>	6	5	6	6	N/A
FFMQ-	High	<i>5* (mind wanders off)</i>	6	6	6	6	6

Awareness	agreement item	<i>8* (don't pay attention because daydream)</i>	6	6	6	6	6
		<i>13 (easily distracted)</i>	5	6	6	6	6
		<i>18* (difficult to stay focused on present)</i>	6	6	6	6	6
		<i>23* (running on automatic)</i>	5	6	6	6	6
		<i>28* (rush through activities)</i>	6	6	6	6	6
		<i>34* (do jobs or tasks automatically)</i>	6	6	6	6	6
		<i>38* (doing things without paying attention)</i>	6	6	6	6	6
		FFMQ- Describing	High agreement item	<i>12* (hard to find words to describe thinking)</i>	5	5	6
Low agreement Item	<i>2* (good at finding words to describe feelings)</i>		4	5	Depends	4	N/A
	<i>7* (easily put beliefs, opinions, and expectations into words)</i>		4	5	Depends	5	N/A
	<i>16* (have trouble thinking of right words to express feelings)</i>		4	5	6	5	6
	<i>22* (difficult to describe sensation)</i>		5	5	6	4	6
	<i>27* (even when upset, can find a way to put it into words)</i>		4	6	N/A	5	N/A
	<i>32* (natural tendency is to put experiences into words)</i>		4	2	Depends	6	1
	<i>37 (can describe feeling in detail)</i>		3	5	Depends	5	N/A
FFMQ- Nonjudging	High agreement	<i>3* (criticise self for having irrational or inappropriate emotions)</i>	5	5	6	6	6

item						
	<i>10* (tell self shouldn't feel that way)</i>	5	5	6	6	6
	<i>14* (believe some of thoughts are abnormal)</i>	5	6	6	6	6
Low agreement item						
	<i>17* (make judgments about thoughts)</i>	3	6	Wise judging	6	6
	<i>25* (tell self that shouldn't be thinking that way)</i>	4	5	6	5	6
	<i>30* (think some emotions are bad)</i>	5	6	N/A	6	6
	<i>35 (judge self as good or bad upon distressing thoughts)</i>	4	6	N/A	6	6
	<i>39*(disapprove self for irrational ideas)</i>	4	6	N/A	6	6

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\*Overlapping items between the FFMQ, and the MAAS, the FMI, the KIM

The FMI contained six low agreement items, and among them, item 19 (“*I accept myself as I am*”) had contradictory ratings. While three participants rated it as “6”, the rating of “1” given by Participant 1 suggested that an ideal Buddhist in her tradition almost never accepted herself as he/she is, and she stated explicitly that accepting self was not an indicator of Buddhist mindfulness. Participant 3 was concerned with the term “*myself*” and did not rate the item. He asserted that the item needed fuller explanation because an enlightened person would only accept self as a process or body and mind instead of an individual being. He also pointed out that acceptance without ethics as a foundation could be unwise acceptance.

Low agreement items of the KIMS mainly lay in the *observing* and *describing* factors. All items of the *observing* factor were low agreement items, except for item 39 (“*I notice when my mood begin to change*”). Likewise, the *describing* factor only had one high agreement item (item 14: “*It’s hard for me to find words to describe what I’m thinking*”). Six out of nine items of the *accepting without judgment* factor were low agreement items, and the factor *acting with awareness* contained an equal number of low agreement and high agreement items.

In total, five low agreement items in the KIMS had contradictory ratings, including two items of the *observing* factor and one item each from the other three factors.

Two items of the *observing* factor were item 13 (“*When I take a shower or a bath, I stay alert to the sensations of water on my body*”) and item 30 (“*I intentionally stay aware of my feelings*”). For item 13, three participants’ ratings were “5” and above, whereas Participant 4 gave a rating of “2” (*very infrequently*), and Participant 5 did not rate it. Participant 4 explained that the sensations of water on body were not a proper object of attention when taking a shower or a bath in their tradition. This participant also commented, based on their situation, that living together with other

roommates meant that they would not focus attention on sensations, but the goal was typically to finish a shower as soon as possible due to time pressure. Participant 5 noted that sensations of body were not necessarily the object of attention, and other objects could be chosen. Item 30 was rated at least “5” by three participants.

Participant 5 however rated it as “1” and commented that an ideal Buddhist in their tradition would never intentionally stay aware of his/her own feelings because he/she had gone beyond the stage of being interested in a self. Participant 3 would only rate it as “6” if the term “intentionally” was removed, as a fully enlightened person was believed to be aware of feelings without making an intention.

The item with contradictory ratings of the *describing* factor of the KIMS was item 34 (“*My natural tendency is to put my experiences into words*”). Only Participant 4 rated the item as “6”, which was the rating supposed to be given to an ideal Buddhist. Three ratings were below five (“1”, “2”, and “4”), which indicated that in their opinions, the item was not a proper indicator of mindfulness. Participant 3 did not rate the item and explained that it depended on personality. Within the factor of *acting with awareness*, item 19 (“*When I do things, I get totally wrapped up in them and don’t think about anything else*”), had contradictory ratings ranging from “1” (*almost never*) to “5” (*very frequently*). Participant 3 did not rate the item and commented that it needed fuller explanation because the state of absorption without thinking anything else was an indicator of mindfulness in some situations, but the wording of the item sounded negative, which seemed to suggest that being absorbed was not mindfulness. The last contradictory item of the KIMS was item 8 (“*I tend to evaluate whether my perceptions are right or wrong*”) of the factor *accept without judgment*. While two ratings of “6” indicated that an ideal Buddhist almost never tended to evaluate rightness or wrongness of perceptions, other three ratings (“1”,

“2”, and “3”) suggested that an ideal Buddhist evaluated perceptions to some extent from “*somewhat frequently*” to “*almost always*”.

The FFMQ had the *observing* factor in which all items were low agreement items, and the *acting with awareness* factor in which all items were high agreement items. All items of the *describing* factor of the FFMQ were low agreement items, except for item 12 (“*It’s hard for me to find words to describe what I’m thinking*”) which is item 14 of the KIMS. Four items (item 2, 7, 27, and 37) of the *describing* factor were viewed by either one or two participants as not applicable to an ideal Buddhist. For example, Participant 3 and 5 did not rate item 27 (“*Even when I’m feeling terribly upset, I can find a way to put it into words*”) as they believed that ideal Buddhists would not feel terribly upset. As same as the *accepting without judgment* factor of the KIMS, most items of the *non-judging of experience* factor of the FFMQ were low agreement items, and three high agreement items (items 3, 10, and 14) were item 4 (“*I criticised myself for having irrational or inappropriate emotions*”), item 12 (“*I tell myself that I shouldn’t be feeling the way I’m feeling*”), and item 16 (“*I believe some of my thoughts are abnormal or bad and I shouldn’t think that way*”) of the *accepting without judgment* factor of the KIMS. The *non-reactivity to inner experience* factor comprised of three high agreement items from the FMI and four low agreement items relating to distressing thoughts and images from the MQ. According to Participant 3, an ideal Buddhist would not have distressing thoughts or images and thus those three items were not applicable to an ideal Buddhist. Same as with the KIMS, both *observing* and *describing* factors of the FFMQ had largest number of low agreement items.

## 5.5 Discussion

The current study investigated the similarities and differences between Buddhist mindfulness and mindfulness in psychology through interviewing five advanced Buddhist practitioners. Eight themes unique to Buddhist mindfulness in comparison to Western psychological components emerged. The eight themes are *scope of attention and awareness*, *skillful mindfulness*, *purposeful mindfulness*, *profound mindfulness*, *wise judging*, *ethical and compassionate mindfulness*, *subtlety and effort in mindfulness*, and *irrelevance to Buddhist mindfulness*. The *scope of attention and awareness* suggests that mindfulness can be either narrowly focused attention on an object or action, or a broad awareness to embrace all the associated internal and external stimuli. Switching between narrow focused attention and broad awareness under the mindfulness mode of processing in everyday life requires skill. Whether narrow focused attention or broad awareness is chosen depends on both circumstances and context accompanied with wholesome intention and goals. The theme of *purposeful mindfulness* emphasises the goal-oriented nature of mindfulness practice. The themes of *profound mindfulness* and *ethical mindfulness* relate to the role of mindfulness in developing insight and ethics, respectively. Developing ethics and insight are associated with the *wise judging* theme, which is critical to Buddhist mindfulness. The theme of *irrelevance to Buddhist mindfulness* identified factors found in mindfulness questionnaires such as the *describing*, that are irrelevant to Buddhist mindfulness. To what extent the specific characteristics of mindfulness depend on the practitioner's progress or level of mindfulness is reflected by the theme of *subtlety and effort in mindfulness*. While each theme refers to a distinct aspect of mindfulness, the present discussion describes how the themes are

interlinked and what implications they present for theory and measurement of mindfulness.

### ***5.5.1 Goal oriented mindfulness***

***5.5.1.1 Theme 1: Scope of attention and awareness.*** As noted above the first theme of scope of awareness, reflects two modes of mindfulness, one is narrow focused attention and the other is open awareness. Narrow focused attention focuses on one or a very limited number of objects, while open awareness takes in a wide range of internal and external stimuli. According to the comments of the participants in the present study, Buddhist mindfulness has characteristics of flexibility in the way that it operates in narrow focused attention or broad awareness depending on the situation in everyday life or the purpose of the meditation. This means both narrow focused attention and open awareness are features of mindfulness. Hence, viewing mindfulness as either open awareness or narrow focused attention would result in only a partial understanding of Buddhist mindfulness.

Mindfulness in psychology has been greatly influenced by *Vipassana*/insight meditation (Mikulas, 2010), and mindfulness is sometimes conflated with insight or insight meditation (Gethin, 2014). As Kabat-Zinn acknowledged, “mindfulness is often spoken of synonymously as ‘insight’ meditation” (Kabat-Zinn, 2003, p.146). Insight meditation is also used interchangeably with mindfulness meditation (Kabat-Zinn, 1994; Hayes & Shenk, 2004; Baer, 2003). Since insight meditation is said to feature open broad awareness rather than narrow focused attention on a fixed object, which is claimed to be the characteristic of concentration meditation (Kabat-Zinn, 2014; Baer, 2003; Brown & Ryan, 2004), mindfulness in psychology is often conceptualised as open broad awareness (Brown & Ryan, 2004; Bishop et al., 2004).

For example, one component of the operational definition of mindfulness proposed by Bishop et al. (2004) is *orientation of curiosity, openness, and acceptance towards experiences*. Kabat-Zinn claimed that “the energy of curiosity, inquiry, investigation, openness, availability, engagement with full range of phenomena experienced by human beings” (Kabat-Zinn, 2014, p.74) is unique to mindfulness practice not concentration meditation. Thus, Bishop et al’s (2004) definition of mindfulness relates to open awareness in mindfulness practice rather than narrow focused attention in concentration meditation.

Bishop et al. (2004) however described that mindfulness practice involves paying attention to an object, such as one’s breath, while being curious about where the mind wanders and observing the distractions. Brown and Ryan (2004) argued that, at any moment, the mind cannot focus on a particular object while having curiosity and openness towards different objects within one’s experiences. In other words, narrow focused attention and open awareness cannot be exercised at the same time. Brown and Ryan (2004)’s criticism indicated that while description of mindfulness practice in Bishop et al. (2004) involved both narrow focused attention and open awareness, Bishop et al. (2004) only included open awareness into their definition of mindfulness.

Brown and Ryan (2004) stated that concentration meditation and awareness/insight meditation are related yet separate practices. Concentration meditation develops attentional abilities whereas awareness meditation develops heightened awareness. Concentration meditation could be the basis of awareness/insight meditation (Brown & Ryan, 2004). For insight meditation, there is no fixed object of attention and

whatever enters into the field of consciousness is taken as an object (Brown & Ryan, 2003; 2004). Brown and Ryan (2004) acknowledged that concentration meditation and insight meditation are two forms of mindfulness meditation, and that a key characteristic of mindfulness is flexibility which enables mindfulness to operate in broad awareness or focused attention (Brown, Ryan, & Creswell, 2007a). Brown and Ryan (2004), however, named insight meditation “awareness meditation” (Brown & Ryan, 2004, p. 244), and defined mindfulness as “open and receptive attention to and awareness of ongoing events and experience” (Brown & Ryan, 2004, p.245). Their definition of mindfulness (Brown & Ryan, 2003; 2004) links mindfulness to awareness/insight meditation only and thus is contradictory to the flexible scope of mindfulness they acknowledged. Since Brown and Ryan’s (2003; 2004) conceptualisation of mindfulness is an important one in psychology with over 4,500 citations, this could result in the misconception that mindfulness is open awareness relating to insight meditation only.

When mindfulness in psychology is conceptualised based on the mindfulness skills developed in DBT, narrow focused attention is incorporated into the conceptualisation of mindfulness. For instance, DBT includes two mindfulness skills, namely, *participating* and *one-mindfully* (Baer et al., 2004). *Participating* is defined as “entering wholly into an activity, becoming one with the activity” and as “throwing yourself into something” (cited in Baer et al., 2004, p. 194), and *one-mindfully* is defined as “focusing on one thing in the moment, . . . doing one thing at a time with awareness” and as “bringing the whole person to bear on an activity” (cited in Baer et al., 2004, p. 194). Those skills have been claimed to be related to Zen master Thich Nhat Hanh’s ideas on mindfulness (Baer et al., 2004). The KIMS

has some items based on the above two mindfulness skills. For example, item 38 is “*I get completely absorbed in what I’m doing, so that all my attention is focused on it*”. This type of mindfulness tends to be narrow focused attention that develops deep concentration/absorption by excluding irrelevant stimuli rather than open and receptive awareness that constantly takes in various stimuli entering into the consciousness field as described in insight/mindfulness meditation.

Undivided attention is often used as an indicator of mindfulness, and mindfulness is believed to be compromised when attention is divided (Brown & Ryan, 2003; Baer et al., 2004). The multi-tasking item of the KIMS (e.g., “*I tend to do several things at once rather than focusing on one thing at a time*”) was designed to measure divided attention (Baer et al., 2004). However, some participants in the present study disagreed that multi-tasking *per se* indicates the absence of mindfulness. The participants’ comments indicated that divided attention is not necessarily an indicator of absentmindedness, and undivided attention is not necessarily an indicator of mindfulness. A divided-attention task is defined as “paying attention to two or more simultaneous messages” (Matlin, 2009, p.68). Undivided attention means “engaged fully in one’s current activity with undivided attention, or focusing with awareness on one thing at a time” (Baer et al., 2004. p.193). The examples that Brown and Ryan (2003) illustrated for mindfulness included, eating while being aware of the feeling in your stomach, and, having a conversation with a friend while being aware of the friend’s emotional tone. Those examples, however, appear to relate to divided attention instead of undivided attention. However, Brown and Ryan (2003) presented these examples to illustrate how mindfulness can enhance attention to current experience and they did not consider these as instances of divided attention or multi-tasking. Brown and Ryan (2003) seemed more concerned with

distraction from focusing on the present moment. Thus, multi-tasking is not always an indicator of absentmindedness if the individual engages mindfully in the multiple tasks that they have committed themselves to. It is therefore important to distinguish between deliberate engagement in multiple tasks from distractive multi-tasking (Calderwood et al. 2014). The criterion of being identified as Buddhist mindfulness is whether multi-tasking/divided attention is suitable to the situation. The proper application of the scope of awareness and attention, rather than the specific type of attention process is of importance to Buddhist mindfulness.

Although mindfulness in psychology is generally viewed as open awareness that is said to be directly linked to awareness/ insight meditation, narrow focused attention is sometimes integrated into conceptualisations of mindfulness explicitly (Baer et al., 2004) and other times implicitly (Brown et al., 2007a; Bishop et al., 2004).

Additionally, the relationship between undivided attention, divided attention, and mindfulness is unclear. The inconsistencies in conceptualisations of mindfulness in terms of the scopes of mindfulness indicate the need to conceptualise mindfulness without making references to specific meditation techniques that are thought to cultivate mindfulness. Classic Buddhist teachings suggest that mindfulness as a capacity to sustain attention is a characteristic of concentration meditation as well as insight meditation (Gethin, 2014). In other words, both concentration meditation and insight meditation can be viewed as mindfulness meditations. As Thanissaro (2010b) pointed out, the Buddha did not classify meditations into mindfulness meditation and concentration meditation. Mindfulness can be narrow or broad depending on the situation. Therefore, defining mindfulness theoretically based on meditation techniques in either insight meditation or concentration meditation, and either focused attention or open awareness could be misleading.

**5.5.1.2 Theme 2: Skillful mindfulness.** Since the scopes of mindfulness can be narrow or broad, skillfully switching between narrow focused attention and broad awareness was acknowledged by participants as important in order to be able to respond properly to the particular situation. As one participant commented, in everyday life, when people approach you when you are concentrating on the task at hand, it is time to switch from narrow focused attention to broad awareness for this social interaction. The theme of *skillful mindfulness* again emphasises the flexibility of mindfulness. Although concentration is a wholesome quality, the proper behaviour in that situation is to treat people courteously instead of maintaining concentration. As mentioned in the previous chapter, the *Noble Eightfold Path* encompassed ethics, concentration, and wisdom that should be conjointly developed to achieve enlightenment (SN 56:11, translated by Bodhi from the Pali, 2000; MN44, translated by the Thanissaro from the Pali, 2012). Right mindfulness is remembering to keep developing virtue and wisdom (MN117, translated by Thanissaro from the Pali, 2008). Therefore, skillful switching is a dimension of right mindfulness which ensures that the development of one quality such as concentration, does not compromise the development of other qualities such as patience and loving kindness in the above example of a person interrupting one's ongoing concentrated engagement in a task.

In psychology, Bishop et al. (2004) believed that mindfulness is a metacognitive process that regulates attention and monitors the stream of consciousness, and identified that mindfulness involves attention switching. Attention switching in Bishop et al. (2004) was discussed in the context of meditation when attention switches between the anchor of attention such as breath and a distraction such as a

thought, feeling, or sensation. Thus, it is different with attention switching in the current theme which relates to everyday life situations. Furthermore, attention switching in Bishop et al. (2004) is to develop attentional ability and awareness of present experiences. In the current study, attention switching serves a goal of developing ethics, concentration, and wisdom. Despite the difference in the purpose and context of attention switching between the current study and Bishop et al. (2004)'s, both indicate skillful switching and controlled attention in responding to the situation. The theme of *skillful mindfulness* supports the conceptualisation of mindfulness in Bishop et al. (2004) in terms of attention regulation. The theme also indicates that the mind according to Buddhist mindfulness is alert and works towards a balanced development of positive mental qualities.

**5.5.1.3 Theme 3: Purposeful mindfulness.** Both the theme of *scope of attention* and the theme of *skillful mindfulness* are associated with a third theme, namely that of *purposeful mindfulness*. Concentration and insight are both developed through Buddhist practice (AN 2:30, translated by Thanissaro from the Pali, 2010). When the goal is to block out distractions to be in a fully concentrated state of mind, mindfulness operates as narrow attention sustained on a fixed object (SN 47:20, translated by Thanissaro from Pali, 2010). When the goal of practice is to develop insight, mindfulness is coupled with clear comprehension (*sampajāna*) in the form of broad introspective awareness to observe and discern the nature and relationships of interrelated objects (Anālayo, 2003). Also, as participants in the present study stressed, Buddhist practices are to develop wholesome qualities and overcome unwholesome qualities. The object of meditation can be chosen accordingly, depending on what unwholesome quality that practitioners aim to deal with. For

example, meditating on a corpse is suitable for the greedy type of practitioner, and loving kindness meditation and compassion meditation help practitioners to overcome hatred (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). Mindfulness of breathing is especially useful for dealing with discursive thinking (Gethin, 1998).

Purposeful mindfulness is not only associated with the short-term meditative goals such as dealing with a certain unwholesome quality, but also long-term goals (AN4:245, translated by Thanissaro from the Pali, 2012). Participant 1 explicitly pointed out that mindfulness bears life goals in mind. In the *Sikkha Sutta* (AN4:245, translated by Thanissaro from the Pali, 2012), purposeful mindfulness in terms of long-term goals is indicated in a discourse in which mindfulness is described as a governing principle in the sense that one clearly knows what should be accomplished in the future.

Thus, Buddhist mindfulness guides future conduct and practices by clearly knowing of what has been accomplished in the past and what should be completed in the future. As one of the participants commented, mindfulness involves recollecting the past, the present, and what is planned for the future. The theme of *purposeful mindfulness* is related to prospective memory which involves remembering to perform a planned action or intention at some future point in time (McDaniel & Einstein, 2007; Wallace, 2008). Prospective memory is crucial as more than half of everyday memories are related to prospective memory according to Kliegel and Martin (2010). Failures of prospective memory result in forgetting to do the things that we originally intended to do. In Buddhism, mindfulness has a dominant role in

mastery of the mind (AN 10:58; AN 9:14, translated by Nyanaponika & Bodhi from the Pali, 1990). This prospective aspect of mindfulness keeps the life goals and future direction of practice in mind, so that the practitioner is always on the right path towards the ultimate goal of enlightenment. Morality in Buddhism is also said to be future-directed. Practitioners are motivated to do better in the future (Harvey, 2000). Therefore, Buddhist mindfulness involves the past, present, and future. As Wallace (2008) summarised:

The primary meaning of *sati* ... is recollection, nonforgetfulness. This includes retrospective memory of things in the past, prospectively remembering to do something in the future, and present-centered recollection in the sense of maintaining unwavering attention to a present reality (Wallace, 2008, p.60).

Mindfulness in psychology, in contrast, emphasises present-centred awareness, and being in the present moment for mindfulness practice (Kabat-Zinn, 1994; 1996; 2013; Bishop et al., 2004; Brown & Ryan, 2003; Segal et al., 2002; Siegel, Germer, & Olendzki, 2009; Mikulas, 2010; Kostanski & Hassed, 2008). The present is said to be of utmost importance because “it is the only time that any of us ever has” (Kabat-Zinn, 2013, p.16), and the goal of mindfulness practice is “simply to experience what is present from moment to moment” (Kabat-Zinn, 1996, p.163). “Primarily, mindfulness is being rather than doing” (Kostanski & Hassed, 2008, p. 15). Patients in psychotherapies are often said to be preoccupied with past and future, and they are expected to benefit from being in the present (Germer, 2004). Brown and Ryan (2003) titled their popular article on mindfulness “*The Benefits of Being Present: Mindfulness and Its Role in Psychological Well-Being*”.

Perhaps an exception to the strong focus on present-moment awareness is DBT, according to which mindfulness skills include balancing *doing mind* and *being mind*. “Doing mind focuses on achieving goals; being mind focuses on experiencing” (Linehan, 2015, p.223). Linehan (2015) pointed out that too much *doing mind* (achieving goals) leads to living a life on automatic pilot, and that too much *being mind* (experiencing) can be self-indulgent and self-centred. A balanced mind includes the prospective aspect of Buddhist mindfulness. Although the KIMS (Baer et al., 2004) was developed based on on mindfulness skills in DBT, only items representing *being mind* such as “*I get completely absorbed in what I’m doing, so that all my attention is focused on it*” are developed. The *balanced mind* was not incorporated into the KIMS (Baer et al., 2004).

Purser (2015) pointed out that being in the present moment as it is emphasised in Western psychology primarily serves the purpose of symptom reduction or therapeutic mindfulness. While it is a useful therapeutic tool to deal with excessive worry and rumination to alleviate the suffering of patients, equating it to mindfulness neglects the important purpose of Buddhist mindfulness, which is to develop wisdom. He also argued that time is dynamic, and the present moment is only meaningful due to its causal link to the past and future. In addition, Christopher et al. (2014) identified that intention to return awareness to the present moment is missing from the FFMQ and TMS. Intention was said to be an essential factor in Buddhist mindfulness practice that is linked to the construct of remembering in Buddhism. The theoretical meaning of *sati*/mindfulness is *remembering* (Gethin, 2001). Being in the present moment is an operational definition of mindfulness (Kabat-Zinn, 2011), and should not be employed to inform a theoretical understanding of mindfulness. As Kabat-Zinn (2011) acknowledged, his definition

of mindfulness is not entirely consistent with Buddhist teachings. The term of *mindfulness* was employed as a skillful means to introduce Burmese insight meditation to the main stream of psychology, and his definition of mindfulness tends to illustrate the attention regulation process which cultivates mindfulness (Kabat-Zinn, 2013).

Purposeful mindfulness requires present attention to be on the object that matches the goal. In every moment, there are many competing stimuli present, and attention can only attend to some information (Rensink, 2013). William James, a founding father of American psychology, wrote in his influential book *The Principles of Psychology* that “what is called our 'experience' is almost entirely determined by our habits of attention” (James, 1892, p. 156). His view echoes what the Buddha says: “All phenomena come into play through attention” (AN 10:58, translated by Thanissaro from the Pali, 2013). By having purposeful mindfulness, our experience is shaped by the habits of appropriate attention. Appropriate attention is emphasised by the Buddha as a crucial factor for ending suffering as in the following discourse:

With regard to internal factors, I don't envision any other single factor like appropriate attention as doing so much for a monk in training, who has not attained the heart's goal but remains intent on the unsurpassed safety from bondage. A monk who attends appropriately abandons what is unskillful and develops what is skillful (Iti 1:16, translated by Thanissaro from the Pali, 2013).

Thus, whether attention is on past, present, or future, and whether the state of mind is non-conceptual or has thoughts these are not the most important indicators for Buddhist mindfulness. Rather, wholesome intention and the purpose of attention are critical for Buddhist mindfulness.

As discussed in Chapter 1, ethics, concentration, and insight/wisdom of the *Noble Eight-fold Path* are the three aspects that should be developed irrespective of traditions and practices. It means that attention associated with developing those three aspects is appropriate attention. Appropriate attention is especially important in the situation where the conflicts between natural desires and overarching goals or values need to be solved. For example, recall the *Beauty Queen Sutta* (SN 47:20, translated by Thanissaro from the Pali, 2010) from Chapter 2 that described a situation where a man walking with a bowl of oil on his head focused his attention wholly on the bowl, and did not get distracted by the beauty queen and the shouting crowd because he would get killed if he spilt oil. He did not succumb to distractions in order to achieve the goal of not spilling oil and not being killed. In this case, purposeful mindfulness with appropriate attention is related to executive attention which is turned on to monitor measurable conflicts at the response level for achieving a goal (Smith & Kosslyn, 2007).

Executive attention is believed to be closely related to mindfulness in psychology (Tang & Posner, 2015; Brown et al., 2007a). For example, Brown et al. (2007a) stated that mindfulness as metacognition defined by Bishop et al. (2004) is consistent with executive attention. While Brown and his colleagues (2003; 2004; 2007a) argued that mindfulness is non-conceptual and cannot be equated to metacognition, they also acknowledged that “the mindful mode of processing involves a voluntary, fluid regulation of states of attention and awareness” (Brown et al., 2007a, p.213). Tang and Posner (2015) also argued that the proposed mechanisms of mindfulness such as attention regulation and emotion regulation are related to executive attention. Both Buddhist mindfulness and mindfulness in psychology thus agree that mindfulness involves executive attention. However, mindfulness in psychology

regulates attention for mainly developing non-judgmental present-centred awareness, which is different to the wholesome short-term and long-term goals of Buddhist mindfulness indicated through the theme of *purposeful mindfulness*.

The theme of *purposeful mindfulness* suggests gathering attention to an object that matches one's goals and inhibiting irrelevant information to help to attain the goal. Compared to paying attention to proper objects in terms of developing ethics, concentration, and wisdom in Buddhism, mindfulness practice in psychology is to develop non-judgmental present-moment awareness, and thus whatever attracts attention in the present moment can be an object of observation (Kabat-Zinn, 1990; Linehan, 1993; Brown & Ryan, 2003; Baer 2003; Baer et al., 2004; Bishop et al, 2004). It means that one would expect items from the *observing* subscale to be relevant (e.g. "*I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing*"). Participants of the current study, however, raised concerns about the *observing* factor of the KIMS and the FFMQ. All the *observing* items of the FFMQ and 11 of the 12 *observing* items of the KIMS were not identified as indicators of Buddhist mindfulness. According to the participants, the object of observing should be consistent with the purpose of observing. Since the purpose is not indicated in the observing items, the object designed for the items cannot be identified as proper objects to be observed.

Previous studies in the psychological literature also have reported that the *observing* items are problematic (Baer et al., 2004; Baer et al., 2006; Hansen, Lundh, Homman, & Wangby-Lundh, 2009; Dundas, Vollestad, Binder, & Sivertsen, 2013). For instance, Baer et al. (2004) reported no differences in means scores in the *observing* factor of the KIMS of participants from a student sample and a sample of individuals

with borderline personality disorder. In addition, unexpected relationships between the *observing* factor and psychological health indicators have been reported. For example, the *observing* subscale of the FFMQ was unexpectedly positively correlated with dissociation, absent-mindedness, psychological symptoms and thought suppression (Baer et al., 2006). Positive associations between observing and psychopathology have also been reported for the *observing* subscale of the KIMS in a Swedish sample (Hansen et al., 2009). In a recent study, all the factors of the FFMQ except the *observing* factor were inversely correlated with neuroticism, habitual negative thinking, and depression (Dundas et al., 2013).

Baer et al. (2004) suggested that *observing* items may function normally in meditators. This hypothesis was tested in their study of developing the FFMQ, and the *observing* factor was found to have no significant correlation with dissociation, absent-mindedness, psychological symptoms and thought suppression in the subsample of participants with meditation experience (Baer et al., 2006). They later validated the FFMQ in meditating and nonmeditating samples (Baer et al., 2008), and reported that the *observing* factor fitted the model when the hierarchical model consisting of five factors of the FFMQ was tested in a meditator sample. As expected for meditators, the *observing* factor was negatively correlated with psychological symptoms and positively with psychological wellbeing. For the non-meditator sample, the unexpected results are similar to previous studies (Baer et al., 2008). The *observing* factor of the FFMQ was positively correlated with psychological symptoms in a student sample, and had no correlation with psychological symptoms and wellbeing in non-meditator samples (Baer et al., 2008). Van Dam, Earleywine, and Danoff-Burg (2009) investigated differential item functioning of the FFMQ and

the results again supported that the *observing* factor of the FFMQ functioned differently in meditators and non-meditators.

Therefore, the *observing* factor seems to be an indicator of mindfulness for people with meditation experience only. This indicates that the same observing behaviour can be either harmful or beneficial and depends on the purpose of observing.

Observing in mindfulness is a healthy observation (Hansen et al., 2009). Without a proper purpose that experienced meditators have in mind, noticing and observing an object could be the behaviour of being distracted as indicated by the correlation with absentmindedness (Baer et al., 2006) or unhealthy rumination (Hansen et al., 2009), as indicated by the above-mentioned unexpected correlations with psychological symptoms. Therefore, the observing items may need to be re-designed by adding a purpose so that results from non-meditators are unbiased.

Some studies also have reported unexpected results for the *act with awareness* subscale of the FFMQ and the *mind/body awareness* subscale of the FMI-30 (Baer et al., 2008; Leigh, Bowen, & Marlatt, 2005). For instance, Baer et al. (2008) reported that the *act with awareness* subscale of the FFMQ had no significant correlation with meditation experience. Leigh et al. (2005) validated the FMI-30, and three factors including *mind/body awareness* were extracted from factor analysis. They then tested the relationship between mindfulness and substance use, and the results showed that frequent binge-drinkers and smokers had higher scores on *mind/body awareness* factor of the FMI-30 than non-drinkers and non-smokers, respectively (Leigh et al., 2005). As mentioned previously, the FMI-30 was designed explicitly based on Buddhist insight meditation and is suitable for people with meditation experience only (Buchheld et al., 2001). The unexpected results indicated that heightened awareness could have resulted from mindful observing, or enhanced by

harmful habits. Therefore, heightened awareness may not necessarily be beneficial unless it is developed through wholesome means with wholesome purposes.

### **5.5.2 Cultivation of wisdom and ethics**

**5.5.2.1 Theme 4: Profound mindfulness.** As mentioned earlier and to the Buddhist, when the mind observes phenomena such as thoughts and feelings to develop insight, mindfulness works together with clear comprehension (*sampajañña*) in the form of introspective awareness. In essence, gaining insight is the process of understanding cause and effect and the true nature of phenomena (MN109, translated by Thanissaro from the Pali, 2013). This process is reflected through the theme of *profound mindfulness* that involves deep inquiry, discernment, and reasoning to challenge perceptions and judgments for a deeper understanding of phenomena. In the Pali canon, the true nature of pleasant feelings is described as impermanent through the following reasoning process:

He discerns that 'A feeling of pleasure has arisen in me. It is dependent on a requisite condition, not independent. Dependent on what? Dependent on this body. Now, this body is inconstant, fabricated, dependently co-arisen. Being dependent on a body that is inconstant, fabricated, & dependently co-arisen, how can this feeling of pleasure that has arisen be constant?' (SN 36:7, translated by Thanissaro from the Pali, 2013).

Since pleasant feelings are impermanent in nature, clinging to them inevitably leads to unhappiness. Thus, the true nature of pleasant feelings is also painful instead of pleasant (SN 36:5, translated by Nyanaponika from the Pali, 2010). The same reasoning process also applies to the impermanent nature of painful feelings (MN 28, translated by Thanissaro from the Pali, 2013). Also, participants stated that being

mindful of the causes and effects as well as the impermanent nature of unwholesome feelings such as anger helps deal with anger. Since anger is an unwholesome quality that mindfulness practice aims to overcome, profound mindfulness is associated with purposeful mindfulness for overcoming unwholesome qualities.

The *Satipatthāna* practices culminate in understanding the true nature of phenomena intuitively (Gethin, 2011). For modern insight meditation such as the Mahashi Sayadaw's approach, mindfulness is manifested as *bare attention* to develop a certain level of concentration at the initial stage of practice (Sayadaw, 1990; Nyanaponika, 2005). It is then integrated with clear comprehension (*sampajañña*), which is discriminative awareness for gaining insight (Sayadaw, 1990; Nyanaponika, 2005). Dreyfus (2011) pointed out that mindfulness in classic Buddhism consists of *mindfulness proper* which is the ability of retaining information in mind, and *wise mindfulness*, which is a clear understanding of impermanence, suffering, and no-self. *Mindfulness proper* is the basis for *wise mindfulness* by holding information for introspection to develop wisdom.

In psychology, Bishop et al. (2004) acknowledged that part of mindfulness is “a process of gaining insight into the nature of one's mind” (Bishop et al., 2004, p.234). Brown et al. (2007a) adopted the view that mindfulness is clear awareness which is like a polished mirror that reflects what is occurring without bias. In this sense, mindfulness resembles insight in the way that phenomena are seen from wise perspectives. According to Bishop et al. (2004), mindfulness involves self-observation, and insight is the outcome of self-observation (Bishop et al., 2004). Although based on Bishop et al. (2004)'s statement, mindfulness as clear awareness claimed by Brown et al. (2007a) tends to be the outcome of the process of self-observation, both clear mindfulness and the process of self-observation suggest the

profound characteristic of mindfulness in terms of going deeper to the nature of phenomena. Hence, despite the differences in conceptualisation of mindfulness between Bishop et al. (2004) and Brown Ryan (2004), both incorporated profound mindfulness.

Besides, Kabat-Zinn stated that mindfulness “has to do with examining who we are, with questioning our view of the world and our place in it” (Kabat-Zinn, 2014, p.3). He also explicitly argued that MBSR includes a wisdom dimension of mindfulness that discerns and understands the differences and relationships between various objects of observation (Kabat-Zinn, 1996). In DBT, there are three sets of mindfulness skills, and *wise mind* is a critical one. *Wise mind* is defined as “finding inside yourself the inherent wisdom that each person has within” (Linehan, 2015, p.166). Practicing *wise mind* involves asking *wise mind* questions such as “*Is eating a second dessert wise mind?*” (Linehan, 2015, p.174).

Although profound mindfulness is integrated into MBIs to some extent, it is barely captured explicitly in the mindfulness questionnaires. For example, the KIMS was developed based on mindfulness skills in DBT (Baer et al., 2004). However, *wise mind* in DBT was excluded from the beginning of designing KIMS’ items. Also, Brown and Ryan (2007) criticised the multi-faceted approach to conceptualise mindfulness, and advocated a reductionist approach. They believed that mindfulness *per se* as an inherent attentional ability should be conceptualised and measured independent of mindfulness skills, and qualities and outcomes of mindfulness such as insight and compassion (Brown & Ryan, 2003; Brown & Ryan, 2004). The MAAS that Brown and Ryan (2003) developed assesses dispositional mindfulness through questions of attention lapses in daily life (e.g. “*I rush through activities without being really attentive to them*”) (Cheyne, Carriere, & Smilek, 2006). Thus,

although Brown et al. (2007a) claimed that mindfulness is clear awareness, the MAAS they developed only measures attentiveness (Brown & Ryan, 2003).

Among all the questionnaires in the current study, only the FMI-30 has a factor related to *wise mindfulness*, namely, *insightful understanding*. Example items are “*I consider things from different perspectives*” and “*I am aware how brief and fleeting my experiences are*” (Buchheld et al., 2001). All items of the *insightful understanding* factor were consistently rated at least five by the participants, which provided evidence to support that insightful understanding is an indicator of Buddhist mindfulness. Most recently, Christopher et al. (2014) identified that *awareness of suffering and aversion* of Buddhist mindfulness was missing from the FFMQ and the TMS. Participants in that study commented that the insight of suffering was important in Buddhism and could be measured through items of awareness of aversion to unpleasant experiences (Christopher et al., 2014).

In Buddhism, right mindfulness works with the other seven path factors as a unity (Gethin, 1998). Ethics, concentration, and wisdom support each other’s development. The theme of profound mindfulness together with the discussions on mindfulness in psychology indicates that the wisdom dimension of mindfulness could be missing from the conceptualisation and measures of mindfulness in psychology.

Consequently, employing mindfulness questionnaires without wise mindfulness to assess mindfulness and attributing the effects of mindfulness to the existing factors are questionable suppositions if they are meant to reflect mindfulness rooted in Buddhism.

**5.5.2.2 Theme 5: Wise judging.** *Wise mindfulness* involves evaluation and judgments based on the Buddhist teachings (Dreyfus, 2011). Based on the

participants' comments, *wise judging* is an important aspect of Buddhist mindfulness. The theme of *wise judging* suggests that Buddhist mindfulness involves a wise form of judging rooted in wisdom that is different to subjective judgment. In psychology, mindfulness defined as *non-judgmental awareness* is commonly accepted, and *non-judgmental awareness* is a core element of MBIs (Kabat-Zinn, 1994; Segal et al., 2002; Linehan, 2015; Baer 2003; Baer et al, 2004; Bishop et al., 2004). According to Kabat-Zinn (2013), stress is related to a restless mind that makes judgments constantly based on personal likes and dislikes. *Non-judging* is a foundational attitude for cultivating mindfulness. In MBSR, course participants are encouraged to suspend judgments, not to react to judgments and opinions, but to observe and acknowledge them instead. In DBT, *non-judging* involves “letting go of all judgments, including both good and bad judgments, about self and others” (Rizvi, Welch, Dimidjian, 2009, p.250). In ACT, mindfulness exercises include not taking thoughts literally but watching them as leaves floating on a stream (Hayes, 2004). Kabat-Zinn, however, clarified that being “non-judgmental does not mean to imply to the novice practitioner that there is some ideal state in which judgments no longer arise” (Kabat-Zinn, 2011, p.291). This statement suggests that he did not coin *non-judgmental* to represent a non-conceptual mind, but as an observational attitude.

Brown et al. (2007a) argued that *non-judging* as proposed by Kabat-Zinn only reflects an attitude that fosters mindfulness in the context of clinical settings rather than mindfulness more generally. They claimed that non-conceptual, non-discriminative, and non-discursive characteristics were the nature of mindfulness (Brown & Ryan, 2003; Brown et al., 2007a). Mindfulness is claimed to be pre- or para-conceptual, which “does not compare, categorize, or evaluate, nor does it contemplate, introspect, reflect, or ruminate upon events or experiences based on

memory” (Brown et al., 2007a, p.213). Brown et al. (2007a) equated mindfulness with *bare attention* in this sense, and the mindful mode of processing is said to prolong the initial fleeting moment when the mind contacts the world before concepts are being formed. Since no judgments can arise in a non-conceptual state, *non-judging* is implied by the non-conceptual nature of mindfulness argued by Brown and Ryan (2003).

The focus on non-judgmental awareness in psychological interventions and the concomitant psychological literature is to some degree reflective of the origins of MBIs. Modern forms of Buddhism, particularly the vipassanā movement (Samuel, 2015) played a substantial role in the development of MBIs. The most influential vipassanā or insight meditation school is linked to the teachings of the Burmese monk Mahāsi Sayādaw and the *Satipatthāna* Sutta (Mahāsi Sayādaw, 1990). In particular, the beginner’s exercises of this approach focus on present-moment awareness (Mahāsi Sayādaw, 1990; Gilpin, 2008). According to this insight approach, the goal is to learn to perceive things as they really are, unaffected by preconceived ideas based on experience and expectations (Nyanaponika, 1989). Much of these teachings on bare attention entered the West through the German-born Theravada monk Nyanaponika Thera (Bodhi 2011) who spent a period of time training under Mahāsi Sayādaw. Other scholars and teachers continued the dissemination of Buddhist teachings to the West by introducing mindfulness in the context of bare attention and nonjudgmental awareness (Gethin, 2011).

Gethin (2011) suggested that *non-judgmental* in MBSR and MBCT may represent a calm mind state or non-attachment in reaction to negative and positive mental states. He pointed out that *non-judgmental* is closely associated with *bare attention*

proposed by Nyanaponika Thera (please refer to Chapter 4 for details), which is a technique to counteract the habitual self-interest reactions and thoughts in order to build the foundation for insightful understanding of things (Nyanaponika, 2005; Gethin, 2011). In this sense, *non-judgmental* is an attitude or meditative technique to deal with habitual egoistic reactions and thought proliferations that disturb the mind. *Bare attention* was adopted by both Kabat-Zinn (Gethin, 2011) and Brown et al. (2007a), but in somewhat different ways. In the context of therapeutic mindfulness, Kabat-Zinn downplayed “non-conceptual”, and *bare attention* was mainly employed as an observing technique and attitude which is expressed through the term of “*non-judgmental*” (Kabat-Zinn, 2011). Brown et al. (2007a), however, advocated non-conceptual characteristics as the core nature of mindfulness, and *bare attention* was presented in this frame. Despite the differences, mindfulness as conceptualised by both Kabat-Zinn (2011) and Brown et al. (2007a) suggests that mindfulness does not have judgmental cognition entering into awareness.

As Bodhi (2011) argued, bare attention is only one of numerous ways to teach and practice mindfulness, and such teaching instructions should therefore not be taken as a theoretical definition of the concept. In some of the major Buddhist traditions, bare attention is not even practiced (Dorjee, 2010). Besides, mindfulness is said to be a balancing factor in meditation that judges the best way to balance different qualities so that deep concentration and insight are developed (*The Path of Purification*, translated by Nanamoli, 2011). For example, in order to achieve absorption in meditation, mindfulness must prevent the mind from being agitated or idle. Strong mindfulness is also needed to balance enlightenment factors depending on one’s state of mind (SN46:53, translated by Thanissaro from the Pali, 2013; *The Path of*

*Purification*, translated by Nanamoli from the Pali, 2011). For example, when the mind has a need to be encouraged, the special qualities of the Buddha and the Dharma should be recollected to create confidence. The balancing role of mindfulness in meditation indicates that Buddhist practice is complex and *non-judgmental* and that observing without reaction is not always needed.

*Non-judging* is not an aspect of Buddhist mindfulness as Buddhist mindfulness involves wise and healthy judgment. Recently, Lilja, Lundh, Josefsson, and Falkenstrom (2013) employed cluster analysis to investigate the relationship between the *observing* and *non-judging* subscales of the FFMQ in meditating and non-meditating samples. The results indicated that a sample in which meditators are over-represented produced high scores on *observing* but lower scores on *non-judging*. The emerging empirical evidence of the indifferent performance of *non-judging* factor in meditators, combined with the results of the current study suggests that the *non-judging* factor is questionable. As with the *observing* items, the *non-judging* factor lacks context and purpose. Without knowledge of MBIs, *non-judgmental* as proposed by Kabat-Zinn may not be understood as originally intended.

**5.5.2.3 Theme 6: Ethical and compassionate mindfulness.** In addition to both concentration and insight, ethics are also meant to be developed through Buddhist practice (MN44, translated by the Thanissaro from the Pali, 2012; SN 47:40, translated by Thanissaro from the Pali, 2012). The theme of ethical and compassionate mindfulness emerged in the present study and represents the ethical dimension of Buddhist mindfulness. This theme echoes comments that have been increasingly raised in recent academic debates (Monteiro, Musten, & Compson, 2015). Participants in this study explicitly stated that Buddhist mindfulness involves

being aware of the ethical implications and consequences of one's actions, whether from moment to moment or in general and as applied to both narrow- and broad-focused awareness. Judgment in Buddhism infers healthy judgment that judges the self's actions instead of the self (Thanissaro, 2010b). The criteria used to assess whether actions are wholesome or unwholesome include the motivation of the actions, the direct effects of the actions, and whether the actions contribute to enlightenment (Harvey, 2000). Mindfulness, meaning the presence of mind cultivated through meditation enables one to be aware of one's intentions and motives (Harvey, 2000). Reflecting on intentions and the consequences of actions helps practitioners to develop awareness of the impact of their own actions on self and others, and in turn to make ethical choices (Thanissaro, 2010b). Furthermore, Buddhist mindfulness also helps to develop healthy judgements by remembering lessons learnt from past mistakes (Thanissaro, 2010b).

Since not all forms of judging are discouraged in Buddhism, equating mindfulness to non-judgmental awareness neglects the evaluative aspect of mindfulness that is essential to develop ethics (Dreyfus, 2011). In fact, what unifies Buddhist mindfulness practice is the cultivation of wholesome qualities (Dorjee, 2010), which does include elements of evaluation. Buddhism frequently distinguishes explicitly between mindfulness practice during dedicated meditation time and practice while engaging in everyday life affairs. So, while a non-discriminating mind is the aim in meditation practice, Buddhist practice outside these times involves being attentive to actions and mind states in order to choose wholesome actions and avoid unwholesome actions (Chwasan, 2012). As mentioned in Chapter 2, mindfulness defined in *The Questions of King Milinda* is remembering what the wholesome and unwholesome qualities are, so that wholesome qualities are to be cultivated and

unwholesome qualities are to be overcome (*The Questions of King Milinda*, translated from the Pali by T.W Rhys Davids, 1890). Mindfulness is also the positive counterpart of the fifth abstention which is to abstain from alcoholic drinks or drugs (Harvey, 2000, p.67).

As participants in the present study pointed out, presence of mind accompanied by unethical behaviours is not Buddhist mindfulness, and isolating mindfulness from the context of the *Noble Eight-fold Path* could result in a distorted view of mindfulness. Based on the following discourse, Buddhist mindfulness is rooted in true dhamma, and directly results from proper attention. Also, good conduct is the basic foundation of the *Satipathāna* practice, *Four Foundations of Mindfulness*:

When listening to the true Dhamma prevails [sic], faith will prevail. When faith prevails, proper attention will prevail. When proper attention prevails, mindfulness and clear comprehension will prevail. When mindfulness and clear comprehension prevail, restraint of the senses will prevail. When restraint of the senses prevails, the three ways of good conduct will prevail. When the three ways of good conduct prevail, the four foundations of mindfulness will prevail (AN 10:61 &62, translated by Nyanaponika & Bodhi from the Pali, 1990, p.18).

The eight path factors are a unity (MN117, translated from the Pali by Thanissaro, 2008). Too much emphasis on non-judging passive observation ignores other path factors such as *right effort* (Thanissaro, 2010b). The term for the combination of mindfulness and *right effort* is *appamāda* (Gilpin, 2008). Sri Lankan commentaries translate *appamāda* as "unrelaxed mindfulness" (Gilpin, 2008). Other translations for *appamāda* are *heedfulness* (Gilpin, 2008), and *earnestness* (DN16, translated from

the Pali by Vajira & Story from Pali, 2013). *Appamāda* is the Buddha's last utterance that encourages practitioners to accomplish duties without allowing mindfulness to lapse (DN16, translated from the Pali by Vajira & Story from Pali, 2013).

The meaning and function of heedfulness are illustrated in the following discourse (SN48:56, translated from the Pali by Thanissaro, 2004):

Monks, when one quality is established in a monk, the five faculties are developed & developed well. Which one quality? Heedfulness.

"And what is heedfulness? There is the case where a monk guards his mind with regard to [mental] fermentations and mental qualities accompanied by fermentations. When his mind is guarded with regard to fermentations and mental qualities accompanied by fermentations, the faculty of conviction goes to the culmination of its development. The faculty of persistence... mindfulness... concentration... discernment goes to the culmination of its development.

Lomas and Jnanavaca (2015) defined heedfulness as "being aware of one's actions in the light of...ethical guidelines, i.e. reflecting on the extent to which one's actions are in accordance or otherwise with these recommendations" (p. 302). Heedfulness is one of the required qualities of conscience in Buddhism (Harvey, 2000). Heedfulness represents the ethical aspect of mindfulness which actively guards the mind for making ethical choices beneficial to self and others (Gilpin, 2008). Hence, Buddhist mindfulness is not ethically neutral and Buddhist practice does not always involve *non-judgmental* awareness. Especially daily mindfulness practice in Buddhism is conducted in conjunction with ethical guidelines and precepts or ethics, which do include the elements of evaluation, self-appraisal, and judgment.

MBIs, in contrast, are generally secular and do not refer to any specific behavioural guidelines or precepts (Cullen, 2011). However, without following some moral guidelines to prevent the mind from entertaining regrets and remorse due to moral transgressions, meditation and mindfulness practitioners will find it difficult to calm their minds (Bodhi, 1998). It also seems likely that mindfulness is more beneficial when it is aligned with personal values and beliefs, and this alignment may happen naturally even in the absence of explicit references to ethics (Krägeloh, 2016). In psychology, whether values and ethics should be considered a part of mindfulness remains controversial. Kabat-Zinn (1994) stated that mindfulness practice itself “has to become the daily embodiment of your vision and contain what you value most deeply.....it is bearing in mind what is most important to you so that it is not lost or betrayed in the heat and reactivity of a particular moment” (Kabat-Zinn, 1994, p.76-77).

Leary and Tate (2007) proposed that a belief system supporting mindful living is a feature of mindfulness. They believed that it is hard to separate ethics from mindfulness, and mindfulness without ethics could be harmful (Leary & Tate, 2007). Brown, Ryan, and Creswell (2007b) however, argued that ethical beliefs tended to be part of the process or the outcomes of mindfulness training instead of trait mindfulness itself. They claimed that the positive effects of trait mindfulness on wellbeing in those people without mindfulness training or interventions indicated that mindfulness *per se* is beneficial, and ethics can be separated from mindfulness (Brown et al., 2007b). Brown et al. (2007b) stated that ethical beliefs are thought content occurring in consciousness, whereas mindfulness concerns the quality of

consciousness itself, and “open, bare attention [that] is at the heart of mindfulness” (Brown et al., 2007b, p.279).

However, according to Brown et al. (2007b), trait mindfulness fosters self-regulation and “behaviours tend to be regulated autonomously, and in accord with chosen interests and values” (Brown et al., 2007b, p.274). It suggests that ethics can be enhanced not only through mindfulness training as claimed above, but that ethics is affected by trait mindfulness. Therefore, the beneficial effects of trait mindfulness in non-practitioners do not necessarily prove that mindfulness is a construct in which ethics plays no role. More research is necessary to investigate the role of ethics and morality in the context of mindfulness practice. In any case, references to ethical dimensions of mindfulness are currently missing from questionnaires, as clearly identified by the participants of the present study. Buddhist mindfulness practices fulfil the *Noble Eight-fold Path* that includes ethics, concentration, and wisdom (SN 47:40, translated by Thanissaro from the Pali, 2013; MN44, translated by the Thanissaro from the Pali, 2012). The theme of ethical and compassionate mindfulness in the current study supports that Buddhist mindfulness is ethical.

The theme of ethical and compassionate mindfulness also indicates that Buddhist mindfulness concerns others’ benefits. The ethical dimension of Buddhist mindfulness involves moral development through guarding the self against unwholesome thoughts, as well as guarding oneself against actions that harm others, which is often practiced through patience, harmlessness, loving kindness, and sympathy (Gilpin, 2008). In Buddhism, an affliction such as anger is often dealt with by applying the antidote of loving kindness (Harvey, 2000). As the Dalai Lama

stressed, Buddhism is about recognising the danger of afflictions, and to overcome them through applying antidotes (The Dalai Lama, 2007). In psychology, in contrast, an affliction such as anger is normally to be mindfully observed in the present moment with non-judgmental attitude rather than being dealt with by a counterpart wholesome quality (Brown & Cordon, 2009). Although DBT has loving kindness in its practice, it is not formally included into the three sets of mindfulness skills (Linehan, 2015).

In Buddhism, compassion meditation is practiced by wishing that other people are free from suffering (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). The object of loving kindness meditation is not only self but also others (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). Mindfulness in terms of having loving kindness to all beings should be developed in everyday life as illustrated in the following discourse:

Just as a mother would protect her only child at the risk of her own life, even so, let him cultivate a boundless heart towards all beings. Let his thoughts of boundless loving kindness pervade the whole world: above, below and across without obstruction, without any hatred, without any enmity. Whether he stands, walks, sits or lies down, as long as he is awake, he should develop this mindfulness (cited in Harvey, 2000, p.105).

Mindfulness in Western psychology, however, is mainly focused on self, and nearly all mindfulness questionnaires used in the current study have no items about awareness of others (Brown & Ryan, 2003; Baer et al., 2004; Baer et al., 2006; Buchheld et al., 2001). This concern was also raised by participants in the study by Christopher et al. (2014). They noticed that both the FFMQ and the TMS focused on

self whereas Buddhist mindfulness practice involves compassion towards others and goes beyond self. Of the four scales employed in the current study, only the FMI-30 has a factor of *nonjudgmental, nonevaluative attitude toward self and others*, which was said to involve patience, tolerance, and openness to others. However, within this factor there is only one item that explicitly mentions others (“*I am impatient with myself and others*”), and even then not exclusively as it also refers to self. In fact, mindfulness in psychology overlaps with self-compassion in psychology to a large extent. According to Neff (2003) who developed self-compassion based on Buddhist philosophy, self-compassion contains the following three components:

(a) self-kindness—extending kindness and understanding to oneself rather than harsh judgment and self-criticism, (b) common humanity—seeing one’s experiences as part of the larger human experience rather than seeing them as separating and isolating, and (c) mindfulness—holding one’s painful thoughts and feelings in balanced awareness rather than over-identifying with them (Neff, 2003, p.89).

The first and third components of self-compassion are similar to non-judging (Baer et al., 2004; 2006) and non-reactivity to inner experience (Baer et al., 2006) of mindfulness in psychology, respectively. Mindfulness is said to have a reciprocal relation with self-kindness and common humanity of self-compassion, respectively (Neff, 2003). Non-judgmental awareness is said to reduce self-criticism and in turn increases self-kindness. Also, mindfulness engenders common humanity. One characteristic of mindfulness is not over-identifying with one’s own thoughts and feelings, and this weakens egocentrism and fosters feelings of interconnectedness with others. On the other hand, kindness to self, and common humanity in terms of

knowing all human beings have negative experiences help to deal with the tendency of avoiding own negative feelings and thus enhances mindfulness of a wide range of thoughts and feelings.

Baer, Lykins, and Peters (2012) noted that the difference between self-compassion and mindfulness is that all experiences are objects of mindfulness whereas self-compassion concerns suffering and pain. Since MBIs often deal with psychological symptoms of patients, self-compassion ought to overlap more with mindfulness in the context of interventions than in other contexts. Thus, while the theme of ethical and compassionate mindfulness in the current study suggests that Buddhist mindfulness concerns compassion and loving kindness to others, mindfulness in psychology especially in clinical psychology tends to focus on compassion to self.

### ***5.5.3 Relevance of items and factors in mindfulness scales***

***5.5.3.1 Theme 7: Subtlety and effort in mindfulness.*** The theme of *subtlety and effort in mindfulness* indicates that it is important to consider different stages of practice when discussing mindfulness theoretically. Some items of the current mindfulness questionnaires such as “*I intentionally stay aware of my feelings*” only apply to beginner practitioners cultivating mindfulness and not advanced practitioners whose mindful behaviours are more effortless and spontaneous. A similar concern was raised in Christopher et al. (2014). Their participants suggested that the TMS was associated with basic mindfulness practices and thus less suitable for advanced practitioners.

Also, mindfulness progresses from weak to strong through the development of the four levels of deep absorption in meditation, namely, *jhāna*. Although mindfulness exists from the beginning of meditation, it is said not to be evident until the third

*jhāna*, and is not pure until the fourth *jhāna* (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). When mindfulness is weak at the beginning of meditation, more effort is needed to be made to sustain attention on the object. In the classic work *Stages of Meditation* written by the eight-century Indian Buddhist Kamalashila, the attentional development through meditation includes ten sequential stages, and attention can be improved to focus on an object effortlessly for no less than four hours at the ninth stage (Wallace, 2006).

Wallace (2006) pointed out that objects of meditation change from a gross object such as sensations at the beginning stages, to mental experiences which are subtle objects at advanced stages. During the last three stages of practice, attention is paid to awareness itself, which is subtler than mental experiences. The items of the current questionnaires that describe mindfulness practice with gross objects (e.g. *When I'm walking, I deliberately notice the sensations of my body moving*) thus appear less suitable for more advanced practitioners. Overall, mindfulness progresses from gross to subtle and from weak to strong with practice. This suggests the difficulties of measuring mindfulness through mindfulness practices as specific meditative behaviours or objects are only associated with certain levels and stages of practice.

**5.5.3.2 Theme 8: Irrelevance to Buddhist mindfulness.** Based on the participants' comments, the *describing* factor was identified as irrelevant to Buddhist mindfulness. This supported findings in Christopher et al. (2014) that the describing factor of the FFMQ was problematic. Quantitative results also showed that 87.50 % of the KIMS *describing* items and all FFMQ *describing* items (87.50% from the KIMS) were low agreement items. The *describing* factor was designed for the KIMS based on DBT mindfulness skills (Baer et al., 2004) (e.g. *"I can easily put my beliefs, opinions, and*

*expectations into words*”). It is also a subscale of the FFMQ (Baer et al., 2006) (e.g. “*I can usually describe how I feel at the moment in considerable detail*”). The only reference from a Buddhist perspective offered by Baer et al. (2004) for the *describing* factor was from Joseph Goldstein, a prominent Buddhist meditation teacher in America who has connections with the Mahāsi Sayadaw lineage of Burmese insight meditation (Wilson, 2014).

Both Joseph Goldstein (2002) and Mahāsi Sayadaw (1990) teach the technique of labelling what happens in the present moment. However, the technique is not employed throughout all stages of practice (Goldstein, 2002). Goldstein (2002) stated that the labelling technique is useful at the beginning of the practice to stabilise attention and maintain awareness. When practice deepens, mental labelling is said to give way to bare awareness of the experience (Goldstein, 2002). Also, Mahāsi Sayadaw explicitly advised to “continue with this exercise in full awareness of the abdomen’s rising and falling movements. Never verbally repeat the words *rising, falling*, and do not think of rising and falling as words” (cited in Gethin, 2014, p.29). Thus, describing is not always needed in meditation. In addition, as Baer et al. (2004) acknowledged, some mindfulness teachers advocated observing without applying words. The participants of the current study explicitly pointed out that mindfulness was not concerned about the ability of describing, and some enlightened teachers are not eloquent. Therefore, the *describing* factor does not have a solid theoretical basis from Buddhism. The participants in the present study were fairly consistent in their perception about the irrelevance of the *describing* factor to Buddhist practice, indicating that the indirect references to any meditation or mindfulness techniques did not seem obvious to them.

Besides, Brown et al. (2007b) criticised the multi-faceted approach for conceptualising mindfulness, and argued that mindfulness should be distinguished with the means for cultivating mindfulness such as mindfulness training in MBIs. The empirical evidence has suggested this factor could be problematic (Hansen et al., 2009; de Bruin, Topper, Muskens, Bogels, Kamphuis, 2012). For instance, the *describing* factor of the KIMS had unexpected positive correlations with symptoms of emotional problems after mindfulness training (Hansen et al., 2009). The *describing* factor of the FFMQ was not negatively correlated with psychological symptoms as expected, and did not predict psychological symptoms (de Bruin et al., 2012).

Based on the quantitative results only, the *observing* factor is also an irrelevant factor to Buddhist mindfulness, as 91.67 % of the KIMS *observing* items and all the FFMQ *observing* items (73.33% from the KIMS) were low agreement items. However, participants did not comment that observing was irrelevant to Buddhist mindfulness. As the theme of purposeful mindfulness suggested, participants were more concerned about the context and purpose of the observing items instead of the observing facet itself. Their comments suggest that the object of observation should be suitable for the situation and match the goal of observation. Thus, it is likely that the *observing* items were low agreement items due to the item design rather than *observing* being irrelevant to Buddhist mindfulness. Observing items of the KIMS based on DBT mindfulness skills included “noticing, observing, or paying attention to a variety of internal and external phenomena” (Baer et al., 2004, p.194). Brown et al. (2007a) criticised the clinical approach of Baer et al. (2004; 2006) for conceptualising mindfulness through mindfulness skills, and argued that the *observing* factor in the KIMS and the FFMQ is a skill to cultivate mindfulness rather

than being mindfulness itself. They also pointed out that in DBT, the observing skill is only employed at the beginning of the training, and is no longer necessary once attention and awareness are enhanced (Brown et al., 2007a).

Both qualitative and quantitative results of the current study suggest that the *observing* factor of the KIMS and the FFMQ is problematic. Brown et al. (2007a)'s criticism was supported by participants' comments. For example, the term *intentionally* in the KIMS observing item 30 ("*I intentionally stay aware of my feelings*") was said to be suitable for people in training only. People with a high level of mindfulness stay aware of feelings effortlessly. Also, observing items with external stimuli objects such as smells and sounds were low agreement items, whereas items about observing internal stimuli were high agreement items (e.g. *I observe how my thoughts come and go; I notice when my mood begin to change*). This indicates that observing internal stimuli is more relevant to Buddhist mindfulness than observing external stimuli. Indeed, self-observation is essential for Buddhist practitioners to be aware of unwholesome mental states and to develop insight (DN22, translated by Thanissaro from the Pali, 2011). Observing internal phenomena is also consistent with Bishop et al. (2004)'s definition of mindfulness based on sitting meditation in MBSR and MBCT, which mainly involves paying attention to internal stimuli. Since types of mindfulness training vary, observing items of the KIMS based on mindfulness skills in DBT can be problematic if the items are not applicable to people with all levels of mindfulness and all forms of training. In addition, Brown et al. (2007a; 2007b) believed that mindfulness *per se* is observant. It means observing is not simply a skill for cultivating mindfulness. Rather, it is an inseparable aspect of trait mindfulness. Thus, compared with the low agreement observing items (e.g. *I pay attention to sounds, such as clocks ticking*,

*birds chirping, or cars passing*), the high agreement observing item (“*I notice when my moods begin to change*”) could also be the item that represents trait mindfulness instead of a mindfulness training exercise which is no longer needed, once mindfulness is established.

Christopher et al. (2014) identified that many of the items in the observing factor of the FFMQ are appropriate for measuring mindfulness. The mixed results about the observing items could be due to the fact that participants in Christopher et al. (2014) assessed the FFMQ against their own levels of practice, whereas participants in the current study evaluated the items for an ideal Buddhist. For such hypotheses about differential item functioning by sample sub-groups, Rasch analysis is a particularly suitable method. A recent Rasch analysis (Medvedev et al., 2016) of the KIMS, however, did not find any issues with items of the observing sub-scale in a sample of university students, although results may have been different in a sample of Buddhist practitioners. The different finding could also be due to the fact that Christopher et al. (2014) had a sample of Zen practitioners only – a limitation they acknowledged. As mentioned earlier, the FFMQ items were derived from several mindfulness questionnaires including the KIMS (Baer et al., 2006). All the observing items of the FFMQ are from the KIMS (Baer et al. 2006). Since the KIMS was developed based on mindfulness skills in DBT, which drew some inspiration from Zen (Linehan, 2015), the Zen participants in Christopher et al. (2014) could have been more likely to endorse the observing items than participants from other traditions.

In addition to the large percentage of low agreement items of the *describing* and *observing* factors, the *non-judging* factors of the KIMS and the FFMQ also have a high percentage of low agreement items. A few items with consistently high ratings

such as “*I criticise myself for having irrational or inappropriate emotions*” and “*I believe some of my thoughts are abnormal or bad and I shouldn’t think that way*” indicate that Buddhist mindfulness resembles mindfulness in psychology in the way that unhealthy self-criticising judging was not just accepted. Therefore, both mindfulness in psychology and mindfulness in Buddhism encompass compassion and loving kindness to self. However, as indicated by the theme of *wise judging*, Buddhist mindfulness also involves healthy judging with wholesome intention and aims to improve oneself towards enlightenment. The comments of the participants in the current study suggested that although no judgment occurs in the mental state of absorption, wise judging based on Buddhist teachings is needed in many situations. With wise judging, mistakes due to defilements such as greed and selfishness can be recognised. The theme of ethical and compassionate mindfulness also indicates the importance of judging in Buddhist mindfulness for developing ethics. According to the participants, consequences of actions have to be evaluated against morality.

The inconsistencies in non-judging between Buddhist mindfulness and mindfulness in psychology could be due to the different emphasis on the purpose of mindfulness training between clinical psychology and Buddhism. While Buddhist mindfulness meditation aims to develop ethics, concentration, and wisdom for enlightenment, clinical mindfulness is to alleviate patients’ symptoms through teaching them mindfulness skills such as paying attention to the present moment non-judgmentally. In other words, clinical mindfulness focuses on developing a present-centred non-scattered mind, whereas the mind developed through Buddhist mindfulness is not only concentrated but also ethical and wise. Different aims could lead to the

difference in techniques of mindfulness training and understanding of the nature of mindfulness.

The *non-judging* characteristic of mindfulness in psychology is to some extent mixed with *acceptance* (Bishop et al., 2004; Germer, Siegel, & Fulton, 2005; Chiesa & Malinowski, 2011, Baer et al., 2004; Baer et al., 2006; Buchheld et al., 2001). Mindfulness in clinical psychology is often used interchangeably with *acceptance* too (Block-Lerner et al. 2005; Siegel et al., 2009), and *acceptance* is explicitly incorporated into the definitions of mindfulness in psychology (Bishop et al., 2004; Germer et al., 2005), MBIs (Chiesa & Malinowski, 2011), and mindfulness scales in psychology (Baer et al., 2004; Baer et al., 2006; Buchheld et al., 2001). *Acceptance* in the definition of mindfulness proposed by Bishop et al. (2004) refers to “being experientially open to the reality of the present moment” (Bishop et al., 2004, p.321). In ACT, *acceptance* is “the active nonjudgmental embracing of experience in the here and now (Hayes, 2004, p.656). The *non-judgmental* factor of the KIMS is called “*accept without judgment*”, and this factor means “accepting, allowing, or being nonjudgmental or nonevaluative about present moment experience” (Baer et al., 2004, p.194). One factor of the FMI-30 that represents a *nonjudgmental attitude towards self and others* involves “unconditional acceptance of one’s self” (Buchheld et al., 2001; p.24). The example item is “*I accept myself as I am*” (Buchheld et al., 2001).

*Acceptance*, however, seems to have a strong link with previous psychology work rather than Buddhist mindfulness. Since the early 1960s, *acceptance* has been viewed as a critical element by humanistic psychologists for personal change and

growth in clinical settings (Neff, 2003). Siegel et al. (2009) acknowledged that, while *acceptance* is implied in Buddhist teachings, it is explicitly incorporated into MBIs in order to help patients face difficult experiences. Chiesa and Malinowski (2011) reviewed MBIs and Buddhist mindfulness meditations, and pointed out that *acceptance* emphasised in MBIs is not part of Buddhist mindfulness meditation. As participants in the present study explicitly pointed out, *acceptance* especially *accepting self* was not Buddhist mindfulness. Instead, it could be foolish and self-indulgent which is detrimental to morality development. Also, the most important thing in establishing Buddhist mindfulness is not accepting unpleasant experiences but to understand them (Thanissaro, 2010b). Thus, although accepting difficult life events or self without denial and avoidance helps patients heal in clinical settings (Kabat-Zinn, 2013), using *acceptance* on self-thoughts, emotions, feelings, and even self may be problematic from a Buddhist perspective of mindfulness because emphasising *acceptance* could attenuate the importance of ethics and wisdom of Buddhist mindfulness.

#### ***5.5.4 Consistency of overall scales with Buddhist mindfulness***

Of the four mindfulness scales rated by the participants in the present study, the MAAS had the lowest percentage of items rated as incongruent with Buddhist understandings of mindfulness, closely followed by the FMI-30. Both the MAAS and the FMI-30 also had better inter-rater reliability indicated by Gwet's AC1 values compared to the KIMS and the FFMQ. The MAAS was designed to assess present-centred attention and awareness in everyday life (Brown & Ryan, 2003). Brown and Ryan (2003) advocated that mindfulness is open, receptive, non-conceptual, and is characterised by clarity and vividness of current experiences and functioning. The MAAS, however, does not have items reflecting those characteristics. All items ask

the respondent to rate how often their mind wanders in everyday life. In other words, the MAAS measures mindfulness indirectly through measuring the absence of attention and awareness. Linking the MAAS to the three divisions of ethics, concentration, and wisdom of the *Noble Eight-fold Path*, the attentive ability assessed by the MAAS can be viewed as a reflection of the concentration division.

The development of the FMI-30 was based on Buddhist mindfulness meditation (Buchheld et al., 2001). As mentioned earlier in this chapter, although the FMI-30 was intended to be used as a uni-dimensional scale, it measures more than one characteristic of mindfulness. Unlike the uni-dimensional MAAS, the FMI-30 assesses several aspects of mindfulness including not only paying attention to the present moment without distraction/non-reactivity (e.g. *I watch my feelings without being lost in them*), but also process-oriented understanding (e.g. *I consider things from different perspectives*) and dis-identifying attentional processes (e.g. *I watch my thoughts without identifying with them*). The high percentage (80%) of high agreement items of the FMI-30 suggests that Buddhist mindfulness not only includes non-scattered aspects of the mind represented in the MAAS, but also other aspects revealed through the FMI.

It is important to stress that the MAAS and the FMI-30 contain fewer irrelevant items to Buddhist mindfulness practice, but that is not to say they provide a complete assessment of mindfulness in the Buddhist context. As the preceding discussion revealed, ethics and wisdom are missing from the MAAS and FMI-30 as much as from the KIMS and FFMQ. While one could conclude that it is timely to develop a Buddhist mindfulness scale that includes these elements, such a scale would only have applicability in particular contexts, and an opportunity would be missed to try to understand the role of these concepts in non-religious mindfulness practice. While

secularisation of mindfulness practice has the advantage that it is inclusive of individuals, irrespective of their personal, spiritual, and religious beliefs, there is the risk that lack of explicit coverage of ethics and morality leaves the MBI participant to work out their own unguided way in which to integrate mindfulness practice with their personal philosophies and worldviews (Krägeloh, 2016).

As a result of its long history, Buddhism amassed a large vocabulary to express subtleties and nuances of Buddhist practice (Shonin, Van Gordon, & Singh, 2015). From the steep rise in popularity of MBIs since the late 1970s, psychology is arguably still in the process of developing its systematic scientific vocabulary (Schmidt 2011). The same term mindfulness is thus still used when referring to state, trait, skill, and technique, which somewhat hinders progress in achieving conceptual clarity. Additionally, there is no consensus on a suitable scope of definition of mindfulness. As mentioned above, Brown et al. (2007a) criticised the clinical approach of Baer et al. (2004) for conceptualising mindfulness through mindfulness skills. Similarly, Brown and Ryan (2004) argued that wisdom, compassion, and acceptance are qualities developed as a result of mindfulness rather than being elements that need to be included in mindfulness measures. Future work is necessary to investigate whether such characteristics are indeed separate (albeit related) constructs and thus redundant to include in the assessment and theoretical conceptualisation of mindfulness.

## **5.6 Limitations**

The following limitations need to be acknowledged. Firstly, the present study asked participants to provide questionnaire ratings of an ideal Buddhist in their tradition.

The intention of this procedure was to provide a novel approach in mindfulness research that investigates mindfulness practitioners' aspirations as opposed to achievements (Grossman & Van Dam, 2011). Even though this purpose was explained to the participants, the specific idealised Buddhist that the participants chose would have represented to varying degrees a mixture of an actual person or abstracted teachings. While we cannot claim complete representation of all Buddhist schools in our small sample, the focus of the present analyses on commonalities in perceptions across participants is likely to have mitigated such bias and thus revealed themes that appear common to Buddhism in general. Our small sample size did not enable us to explore whether some of the items in the mindfulness questionnaires may be interpreted differently by Buddhist practitioners from various schools or with different levels of familiarity with concepts from insight meditation that some of the items may tap into. Future research could explore this possibility.

Changes in respondents' interpretations of items with increased experience is known in the literature as response shift, which is likely to affect mindfulness questionnaires as much as other kinds of subjective rating scales (Sauer et al., 2013). Significant new experiences such as completion of a mindfulness course and having been introduced to relevant jargon is likely going to affect how mindfulness questionnaire items are understood. However, while there is evidence that individuals not familiar with meditation and mindfulness may interpret some questions of the FMI very differently to those with meditation experience, it seems that differences among meditators are less noticeable (Belzer et al., 2013). The presence of response shift raises the fundamental question whether mindfulness questionnaires are even suitable to use for those unfamiliar with the practice (Belzer et al., 2013), but future

research may also attempt to explore response shift in mindfulness questionnaires using retrospective techniques specifically designed for that purpose, such as the then-test procedure (Finkelstein et al., 2014).

It is needless to say that response shift will equally be present in Buddhist as in secular mindfulness practitioners. As the theme *purposeful mindfulness* indicated, mindfulness according to Buddhist practitioners involves remembering the purpose and trajectory of one's life. Purposeful mindfulness and continually cultivating a purpose are therefore dynamically related, and changes in personal standards may even be a sign of progress. Thus, while response shift poses challenges for measurement, awareness of the phenomenon opens up new approaches of using psychometric instruments as tools to generate discussion about progress and goals as opposed to simply comparison of pre- and post-intervention scores only (Krägeloh et al., 2015).

The sample size also limits any interpretations of the quantitative questionnaire ratings by the participants. As outlined in the method section, the ratings served primarily as a stimulus for the qualitative interviews, and the quantitative data were only interpreted in conjunction with relevant qualitative data. A very conservative criterion was applied to determine the degree of consensus among the participants about the relevance of each questionnaire item to their practice. This may have led to underestimation of the number of items that were judged as relevant to Buddhist practice. A future quantitative study may wish to provide similar data with a larger sample. Additionally, instead of asking participants to rate an ideal Buddhist, alternative methods could be explored to assess participants' aspirations. This could

include the use of importance ratings as is common in the development of health-related quality of life questionnaires (Krägeloh et al., 2016) or investigation of how much practitioners value specific behaviours (Grossman, 2011).

The rationale of this study was informed by conceptual literature that highlighted differences between Buddhist and secular understandings of mindfulness. However, to minimise the possibility that the researchers' previous knowledge of the differences highlighted in the scholarly literature may have biased the results, we ensured that the interviews did not prompt the participants in any particular way. Instead, we used the questionnaire items as stimuli to elicit responses from the participants. Any remaining potential for biases in interpretation of the data were minimised by discussion of the results among the research team who had varying degrees of familiarity with Buddhist literature. Nevertheless, an implicit assumption of this procedure is that the items in the mindfulness questionnaires are an accurate reflection of how mindfulness is defined in psychology. Even if there was consensus among mindfulness experts and Buddhist scholars on definitions of mindfulness, the challenges in translating concepts of mindfulness into actual questionnaire items remain (Grossman 2008; 2011).

## **5.7 Conclusion**

The current study explored the differences and similarities between Buddhist mindfulness and mindfulness in psychology through interviewing Buddhists' opinions on the four mindfulness questionnaires most commonly employed in psychology. Eight themes including *scope of attention and awareness, skillful mindfulness, purposeful mindfulness, profound mindfulness, wise judging, ethical*

*and compassionate mindfulness, subtlety and effort in mindfulness, and irrelevance to Buddhist mindfulness* emerged from the qualitative results of the current study. Buddhist mindfulness was taken out of the context of the *Noble Eight-fold Path* during its secular adaptation and reconceptualisation in psychology to serve a particular meditative approach and applied predominantly in clinical or therapeutic settings. While mindfulness in psychology is mainly non-judgmental present-centred awareness, Buddhist mindfulness is flexible, skillful, purposeful, wise, and ethical. Mindfulness in Buddhism has wholesome purposes and values in mind to guide and monitor practices and everyday life. Buddhist mindfulness not only involves awareness of the present but also the past and future, and not only focuses on self but also others. In short, Buddhist mindfulness has multiple dimensions in relation to ethics, concentration, and wisdom that are three ultimate qualities for achieving enlightenment. Although ethics and wisdom have been integrated into the MBIs to some extent, they are nevertheless largely missing from mindfulness questionnaires and the conceptualisation of mindfulness in psychology.

Based on the quantitative results, the KIMS and the FFMQ are less consistent with Buddhist mindfulness than the MAAS and the FMI-30. Among all the factors of the four mindfulness questionnaires in the current study, the *describing* factor, the *observing* factor, and *non-judging* factor are most different factors from the perspective of Buddhist mindfulness. The *describing* factor was identified through qualitative results as an irrelevant factor to Buddhist mindfulness. The *observing* factor may require better item wording so that items can be suitable for all types of training and all levels of mindfulness. The *non-judging* factor is consistent with Buddhist mindfulness in the aspects that both Buddhist mindfulness and mindfulness

in psychology disapprove judging from ones own perspectives and judging self in a harsh way. *Acceptance*, however, especially *accepting self* is not a characteristic of Buddhist mindfulness. Besides, Buddhist mindfulness involves wise judging which is essential for developing ethics and insights. The problematic factors such as *describing* from a Buddhist perspective of mindfulness revealed that conceptualising mindfulness based on mindfulness skills within the context of clinical psychology resulted in some differences between Buddhist mindfulness and secular mindfulness in psychology.

The discrepancies in conceptualisation of mindfulness between Buddhism and psychology show the differences in goals between therapeutic mindfulness which is to reduce psychological symptoms through enhanced attention and awareness and Buddhist mindfulness, which aims to achieve enlightenment through the development of ethics, concentration, and wisdom. It also shows the need of conceptualising secular mindfulness based on the essence of Buddhist mindfulness instead of just certain meditative approaches. The items and factors in the mindfulness questionnaires that were seen as irrelevant or unsuitably worded from a Buddhist perspective tended to be items relating to mindfulness skills taught in MBIs. To the same extent that a theoretical understanding of the concept of mindfulness needs to be kept separate from assessment of specific mindfulness skills taught in therapies, mindfulness must also not be confused with specific meditation techniques. While certain Buddhist approaches have used bare attention in their teachings, this meditation technique is not mindfulness itself. Buddhists are clearly encouraged to bear wholesome purposes and values in mind to guide and monitor practices in everyday life. In essence, Buddhist mindfulness is not merely *bare attention* but appropriate attention guided by wholesome goals and intention. Overall, Buddhist

mindfulness embodies ethics, concentration, and wisdom. The concentration division has been acknowledged and incorporated into mindfulness in psychology. The missing ethics and wisdom aspects of Buddhist mindfulness can be explicitly integrated into the conceptualisation of mindfulness in psychology, so that all the components of Buddhist mindfulness potentially contributing to wellbeing are to be fully investigated.

## **Chapter 6: Study 2-Testing a Model of Mindfulness Based on Theory and Empirical Data about Buddhist Mindfulness**

### **6.1 Introduction**

During the past 20 years, the efficacy of *Mindfulness-Based Interventions* (MBIs) has been the focus for research on mindfulness (Shapiro, Carlson, Astin, & Freedman, 2006). More recently, with established evidence of the beneficial effects of MBIs (review: e.g. Greeson, 2009; Cullen, 2011), research has increasingly started to investigate the mechanisms by which mindfulness exerts its health benefits. Some theoretical models of mechanisms of mindfulness have been proposed (e.g. Shapiro et al, 2006; Carmody, 2009), and empirical studies have also been conducted to examine the effects of hypothesised mediators between mindfulness and health outcomes (e.g. Coffey & Hartman, 2008; Chang, Huang, & Lin, 2015).

Generally, there are three approaches in terms of dealing with the construct of mindfulness in studies exploring mechanisms of mindfulness. The first approach, which is also a common approach for empirical studies, is employing a mindfulness scale in psychology to assess the construct of mindfulness in a model of hypothesised mechanisms of mindfulness. The second approach has proposed testable theoretical models of mindfulness in which the construct of mindfulness was not simply measured by existing mindfulness scales. Instead, mindfulness was deconstructed into proposed components based on commonly accepted definitions of mindfulness in psychology, such as those proposed by Kabat-Zinn (1994) (e.g. Jankowski & Holas, 2014; Shapiro et al., 2006), and Bishop et al. (2004). The third approach did not propose components based on well-know definitions of mindfulness, nor use existing mindfulness scales to represent mindfulness construct.

Rather, conceptualisation of mindfulness in psychology was viewed as an unsettled issue, which needs more investigation, refinement, and clarification (Dorjee, 2010). Both the second and third approaches generally focus on theory development, and did not make recommendations on scales to be used for empirical testing of the model proposed.

### ***6.1.1. The first approach***

Both uni-dimensional and multi-faceted scales have been employed to measure mindfulness construct in models. For example, the *Mindful Awareness Attention Scale* (MAAS) was employed by Coffey and Hartman (2008) and Wayment, Wiist, Sullivan, and Warren (2011) to investigate the effects of mindfulness, via hypothesised mediators, on reducing psychological distress and increasing physical health, respectively. The *Five Facet Mindfulness Questionnaire* (FFMQ) was used by Hollis-Walker and Colosimo (2011) to explore how mindfulness might improve psychological well-being through self-compassion. Most recently, Sahdra, Ciarrochi, and Parker (2016) employed the FFMQ to examine whether non-attachment mediated the beneficial effects of mindfulness on satisfaction with life and life effectiveness.

### ***6.1.2 The second approach***

Coffey, Hartman, and Fredrickson (2010) tested a theory-driven mindfulness model in which mindfulness consisted of two aspects: *present-centred attention* and *acceptance* as defined in Bishop et al. (2004). Mindfulness and emotion regulation were hypothesised as overlapping constructs and confirmed through factor analyses. *Present-centred attention* in the model was the *observing* factor of the FFMQ. *Acceptance* in the model consisted of the *non-judging* factor of the FFMQ and the

subscale of *acceptance* of an emotional regulation scale named *Difficulties in Emotion Regulation Scale*.

Shapiro et al. (2006) proposed a theoretical model of mindfulness based on Kabat-Zinn's (1994) well-known definition of mindfulness: "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" (Kabat-Zinn, 1994, p.4). Mindfulness in their model contained three interwoven aspects of mindfulness, namely, *intention*, *attention*, and *attitude*, which represented the three key words of *on purpose*, *paying attention*, and *non-judgmentally* in Kabat-Zinn's definition, respectively (Shapiro et al., 2006). *Intention*, *attention*, and *attitude* are believed to lead to the positive changes reported in the studies investigating the efficacy of the MBIs via proposed mediators.

Shapiro et al. (2006) did not suggest measurements for those three components in their model. When the model was later tested by Carmody, Baer, Lykins, & Oledzki (2009) in participants in a MBSR programme, the *observing* subscale of the FFMQ was employed to measure *attention*. The *non-judging* facet of the FFMQ, the *non-reactivity* facet of the FFMQ, and some additional items measuring patience and compassion were used to assess *attitude*. *Intention* was measured by items asking participants to rate how important self-regulation, self-exploration, and self-liberation meant for them. The sum of the observing, non-judging, and non-reactivity facets was used for the mindfulness variable (Carmody et al., 2009). Carmody et al. (2009) tested four mediators proposed by Shapiro et al. (2006). Since different aspects of mindfulness may be associated with different mediators and outcomes (Dorjee 2010), the specific element of mindfulness and its associated mediators can not be properly identified and investigated by employing a total score of mindfulness.

### ***6.1.3. The third approach***

Buddhist aspects of mindfulness were incorporated into the mindfulness construct by some researchers. Dorjee (2010) pointed out that mindfulness in the context of MBIs and mindfulness in a Buddhist context focused on different dimensions of mindfulness. For example, mindfulness in psychology emphasises bare attention, and Buddhist mindfulness explicitly encompasses ethical discernment and wholesome emotions cultivation. All these dimensions of mindfulness have beneficial effects through different mechanisms, and may be developed through different practices. In contrast to expanding the mindfulness construct by combining mindfulness in psychology with mindfulness in Buddhism (Dorjee, 2010), a parsimonious definition of mindfulness was advocated for clinical use (Carmody, 2009). For instance, Carmody (2009) argued that mindfulness was too elusive to define. Mindfulness in the model he proposed only had *attention regulation*, which was believed to be the central ability developed through MBIs (Carmody, 2009).

### ***6.1.4 Model proposed in the current study***

Both the second and third approaches generally focus on theory development, and did not make recommendations on scales to be used for empirical testing of the model proposed. The current study has used the third approach to propose a theoretical model of mechanisms of mindfulness in which predictors representing mindfulness components are based on the results of Study 1 and Buddhist theories. The current study not only proposed a theoretical model, but also tested the model. Also, mediation effects of the proposed mediator between outcome variable and each predictor variable was examined. Previously, studies that employed a multi-faceted mindfulness scale investigating mechanisms of mindfulness tended to use a total

score of the scale (e.g. Hollis-Walker & Colosimo, 2011; Desrosiers, Vine, Klemanski, & Nolen-Hoeksema, 2013; Rodriguez, Xu, Wang, & Liu, 2015). The disadvantage of using a total score of a multi-faceted scale is that the component of mindfulness which leads to its associated positive outcome cannot be identified. To advance the theory explaining the mechanisms of mindfulness, it is necessary to look at the effects of each element of mindfulness. The results of the current study thus would provide detailed information on ethics and wisdom as potential components of secular mindfulness for further theory development.

The construct of mindfulness in this model is based on the *Noble Eight-fold Path* in Buddhism. As discussed in Chapter 1, the eight factors of the *Noble Eight-fold Path* are grouped into ethics, concentration, and wisdom. Although *right mindfulness* is a factor of the concentration section of the *Noble Eight-fold Path*, Buddhist mindfulness encompasses all the eight factors as *right mindfulness* is inseparable from the other seven path factors. In other words, ethics, concentration, and wisdom are inter-correlated components of Buddhist mindfulness. Baer (2011) pointed out that mindfulness in psychology while often claimed to be derived from Buddhism may still not capture Buddhist mindfulness entirely, and important elements of Buddhist mindfulness could have been lost in secular mindfulness. In fact, Kabat-Zinn (2011) acknowledged that the usage of the single term *mindfulness* in psychology was as an umbrella term for the *Noble Eight-fold Path*. The results of Study 1, however, indicated that ethics and wisdom aspects of Buddhist mindfulness are largely missing from the conceptualisation of mindfulness in contemporary psychology.

The current model explicitly takes Buddhist perspectives of mindfulness into account, and a model of mindfulness instead of mindfulness practice is proposed.

Previously, Grabovac, Lau, & Willett (2011) proposed a model of mindfulness that was claimed to be based on Buddhist psychological theories. Mindfulness in their model was defined as “the moment-by-moment observing of the three characteristics (impermanence, suffering, and no-self) of the meditation object (Grabovac et al., 2011, p.157). They explicitly stated that their definition of mindfulness in the model was limited to the description of insight meditation, although they acknowledged that mindfulness practice included insight meditation and concentration meditation. They also claimed that their definition of mindfulness “highlights the important distinction between mindfulness, or *vipassanā* (an insight-oriented practice), and concentration, or *samatha* (an attention regulation practice)” (Grabovac et al., 2011, p.157). The statement and their definition seem to not only conflate mindfulness and insight meditation, but also mix mindfulness with mindfulness practice.

Grabovac et al. (2011) argued that previous models of mindfulness were only associated with concentration meditation, whereas the advantage of their model is that insight exclusively associated with mindfulness/insight meditation was incorporated into their model. Various factors related to insight meditation and concentration meditation in the model were said to lead to reduced discursive thinking, which in turn improved well-being and alleviated psychological symptoms (Grabovac et al., 2011). Mixing mindfulness with mindfulness practice, however, may bring confusion and hinder the progression on the conceptualisation and identifying mechanisms of mindfulness. As mentioned in the Study 1, mindfulness is involved in both concentration meditation and insight meditation. Also, as pointed out by Shapiro et al. (2006), meditation involves other aspects such as relaxation and social support. Therefore, it is necessary to distinguish mindfulness and mindfulness practice, so that the specific effects and mechanisms of mindfulness instead of

simply specific mindfulness practices can be properly investigated. Although the model developed by Grabovac et al. (2011) took Buddhist perspectives into account, the concept and relationships between mindfulness, mindfulness practice, insight meditation, and concentration meditation in their model were not clear. Non-attachment in the current study was proposed as the mediator between mindfulness and well-being. Specifically, ethics, concentration, and wisdom as potential inter-correlated components of secular mindfulness are proposed to predict non-attachment, which in turn predict well-being. In Buddhism, the first noble truth states that suffering is due to clinging (SN 56:11, translated by Thanissaro from the Pali, 2010), and the outcome from practicing the *Noble Eight-fold Path* is release from clinging, which signifies enlightenment (SN 22:110, translated by Walshe from the Pali, 2013). In other words, attachment brings unhappiness, and cultivating ethics, concentration, and wisdom leads to non-attachment, which in turn overcomes suffering. Sahdra, Shaver, and Brown (2010) suggested that, while Western attachment theory was developed in the context of a child attaching to a significant adult figure in a secure or insecure way, attachment in Buddhism has a negative connotation. It is “a mental affliction that distorts the cognition of its object by exaggerating its admirable qualities and screening out its disagreeable qualities” (Sahdra et al. 2010, p.116). Attachment in this sense is manifested by craving for desirable objects, situations, and relationships, and also aversion to undesirable ones (McIntosh, 1997).

Attachment may overlap with anxious attachment in Western psychological theory in terms of clinging, insecurity, and worry (Sahdra et al., 2010). In contrast, non-attachment releases the mind from rigid thinking patterns and negative feelings associated with clinging and aversion (McIntosh, 1997). “Phenomenologically, non-

attachment has the subjective quality of not being stuck or fixated on ideas, images, or sensory objects” (Sahdra et al., 2010, p.118). Non-attachment is different from pathological detachment and dissociation in the way that the mind is actively engaged in activities while remaining flexible enough to allow events to take their course (Sahdra et al., 2010). Letting go is the distinctive characteristic of non-attachment, which is linked to adaptive functioning of the mind.

Non-attachment has been proposed in previous studies as a key element of the mechanisms in which mindfulness is thought to bring out its beneficial effects on mental health and wellbeing (McIntosh, 1997; Brown, Ryan, & Creswell, 2007a; Grabovac et al., 2011). Early discussion of the relationship between non-attachment and mindfulness in psychology was raised by McIntosh (1997) who compared Zen Buddhist philosophy and empirical social psychology, and suggested that attachment leads to rumination on unattained goals, which is detrimental to mental health. In contrast, mindful attention and awareness may have positive impacts on overall health via reducing attachment to a self, certain objects, and outcomes. Brown et al. (2007) agreed that non-attachment was a key variable that explains how mindfulness may exert beneficial effects. Grabovac et al. (2011) identified habitual attachment reactions to pleasant feelings and aversion to unpleasant feelings as a central factor that leads to unhappiness, and proposed that mindfulness interventions produced salutary outcomes through developing non-attachment to pleasant feelings and reducing aversion to unpleasant feelings.

The relationships between mindfulness, non-attachment, and well-being were investigated previously. For example, Sahdra et al. (2010) reported positive correlations between non-attachment and trait mindfulness measured by the MAAS,

between non-attachment and subjective well-being, and between non-attachment and eudaimonic well-being. Trait mindfulness was also found to be positively correlated with both hedonic well-being and eudaimonic well-being (Brown & Ryan, 2003). Further examination on the relationship between trait mindfulness and hedonic well-being showed that while trait mindfulness significantly predicted lower negative affect, it did not predict higher positive affect (Brown & Ryan, 2003).

Despite of the documented positive correlations between mindfulness, non-attachment, and well-being (Sahdra et al., 2010), studies that investigated mediation effects of mediators including non-attachment between mindfulness and outcome variables of mental illness and well-being have generated mixed evidence. For example, Coffey et al. (2010) tested the positive impact of mindfulness on mental health indicators including not only psychological distress but also human flourishing, through clarity about one's internal life, emotion regulation, non-attachment, and reduced rumination. Their mindfulness construct consists of *attention* measured by the observing facet of the FFMQ, and *acceptance* measured by the non-judging facet of the FFMQ and the acceptance subscale of *Difficulties in Emotion Regulation Scale*. Although the authors claimed that the results supported the proposed mechanisms, the negative relationship between *acceptance* and the mediator of non-attachment, and the positive relationship between *attention* and the outcome variable of psychological distress were unexpected.

The mediation effects of non-attachment between mindfulness and depression, and between mindfulness and anxiety were investigated in meditators by Tran, Cebolla, Gluck, Soler, Garcia-Campayo, and Moy (2014). While non-attachment partially mediated the negative associations between mindfulness and depression, non-attachment did not mediate the link between mindfulness and anxiety. In addition,

Coffey and Hartman (2008) examined and confirmed that emotion regulation, non-attachment, and reduced rumination mediated the inverse relationship between mindfulness measured by the MAAS and psychological distress including depression and anxiety in two samples of introductory psychology students. However, the effects of mindfulness on psychological distress were fully mediated in one sample, but were only partially mediated in the other sample. Thus, whether non-attachment had full or partial mediation effects cannot be confirmed, as acknowledged by Coffey and Hartman (2008).

Most recently, Sahdra et al. (2016) tested a meditation model in which non-attachment was hypothesised to mediate the positive relationship between trait mindfulness and satisfaction with life. The results suggested that non-attachment only mediated the effects of the *describing*, *nonjudging*, and *non-reactivity* facets of the FFMQ on satisfaction with life. The *act with awareness* and *observing* facets of the FFMQ did not predict satisfaction with life, and thus the mediation effects in relation to those two facets were not established. Although Sahdra et al. (2016) claimed that their results supported the mediation hypothesis, the results indicated that a mediation model in which trait mindfulness is measured by the MAAS may not work, as most items of the *act with awareness* facet of the FFMQ are the items of the MAAS.

The present study aims to add evidence on the mediation effects of non-attachment between mindfulness and well-being by testing a model based on Buddhist ideas around mindfulness. The well-being scale employed in the current study consists of both hedonic well-being and eudaimonic well-being. Maximising positive affect and minimising negative affect is the feature of hedonic well-being (Keyes, 2005). Hedonic well-being is that usually assessed through subjective well-being that

encompasses life satisfaction, the presence of positive mood, and the absence of negative mood (Ryan & Deci, 2001). While the absence of psychopathology was generally viewed as well-being in the past, there has been growing interest in eudaimonic well-being concerns such as meaning of life, self-realisation, and positive functioning in life (Ryan, Huta, & Deci, 2008). In 2004, the World Health Organisation (WHO) defined mental health as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (WHO, 2004, p 12). From the perspective of eudaimonic well-being, complete mental health includes both the presence of human flourishing and the absence of mental illness. In contrast to hedonic wellbeing that aims to maximise pleasure and avoid pain, hedonic happiness and pleasure are treated as the byproduct of eudaimonic well-being rather than merely being outcomes to be pursued (Ryan et al., 2008).

According to Wallace and Shapiro (2006), the Buddhist tradition focuses on not only dealing with mental illness but also cultivation of positive mental health. Well-being from a Buddhist perspective is different to hedonic well-being that is associated with judgments from self-interest for more pleasure and less pain. In Buddhism, genuine well-being and happiness are not dependent on external sources. Instead, it is built on an ethical life and a mental balance. Buddhist well-being is similar to eudaimonic well-being in the way that both are intrinsically value guided, based on self reflection and volition, and involve pursuing intrinsic goals such as personal growth instead of extrinsic goals.

The effect of mindfulness on eudaimonic well-being through non-attachment has rarely been investigated. The results of Coffey et al. (2010) showed that mindfulness had a positive impact on human flourishing through mediators including non-attachment. A Korean study showed that non-attachment partially mediated the relationship between trait mindfulness and psychological well-being (Ju & Lee, 2015). Since eudaimonic well-being contained social and psychological aspects (Keyes, 2005), it is worth investigating the two aspects individually to obtain detailed information of the role of non-attachment as a potential mediator in relation to different aspects of eudaimonic well-being. The social aspect and psychological aspect of the flourishing scale in Coffey et al. (2010), however, were not investigated individually. The well-being scale used by Ju and Lee (2015) only had psychological aspects of eudaimonic well-being. In addition, samples in Coffey et al. (2010), and Ju and Lee (2015) are undergraduates. Since both studies used convenient student samples, their results need to be replicated in the general population. Moreover, age and gender differences were found in mindfulness and non-attachment (Sahdra et al., 2016). Female students were over-represented in Ju and Lee (2015) and Coffey et al. (2010). Both studies, however, did not report whether they controlled demographic information, especially age and gender in data analyses.

In short, the current study proposed and tested a model of mechanisms of mindfulness developed on the basis of Buddhist theories, and results of Study 1 (Figure 6.1). The model in the current study extracted the essence of the *Noble Eight-fold Path* for secular use, and thus is not confined to Buddhism. Specifically, Ethics, concentration, and wisdom as potential components of secular mindfulness in the model are expected to be inter-correlated, and lead to well-being through non-attachment.

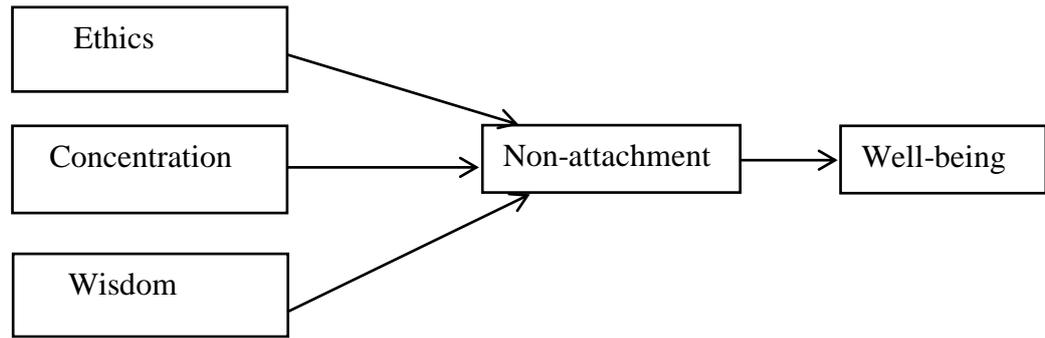


Figure 6.1. Mindfulness model based on the *Noble Eight-fold Path* and results of Study 1

Ethics, concentration, and wisdom in the model are measured by qualities that act as proxies of Buddhist mindfulness in the secular context. The qualities are secular but have core characteristics of Buddhist mindfulness. Concentration is measured by ability of paying attention to any task in hand in everyday life. In this sense, this is trait mindfulness in psychology. The difference between concentration in the *Noble Eight-fold Path* and concentration in the current model is that concentration in Buddhism is a unified mind that sometimes refers to a state of absorption achieved through meditation, whereas concentration in the current model refers to attentiveness in everyday life. Both absorption and attentiveness however share the same feature of a non-distracted mind and focused attention. By incorporating ethics and wisdom into the model of mindfulness, the important elements derived from Buddhist mindfulness that may contribute to positive psychological outcomes beyond trait mindfulness can be explored.

As mentioned in Chapter 1, in Buddhism, greed, hatred, and delusion are the roots of unwholesome actions and thoughts, and ethics is part of Buddhist practices that eliminate these three fundamental defilements. Generosity and sharing are the antidotes for greed. Loving-kindness and compassion deal with hatred, and delusion is overcome by insight (Harvey, 2000). Lovingkindness “is the aspiration for the true

happiness of any, and ultimately all, sentient beings, for all these are like oneself in liking happiness and disliking pain” (Harvey, 2000, p.104), and compassion “is the aspiration that beings be free from suffering, feeling for them” (Harvey, 2000, p.104). Lovingkindness and compassion are two important qualities for ethical development. Compassion is also said to be linked with Buddhist precepts that require practitioners to refrain from injury to living things, refrain from taking what is not given, and refrain from false speech. Developing compassion is especially emphasised in Mahayana Buddhism (Harvey, 2000). In Tibetan Buddhism, compassion and wisdom are said to be “two wings of a bird (Dalai Lama, 2003, p.56).

The opposite of greed, hatred, and delusion such as compassion is the root of wholesome action (Harvey, 2000). In Buddhism, a wholesome action should have wholesome motivation, beneficial consequences, and contribute to spiritual development. Since a wholesome action includes wholesome intention, the wholesome action in Buddhism is not limited to behaviours, but associated with wholesome mental states. Compared with Western ethics systems, both Buddhist ethics and utilitarianism concern the consequences of an action (Harvey, 2000). However, Buddhism focuses on wholesome intention and means, as well as wholesome actions, while utilitarianism may ignore means and only focus on outcome. Harvey (2000) agreed to the view that a better analogy of Buddhist ethics is Aristotelian ethics. Both Buddhist ethics and Aristotelian ethics contribute to eudaimonia through cultivating virtues for character building and human perfection. Wholesome actions are virtuous, with beneficial outcomes for others as well as self. The current study takes the view that Buddhist ethics build character towards human perfection. Ethics in the model is not confined to a set of moral principles and actions. Rather, it concerns characteristics of a wholesome character in relation to

alleviation of suffering. This is consistent ethics that is broadly defined as “a way of conceptualising how human beings relate to one another and their environment with specific regard to suffering and its alleviation” (Ozawa-de Silva, Dodson-Lavelle, Raison, & Negi, 2012, p.147). This perspective of ethics focuses on caring, which is different to moral judgment theory proposed by Lawrence Kohlberg (1973) that emphasises social justice.

In the current study, the *Santa Clara Brief Compassion Scale (SCBCS)* (Hwang, Plante, & Lackey, 2008) was employed to represent the proposed ethical aspect of mindfulness. Compassion in the scale was defined as an “attitude toward other(s), either close others or referent strangers of all of humanity; containing feelings, cognitions, and behaviors that are focused on caring, concern, tenderness, and an orientation toward supporting, helping, and understanding the other(s)” (Hwang et al., 2008, p.421). Compassion is said to be the core value of humanity and ethics (Ozawa-de Silva et al., 2012). As mentioned above, compassion is one of the key Buddhist values for ethical development as it is a positive counterpart of ethical misconduct, and it is one of the roots of wholesome action. Compassion is also a positive personality characteristic (Hwang et al., 2008), which is consistent with the perspective of wholesome character building of Buddhist ethics. Therefore, using compassion to represent the ethics aspect of mindfulness in the current model not only echoes Buddhist ethics but also secular ethics.

The wisdom aspect of the secular mindfulness model is represented by insights of life and self, instead of specific Buddhist wisdom that aims to achieve enlightenment. Wisdom in Buddhism is penetrative understanding of the nature of existence (Bodhi, 1998). Ardel (2004) criticised the most prominent research group on wisdom in the West, the Max Planck Institute group, for defining and assessing wisdom as expert

knowledge about fundamental life matters. She argued that wisdom should be defined and measured as personality characteristics of a wise person, and developed a wisdom scale that measures cognitive, affective, and reflective personality characteristics. Ardel (2004) did not treat wisdom as expert knowledge, wisdom she defined, is still different with Eastern wisdom that is associated with transcendental and intuitive experiences (Takahashi & Overton, 2005). Thus, the wisdom scale developed by Ardel (2004) was not employed in the current study.

Most recently, Roger Walsh (2015) took contemplative disciplines from the East into account, and proposed a definition of wisdom from an integrative cross-cultural and cross-disciplinary approach: “[w]isdom is deep accurate insight and understanding of oneself and the central existential issues of life, plus skillful benevolent responsiveness” (Walsh, 2015, p.9). Since the second half of this definition refers to ethics (Walsh, 2015) that is measured separately in the current study, the first half of the definition is taken as the definition of secular wisdom in the current study.

Walsh (2015) did not develop a wisdom scale. The wisdom section of mindfulness in the current study was represented by spiritual intelligence measured by the *Spiritual Intelligence Self-Report Inventory* (SISRI) (King & Decicco, 2009). *Spiritual intelligence* is defined as “a set of mental capacities which contribute to the awareness, integration, and adaptive application of the nonmaterial and transcendent aspects of one’s existence, leading to such outcomes as deep existential reflection, enhancement of meaning, recognition of a transcendent self, and mastery of spiritual states” (King & Decicco, 2009, p.69). The meaning of spiritual intelligence corresponds well to wisdom defined by Walsh (2015). Spiritual intelligence is a non-religious concept, and it develops with experience (King & Decicco, 2009). According to Chaudhary and Aswal (2013), spiritual intelligence is the realisation of

who you are and to live life in that awareness. Spiritual intelligence thus reflects self-transcendence which is a core aspect of wisdom of contemplative traditions (Curnow, 1999).

Based on the results of Study 1, the *Mindfulness Attention and Awareness Scale* (the MAAS; Brown & Ryan, 2003) was considered the least incongruent mindfulness measurement with Buddhist mindfulness. Also, the MAAS focuses on attentiveness, and thus was employed in the current study to represent the concentration/attention section of the *Noble Eight-fold Path*. Attentional ability in everyday life, combined with compassion towards others and spiritual intelligence constitute the proposed construct of mindfulness based on the *Noble Eight-fold Path* in the present study. Since the MAAS is also one of the most commonly used trait mindfulness questionnaires in psychology, the relationships between trait mindfulness conceptualised in psychology, ethics, and wisdom were explored. Specifically, correlations between the proposed three components of mindfulness were examined. The incremental predictive power of compassion and spiritual intelligence beyond trait mindfulness in psychology (the MAAS) on non-attachment and well-being was also investigated. Testing compassion and spiritual intelligence individually would provide information on the potential value of adding ethics and wisdom into current mindfulness interventions as well as mindfulness conceptualisation. Also, this would provide detailed information on the performance of compassion and spiritual intelligence as proxies of ethics and wisdom. After all, compassion and spiritual intelligence are the proposed proxies only, and their feasibility need to be examined individually.

In the current study, the MAAS and non-attachment scores were converted into Rasch scores (see conversion tables in Appendix L and M) based on the investigator and her colleagues' publications (Medvedev, Siegert, Feng, Billington, Jang, & Krägeloh, 2016; Feng, Krägeloh, Medvedev, Billington, Jang, & Siegert, 2016). Rasch analysis is an effective and informative contemporary statistical technique that has been increasingly used to rigorously investigate the reliability and internal construct validity of a scale in health sciences (Bezruczko, 2005). The provision of ordinal-to-interval conversion algorithms for such instruments further contributes to the sophistication of the research field as these concepts can now be measured with enhanced precision and mean that parametric analyses can be conducted without the need to violate fundamental statistical assumptions (Tennant & Conaghan 2007).

## **6.2 Method**

### ***6.2.1 Participants and procedure***

Participants of the current study include a random sample selected from the New Zealand national electoral roll and a convenience sample consisting of students and staff of Auckland University of Technology (AUT) and members of affiliated organisations recruited with the help of the New Zealand Buddhist Council. For the convenience sample, responses to the survey were collected using the Survey Monkey software and by paper-and-pencil surveys distributed at AUT classrooms. For the national random sample, questionnaires with a self-addressed pre-paid return envelope were posted to 4,000 individuals randomly selected from the New Zealand national electoral roll (see Participant Information Sheet in Appendix F). Participation was anonymous and voluntary. Responses were collected from October 2014 to January 2015. All participants who completed a prize draw slip were entitled

to enter a prize draw for a \$100 voucher. For participants completing the paper-and-pencil version of the survey, an entry slip was attached to the questionnaire (see Participant Information Sheet in Appendix G). For participants in the online survey, they filled in required details online for a prize draw (see Participant Information Sheet in Appendix H). In total, there were six vouchers shared by the national random sample and the convenience sample equally. The current study was approved by the AUT ethics committee.

The demographic information such as practice in the current study was defined broadly as meditation, contemplation, or any spiritual practice. Practice-related questions in the survey asked whether the individual practises meditation, contemplation, or any spiritual practice, or used to practise regularly, or tried practice but never practised on a regular basis, or never practised. The duration of practice history and the form of practice was required to be reported by people who currently practise or used to practise regularly. Current practitioners were also asked to report the frequency of practice, and people who used to practise regularly were required to answer when they stopped practicing.

### ***6.2.2 Instruments and scoring***

The SCBCS is a brief five-item version of the Sprecher and Fehr's 21-item *Compassionate Love Scale* (Hwang et al., 2008). The SCBCS measures compassion towards others that encompasses both feelings and behaviours. Compassionate feeling items include “*When I hear about someone (a stranger) going through a difficult time, I feel a great deal of compassion for him or her.*” An example item for compassionate behaviour is “*One of the activities that provide me with the most meaning to my life is helping others in the world when they need help*”. Responses

are given on a 7-point scale from 1 (*Not at all true for me*) to 7 (*Very true for me*). Higher scores indicate higher levels of compassion. One factor was extracted by principal components analysis (Hwang et al., 2008), and was replicated in the current dataset. The correlation between the SCBCS and the *Compassionate Love Scale* was 0.95, which supported convergent validity of the scale. The scale has a reported excellent internal consistency reliability of 0.95 (Hwang et al., 2008). The Cronbach's alpha of the current sample was 0.89, which indicated that the internal consistency reliability was good.

For the MAAS used in the current study, please refer to the summary of the MAAS in the method section of Study 1. Excellent reliability was supported by the Cronbach's alpha of 0.90 in the current dataset. The MAAS raw scores were transformed into Rasch scores for data analyses based on the conversion table in Medvedev et al. (2015). Since Item 6 and 15 were excluded (Medvedev et al., 2016), only 13 items were included for the analyses in the current study. The response categories *almost always* were recoded as 0, *very frequently* and *somewhat frequently* as 1, *somewhat infrequently* and *very infrequently* as 2, and *almost never* as 3. Then, the 13 item responses (range of scores 0 to 39) were summed. Next, these raw scores were converted to means on a 1-to-6 scale similar to the original MAAS scoring system. Raw scores of student and general population samples were converted into Rasch scores separately. The ordinal-to-interval scale conversion does not require altering the response format of the scale but only involves a different scoring algorithm.

The 30-item *Non-attachment Scale* (NAS) is based explicitly on Buddhist theory about non-attachment (Sahdra et al., 2010). Items covered a wide range of topics in life such as non-attachment to people (e.g., *I am not possessive of the people I love*), non-attachment to possessions (e.g., *I am not possessive of the things I own*), non-attachment to money (e.g. *The amount of money I have is not important to my sense of who I am*), non-attachment to success, perfect self, and perfect life. Items are rated on a 6-point Likert scale ranging from 1 (*disagree strongly*) to 6 (*agree strongly*), with high ratings representing high levels of non-attachment except for three negatively worded items (Item 4, 13, and 24). Responses of the three negatively worded items were reverse coded in the current study. A uni-dimensional structure of the NAS was revealed by factor analyses, and psychometric properties of the NAS were evaluated in several samples in Sahdra et al. (2010). The results suggested that the NAS had good reliability and validity. The reliability in the current dataset was excellent, indicated by Cronbach's alpha of 0.94.

In the current study, the NAS raw scores were transformed into Rasch scores for data analyses based on the conversion table in Feng et al. (2016). According to Feng et al. (2016), item 4, 13, 24, and 25 were misfitting items and thus were excluded in the current study. Response Categories 2 and 3 as well as 4 and 5 were merged, and thus responses to *Disagree Strongly* were rescored as 0, responses to *Disagree Moderately* and *Disagree Slightly* are rescored as 1, responses to *Agree Slightly* and *Agree Moderately* were rescored as 2, and responses to *Agree Strongly* were rescored as 3. Therefore, the sum of the rescored values for all 26 items ranged from 0 to 78. These raw ordinal scores were converted into interval-level mean scores ranging from 1.00 to 6.00, compatible to the original NAS scoring system. Due to the reported DIF between people aged from 18 to 45 and people aged 46 to 91 in Feng et

al. (2016), raw scores of those two age groups in the current study were converted into the Rasch scores separately.

The *Spiritual Intelligence Self-Report Inventory* (SISRI) contains 24 items that are rated from 0 (*not at all true of me*) to 4 (*completely true of me*) (King & Decicco, 2009). Higher scores represent higher levels of SI. Item 6 (*It is difficult for me to sense anything other than the physical and material*) is a reverse coded item. Responses on item 6 were reverse coded in the current study. Confirmatory Factor Analysis (CFA) supported four factors including *transcendental awareness*, *personal meaning production*, *critical existential thinking*, and *conscious state expansion*. *Transcendental awareness* is the capacity to perceive transcendent dimensions of the self, others, and of the physical world. Example item is *I am aware of a deeper connection between myself and other people*. *Personal meaning production* refers to one's ability to find purpose in all events and experiences. An example one item is *I am able to define purpose or reason for my life*. *Critical existential thinking* involves the ability to critically contemplate meaning, purpose, and other existential or metaphysical issues such as reality and death. Items included *I have often questioned or pondered the nature of reality*. *Conscious state expansion* is the ability to enter spiritual states of consciousness at one's own discretion (e.g., *I am able to enter higher states of consciousness or awareness*). The scale has excellent reliability indicated by the Cronbach's alpha of 0.92 (King & Decicco, 2009), and 0.94 in the current study. Other psychometric properties of the scale including construct validity, convergent validity, and discriminant validity were examined and well supported in King and Decicco (2009).

The *Survey of Recent Life Experiences* (RLE) consists of 41 items that measure the exposure to everyday stressors in the past month on a 4-point scale ranging from 1 *not at all part of my life* to 4 *very much part of my life* (Kohn & MacDonald, 1992). Higher scores indicate more exposure to daily hassles. Factor analysis identified six factors including social and cultural difficulties (e.g., *Being let down or disappointed by friends*), work (e.g., *Lower evaluation of your work than you think you deserve*), time pressure (e.g., *Too many things to do at once*), finances (e.g., *Cash-flow difficulties*), social acceptability (e.g., *Dissatisfaction with your physical appearance*), social victimisation (e.g., *Being taken for granted*). The scale has excellent internal reliability shown by Cronbach's alpha over 0.90 (Kohn & MacDonald, 1992), and 0.92 in the current study. Its construct validity was supported through the positive correlation with the *Perceived Stress Scale* (Kohn & MacDonald, 1992).

The *Mental Health Continuum Short Form* (MHC-SF) is the short version of the 40 item *Mental Health Continuum* (Keyes, 2009). The MHC-SF consists of 14 items that assesses three aspects of well-being including emotional well-being (e.g., *During the past month, how often did you feel happy*), psychological well-being (e.g., *During the past month, how often did you feel that you liked most parts of your personality*), and social well-being (e.g., *During the past month, how often did you feel that you had something important to contribute to society*). Responses are rated from 0 "never" to 5 "everyday" and higher scores represent better well-being. Internal reliability and discriminant validity of the MHC-SF are excellent and the three-factor structure has been confirmed in various samples across countries (Keyes, 2009). The current dataset supported the excellent reliability through Cronbach's alpha of 0.90.

### **6.2.3 Data screening**

In total, 625 completed questionnaires were collected. Among them, 436 questionnaires were returned from the national survey, which represents a response rate of 11%. The percentage of missing values in the national survey was 1.23. The sample size of AUT students who completed a paper-and-pencil survey was 114, with 0.80% missing data. The convenience online sample had 75 participants and 1.31% missing data. For any case, when a uni-dimensional scale or a subscale of a multi-dimensional scale has more than 50% missing values, the remaining completed items of the scale or a subscale were deleted. When missing values of a scale or subscale for a case were less than 50%, missing value analysis (MVA) was conducted by the Little's MCAR test to examine whether values were missing completely at random. Results of the Little's MCAR test showed that missing values of all scales except the SCBCS ( $p=0.03$ ) were missing at random. Further inspecting the missing values of the SCBCS indicated that the percentage of missing values of each item ranged from 0.20% to 0.60% which was less than 1%. Thus, a pattern could not be analysed and a  $t$ -test could not be conducted to investigate whether participants with missing data differed from those without missing data. Since visual inspection revealed no pattern, these missing values were assumed missing at random.

Missing values at random were imputed by expectation-maximisation (EM) (Newman, 2003; Schafer & Graham, 2002). Then, after deleting cases with the missing demographic values in order to meet the requirement for *Structural Equation Modelling* (SEM) using AMOS, the final sample has 546 participants consisting of 187 males (34.20%) and 359 females (65.80%). Ages of participants ranged from 18 to 91, with a mean age of 46.14 (SD=18.74). Due to the small

percentages of people who *used to participate in spiritual practice regularly* and those who had *tried spiritual practice* (but given up), the samples of the two categories were combined with the people who *never practiced* as non-practitioners. The majority of participants (64.70%) responded that they did not practise meditation, contemplation, or any form of spiritual practices, whereas 35.30% of participants did. With regard to religion, 51.70% described themselves as religious and 49.30% as nonreligious.

#### **6.2.4 Data analysis**

Firstly, the factor structures of the MAAS, the SCBCS, the SISRI, the NAS, the MHC-SF, and the RLE were investigated by CFA. After the factor structure of the scales were confirmed, the data analyses then included three steps. Step 1 explored the possibility of adding compassion towards others and spiritual intelligence into the construct mindfulness. The incremental predictive power of compassion and spiritual intelligence beyond trait mindfulness in psychology/ concentration in the current model on non-attachment and well-being was investigated. To be included into the proposed mindfulness model, compassion and spiritual intelligence are required to be able to significantly predict non-attachment and well-being beyond trait mindfulness in psychology. Correlations between compassion, trait mindfulness in psychology, spiritual intelligence, non-attachment, and well-being were also examined. Since non-attachment is the proposed mediator in the current mindfulness model, Step 2 investigated the mediation effects of non-attachment between the three proposed components of mindfulness (ethics/compassion, concentration/ trait mindfulness in psychology, and wisdom/spiritual intelligence) and well-being, respectively. When non-attachment was confirmed as a mediator between the three proposed components of mindfulness and wellbeing, the overall proposed

mindfulness model was assessed in Step 3. In all analyses, age, gender, religion, current practice, and RLE are control variables, except for the analyses for current practitioners. Descriptive statistics, correlations, *t*-tests, regressions in Step 1 and Step 2 were conducted using IBM SPSS v.22. SEM using IBM SPSS Amos v.22 was employed for testing the proposed mindfulness model in the Step 3.

The model fit was assessed based on model fit indices including relative/normed Chi-Square ( $\chi^2/df$ ), *Comparative Fit Index* (CFI), *Root Mean Square Error of Approximation* (RMSEA), and *Standardised Root Mean Square Residual* (SRMR). A *p*-value of Chi-Square less than 0.05 indicated serious misfit or deviation between what the model specified and what exists in the actual data (Barrett, 2007). However, Chi-Square is sensitive to sample size, and a model with a big sample size would therefore generally be rejected (Bentler & Bonnet, 1980; Jöreskog & Sörbom, 1993). Since the sample size ( $n=546$ ) of the current study was large, relative/normed Chi-square ( $\chi^2/df$ ) was employed. According to Wheaton, Muthen, Alwin, and Summers (1977), the acceptable ratio of  $\chi^2/df$  is below five. In addition, values of CFI greater than 0.95 indicate a good fit, and values between 0.90 and 0.95 indicate a satisfactory fit (Hu & Bentler, 1999). RMSEA values below 0.06 shows a good fit, and values above 0.10 indicate poor fit. A good model fit is also indicated by values of SRMR less than 0.08 (Hu & Bentler, 1999). When the model fit indices did not meet the cut-off value of satisfactory fit, the model was modified by correlating error terms as suggested by modification indices. The number of error term correlations was kept to a minimum. Since MHC-SF, the SISRI, and the RLE are multi-faceted scales, only error terms of items within the same subscale were allowed to be correlated. The fit of the modified model was then assessed against the cut-off values

of the above model fit indices. The final modified partial and full mediation models were presented in the following results section of Step 3. All results are shown to two decimal places, except that the values of CFI, RMSEA, and SRMR are presented at three decimal places.

## **6.3 Results**

### ***6.3.1 CFA results of the scales***

Table 6.1 shows the CFA model fit indices of the six scales employed in the current study. The CFI values of the MAAS and the MHC-SF were above 0.900 while those of the other four scales were below 0.900. The SISRI had a borderline CFI value of 0.892. The RMSEA values of all scales were less than the cut-off value of 0.100 for an acceptable model except the SCBCS (0.29). Nevertheless, none had an RMSEA below the cut-off value of 0.060 for a good model fit. Likewise, none of the SRMR values of all scales except the SCBCS (0.087) exceeded 0.080. Also, all scales had  $\chi^2/df$  no more than the cut-off value of five except that of the SCBCS was extremely high (48.09). Among all the scales, the MAAS and MHC-SF had the best model fits with all four fit indices meeting the criteria of an acceptable model. The fit of the SCBCS was the worst as all four indices failed to meet the cut-off values for an acceptable model.

**Table 6.1*****CFA results of unmodified scales***

	CFI	RMSEA	SRMR	Chi-square	df	<i>p</i>	$\chi^2/df$
RLE	0.759	0.069	0.077	2770.65	773	<0.001	3.58
SCBCS	0.862	0.294	0.087	240.43	5	<0.001	48.09
MAAS	0.916	0.074	0.044	356.12	90	<0.001	3.96
SISRI	0.892	0.076	0.058	1026.34	248	<0.001	4.14
NAS	0.797	0.083	0.0587	1941.94	405	<0.001	4.79
MHC-SF	0.917	0.082	0.056	347.80	74	<0.001	4.70

Note: The Survey of Recent Life Experiences (RLE); The Santa Clara Brief Compassion Scale

(SCBCS); The Mindful Attention Awareness Scale (MAAS); The Spiritual Intelligence Self-Report Inventory (SISRI); The 30-item Non-attachment Scale (NAS); The Mental Health Continuum Short Form (MHC-SF);

The CFA fit indices of the six scales with modifications of correlated error terms (Appendix J) are presented in Table 6.2. The CFI values of all the modified scales were higher than 0.90, except that of the RLE and the NAS. The SCBCS had the highest CFI value (0.994), followed by the MHC-SF and the MAAS. The CFI value of the SISRI was just above 0.90, whereas that of the NAS was slightly below 0.90. Based on the CFI values, the RLE was the only scale that had the poor model fit, and the SCBCS had the best fit. The RMSEA value of the SCBCS however was 0.077 which was the highest among all the six RMSEA values, followed by that of the SISRI (0.072). The RMSEA values of the RLE, as well as that of the MAAS, and the NAS were 0.060 or below, which represented good model fits. All the modified scales' SRMR values were below 0.080, varying from 0.017 for the SCBCS to 0.074 for the RLE. In addition, the relative/normed Chi-squares of all the scales were smaller than the cut-off value of five for an acceptable model. Overall, the four fit indices of all the modified scales met the criteria for an acceptable model except the

CFI value of the RLE, which was still below 0.90. The MAAS and the MHC-SF had good model fits after modifications. All the scales satisfied more than half of satisfactory model fit indices, and thus were all included for further analyses.

**Table 6.2**

*CFA results of modified scales*

	CFI	RMSEA	SRMR	Chi-square	df	<i>p</i>	$\chi^2/df$
RLE	0.822	0.059	0.074	2006.30	761	<0.001	2.64
SCBCS	0.994	0.077	0.017	12.80	3	0.005	4.27
MAAS	0.947	0.060	0.038	253.38	86	<0.001	2.95
SISRI	0.903	0.072	0.055	945.08	247	<0.001	3.83
NAS	0.898	0.060	0.047	1164.01	391	<0.001	2.98
MHC-SF	0.956	0.062	0.044	215.66	70	<0.001	3.08

Note: The Survey of Recent Life Experiences (RLE); The Santa Clara Brief Compassion Scale (SCBCS); The Mindful Attention Awareness Scale (MAAS); The Spiritual Intelligence Self-Report Inventory (SISRI); The 30-item Non-attachment Scale (NAS); The Mental Health Continuum Short Form (MHC-SF);

**6.3.2 Step 1: Exploring the possibility of adding compassion and spiritual intelligence into the mindfulness model based on Buddhist theories.**

**6.3.2.1 The incremental predictive power of compassion and spiritual intelligence beyond attentional ability on non-attachment and well-being.** The predictive power of compassion and spiritual intelligence beyond attentional ability/the MAAS on non-attachment and wellbeing was examined by conducting hierarchical linear regressions. Age, gender (code: male=1; female=2), religion (code: nonreligious=1; religious=2), RLE, and current practice (code: no practice=0; current practice=1) were controlled in all regressions. To examine the predictive power of compassion

and spiritual intelligence beyond attentional ability on well-being, the five covariates and attentional ability (Block 1) were entered first as predictors, followed by adding compassion and spiritual intelligence as predictors into Block 2a and Block 2b, respectively. Well-being was entered as a dependent variable (DV). To examine the predictive power of compassion and spiritual intelligence beyond attentional ability on non-attachment, the same procedure was repeated except that the DV changed from well-being to non-attachment.

Table 6.3 presents the results of two regressions of compassion and spiritual intelligence on wellbeing. Block 1 and 2a showed the predictive power of compassion on well-being beyond covariates and attentional ability. Block 1 and 2b showed the predictive power of spiritual intelligence on well-being beyond covariates and attentional ability. The first block including covariates and attentional ability was significant ( $F(6, 539)=27.15, p<0.001$ ), with the covariates and attentional ability explaining 22% of the variance in wellbeing. RLE, practice, and attentional ability were significant predictors in the first block. Age, gender, and religion in the first block were not significant predictors.

**Table 6.3*****The predictive power of compassion and spiritual intelligence on well-being beyond attentional ability***

Predictor	$\beta$	$R$	$R^2$	<i>Adjusted R</i> <sup>2</sup>	$F$	$df$	$p$
<b><i>Block 1</i></b>		0.48	0.23	0.22	27.15	6, 539	<0.001
Age	0.04						
Gender	0.04						
Religion	0.01						
RLE	-0.26**						
Practice	0.15**						
Attentional ability	0.22**						
<b><i>Block 2a</i></b>		0.49	0.24	0.23	24.48	7, 538	<0.001
Age	0.05						
Gender	0.03						
Religion	0.00						
RLE	-0.27**						
Practice	0.14*						
Attentional ability	0.22**						
Compassion	0.10*						
<b><i>Block 2b</i></b>		0.55	0.30	0.29	32.53	7, 538	<0.001
Age	0.07						
Gender	0.03						
Religion	-0.01						
RLE	-0.29**						
Practice	0.01						
Attentional ability	0.22**						
Spiritual Intelligence	0.29**						

\*  $p < 0.05$     \*\*  $p < 0.001$

Block 2a was also significant ( $F(7, 538)=24.48, p < 0.001$ ), explaining 23% of the variances in wellbeing (*adj. R*<sup>2</sup>=0.23). The model was slightly improved by adding

compassion,  $R^2change = 0.008, p < 0.05$ . As same as the first block, RLE, practice, and attentional ability remained as the significant predictors, while age, gender, and religion did not emerge as significant predictors.

Block 2b including covariates, attentional ability, and spiritual intelligence was also significant  $F(7, 538) = 32.53, p < 0.001$ , explaining 29% of the variances in wellbeing ( $adj. R^2 = 0.29$ ). By including spiritual intelligence to the regression, the model was significantly improved,  $R^2change = 0.06, p < 0.001$ . RLE and attentional ability were the significant predictors in block 2b as well as in Block 1. The covariate of “practice” however changed from a significant predictor in Block 1 ( $\beta = 0.15, p < 0.001$ ) to an insignificant predictor in the Block 2b ( $\beta = 0.01, p = 0.77$ ). Age, gender, and religion still were not significant predictors in Block 2b.

Table 6.4 presents the predictive power of compassion and spiritual intelligence on non-attachment beyond covariates and attentional ability. The first block was significant,  $F(6, 539) = 46.53, p < 0.001$ , with the covariates and attentional ability explaining 33% of the variances in wellbeing ( $adj. R^2 = 0.33$ ). Age ( $\beta = 0.26, p < 0.001$ ), practice ( $\beta = 0.12, p < 0.05$ ), RLE ( $\beta = -0.23, p < 0.001$ ), and attentional ability ( $\beta = 0.24, p < 0.001$ ) were significant predictors in the first block. Gender and religion of the first block were not significant predictors.

Block 2a with inclusion of compassion to Block 1 was also significant  $F(7, 538) = 41.47, p < 0.001$ , explaining 34% of the variances in non-attachment ( $adj. R^2 = 0.34$ ). The model was slightly improved,  $R^2change = 0.008, p < 0.05$ . As same as the first block, age, practice, RLE, and attentional ability remained the significant predictors, whereas gender and religion were insignificant predictors. It can be seen that Block 2b was significant  $F(7, 538) = 47.94, p < 0.001$ , explaining 38% of the variances in

non-attachment (*adj. R*<sup>2</sup>=0.38). The model was significantly improved with the inclusion of spiritual intelligence, *R*<sup>2</sup>*change* = 0.04, *p*<0.001. As same as the first block, age, RLE, and attentional ability in Block 2b emerged as the significant predictors. Practice however changed from a significant predictor in the first block ( $\beta=0.12$ , *p*<0.05) to an insignificant predictor in Block 2b ( $\beta=0.02$ , *p*=0.709). Gender and religion were not significant predictors in both the first block and Block 2b.

**Table 6.4**

*The predictive power of compassion and spiritual intelligence on non-attachment beyond covariates and attentional ability*

Predictor	$\beta$	$R$	$R^2$	Adjusted $R^2$	$F$	$df$	$p$
<b>Block 1</b>		0.58	0.34	0.33	46.53	6, 539	<0.001
Age	0.26**						
Gender	0.02						
Religion	0.01						
RLE	-0.23**						
Practice	0.12*						
Attentional ability	0.24**						
<b>Block 2a</b>		0.59	0.35	0.34	41.47	7, 538	<0.001
Age	0.26*						
Gender	0.01						
Religion	0.00						
RLE	-0.23**						
Practice	0.12*						
Attentional ability	0.24**						
Compassion	0.10*						
<b>Block 2b</b>		0.62	0.38	0.38	47.94	7, 538	<0.001
Age	0.28**						
Gender	0.01						
Religion	0.00						
RLE	-0.25**						
Practice	0.02						
Attentional ability	0.24**						
Spiritual intelligence	0.24**						

\*  $p < 0.05$     \*\*  $p < 0.001$

**6.3.2.2 Post-hoc analyses.** Among the demographic covariates, the variable of current practice emerged as a strong predictor of wellbeing and non-attachment.

Further independent *t*-tests were conducted to explore the differences between current practitioners and non-practitioners in wellbeing, non-attachment, and other key variables including compassion, spiritual intelligence, and attentional ability. It can be seen from Table 6.5 that current practitioners had higher levels of non-attachment, spiritual intelligence, compassion, and wellbeing than non-practitioners. Current practitioners and non-practitioners, however, did not differ in attentional ability scores. Further investigating attentional ability scores in the online sample that contained participants recruited through the Buddhist Council revealed that the current practitioners ( $M=3.95$ ,  $SD=0.47$ ) scored significantly higher than non-practitioners ( $M=3.60$ ,  $SD=0.55$ ),  $t(71) = -2.63$ ,  $p<0.05$ .

**Table 6.5**

*Independent t-tests of differences between current practitioners (n=193) and non-practitioners (n=353) in wellbeing, non-attachment, compassion, attentional ability, and spiritual intelligence*

	Current practitioners	Non-practitioners	<i>t</i>	df
	Mean (SD)	Mean (SD)		
Compassion	26.14 (5.96)	24.67 (6.23)	-2.68*	544
Attentional ability	3.97 (0.57)	3.88 (0.58)	-1.82	544
Spiritual intelligence	85.92 (14.98)	67.96 (16.55)	-12.53**	544
Non-attachment	3.76 (0.54)	3.56 (0.53)	-4.36**	544
Wellbeing	55.82 (9.64)	51.57 (10.56)	-4.64**	544

\*  $p<0.05$  \*\*  $p<0.001$

**6.3.2.3 Partial correlations between compassion, attentional ability, spiritual intelligence, non-attachment, and well-being.** Table 6.6 shows partial correlations between compassion towards others, attentional ability, spiritual intelligence, non-attachment, and well-being in three sets of samples with age, gender, religion, RLE, and current practice being controlled. Compassion, attentional ability, and spiritual

intelligence as proxies of the three potential components of mindfulness were not inter-correlated in all the three samples. Among the three predictors, compassion was positively correlated with spiritual intelligence in all the three samples ( $r=0.29$ ,  $p<0.001$ ;  $r=0.28$ ,  $p<0.001$ ;  $r=0.37$ ,  $p<0.001$ ), whereas compassion was not correlated with attentional ability in any sample. The correlation between spiritual intelligence and attentional ability was only significant in the current practice sample ( $r=0.17$ ,  $p<0.05$ ), and that in both overall sample and religious sample were small and non-significant.

**Table 6.6**

*Partial correlations between compassion, attentional ability, spiritual intelligence, non-attachment, and well-being in three sets of samples: all participants (n=546), current practice (n=193), religious sample (n=277)*

	Sample	Compassion	Attentional ability	Spiritual intelligence	Non-attachment
<b>Attentional ability</b>	All participants	0.01			
	Current practice	0.01			
	Religious	0.00			
<b>Spiritual intelligence</b>	All participants	0.29**	0.01		
	Current practice	0.28**	0.17*		
	Religious	0.37**	0.08		
<b>Non-attachment</b>	All participants	0.12*	0.24**	0.25**	
	Current practice	0.20*	0.27**	0.32**	
	Religious	0.19*	0.25**	0.17*	
<b>Well-being</b>	All participants	0.11*	0.21**	0.29**	0.40**
	Current practice	0.12	0.30**	0.32**	0.45**
	Religious	0.21**	0.23**	0.37**	0.42**

\*  $p < 0.05$  \*\*  $p < 0.001$

In the overall sample, compassion, attentional ability, and spiritual intelligence as proxies of potential components of mindfulness were all significantly positive correlated with the proposed mediator of non-attachment and the outcome of well-being. The correlation between spiritual intelligence and well-being ( $r=0.29$ ,  $p < 0.001$ ) was higher than the correlation between attentional ability and well-being ( $r=0.21$ ,  $p < 0.001$ ) and the correlation between compassion and well-being ( $r=0.11$ ,  $p < 0.05$ ). A similar pattern was observed for the correlations between the three proposed components of mindfulness and non-attachment. The correlation between spiritual intelligence and non-attachment was slightly higher ( $r=0.25$ ,  $p < 0.001$ ) than the correlation between attentional ability and non-attachment ( $r=0.24$ ,  $p < 0.001$ ), followed by the correlation between compassion and non-attachment ( $r=0.12$ ,  $p < 0.05$ ). In the other two samples, the three proxies were also positively correlated with non-attachment and well-being, except for the current practice sample where there was a positive yet non-significant correlation between compassion and well-being ( $r=0.12$ ,  $p=0.11$ ).

### ***6.3.3 Step 2: Mediation effects of non-attachment between compassion and well-being, attentional ability and well-being, and spiritual intelligence and well-being***

***6.3.3.1 Criteria of significant mediation effects.*** In this step, the mediation effects of non-attachment between compassion towards others and well-being, attentional ability and well-being, and spiritual intelligence and well-being were examined. According to Baron and Kenny (1986), the following criteria should be satisfied to support a mediational hypothesis in the current study:

There must be a significant relationship between the IV (in this case compassion, attentional ability, and spiritual intelligence), and the DV (in this case well-being). To test the relationship between compassion and wellbeing, between attentional ability and wellbeing, and between spiritual intelligence and well-being, three linear regressions were conducted. DV was well-being, and IV was compassion, attentional ability, and spiritual intelligence respectively. Age, gender, religion, and current practice were controlled. Compassion, attentional ability, and spiritual intelligence must be significant predictors of wellbeing to satisfy the first criterion.

There must be a significant relationship between the IV (in this case compassion, attentional ability, and spiritual intelligence), and the mediating variable (in this case non-attachment). The relationship was tested by regressing non-attachment on compassion, attentional ability, and spiritual intelligence respectively with age, gender, religion, and current practice being controlled. Compassion, attentional ability, and spiritual intelligence must be significant predictors of non-attachment to satisfy the second criterion.

The mediator (in this case non-attachment) must be a significant predictor of the outcome variable (in this case well-being) in an equation including both mediator (in this case non-attachment) and other predictors (in this case compassion, attentional ability, and spiritual intelligence). Three regressions were conducted to examine the relationship. IVs in three regressions were non-attachment and compassion, non-attachment and attentional ability, and non-attachment and spiritual intelligence, respectively. Non-attachment thus must be the significant predictor of well-being in the three regressions. The relationships between the IV and DV become non-

significant, or significantly decreased, when the IV and the mediator are entered simultaneously into a regression predicting the DV. It means that the effects of IVs on well-being in regressions for criterion 3 must be less than that in regressions for criterion 1.

**6.3.3.2 Results of Step 2.** As shown in Figure 6.2, compassion was a significant predictor of non-attachment ( $\beta=0.10$ ,  $F=40.64$ ,  $p<0.05$ ), and well-being ( $\beta=0.10$ ,  $F=23.14$ ,  $p <0.05$ ). Non-attachment was also a significant predictor of well-being ( $\beta=0.43$ ,  $p <0.001$ ). Table 6.7 presents the results of two regressions that tested the effects of compassion on well-being with and without the mediator of non-attachment. Well-being was regressed on compassion and the five covariates in Regression 1. Regression 2 tested the effects of compassion on well-being with non-attachment being included. The mediator of non-attachment, compassion, and the covariates were entered into simultaneously as predictors of well-being in the Regression 2. Although compassion was a significant predictor of well-being in the Regression 1 ( $\beta=0.10$ ,  $p<0.05$ ), it became a non-significant predictor in Regression 2 ( $\beta=0.06$ ,  $p=0.13$ ). The results thus indicated that non-attachment fully mediated the effects of compassion on well-being.

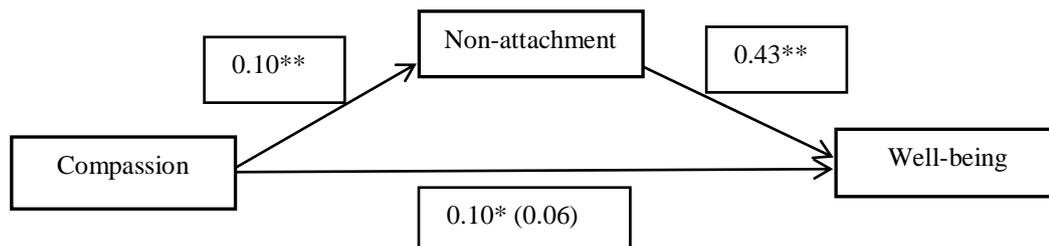


Figure 6.2. Mediation effects of non-attachment between compassion and well-being. Values in parentheses show relationships between compassion and well-being when the mediating variable of non-attachment is included in the model. \*  $p < 0.05$ ; \*\*  $p < 0.001$

**Table 6.7**

***Effects of mediator of non-attachment between compassion and well-being***

Predicator	$\beta$	$R$	$R^2$	Adjusted $R^2$	$F$	$df$	$p$
<b><i>Regression 1</i></b>		0.45	0.21	0.20	23.14	6	<0.001
Compassion	0.10*						
<b><i>Regression 2</i></b>		0.58	0.33	0.32	37.89	7	<0.001
Compassion	0.06						
Non-attachment	0.43**						

\*  $p < 0.05$  \*\*  $p < 0.001$

Figure 6.3 shows that attentional ability was a significant predictor of non-attachment ( $\beta=0.24$ ,  $F=46.53$ ,  $p < 0.001$ ), and well-being ( $\beta=0.22$ ,  $F=27.15$ ,  $p < 0.001$ ). Table 6.8 shows the mediation effects of non-attachment between attentional ability and well-being. The predictors in Regression 1 contained attentional ability and the above five covariates. Regression 2 was conducted by entering attentional ability, non-attachment, and covariates simultaneously as predictors of well-being. It can be seen that attentional ability was a significant predictor of well-being in both Regression 1 ( $\beta=0.22$ ,  $p < 0.001$ ) and Regression 2 ( $\beta=0.13$ ,  $p < 0.05$ ). The beta

coefficient of attentional ability however dropped from 0.22 to 0.13 when non-attachment was included into the Regression 2 as a predictor of well-being. Sobel test showed that the drop in the regression coefficient from 0.22 to 0.13 is significant ( $z'=4.94, p < 0.001$ ). Thus, non-attachment partially mediated the effects of attentional ability on well-being.

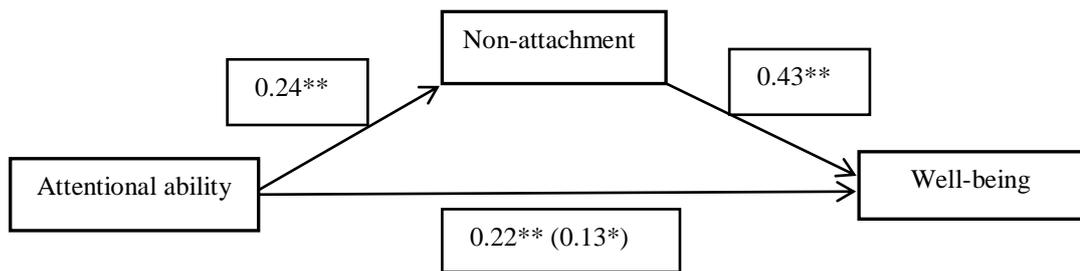


Figure 6.3. Mediation effects of non-attachment between attentional ability and well-being. Values in parentheses show relationships between attentional ability and well-being when the mediating variable of non-attachment is included in the model. \*  $p < 0.05$ ; \*\*  $p < 0.001$

**Table 6.8**

***The Effects of mediator of non-attachment between attentional ability and well-being***

Predicator	$\beta$	$R$	$R^2$	Adjusted $R^2$	$F$	$df$	$p$
<b>Regression 1</b>		0.48	0.23	0.22	27.15	6, 539	<0.001
Attentional ability	0.22**						
<b>Regression 2</b>		0.58	0.34	0.33	39.15	7, 538	<0.001
Attentional ability	0.13*						
Non-attachment	0.40**						

\*  $p < 0.05$     \*\*  $p < 0.001$

It can be seen from Figure 6.4 that spiritual intelligence was a significant predictor of non-attachment ( $\beta=0.24, F=47.52, p < 0.001$ ), and well-being ( $\beta=0.31, F=32.32, p$

<0.001). The effects of mediator of non-attachment between spiritual intelligence and well-being are shown in Table 6.9. Variables including spiritual intelligence and the covariates were entered simultaneously into Regression 1 as predictors of well-being. In Regression 2, the mediator of non-attachment, spiritual intelligence, and the covariates were entered into regression simultaneously as predictors of well-being. The results indicated that spiritual intelligence was a predictor of well-being in Regression 1 without non-attachment ( $\beta=0.31, p<0.001$ ), and Regression 2 with non-attachment being included ( $\beta=0.21, p<0.001$ ). The beta coefficient of spiritual intelligence however decreased from 0.31 to 0.21 when non-attachment was included into the regression as a predictor of well-being. Sobel test indicated that the drop in the regression coefficient from 0.31 to 0.21 is significant ( $z'=5.77, p <0.001$ ). Therefore, non-attachment partially mediated the effects of spiritual intelligence on well-being.

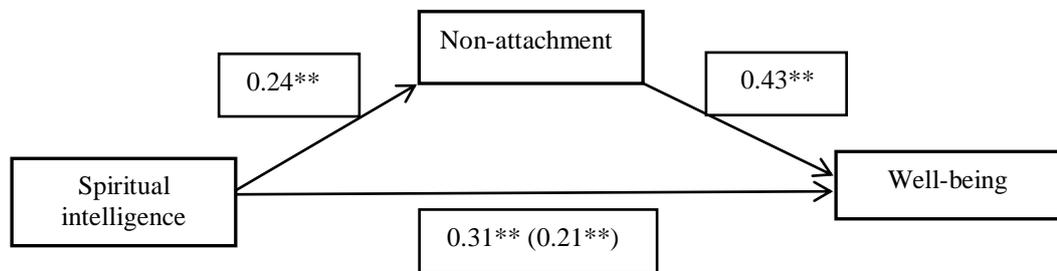


Figure 6.4. Mediation effects of non-attachment between spiritual intelligence and well-being. Values in parentheses show relationships between spiritual intelligence and well-being when the mediating variable of non-attachment is included in the model. \*  $p<0.05$ ; \*\*  $p<0.001$

**Table 6.9*****Effects of mediator of non-attachment between spiritual intelligence and well-being***

Predicator	$\beta$	$R$	$R^2$	<i>Adjusted R</i> <sup>2</sup>	$F$	$df$	$p$
<b><i>Regression 1</i></b>		0.51	0.27	0.26	32.32	6	<0.001
Spiritual intelligence	0.31**						
<b><i>Regression 2</i></b>		0.60	0.36	0.35	42.86	7	<0.001
Spiritual intelligence	0.21**						
Non-attachment	0.38**						

\*  $p < 0.05$     \*\*  $p < 0.001$

**6.3.4 Step 3: A model of mindfulness based on Buddhist theories**

**6.3.4.1 Path analysis.** SEM using IBM SPSS Amos v.22 was employed for testing a mindfulness model in which the effects of three proposed components of mindfulness on well-being were mediated by non-attachment (Figure 1). The full meditation model and partial meditation model were tested by *Path Analysis*.

Demographic variables and the recent life experiences were also control variables in the model of path analysis. The assumption of multivariate normality was checked against Mardia's coefficients of multivariate skewness and kurtosis. Multivariate kurtosis values below 1 indicate that data satisfy the multivariate normality assumption. Values between 1 and 10 indicate moderate non-normality, and values above 10 indicate severe non-normality. Using the bootstrapping methods (with 10,000 iterations) recommended by Preacher and Hayes (2008), the significance of the direct and indirect effects of the three components of mindfulness on well-being through non-attachment were tested. The effects were treated as significant when zero is not included in the 95% bias corrected confidence intervals (CIs). Significant

indirect effects indicated that non-attachment significantly mediated between mindfulness and well-being. Whether mediation was full or partial was indicated by the significance of direct effects of components of mindfulness on well-being. Significant direct effects indicated that non-attachment partially mediated between mindfulness and well-being, and non-significant direct effects indicated that non-attachment fully mediated between mindfulness and well-being.

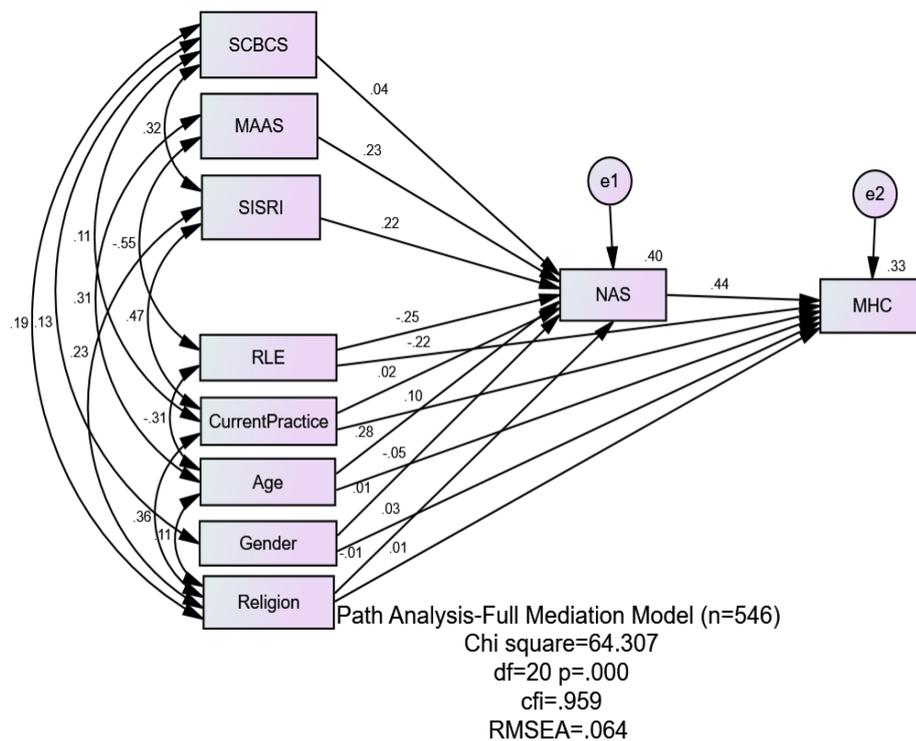
**6.3.4.2 Results of Step 3.** Figure 6.5 and Figure 6.6 show a full mediation model, and a partial mediation model of mindfulness informed by the above regressions' results in Table 7, Table 8, and Table 9, respectively. The multivariate kurtosis values of both the full mediation model and partial mediation model were 1.56, which indicated that non-normality was not severe. Overall, the full mediation model explained 33% of the variance of well-being scores, and the partial mediation model explained 38% of the variance of well-being. Table 6.10 presents the model fit indices of both models. The CFI of the full mediation model was 0.959, which was smaller than the CFI of 0.990 of the partial mediation model. Both CFIs were bigger than 0.95, which indicated that both models had excellent fits in terms of CFI values. RMSEA of the partial mediation model (0.034) was less than that of the full mediation model (0.064) which was equal to the cut-off RMSEA value for a good model. SRMR of the partial mediation model was 0.037 which is lower than that of the full mediation model (0.042). Both SRMRs were much smaller than the cut off value of 0.08 for a good model fit. Although  $\chi^2/df$  of the full mediation model (3.22) was much higher than that of the partial mediation model (1.62), both  $\chi^2/df$  were well below the cut-off value of 5.00 for an acceptable model fit. Overall, both full

mediation model and partial mediation model had good model fits, and the partial mediation model had a better model fit better than the full mediation model.

**Table 6.10**

***Model fit indices of the full mediation model and partial mediation model (n=546)***

Model fit indices	Full Mediation Model	Partial Mediation Model
CFI	0.959	0.990
RMSEA	0.064	0.034
SRMR	0.042	0.037
$\chi^2/df$	3.22	1.62



*Figure 6.5. The Full Mediation Model-The Survey of Recent Life Experiences (RLE); The Santa Clara Brief Compassion Scale (SCBCS); The Mindful Attention Awareness Scale (MAAS); The Spiritual Intelligence Self-Report Inventory (SISRI); The 30-item Non-attachment Scale (NAS); The Mental Health Continuum Short Form (MHC)*

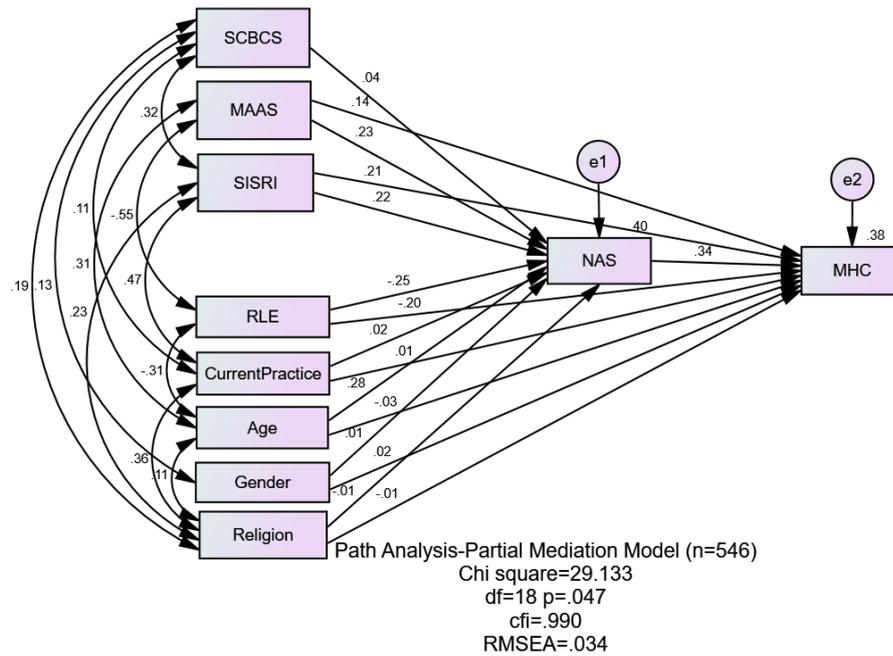


Figure 6.6. The Partial Mediation Model-The Survey of Recent Life Experiences (RLE); The Santa Clara Brief Compassion Scale (SCBCS); The Mindful Attention Awareness Scale (MAAS); The Spiritual Intelligence Self-Report Inventory (SISRI); The 30-item Non-attachment Scale (NAS); The Mental Health Continuum Short Form (MHC)

The results of total effects, direct effects with mediator, and indirect effects of the partial mediation model are presented in Table 6.11. The bootstrapping tests showed that the indirect effects of attentional ability on well-being, and spiritual intelligence on well-being were significant. Thus, non-attachment significantly mediated between attentional ability and well-being, and between spiritual intelligence and well-being. However, the indirect effect of compassion on well-being through non-attachment was not significant. Further inspection revealed that the direct effect of compassion on well-being without mediator was not significant. The total effects showed that spiritual intelligence had more beneficial impact than attentional ability on well-being.

**Table 6.11*****The Mediation effects of non-attachment between the three proposed components of mindfulness and well-being***

Mindfulness	Total effects	Direct effects (with mediator)	Indirect effects	95% CIs for bootstrapping
Compassion	0.03 ( $p=0.63$ )	n/a	0.02 ( $p=0.31$ )	-0.01 to 0.04
Attentional ability	0.22*	0.14*	0.08*	0.05 to 0.12
Spiritual intelligence	0.28*	0.21*	0.08*	0.04 to 0.12

\*  $p<0.05$     \*\*  $p<0.001$

The effects of attentional ability and spiritual intelligence on different aspects of well-being mediated through non-attachment are presented in Table 6.12. The total effects indicated that attentional ability contributed to hedonic well-being more than spiritual intelligence. Every one-standard-unit change in attentional ability was associated with a 0.24-standardised unit total increase in hedonic well-being, in contrast to 0.13-standardised unit increase caused by spiritual intelligence. Spiritual intelligence, however, had a much bigger effect on eudaimonic well-being compared to attentional ability. Every one-standard-unit change in spiritual intelligence was associated with a 0.31-standardised unit total increase in eudaimonic well-being, whereas 0.19-standardised unit increase was associated with attentional ability. While both attentional ability and spiritual intelligence had similar beneficial effects on psychological aspects of eudaimonic well-being, spiritual intelligence had much more impact than attentional ability on social aspects of well-being indicated by total effects of 0.30 versus 0.12.

The results of direct effects and indirect effects suggested that non-attachment fully mediated the effects of spiritual intelligence on hedonic well-being, and partially mediated between attentional ability and hedonic well-being. Effects of attentional

ability and spiritual intelligence on eudaimonic well-being were both partially mediated through non-attachment. For the social aspect of eudaimonic well-being, non-attachment fully mediated between attentional ability and social well-being, whereas the effect of spiritual intelligence on social well-being was partially mediated. In addition, non-attachment partially mediated the positive relationship between attentional ability and psychological aspects of eudaimonic well-being, and between spiritual intelligence and psychological aspects of eudaimonic well-being.

**Table 6.12**

***The Effects of attentional ability and spiritual Intelligence on different dimensions of well-being mediated through non-attachment***

Well-being	Mindfulness	Total effects	Direct effects (with mediator)	Indirect effects	95% CIs for bootstrapping
A: Hedonic	Attentional ability	0.24**	0.18**	0.06**	0.03 to 0.10
	Spiritual intelligence	0.13*	0.06 ( $p=0.21$ )	0.07**	0.04 to 0.10
B: Eudaimonic	Attentional ability	0.19**	0.11*	0.08**	0.04 to 0.12
	Spiritual intelligence	0.31**	0.23**	0.07**	0.05 to 0.12
B1: Social	Attentional ability	0.12*	0.06 ( $p=0.27$ )	0.06**	0.04 to 0.10
	Spiritual intelligence	0.30**	0.24**	0.06**	0.03 to 0.10
B2: Psychological	Attentional ability	0.23**	0.15**	0.08**	0.05 to 0.12
	Spiritual intelligence	0.26**	0.18**	0.08**	0.04 to 0.12

\*  $p < 0.05$

\*\*  $p < 0.001$

## 6.4 Discussion

The present study proposed and tested a model derived from Buddhist theory in which non-attachment mediated the beneficial effects of mindfulness on well-being. Ethics, concentration, and wisdom were proposed as the components of mindfulness in the model, and were measured by the SCBCS, the MAAS, and the SISRI respectively. The results indicated that both compassion towards others and spiritual intelligence were positively correlated with well-being, and predicted well-being beyond trait mindfulness as conceptualised in Western psychology. The finding indicates that ethics and wisdom as potential components of secular mindfulness may provide additional beneficial effects to well-being.

Among the three proposed components of the mindfulness construct, wisdom measured by spiritual intelligence contributed to well-being the most, followed by concentration measured by attentional ability/trait mindfulness. The beneficial effects of ethics measured by compassion towards others on well-being were minimal, and were no longer significant once both ethics and wisdom were included in the model. The adjusted  $R^2$  was only slightly increased by adding compassion towards others in the mindfulness construct, whereas spiritual intelligence increased it from 23% to 29%. Therefore, ethics seems to play a less important role in improving well-being compared with concentration and wisdom. In addition, the beneficial effects of ethics measured by compassion and wisdom measured by spiritual intelligence on well-being were successfully mediated by non-attachment, respectively. The partial mediation model had a better model fit than the full mediation model. The variances in well-being explained by the partial mediation model were higher than the full mediation model. Therefore, the results indicated that non-attachment partially mediated between mindfulness and well-being.

Based on the *Noble Eight-fold Path*, ethics, concentration, and wisdom are a unity, which means they should correlate. This is not fully supported by the correlation analysis results in the current study. Ethics measured by compassion towards others was positively correlated with wisdom represented by spiritual intelligence. Concentration measured by the MAAS, however, was not correlated with either ethics or wisdom in the overall sample. Although in the current practitioners sample concentration was correlated with wisdom, it still had no relationship with ethics. In addition, current practitioners had higher levels of compassion towards others and of spiritual intelligence than non-practitioners. There was no difference, however, between current practitioners and non-practitioners in the mean MAAS scores. Only long-term Buddhist practitioners had the higher mean MAAS scores than non-practitioners. The results may imply that the mindfulness construct varies in different groups. The following section presents a discussion on ethics, concentration, and wisdom as potential components of secular mindfulness based on the performance of compassion, attentional ability, and spiritual intelligence in the models tested above.

#### ***6.4.1 Discussion on the three predictor variables***

Meditation practitioners and non-practitioners in the current study did not differ in their mean concentration/MAAS scores. The online sample of practitioners, which contained the majority of the Buddhist participants, had a higher level of concentration than non-practitioners. Previous evidence on the difference in the MAAS scores between meditators and non-meditators is mixed. The results in Brown and Ryan (2003) showed that Zen meditators had higher scores on trait mindfulness measured by the MAAS than non-meditators. Trait mindfulness, however, was not associated with the amount of practice time per session, but instead with years of practice (Brown & Ryan, 2003). In other words, attentional

ability in daily life is associated with long-term practice rather than intense training within a short period of time. In contrast, Mackillop and Anderson (2007) found no difference between meditators and non-meditators in trait mindfulness as measured by the MAAS. Mackillop and Anderson (2007) suggested that since their participants were university students, the results could indicate that novice meditators and non-meditators did not differ in trait mindfulness because students are normally young and without much experience in meditation. In other words, the MAAS may not distinguish between beginners and non-practitioners.

The results of the present study showed that there were no differences in the MAAS scores between practitioners and non-practitioners in the overall sample. This supports the findings of Mackillop and Anderson (2007). The MAAS scores between practitioners and non-practitioners using the online sample only, however, support the Brown and Ryan (2003) and Christopher, Christopher, and Charoensuk (2009) who reported differences in the MAAS scores between practitioners and non-practitioners. Practitioners of the overall sample in the current study consisted of many levels of practitioners from different religions, whereas the practitioners of the online sample were mainly experienced Buddhist practitioners recruited through the networks of the New Zealand Buddhist Council. Based on the results of the current study and previous studies, attentional ability as measured with the MAAS may differ only between advanced practitioners and non-practitioners. In Buddhism, there is systematic training in developing concentration (Wallace, 2006) because it is a critical quality needed for achieving enlightenment (Sujato, 2001). Consequently, the expectation is that Buddhist meditators should have higher levels of concentration than non-meditators. However, how much training would make a major difference in attentional ability between practitioners and non-practitioners, especially when

attentiveness in everyday life, is not explicit in Buddhist practice. The results in the current study suggest that long-term Buddhist training may be associated with higher levels of concentration in daily life. Further investigation could be conducted to examine whether the form of spiritual practice plays a role in improving attentional ability/trait mindfulness.

In the current study, the wisdom element measured by spiritual intelligence was not correlated with attentional ability in the overall sample as measured by the MAAS. Previous evidence of the relationship between spiritual intelligence and attentional ability is scarce. A positive correlation between spiritual intelligence and mindfulness as measured by the FFMQ is documented in Subramaniam and Panchanatham (2015). Mindfulness was measured by the total score of the FFMQ. Since the FFMQ not only includes the attention facet, which is mostly comprised of MAAS items, but also other facets, such as describing and non-judging facets, (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006), then the positive correlation between spiritual intelligence and mindfulness reported in Subramaniam and Panchanatham (2015) does not necessarily indicate that spiritual intelligence is positively correlated with attentional ability. Furthermore, their study was conducted with employees of an insurance company. Thus, their results need to be replicated in the general population. The close relationship between deep concentration and wisdom is expressed in Buddhist teachings: “[T]here is no concentration without wisdom, no wisdom without concentration” (Gunaratana, 2009, p.2). In Buddhism, developing wisdom through meditation requires attention to focus on various internal and external phenomena (Anālayo. 2003). The modern *vipassanā* movement in Buddhism (Samuel, 2015) emphasises the importance of developing wisdom through meditative practices. Christian meditation also involves paying attention to one’s

inner voice and conversations with God for new understandings (Blanton, 2002). Hence, a positive correlation between spiritual intelligence and attentional ability in practitioners is expected.

In addition to the positive correlation between spiritual intelligence and attentional ability in practitioners, the results of the current study indicated that practitioners had more wisdom as measured by spiritual intelligence than did non-practitioners. This suggests that spiritual intelligence/wisdom is developed through practice, and may only be integrated with attentional ability/concentration through practice. According to Dreyfus (2011), *mindfulness proper* is attentional ability that holds the object of attention. When *mindfulness proper* is employed to observe and comprehend phenomena in order to develop wisdom, then it follows that *mindfulness proper* is the basis of *wise mindfulness*, a form of discriminative awareness that contains *clear comprehension* (Pali: *Sampajañña*). *Mindfulness proper* therefore is a cognitive ability, whereas *wise mindfulness* is a quality specific to practitioners who use attentional ability to pursue the goal of developing wisdom. The difference in the wisdom aspect of mindfulness between practitioners and non-practitioners in the present study indicates the difference between *wise mindfulness* and *mindfulness proper* as suggested by Dreyfus (2011).

In Buddhism, compassion is expected to be positively correlated with attention ability in practitioners. This is because compassion meditation in classic Buddhism is a type of concentration meditation (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). Compassion meditation starts from being compassionate to unfortunate others by thinking that “This being has indeed been reduced to misery; if only he could be freed from this suffering!” (*The Path of Purification*, translated by Nanamoli from the Pali, 2011, p.308). Then, meditators

should practise compassion sequentially on a beloved, a neutral person and a hostile one. It is said that reaching the third level of *jhānas* can be developed through compassion meditation (*The Path of Purification*, translated by Nanamoli from the Pali, 2011). In addition, compassion towards others is also a core value in most other spiritual traditions (Steffen & Masters, 2005), and developed through prayer (Siegel & Germer, 2012).

In Western psychology, compassion is also viewed as being related to concentration and awareness. Compassion together with concentration and mindfulness/open awareness are the three core skills taught in mindfulness training according to Siegel and Germer (2012). Mindfulness, defined as non-judgmental present-centred awareness is believed to be the seed in which compassion and wisdom occur (Brach, 2012). According to Ozawa-de et al. (2012), compassion is a multi-dimensional construct which has an attentional dimension that measures how focused and long-lasting one's compassion is. Compassion could be for a fleeting moment or a stable trait depending on the attentional level. Tirsch (2010) suggested that neurophysiological evidence indicated that compassion and mindful awareness may be interrelated qualities of human functioning.

The relationship between compassion towards others and attentional ability has rarely been investigated. Evidence of the relationship between compassion towards others and trait mindfulness has been indirectly gathered. Jazaieri, McGonigal, Jinpa, Doty, Gross, & Goldin (2014) investigated the effects of a nine-week self- and other-focused compassion cultivation training programme. The results indicated that mindfulness as measured by the *Kentucky Inventory of Mindfulness Skills* (KIMS) increased after training. Since the relationship between compassion towards others

and mindfulness was not examined in their study, the positive relationship can only be presumed. Beitel, Ferrer, and Cecero (2005) found a low positive correlation between mindfulness measured by the MAAS and a subscale of an empathy scale named *Interpersonal Reactivity Index*. This subscale measures empathic feelings and concern for unfortunate others. Empathic concern is similar to compassion for others. Therefore, a positive correlation between mindfulness measured by the MAAS and compassion for others can be expected.

In the current study, ethics meaning compassion towards others had no correlation with concentration measured by the MAAS in any of the three samples, including current practitioners. Therefore, the results do not support the previously the hypothesised relationship between compassion towards others and attentional ability in either Buddhism or psychology perspectives. Since the current mindfulness practitioners had higher levels of compassion than non-practitioners in the current study, this may indicate that although compassion can be developed through spiritual practice, it is not directly associated with attentional ability. Compassion towards others was said not only to occur from meditation but also through interactions with others, and compassion is also affected by the style of attaching to a significant adult figure often formed during childhood (Siegel & Germer, 2012). This might mean that practitioners could develop compassion through fostering compassionate interactions with others in everyday life, apart from intentionally focusing attention to develop compassion in spiritual practice. Therefore, compassion may not be necessarily related to attentional ability, as compassion is not exclusively developed through compassion meditation and prayer in which focused attention is intensively involved.

Also, compassion towards others may not be related to attentional ability except where compassion towards others is intentionally developed through practices, such as through compassion meditation as practised in Buddhism. This is implied through the previous studies that have reported on the relationship between self-compassion and mindfulness in MBIs. Self-compassion is encouraged in MBIs for developing psychological flexibility, as some mental ill people often lack self-compassion (Neff, 2003). Studies of the effects of MBI have reported evidence on the positive relationship between self-compassion and trait mindfulness measured by the MAAS in participants of MBIs. Birnie, Speca, and Carlson (2010) investigated the impact of Mindfulness-Based Stress Reduction (MBSR), and found that self-compassion predicted positive changes in mindfulness measured by the MAAS. Shapiro, Brown, and Biegel (2007) also found increased self-compassion and mindfulness (measured by the MAAS) in the MBSR programme participants. In the current study, the spiritual practices, may not have involve formal compassion meditation or practices that explicitly contain an element of compassion towards others in them. Compassion could be positively correlated with attentional ability in advanced Buddhist practitioners who may have developed both compassion and attentional ability. Further investigation in people who practise traditional compassion meditation or investigation of participants in recently developed compassion-based therapeutic programmes (Jazaieri et al., 2013) may be needed for a better understanding of the relationship between compassion towards others and attentional ability. Besides, both the self-compassion scale and the MAAS focus on self-experiences, whereas compassion towards others emphasises others as the focal object. The self-focused feature of the MAAS scale could affect the correlation between attentional ability and compassion towards others.

Practitioners having more compassion towards others than non-practitioners in the current study may reflect the difference between *right mindfulness* in Buddhism and *mindfulness proper*. *Right mindfulness* in Buddhism refers to ethics and wisdom oriented mindfulness (Huxter, 2015). Mindfulness is right when it is ethical awareness aimed to develop wisdom. Thus, attentiveness can lead to wise/right mindfulness, including ethics and wisdom, through spiritual practices. That wise/right mindfulness had more beneficial effects than mindfulness proper on well-being, as indicated by the above positive impacts of compassion and spiritual intelligence beyond attentiveness on well-being. The higher levels of compassion and spiritual intelligence in practitioners than in non-practitioners, and the positive correlation between attentional ability and spiritual intelligence in practitioners may indicate that a multi-faceted mindfulness scale could be more suitable than a uni-dimensional scale to measure practitioners' mindfulness. The attention regulation model proposed by Carmody (2009) may be more useful for investigating the mechanism of mindfulness in non-practitioners or practitioners who aim to develop a certain level of calmness, rather than practitioners who pursue a spiritual goal of self-transcendence. Since practitioners had higher levels of compassion towards others and spiritual intelligence, but not attentional ability in daily life than non-practitioners, then the latter may be more difficult to develop through spiritual practices.

Spiritual intelligence was positively correlated with compassion towards others in the current study. According to the Dalai Lama, compassion and wisdom in Buddhism are inseparable as “one must understand the nature of the suffering from which we wish to free others” (The Dalai Lama, 2005, p.49). The insight of “no-self”

supports ethics by undercutting unwholesome qualities such as anger due to the ego being offended (Harvey, 2000). The *right resolve* that belongs to wisdom division of the *Noble Eight-fold Path* refers to “[B]eing resolved on renunciation, on freedom from ill will, on harmlessness” (SN45:8, translated by Thanissaro from the Pali, 2013). The *right resolve* helps the mind to refrain from being ill willed and cruel, instead right resolve works towards compassion towards others and loving-kindness (Harvey, 2000). In addition, the essence of wisdom in Taoism contains compassion (Siegel & Germer, 2012).

In psychology, some definitions of compassion explicitly link compassion to insight. For example, one definition of compassion is “the feeling that arises from the realisation of the deeper reality that we are all connected, we are all one” (Wang, 2005, p.104). Compassion towards others also has been incorporated into some definitions of wisdom in psychology (Siegel & Germer, 2012). For instance, Adelt (2004) suggested that the affective aspect of wisdom is sympathetic and compassionate love for others. She argued that wisdom not only refers to intellectual or theoretical knowledge, but also concerns the meaning of life which is oriented towards the common good. Wisdom is expressed through an individual’s daily conduct and personality (Ardelt, 2004). Hence, compassion towards others and wisdom may be interrelated concepts in Buddhism and perhaps Psychology. The positive correlations between ethics/compassion towards others and wisdom/spiritual intelligence in the current study supports both Buddhist teachings, and theories in psychology.

All the three proposed components of mindfulness in the current study contributed to well-being when the components of mindfulness were investigated independently. But the results of path analysis showed that compassion towards others was no

longer a significant predictor of well-being in the model where the three components of mindfulness were presented together. Since compassion predicted well-being beyond attentional ability/the MAAS, the non-significant results may have resulted from including spiritual intelligence into the model. This indicates that the beneficial effect of compassion on well-being was overtaken by spiritual intelligence, not attentional ability.

According to Wallace and Shapiro (2006), Buddhist psychological well-being is a mental balance that includes conative, attentional, cognitive, and affective balances. Conative balance refers to intention and volition of thought and action that is oriented towards not only ones self, but also the happiness of others'. Affective balance is the emotional stability that is free from psychological symptoms and unwholesome attitudinal states such as envy and hostility. The conative aspect and affective balance are not contained in the well-being scale used in the present study (Keyes, 2009). Since compassion towards others is related to conative well-being and affective balance, compassion towards others may remain its predictive power for well-being after spiritual intelligence being added to the model, if Buddhist well-being instead of secular well-being is assessed. In addition, although ethics is the foundation of concentration and wisdom, compassion becomes redundant after spiritual intelligence is included in the model. This may indicate that ethics may be embedded in wisdom, once wisdom has been developed. In other words, wisdom leads to the establishment of ethics. A wise person must be an ethical person. Having attentional ability, however, does not necessarily mean the presence of ethics. The implication is that developing concentration and wisdom is the way to maximise the benefits of mindfulness on well-being. Developing concentration alone has less

beneficial effects on well-being, compared to developing both concentration and ethics, and both concentration and wisdom.

Among the three proposed components of mindfulness, the association between wisdom measured by spiritual intelligence and ethics measured by compassion existed not only in practitioners but also in the general population. Not in any sample was ethics measured by compassion related to concentration measured by attentional ability, while wisdom measured by spiritual intelligence was associated with concentration measured by attentional ability in practitioners only. Therefore, the association between ethics and wisdom in Buddhism may apply to the wider population, whereas the relationship between concentration and wisdom, and between ethics and concentration in Buddhism may only apply to spiritual practitioners. Ethics and wisdom seemed to co-exist and enhance each other. But both of them may not be naturally associated with the ability to attend, and only be related to it when attentional ability has been systematically trained. This implies that aspects of mindfulness may vary in different groups. The proposed mindfulness construct may be more suitable for practitioners than non-practitioners.

#### ***6.4.2 Discussion on the mediator of non-attachment***

Non-attachment fully mediated between compassion for others and well-being, and partially mediated the positive effects of both concentration and wisdom on well-being, when the three proposed components were investigated individually. In the model that contains all the three proposed components of mindfulness, the mediation effect of non-attachment was not present between compassion for others and well-being. Compassion did not predict well-being. But the mediation effects of non-attachment were present between both attentional ability and spiritual intelligence

and well-being. Further investigation showed that attentional ability and spiritual intelligence tended to develop different aspects of well-being too. Attentional ability had more effects on improving hedonic well-being than eudaimonic well-being, whereas spiritual intelligence impacted more on eudaimonic well-being than did attentional ability. The effect of attentional ability on hedonic well-being is aligned with Buddhist theory that concentration is associated with pleasant feelings. For example, right concentration is described in the canon as follows:

And what is right concentration? There is the case where a monk — quite withdrawn from sensuality, withdrawn from unskillful (mental) qualities — enters & remains in the first jhāna: rapture & pleasure born from withdrawal, accompanied by directed thought & evaluation. With the stilling of directed thoughts & evaluations, he enters & remains in the second jhāna: rapture & pleasure born of composure, unification of awareness free from directed thought & evaluation — internal assurance. With the fading of rapture, he remains equanimous, mindful, & alert, and senses pleasure with the body. He enters & remains in the third jhāna, of which the Noble Ones declare, 'Equanimous & mindful, he has a pleasant abiding. (DN22, translated by Thanissaro from the Pali, 2000).

Spiritual intelligence had more impact on eudaimonic well-being than hedonic well-being. This indicates that wisdom is more related to social and psychological aspects of well-being than emotional aspects of well-being. In Buddhism, although hedonic happiness can result from meditation, the ultimate goal is to move beyond pleasant feelings to develop wisdom for self-transcendence (Wallace & Shapiro, 2006). Wisdom is related to a mature personality and positive social relations (Ardelt, 2008).

With self-transcendence and personal growth, people are selfless, sympathetic, and compassionate to others. In addition, with an insight of reality, people do not “grasp” any more and are affected less by external objects and events (Sahdra et al., 2010). The result is autonomy and control, which are aspects of the psychological aspects of eudaimonic well-being according to Keyes (2005).

In the current study, the effects of attention on hedonic well-being were partially mediated by non-attachment. This indicates that other mechanisms were involved in the process. It is different to attentional ability however, for there are no mechanisms, other than non-attachment, operating between spiritual intelligence and hedonic well-being. Non-attachment fully mediated the positive relationship between spiritual intelligence and hedonic well-being. This suggested that developing insight of self and life leads to letting go of attachments to various aspects of life, which in turn brings hedonic happiness.

The relationships between ability to attend and eudaimonic well-being, and between spiritual intelligence and eudaimonic well-being were partially mediated by non-attachment. However, the mediation effects in relation to social aspects of eudaimonic well-being were different. The positive relationship between attentional ability and social well-being was fully mediated by non-attachment, whereas the positive link between spiritual intelligence and social well-being was partially mediated. This indicates that attention and awareness of experiences in everyday life fully improved social well-being through non-attachment to life experiences. Other factors apart from non-attachment, however, were underlying the beneficial effect of spiritual intelligence on social well-being.

Non-attachment in the current study partially mediated both the effects of attentional ability and spiritual intelligence on psychological aspect of eudaimonic well-being. Psychological well-being items purport to assess self acceptance, environmental mastery, positive relations with others, personal growth, and purpose in life (Keyes, 2009). The results of the present study support the Korean study mentioned early in this chapter (Ju & Lee, 2015), which indicated that the partial mediation effect of non-attachment between attentional ability and psychological well-being may be cross-cultural.

Generally, non-attachment in the current study successfully mediated the positive relationship between the proposed mindfulness components and well-being. The results supported the Buddhist teachings, and the discussions in psychology on the mediating role of non-attachment (e.g. McIntosh, 1997; Brown et al., 2007a). The results also supported previous empirical studies such as Coffey et al. (2010) and Ju and Lee (2015), although a different scale was employed by Coffey et al. (2010) to measure non-attachment. As mentioned early in this chapter, Coffey and Hartman (2008) found evidence for both full and partial mediations of non-attachment. The partial mediation of non-attachment was reported by Ju and Lee (2015). In the current study, both partial and full mediation models had good model fits. The partial mediation model, however, had a better model fit than the full mediation model. Thus, the partial mediation model seems to explain the role of non-attachment in mediating between mindfulness and well-being better than the full mediation model.

## **6.5 Limitations**

There are some limitations of the current study. Firstly, Rasch converted scores were used for the MAAS and the NAS in the current study. Ideally, scores of all scales were converted to Rasch scores. Due to the scope of the present thesis, Rasch converted scores for the RLE, the SCBCS, the SISRI, and the MHC were not provided. Future studies can employ Rasch converted scores for all the scales to test the model. Secondly, the response rate of the national survey in the current study is 11%. The response rate is not high, perhaps because that the survey is long and time consuming. Due to limited funding, offering incentives higher than the amount in the current study was impossible. The response rate may be increased if more incentives were provided.

Since ethics, concentration, and wisdom in the study were defined and measured by the selected scales used, it should be noted here that the results are only indicative for the relationships between the three proposed components of mindfulness. This is always a problem where there are several instruments in a particular field to choose from. Compassion towards others is only one of the qualities that contribute to developing ethics (Harvey, 2000). Other values such as generosity and lovingkindness are also important to ethics. The MAAS only measures attentiveness in everyday life and not other forms of concentration such as absorption in meditation. Spiritual intelligence may not cover all the aspects of Eastern wisdom either. In short, to what extent the scales used accurately represent ethics, concentration, and wisdom derived from Buddhism cannot be confidently assured. In addition, the SCBCS and the SISRI are not widely used. The original SCBCS did not have a satisfactory model fit, although the fit indices of the modified one improved substantially. Their psychometric properties may need more investigation or refine

them. In short, the current study is the first attempt to test ethics, concentration, and wisdom as potential components of secular mindfulness construct, and the above discussions on them are based on performances of their proxies in the current study only.

## **6.6 Conclusion**

The present study proposed and tested a model developed by the author and inspired by Buddhist theories in which non-attachment mediates the beneficial effects of mindfulness on well-being. The proposed mindfulness construct underlying the model is based on Buddhist teachings and the results of Study 1. It includes the missing elements of ethics and wisdom into usual western psychology mindfulness construct. The proposed mindfulness construct consists of concentration measured by attentional ability in everyday life, ethics measured by compassion towards others, and wisdom measured by spiritual intelligence. The results indicated that both compassion towards others and spiritual intelligence contributed to well-being beyond attentional ability. Thus, integrating ethics and wisdom with attentional ability may bring more positive effects on well-being than attentional ability alone. Within the three predictor variables, attentional ability and spiritual intelligence contributed to well-being more than compassion towards others. Since practitioners in the study had higher levels of compassion towards others, and spiritual intelligence than non-practitioners, ethics and wisdom as beneficial qualities that could be developed through mindfulness practices.

Compassion towards others, attentional ability, and spiritual intelligence were not inter-correlated in the current study. The correlations between the three predictor

variables of the model in practitioners and general population suggested that the mindfulness construct may be more complex in practitioners than among the general population. The result of the current study is indicative only for relationships between ethics, concentration, and wisdom. Since ethics, concentration, and wisdom as components of mindfulness have a strong theoretical basis, more investigations are needed to explore their associations in a secular context.

Non-attachment mediated well between the three predictors and well-being, when the three predictors were investigated independently. When the model containing the three predictors was tested, however, compassion towards others was not a significant predictor of well-being. Although compassion towards others had positive effects on well-being, it was no longer an important factor to well-being once spiritual intelligence has been developed. This finding did not suggest that ethics (compassion for others) is a neglectable factor for well-being. Rather, it may simply imply that wisdom (spiritual intelligence) is more powerful than ethics in terms of improving secular well-being. Therefore, developing both concentration and wisdom may be an optimal way to improve well-being. In addition, non-attachment fully mediated between ability to attend and social well-being, and between spiritual intelligence and hedonic well-being. Generally, non-attachment partially mediated the effects of mindfulness on well-being. The partial mediation effects of non-attachment suggested that other mechanisms may play a role in mediating the positive relationships between mindfulness and well-being.

## **Chapter 7: Integrated Discussion of Studies 1 and 2 and Future Directions**

### **7.1 Summarising and integrating Studies 1 and 2**

This thesis responded to the need for more investigations into the conceptualisation of mindfulness. Mindfulness is a central element of *Mindfulness-Based Interventions* (MBIs), in which mindfulness is commonly viewed, among other characteristics, as non-judgmental present-centred awareness (Kabat-Zinn, 1990). Despite the widely acknowledged benefits of mindfulness, there has been little consensus on the construct of mindfulness. Mindfulness in psychology has been treated as a skill (Baer, Smith, & Allen, 2004), a trait (Brown & Ryan, 2004), and a state (Lau et al., 2006). Mindfulness scales also vary from the uni-dimensional (MAAS: Brown & Ryan, 2004) to the multi-dimensional *Five Facet Mindfulness Questionnaire* (FFMQ: Baer, Smith, Hopkins, Krietemeyer, & Toney, 2016). Since mindfulness in psychology was inspired largely from Buddhism (Kabat-Zinn, 2011), this thesis aimed to contribute to the conceptualisation of mindfulness in psychology by investigating the differences in mindfulness as constructed in Buddhism and psychology. Many differences highlighted in the present thesis provide avenues for future research. Several aspects unique to Buddhist mindfulness practice may be linked to psychological benefits in secular contexts that are not evident in Western therapeutic circles. The intent of the thesis was to contribute to investigating to what extent the secularisation of mindfulness practice in Western psychology may have resulted in the loss of some potentially beneficial characteristics of mindfulness as espoused by Buddhist practice and suggest areas for future conciliation.

Mindfulness is the English translation for the Pali word *sati*, which literally means *remembering* (Gethin, 2001). In Buddhism, right mindfulness is one of the eight factors of the *Noble Eight-Fold Path* that represents three-fold training in ethics, concentration, and wisdom to achieve enlightenment (Gethin, 1998). Right mindfulness refers to the combination of wholesome mental qualities with a state of mind that is free from desire and discontent, and directed towards the body, feelings, and mental objects (Anālayo, 2003). Right mindfulness together with right effort and right concentration constitute the concentration group of the *Noble Eight-fold Path*. These three path factors work together to support the development of ethics and wisdom, in the sense that none of the factors of the *Noble Eight-fold Path* are isolated elements (Gethin, 2001). Irrespective of any differences in Buddhist traditions and practices, ethics, concentration, and wisdom are always conjointly required to be developed for the ultimate goal of enlightenment (Gethin, 1998).

Present-day MBIs have been heavily influenced by the *Satipatthāna* approach, particularly through drawing on the teaching of the modern Burmese insight meditation school (Samuel, 2015). In the context of Burmese insight meditation, the German-born Theravāda monk Nyanaponika Thera typically referred to bare attention in his teachings of mindfulness, although he never intended for this to be a translation of the term *sati* (Bodhi, 2011). Bodhi (2011) argued that discourse about bare attention may be useful as a procedural directive or technique for cultivating mindfulness but cannot be a complete conceptualisation of mindfulness itself. After all, Buddhist mindfulness practice involves evaluation of wholesome and unwholesome mental states for ethical practice and thus cannot simply be bare attention to stimuli as they present themselves.

The preceding literature review (Chapters 1 to 4) suggested that there were considerable differences between mindfulness in psychology and mindfulness in Buddhism. Study 1 confirmed these theoretical arguments with empirical evidence by using the four commonly used mindfulness questionnaires as a discussion prompt to interview senior clergy. Eight themes in relation to the elements and features of Buddhist mindfulness were extracted, which provided valuable empirical data. The results indicated that Buddhist understandings of mindfulness contain elements of attentional flexibility, skilfulness, purposefulness, wisdom, and ethics. Buddhist mindfulness not only involves awareness of the present but also the past and future. It not only focuses on self but also on others. The results suggested that ethics and wisdom of Buddhist mindfulness were largely missing from the conceptualisation of mindfulness in psychology.

Based on the findings of Study 1 and Buddhist theories reviewed in Chapters 1, Study 2 proposed and tested a model in which non-attachment mediated between mindfulness and well-being. The proposed model included ethics, concentration, and wisdom as predictor variables. Concentration was measured by *The Mindful Attention Awareness Scale* (MAAS) based on the results from Study 1, so that the associations between mindfulness in psychology and ethics, and between mindfulness in psychology and wisdom could be investigated. Whether ethics and wisdom predicted well-being beyond mindfulness in psychology was also investigated, in order to identify the potential value of adding ethics and wisdom into the current secular mindfulness construct. In addition, mediation effects of non-attachment between the three predictor variables and well-being were tested. In short, Study 2 was to investigate the mechanisms of mindfulness, and whether the missing components of ethics and wisdom could be extended from Buddhist mindfulness into

secular mindfulness, by testing a model developed from theory and empirical data about Buddhist mindfulness. The model was designed to be implemented in a secular context. Thus components of the model were assessed by qualities that apply to the general population instead of Buddhists only.

In this model, ethics (measured by compassion towards others) showed weak positive effects on well-being. It became redundant after wisdom (measured by spiritual intelligence) was included in the model. Also, the model containing wisdom and concentration had a better fit than the model that included ethics, concentration, and wisdom. This result may suggest that ethics was not an important component of mindfulness that contributed to secular well-being. But wisdom, on the other hand, was a strong predictor of non-attachment and well-being in the model. This finding indicates that wisdom could be extended from Buddhism to a secular context. It may be a component of mindfulness that is potentially useful for psychology. Concerning suitable mediators, non-attachment in Study 2 showed partial mediation between mindfulness and well-being. This suggests that other mediators are likely to exist. Although a complete model has not been achieved as was set out to do, Study 2 provided useful information on potential components of mindfulness, and mechanisms of mindfulness.

## **7.2 Critical review of previous models**

Mechanisms outlining how mindfulness may exhibit beneficial effects on well-being have been explored both theoretically and empirically by other studies. Various models including various mindfulness constructs and mediators between mindfulness and health-related outcomes have been proposed (e.g. Shapiro, Carlson, Astin, & Freedom, 2006; Carmody, 2009; Kang, Gruber, & Gray, 2013). To compare

with the model in Study 2, a critical review (Grant & Booth, 2009) of previous studies that theoretically explored or empirically investigated the mechanisms of mindfulness was conducted. The results will be presented and discussed in the following sections. The comparisons aim to provide insight for future research on the conceptualisation of mindfulness and models of the mechanisms of mindfulness.

### ***7.2.1 Method of selection***

Published articles that had the term of “mindfulness” in their titles, and “mechanism” in their abstracts were selected from PsycINFO. Then, articles that were not written in English were excluded. In addition, articles that explored mechanisms of mindfulness *practice* rather than mindfulness as a trait or skill were excluded, so that the selected models had a similar structure with that of Study 2 (Mindfulness→Mediator→Outcomes), not (Mindfulness practices→Mindfulness→Outcomes). Articles that investigated neurological mediators were also excluded to focus on psychological and cognitive mechanisms for possible missing mediators in Study 2. Another criterion for selection was that studies were required to be health-related and conducted with adults.

### ***7.2.2 Results***

In total, there were 400 articles meeting the initial search criteria of using the two key words. Thirty-five studies that met all the criteria are listed in Table 7.1. Most studies were empirical, and eight studies focused on proposing a theoretical model of the mechanisms of mindfulness, or discussions about mechanisms of mindfulness. The construct of mindfulness was represented and measured by existing trait mindfulness scales in psychology in almost all empirical studies, except for Laurent, Laurent, Lightcap, and Nelson (2016) who used the *Toronto Mindfulness Scale*

(TMS), a state mindfulness scale, to investigate the effects of state mindfulness during relationship conflict on well-being. Among the studies that employed a trait mindfulness scale, nearly all studies employed the MAAS and the FFMQ. An exception was Kraemer, O’Bryan, and McLeish (2016) who used the *Cognitive and Affective Mindfulness Scale-Revised* (CAMS-R). They justified the use of the CAMS-R by stating that the FFMQ was a skill-based measure while mindfulness in their study was treated as a global and synergistic process. They did not employ individual facets of the CAMS-R for model analyses. Rather, a total score of the CAMS-R was used.

**Table 7.1**

*Studies investigating and exploring the mechanisms of mindfulness. Empirical studies are listed first, followed by theoretical studies (with asterisk sign). Empirical studies are grouped based on types of outcome variables first and then are listed in order of publication year. Theoretical studies are listed in order of publication year.*

Authors	Mindfulness Scale/construct	Mediators of mindfulness	Outcomes/Sample
Howell, Digdon, & Buro (2010)	MAAS	Sleep related self-regulation	Well-being (MHC-40)/ (334 undergraduate students)
Chang, Huang, & Lin (2015)	MAAS	Basic psychological needs fulfillment (i.e., autonomy, relatedness, and competence)	Hedonic and eudaimonic well-being (194 undergraduate Chinese students; 281 undergraduate Chinese students for study 2)
Laurent, Laurent, Lightcap, & Nelson (2016)	The curiosity component of TMS The de-centering component of the TMS (No association with post- conflict affect)	Increased positive affect surrounding the conflict (Full mediation) Negative post-conflict effects (No effects)	Well-being (WHO-WB)/ (114 heterosexual couples)
Coffey & Hartman (2008)	MAAS	Emotion regulation, non-attachment → rumination	Psychological distress <sup>^</sup> (204 undergraduate students; 258 undergraduate students for study 2)
Carmody, Baer, Lykins, and Oledzki (2009)	FFMQ (Observing, non-judging, & non-reactivity subscales) & Decentering	Values clarification, increased in cognitive, emotional and behavioural flexibility	Psychological symptoms and perceived stress <sup>^</sup> / (309 MBSR participants)
Coffey et al.	Attention: FFMQ-	Study 1: Clarity about one’s	Study 1: Regulation of negative affect

(2010)	Observing facet  Acceptance: FFMQ-Non-judging facet and DERS-Acceptance	internal experience Study 2: Clarify about one's internal life, the ability to manage negative emotions, non-attachment → rumination	Study 2: Psychological distress <sup>^</sup> , flourishing mental health/(399 undergraduate students; 413 undergraduate students)
Kiken & Shook (2012)	MAAS	Negatively biased cognition	Emotional distress <sup>^</sup> /(181 undergraduate students)
Prakash, Hussain, & Schirda (2015)	MAAS	Emotion regulation	Perceived stress <sup>^</sup> /(50 young adults and 50 older adults)
Rodriguez, Xu, Wang, & Liu (2015)	FFMQ (Excluding non-reactivity scale due to low reliability)	Self-acceptance (Partial mediation)	Perceived stress <sup>^</sup> / (132 Chinese university students)
Bice, Ball, & Ramsey (2015)	MAAS	Need fulfilment (belongingness, self-esteem, control and meaningful existence) (Partial mediation)	Mental health (negative affect and depressive symptoms) <sup>^</sup> (399 university students)
Hayes-Skelton & Graham (2013)	FFMQ (Excluding non-reactivity scale due to conceptual overlapping with decentering)	Decentering (Partial mediation)	Social anxiety <sup>^</sup> (1097 university students)
Kraemer, O'Bryan, & McLeish (2016)	CAMS-R	Intolerance of uncertainty	Health anxiety <sup>^</sup> (452 undergraduate students)
Ostafin, Brooks, & Laitem (2014)	FFMQ (Non-judging & Acting with awareness) (Other subscale were excluded: Observing had positive correlation with anxiety, describing had no correlation with anxiety and mediator, non-reactivity had low internal consistency, had not correlation with anxiety)	Affective reactivity (Partial mediation)	Anxiety <sup>^</sup> (80 undergraduate students for study 1; 71 undergraduate students for study 2)
Desrosiers, Vine, Klemanski, & Nolen-Hoeksema (2013)	FFMQ (Total score)	1: Worry (No effects: Rumination; reappraisal; Non-acceptance) 2: Rumination and reappraisal (No effects: Non-acceptance and worry)	Anxiety <sup>^</sup> Depression <sup>^</sup> / (187 adults seeking treatment)
Pearson, Brown,	MAAS	Reperceiving /Decentering → Purpose in life	Depressive symptoms <sup>^</sup> , anxiety symptoms*, alcohol-related problems <sup>^</sup>

Bravo, Witkiewitz (2015)			(1277 university students)
Nitzan-Assayag, Aderka, & Bernstein (2015)	MAAS	1: Cognitive fusion 2: Cognitive suppression	1: Distress post-trauma <sup>^</sup> (negative affect, depression, and posttraumatic stress symptoms) 2: Negative self-referential processes <sup>^</sup> (Rumination and anxiety sensitivity) / (151 from local community after fire)
Kearns et al. (2016)	FFMQ	Rumination (No mediation effects)	Depressive relapse <sup>^</sup> / (203 MBCT participants)
Hill & Updegraff (2012)	FFMQ (Used total score although only non-reactivity had association with emotion differentiation; Non-reactivity, describing, and non-judging predicted emotion regulation)	1: Emotion differentiation 2: Emotion regulation	1: Emotion lability <sup>^</sup> 2: Positive emotion differentiation; negative emotion differentiation; Negative emotion lability <sup>^</sup> / (96 university students, 70 females)
Wang, Xu, & Lou (2016)	FFMQ (Observing and non-judging were not correlated with emotional resilience but were included into analysis)	Emotional resilience	Emotion / (421 undergraduate students)
Peters et al. (2015)	FFMQ (Excluding observing due to nonsignificant or small positive correlations with anger rumination and aggression variables; Describing was excluded as it did not predict aggression variables)	Anger rumination	Aggression <sup>^</sup> / (823 university students)
Eisenlohr-Moul, Peters, Jr, & DeWall (2016)	FFMQ (Non-reactivity, act with awareness, and non-judging)	Anger rumination	Anger expression and aggressiveness <sup>^</sup> (86 university students)
Shorey, Seavey, Quinn, & Cornelius (2014)	1. FFMQ (Non-reactivity and act with awareness) 2. FFMQ (Non-reactivity, non-judging, and act with awareness) (None of the facets were associated with outcome variables; Describing and non-judging were not associated with less physical aggression perpetration)	Anger management (Full mediation)	1 Psychological aggression perpetration <sup>^</sup> 2. Physical aggression perpetration <sup>^</sup> / (481 female undergraduate students)
Garland, Roberts-Lewis,	FFMQ (Used total score although observing facet was not correlated with	Negative affect and cognitive reappraisal (Partial mediation)	Alcohol/drug craving <sup>^</sup> / (165 individuals who met substance dependence diagnosis criteria)

Kelley, Tronnier, & Hanley (2014)	craving, and non-judging was negatively associated with readiness to change)	Readiness to change (no effects)	
Lisle, Dowling, & Allen (2014)	MAAS	Rumination, emotion dysregulation and thought suppression ---->Psychological distress	Gambling behaviour^/ (78 problem gamblers)
Schellhas, Ostafin, Palfai, & Jong (2016)	FFMQ (Acting with awareness subscale)	High-level action identification (Partial mediation)	Dyscontrolled drinking^/ (125 undergraduate students)
Vinci, Spears, Peltier, & Copeland (2016)	FFMQ (Acting with awareness and non-judging individually; Acting with awareness was the only one when all subscales were entered simultaneously) (Other subscales were excluded as they had no correlation with outcome variable)	Drinking motive	Problematic alcohol use^/ (207 undergraduate students engaging in problematic drinking)
Heppner et al. 2016	MAAS	1: Lower negative emotional experiences, Lower affect regulation expectancies of smoking , Higher perceived social support 2: Lower negative affect	1: Early smoking cessation^ 2: Long-term abstinence^ / (399 African American seeking smoking cessation treatment)
Shapiro et al. (2006)*	Intention, attention, attitude	Reperceiving ---->self-regulation, values clarification, cognitive emotional and behavioural flexibility, and exposure	Well-being
Garland (2007)*		Augmenting positive reappraisal, mitigating catastrophising, engendering self-transcendence	Coping processes
Carmody (2009)*	Attention regulation	Meta-attention/meta-cognitive awareness/decentering	Well-being
Dorjee 2010*	1: Intention and context of mindfulness practice 2: Bare attention 3: Attentional control and meta-awareness 4: Wholesome emotions	1: Motivation 2: Non-elaborative processing 3: Improvement of attentional ability and monitoring 4: Reduction in ruminative thinking, exposure with acceptance, positive mental	Well-being

	5: Ethical discernment	states 5: Altruism and decision making	
Holas & Jankowski (2013)*	Meta-awareness, basic awareness, tacit monitoring, executive functions and attentional orienting processes	Decentering, self-compassion, and reduction of self-focused attention	Cognitive, emotional, behavioural and interpersonal effects
Kang, Gruber, & Grey (2013)*	Awareness, attention, focus on the present, acceptance	De-Automatisation	Well-being
Teper, Segal, & Inzlicht (2013)*	Present-moment awareness, non-judgmental acceptance	Executive control	Emotion regulation
Jankowski & Holas (2014)*	Meta-cognitive knowledge, metacognitive experiences, metacognitive skills	Meta-cognitive insight, meta-cognitive mode of information processing, re-perceiving	Health problems <sup>^</sup> , well-being

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TMS: The Toronto Mindfulness Scale; CAMS-R: Cognitive and Affective Mindfulness Scale-Revised; DERS: Difficulties in Emotion Regulation Scale; WHO-WB: World Health Organisation Well-being Scale; MBCT: Mindfulness-Based Cognitive Therapy (MBCT); <sup>^</sup> Negative correlation with mindfulness; \* Not an empirical study

Rather than general well-being, the outcome variables in the empirical studies reviewed were typically specific psychological problems such as depression (e.g., Desrosiers et al., 2013), anxiety (e.g., Ostafin, Brooks, & Laitem, 2014), and addictive behaviours (e.g., Vinci, Spears, Peltier, & Copeland, 2016). The proposed mediators were psychological and cognitive except in a study by Howell, Digdon, and Buro (2010) who tested the effects of sleep self-regulation between mindfulness and well-being. Non-attachment as a mediator was found in two empirical studies (Coffey & Hartman, 2008; Coffey et al., 2010), where it was proposed together with other mediators. In Coffey and Hartman (2008), the other mediator was emotion regulation. In Coffey et al. (2010), clarity about one's internal life, and the ability to manage negative emotions were mediators together with non-attachment. Combining

two studies, emotion regulation, and clarity about one's internal life were the mediators in addition to non-attachment.

There is no particular pattern of mediators evident in the empirical studies listed in Table 7.1, and a variety of mediators such as emotion regulation (e.g., Hill & Updegraff, 2012), non-attachment (e.g., Coffey & Hartman, 2008), decentering (e.g., Pearson, Brown, Bravo, & Witkiewitz, 2015), and self-acceptance (e.g., Rodriguez, Xu, Wang, & Liu, 2015) were proposed as mediators between mindfulness and health-related outcomes. In addition, basic psychological needs fulfilment was also proposed as a mediator by Bice, Ball, and Ramsey (2015), and Chang, Huang, and Lin (2015). Needs fulfilment, however, was operationalised somewhat differently in these two studies. Bice et al. (2015) referred to four fundamental human needs including belongingness, self-esteem, control, and meaningful existence. In Chang et al. (2015), basic needs fulfilment was autonomy, relatedness, competence. Mediators can be specific in relation to outcome variables. For example, anger management was tested and confirmed as a mediator of the inverse relationship between mindfulness and perpetuating psychological aggression (Shorey et al., 2014). Vinci et al. (2016) reported that drinking motives mediated the positive effects of mindfulness on reducing problematic alcohol use.

In contrast to various specific outcome variables in empirical studies, the outcome in theoretical models was typically well-being. Additionally, compared with the variety of mediators tested in empirical studies, the main mediator in theoretical studies was re-perceiving/de-centering/de-automatisation (e.g., Shapiro et al., 2006; Kang et al., 2013). These, all referred to a shift in perception towards an objective way of experiencing instead of being identified with feelings and thoughts. Mediators that are specifically related to each proposed component of mindfulness were not

presented in studies that described theoretical models without any data, except for Dorjee (2010) who discussed mechanisms that are related to each of the five dimensions of mindfulness such as intention and the context of mindfulness practice. For example, intention and the context of mindfulness practice were said to motivate mindfulness practice, which may influence outcomes of practice.

In theoretical studies, all mindfulness constructs were multi-faceted ones, except for Carmody (2009) who proposed attention regulation as the only component of mindfulness. Mindfulness constructs in models were proposed mainly based on the definitions and discussions of mindfulness in psychology. An exception was Dorjee (2010) who explicitly included aspects of Buddhist mindfulness such as wholesome emotion and ethical discernment. The proposed components of secular mindfulness in theoretical studies were not necessarily consistent with the facets of the existing mindfulness scales. For example, Shapiro et al. (2006) proposed a model in which mindfulness encompassed *intention*, *attention*, and *attitude*. Carmody, Baer, Lykins, and Oledzki (2009) tested this model by employing the *observing* facet of the FFMQ to measure *attention*, and the *non-judging*, and *non-reactivity* facets of the FFMQ to measure *attitude*. The *intention* component of mindfulness proposed by Shapiro et al. (2006) was measured by some questions developed by Carmody et al. (2009) for this study. Excluding the *describing* and *acting with awareness* facets of the FFMQ suggested that these two facets were not treated by Carmody et al. (2009) as being consistent with the mindfulness construct proposed by Shapiro et al. (2006).

### ***7.2.3 Discussion of previous studies in relation to Study 2***

The sample size (546) of Study 2 is relatively large compared with previous studies in Table 7.1. The sample of Study 2 included a random general population sample,

and a convenience sample that involved Buddhists recruited with the help of New Zealand Buddhist council. Most studies in Table 7.1 used convenient university student samples with sample sizes varying from the smallest sample size of 71 (Ostafin et al., 2014), to the largest sample size of 1277 (Pearson et al. 2015). There was no empirical study that involved a random sample. Prakash et al. (2015) selected a matched sample that included 50 young adults and 50 older adults from a large study. They, however, did not mention how the sample was selected. There were a few studies that had clinical samples. For example, participants in Desrosiers et al. (2013) were 187 adults seeking treatment at a mood and anxiety disorders clinic. The samples in Carmody et al. (2009) and Kearns et al. (2016) were 309 and 203 participants of MBSR and MBCT, respectively. In addition, studies investigated the effects of mindfulness on addictive behaviours such as gambling (Lisle et al., 2014), and substance dependence (Garland et al., 2014) recruited people who had those addictions. For studies that used convenience samples, future studies could use large random samples to investigate to examine if the results can be replicated.

Dorjee (2010) was the only article in Table 7.1 that integrated Buddhist mindfulness with mindfulness in psychology. Unlike Study 2 of this research, Dorjee (2010) did not propose a clear testable model that contained the mindfulness construct, mediator(s), and outcomes. Rather, she presented five components of mindfulness in both contexts of MBSR and Buddhist training, discussed associated cognitive and neural mechanisms, and suggested future research based on the differences in mindfulness between the two contexts. The five dimensions of mindfulness are intention and context of mindfulness practice, bare attention, attentional control and meta-awareness, ethical discernment, and wholesome emotions cultivation.

Dorjee (2010) suggested that Buddhism and psychology put weight on those five dimensions differently. For example, bare attention was said to be emphasised more in the context of MBSR than that of Buddhist mindfulness training. While bare attention in MBSR results in a non-elaborative processing mode, Buddhist training results in flexible switching between non-elaborative mode and wholesome elaborative thoughts. Ethical discernment was said to have a central role in Buddhist mindfulness, whereas ethics may be implicitly involved in MBSR. How ethics contributed to well-being was unexplored in psychology according to Dorjee (2010). Likewise, explicitly cultivating wholesome emotions such as loving kindness and compassion is an important aspect of Buddhist mindfulness. In psychology, wholesome emotions were said to be mainly developed implicitly, and are sometimes treated as an outcome of mindfulness. Dorjee (2010) pointed out that both MBSR and Buddhist mindfulness practices are practised with intention. Intentions in these two contexts, however, were different, which may in turn influence outcomes of mindfulness practices. According to Dorjee (2010), mindfulness in the context of MBSR is linked to both attention control and meta-awareness. Buddhist mindfulness, however, is characterised by attentional control rather than meta-awareness. Dorjee (2010) further claimed that the central element of mindfulness was attentional control which had functions of selective attention and sustained attention. In Study 2, of this research, ethics, concentration, and wisdom were treated equally importantly as parts of mindfulness.

### ***7.2.3.1 Potential additional mediators between mindfulness and well-being in***

***Study 2.*** The partial mediation of non-attachment between the three predictor variables, and well-being of the model proposed in Study 2 may suggest that there are other mechanisms operating in relation to the beneficial effects of mindfulness on

well-being. Non-attachment in Coffey and Hartman (2008) and Coffey et al. (2010) was proposed as a mediator along with emotion regulation (Coffey & Hartman 2008; Coffey et al. 2010), and clarity of internal experiences (Coffey et al. 2010) between mindfulness and outcomes. The outcome variable in Study 2 reported here was well-being, which was similar to outcome variables of psychological stress, and flourishing mental health in those two studies. The mediators of emotion regulation, and clarity of internal experiences could be missing mediators of Study 2, and may be included into the model in Study 2 in future studies to investigate whether full mediation can be achieved.

Non-attachment in Study 2 partially mediated the effects of attentional ability measured by the MAAS on well-being. Based on results from Chang et al. (2015), fulfilling three universal basic psychological needs could be a missing mediator of Study 2. Chang et al. (2015) tested a hypothesis that fulfilling three universal basic psychological needs mediated the effects of mindfulness measured by the MAAS on well-being. The three universal psychological needs are autonomy, competence, and relatedness according to Ryan et al. (2008). The need for autonomy refers to feeling having choices and volition for ones own behaviour and actions. The need for competence involves a sense of self-efficacy and confidence in facing the internal and external environments. The need for relatedness refers to a sense of being connected to and supported by others. The results showed that the basic psychological needs fully mediated hedonic well-being and partially mediated eudaimonic well-being (Chang et al., 2015). Since non-attachment in Study 2 partially mediated between attentional ability measured by the MAAS and well-being, fulfilling three universal psychological needs could be added into the model to see whether the partial mediation effects would be improved.

In Study 2, non-attachment partially mediated the effects of spiritual intelligence on social well-being. A missing mediator between spiritual intelligence and social well-being could be *easing of self-identification/ego quieting*. Brown, Ryan, Creswell, and Niemic (2008) discussed how mindfulness improved personal and relational well-being through *easing of self-identification/ego quieting*. Ego quieting denotes transcendence of egoistical self. It resembles the insight of no-self in Buddhism that a static “self” is an illusion. According to Ardel (2008), a quiet ego has four qualities, namely, detached awareness, interdependence, compassion, and growth. The highest level of self-development requires ego transcendence, and people with wisdom are also selfless. Spiritual intelligence involves the awareness of a transcendental self and others (King & DeCiddo, 2009). Therefore, spiritual intelligence weakens ego and enhances interconnectedness. Since ego is said to be the attachment to self (Ardelt, 2008), ego quieting is the non-attachment to self-identification. Non-attachment as mediator in Study 2 was measured by the non-attachment scale which does not contain non-attachment to self-identification (Sahdra, Shaver, & Brown, 2010). Thus, the beneficial effects that spiritual intelligence exerts on social well-being through ego transcendence may not be mediated through the non-attachment scale in Study 2. *Ego quieting* may mediate the link between spiritual intelligence and social well-being, as *ego quieting* reduces attachment to self-identification and increases harmony in people (Brown et al., 2008). Future studies may investigate whether adding *ego quieting* would improve the model of Study 2.

Mediators that may overlap with the three predictor variables should be avoided. Previously, Carmody et al. (2009) tested a model proposed by Shapiro et al. (2006), and the conceptual overlap between components of mindfulness and mediators in

their study resulted in modifications to the model originally proposed. Shapiro et al. (2006) proposed a model with *reperceiving* as a prime mediator. With reperceiving, thoughts and feelings are observed instead of being identified as self. Reperceiving as a meta-mediator was said to mobilise additional mechanisms including value clarification, self-regulation, exposure, and cognitive, emotional, and behavioural flexibility to lead to well-being (Shapiro et al., 2006). Reperceiving is analogous to other proposed mediators such as decentering (Holas & Jankowski 2013), de-automatisation (Kang et al. 2013), change in perspective on the self (Hölzel et al., 2011), and meta-attention/meta-awareness (Carmody, 2009). Carmody et al. (2009) tested the model proposed by Shapiro et al. (2006) in participants of a MBSR programme. The results, however, did not support that reperceiving mediated changes in psychological symptoms, and perceived stress. Since mindfulness measured by the FFMQ had a strong positive correlation with reperceiving measured by a decentering scale, Carmody et al. (2009) argued that mindfulness and reperceiving were highly overlapping constructs, which affected the hypothesised meditation effects. When mindfulness was combined with reperceiving, other proposed mediators in Shapiro et al. (2006) were found partially mediated between a composite mindfulness/reperceiving variable and psychological symptoms reduction (Carmody et al., 2009).

Similarly, Hayes-Skelton and Graham (2013) excluded the *non-reactivity* facet of the FFMQ due to conceptual overlapping with the mediator of *decentering* in their study. However, some studies may have proposed and tested a model with a mediator that overlaps with the mindfulness construct. For example, self-acceptance was proposed by Rodriguez, Xu, Wang, and Liu (2015) as a mediator between mindfulness measured by the FFMQ, and the outcome of perceived stress. The attitude of non-

judging/acceptance was treated as a part of mindfulness in psychology (Bishop et al., 2004). Since the FFMQ has the non-judging facet, the proposed mediator of self-acceptance may overlap with the mindfulness construct measured by the FFMQ. Rodriguez et al. (2015) did not report the correlations between self-acceptance and each facet of the FFMQ, and thus whether a conceptual overlapping issue existed could not be identified. In short, the components of mindfulness and the mediators between mindfulness and outcome variables should be properly distinguished for model establishment.

**7.2.3.2 Mindfulness as a multi-faceted construct in empirical studies.** As in Study 2, many previous empirical studies treated mindfulness as a multi-faceted concept, which was indicated through the FFMQ used in their studies. Mindfulness constructs in those studies, however, were not consistent, as different facets of the FFMQ were at times excluded, due to different reasons. Most studies chose to run tests on all the facets of the FFMQ first, and then disregarded some facets that were believed to be unsuitable for further analyses. For instance, the *non-reactivity* facet of the FFMQ was excluded from further analyses by Rodriguez, Xu, Wang, and Liu (2015) after they found that this facet had low reliability. Peters et al. (2015) disregarded the *observing* and the *describing* facets of the FFMQ from mediation effect analyses due to the lack of associations between those two facets and the mediator or outcome variable.

Some studies excluded some facets of the FFMQ based on evidence of previous empirical studies. For example, Eisenlohr-Moul, Peters, and DeWall (2016) investigated how anger intensity and rumination mediated between mindfulness and aggressiveness. They employed the *non-reactivity*, *act with awareness*, and *non-judging* facets of the FFMQ as previous studies suggested that the *observing* and

*describing* facets were not associated with anger and aggression. Furthermore, some studies selected some facets of the FFMQ to measure a specific mindfulness construct conceptualised in psychology. For instance, Coffey et al. (2010) employed the mindfulness construct defined by Bishop et al. (2004) that consisted of attention and acceptance. Coffey et al. (2010) measured attention by using the *observing* facet of the FFMQ, and measured acceptance through the *non-judging* facet of the FFMQ and acceptance items of another scale. The *act with awareness*, *describing*, and *non-reactivity* facets of the FFMQ were not included as components of mindfulness in their study.

When the facets of the FFMQ had no association with a mediator or outcome variable, some studies did not exclude the facets of the FFMQ from further analyses. Rather, a total score of the FFMQ was used for assessing the overall model fit and mediation effects. For example, the *observing* and *non-judging* facets of the FFMQ in Wang, Xu, and Lou (2016) were not correlated with the mediator of emotional resilience. These two facets, however, were not disregarded, and a total score of the FFMQ including items from those two facets was used to test a model in which emotional resilience mediated between mindfulness and emotion. Similarly, Garland, Roberts-Lewis, Kelley, Tronnier, and Hanley (2014) used the total score of FFMQ, although the *observing* and *non-judging* facets were not correlated with outcome variable and mediator respectively. The studies that included the problematic facets of the FFMQ into further analyses (e.g., Wang et al., 2016; Garland et al., 2014) did not explain whether any theoretical consideration was behind the decision. Since including different facets may affect results, future studies should refer to a theory to back up the decision of including problematic facets of mindfulness into the mindfulness construct of a model.

Previous studies were very diverse in terms of determining which facet of the FFMQ should be included into the mindfulness construct. Consequently, the mindfulness construct varied as different facets of the FFMQ were employed. And there was no facet of the FFMQ that was consistently used throughout all of the empirical studies listed in Table 7.1. The most frequently used facet of the FFMQ seemed to be the *acting with awareness* facet, in which items were mainly sourced from the MAAS. The MAAS was less inconsistent with Buddhist mindfulness compared with other commonly used mindfulness scales in Study 1, and was used to measure the concentration aspect of the model in Study 2. Combining with the results of previous studies, this may support the use of the MAAS to measure a component of mindfulness in future studies that would incorporate Buddhist mindfulness into secular mindfulness.

In addition to the FFMQ, other studies have employed the MAAS to assess mindfulness. Compared to the various mindfulness constructs in studies that employed the FFMQ, the mindfulness construct in studies that employed the MAAS was uni-dimensional. Since the MAAS is uni-dimensional, it may not be comprehensive enough to cover all the components of mindfulness especially mindfulness based on Buddhist understandings (Grossman, 2011). Future studies that employ the MAAS could explicitly state that they treat mindfulness as a single faceted concept, or could employ it along with other scales to measure mindfulness as shown in Study 2.

As mentioned above, the MAAS was also employed in Study 2 to measure the attention/concentration component of mindfulness. Attention is a major element of mindfulness in both mindfulness pertaining to psychology and mindfulness in Buddhism. In Buddhism, attention as a core element of mindfulness is indicated

through the concentration section of the *Noble Eight-fold Path* that *right mindfulness* belongs to (MN44, translated by the Thanissaro from the Pali, 2012). Compared with the attention component in some models, the focus of attention in the model of Study 2 is different. For example, the attention component in Shapiro et al. (2006) referred to observing the moment-to-moment experience, which was said to be associated with three attentional abilities including sustained attention, attention switching, and cognitive inhibition. In Coffey et al. (2010), this attention component was measured by the *observing* facet of the FFMQ. The attention component in Study 2, however, emphasised the attentive and non-distracted features of mindfulness. A concentrated mind is related but not limited to observing. Observing cannot be performed without a focused mind, but a concentrated mind does not have to be engaged in observing. Depending on the purpose of attention, the mind can observe internal experiences to develop insight, or can be fixed on an object to develop absorption. Employing observing to represent only the attention element of mindfulness limits mindfulness to a specific behaviour, and thus may not capture the attentive function of mindfulness in all the situations.

The attention component in the model of Study 2 is also different to *attention regulation* in the attention-based model proposed by Carmody (2009), which is the most parsimonious theoretical model of mindfulness compared with other theoretical models in Table 7.1. Carmody (2009) argued that mindfulness was too elusive to define, and advocated a parsimonious definition of mindfulness for clinical use. Attention regulation in his model referred to a strategy of re-directing attention to a neutral object such as breath when aversive stimuli are encountered. It is an effective core coping skill that alleviates psychological symptoms and contributes to well-being (Carmody, 2009). He claimed that attention regulation was a central ability

developed through MBIs, which not only played a key role in well-being, but also was a fundamental facility shared by Buddhist mindfulness practice, and other mind-body programmes. Grabovac, Lau, and Willett (2011), however, criticised by saying that re-directing attention from aversive stimuli to a neutral object may reinforce aversion to unwanted experiences. In fact, being in contact with the immediate present experiences without avoidance is commonly viewed as an important characteristic of mindfulness (Kabat-Zinn, 2003).

Attention regulation was also included in the mindfulness construct in Holas and Jankowaki (2013) and Jankowski and Holas (2014). The component named *meta-cognitive skills* in Jankowski and Holas (2014) refers to attention regulation which relates to executive functions such as inhibiting, sustaining, and planning strategies. Attention regulation in Holas and Jankowaki (2013) also contained attention orienting. The attention element of mindfulness represented by concentration in Study 2 is more related to attention regulation as in Holas and Jankowaki (2013) and Jankowski and Holas (2014). It covers more aspects of attentional ability that are associated with concentration compared to Carmody's (2009) analysis. Future studies that employ an attention element into a model should consider different focuses of the attention component including observing (Shapiro et al., 2006), re-directing attention (Carmody, 2009), and concentration/attentional ability in Study 2, and carefully choose a scale accordingly.

**7.2.3.3 The component of attitude in the mindfulness construct.** In contrast to general agreement on including the component of attention into the mindfulness construct, there has been disagreement on the attitude component of mindfulness. Studies that employed the MAAS intentionally or unintentionally excluded attitude as a part of the mindfulness construct as the MAAS only contains items measuring

awareness and attention. Carmody (2009) did not treat attitude as a component of mindfulness, and proposed a model of mindfulness that contained attention regulation only. He believed that some terms commonly used in definitions of mindfulness in psychology such as non-judgmental awareness were redundant. According to Carmody (2009), attention regulation leads to the recognition that judgments are just internal experience, which in turn produces health benefits. Judgments are no longer an issue once recognition has been realised, and thus non-judgmental attitude does not have to be emphasised for mindfulness. In other words, he believed that non-judgmental attitude is implied in the hypothesised outcome of mindfulness conceptualised as attention regulation.

In contrast to Carmody (2009), Shapiro et al. (2006) and Coffey et al. (2010) have explicitly included *attitude* into their models of mindfulness. The term “non-judgementally” in Kabat-Zinn’s 1994 definition of mindfulness, and *acceptance* aspect in the Bishop et al (2004)’s definition of mindfulness were the bases of the *attitude* component in mindfulness models proposed by Shapiro et al. (2006) and Coffey et al. (2010), respectively. Compared to the attitudinal component of acceptance in the model proposed by Coffey et al. (2010), attitude in Shapiro et al. (2006) covered a range of qualities including not only acceptance but also compassion, curiosity, and non-striving.

Attitudes in terms of acceptance and being non-judgmental were excluded from the model in Study 2. As discussed in Study 1, non-judging/acceptance is not necessarily a feature of mindfulness, as judging is involved in ethical mindfulness and wise mindfulness. Grabovac et al. (2011) acknowledged that *acceptance* was not an inherent aspect of Buddhist mindfulness, and did not include *acceptance* into their definition of mindfulness. They included *acceptance* into a Buddhist psychological

model of mindfulness that concerned mindfulness practice, and that *acceptance* in their model was proposed as a useful attitude in mindfulness practice. Whether *acceptance* belongs to mindfulness or mindfulness practices remains to be explored, and this indicated the need for distinguishing components of mindfulness and components of mindfulness practices.

Shapiro et al. (2006) did not state whether compassion is an attitudinal element of mindfulness referred to as self-compassion, or compassion towards others, or both. Compassion towards others was included into the model in Study 2 as a counterpart of harmful behaviour to represent the ethical component of mindfulness. If compassion according to Shapiro et al. (2006) contains compassion towards others, then attitude in terms of compassion towards others was included into the model of mindfulness in Study 2 in the name of the ethics aspect of mindfulness. The main difference between the attitude component of mindfulness in previous studies and the ethics component of mindfulness in Study 2 could be that the former concern is more about attitudes towards self, whereas the latter concerns attitudes to others.

Compassion towards others in Study 2 became redundant after spiritual intelligence had been added into the model. This observation may indicate that compassion towards others was not an optimal indicator of ethics, instead being evidence for the irrelevance of ethics in mindfulness. In previous theoretical studies, ethics was viewed as an essential part of mindfulness when mindfulness was explored from the perspectives of Buddhist mindfulness. But an alternative scale could be employed to represent ethics. For example, ethics in Dorjee (2010) referred to ethical discernment, which recognises unwholesome qualities. Compassion was treated by her as a wholesome emotion that is related to attitudinal component of mindfulness such as acceptance in psychology. As a direct way of assessing ethical judgment, ethical

discernment seems to have a more specific role than compassion towards others in relation to ethical aspect of mindfulness. It could be considered as an alternative indicator of ethics in future studies. Whether ethical discernment or compassion towards others would be better described as an attitude component of mindfulness to reconcile with psychology is another question, but essentially it is different with a non-judging attitude.

**7.2.3.4 The component of intention of mindfulness construct.** The *intention* as a component of mindfulness was discussed in some of the theoretical studies listed in Table 7.1. Both Dorjee (2010) and Shapiro et al. (2006) believed that intention as a component of mindfulness was overlooked by some conceptualisations of mindfulness in psychology. Shapiro et al. (2006) has proposed a model based on Kabat-Zinn's 1994 definition. Here, mindfulness is viewed as a complex moment-to-moment process in which *intention*, *attention*, and *attitude* occur simultaneously. *Intention* in Shapiro et al. (2006) referred to the intention relating to the goal of mindfulness practice. They pointed out that, while the intention of mindfulness practice in Buddhism is to lead to enlightenment and compassion for all beings, the intention of secular mindfulness practice varies from stress management to self-liberation. They considered that intention was important because it determined the type of outcomes aspired to and eventually gained from mindfulness practice (Shapiro et al., 2006).

Intention was also integrated into a meta-cognitive model of mindfulness proposed by Jankowski and Holas (2014). Their model was based on Kabat-Zinn's other definition of mindfulness: "the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003, p.145). Mindfulness was here

seen as a meta-cognitive phenomenon, and the model illustrated top-down cognitive and meta-cognitive processes that are involved in mindful information processing (Jankowski & Holas, 2014). *Meta-cognitive knowledge* as one component of mindfulness in the model includes the beliefs of nature of the self and transient nature of internal events, which enables a person to observe experiences rather than being identified with them. *Meta-cognitive knowledge* also encompasses goals and intentions related to these beliefs. Jankowski and Holas (2014) believed that while mindfulness in everyday life can occur without training, the highest level of mindfulness cannot be achieved without an intention of making commitment to be aware of the present experiences. Intention as a part of *meta-cognitive knowledge* can become implicit, and it helps attention regulation. Jankowski and Holas (2014) argued that fully understanding mindfulness cannot be achieved without acknowledging the role of intention in developing mindfulness.

*Right intention* in Buddhism belongs to the wisdom section of the *Noble Eight-fold Path*, and refers to the intention of renunciation, good will, and harmlessness (MN44, translated by Thanissaro from the Pali, 2012). In Study 2, the intention of self-transcendence was not proposed as an explicit component of mindfulness. Rather, it is implied in the ethics and wisdom components of mindfulness. The wisdom component of mindfulness measured by spiritual intelligence in Study 2 reflects the intention component in Shapiro et al. (2006) to some extent, as spiritual intelligence involves the capacity to contemplate, construct, and master a life purpose (King & DeCicco, 2009). The wisdom component, however, is less related to intention in Jankowski and Holas (2014) which concerns motivation of paying attention to the present moment rather than longer term goals.

Intention may affect the operationalisation and dimensionality of mindfulness. For example, if intention is to develop present-centred awareness for stress management, mindfulness mainly involves present attention and awareness that tends to be value free. If intention is to cultivate ethics, concentration, and wisdom for self-transcendence, mindfulness could be multi-dimensional in the form of ethical mindfulness, concentrated mind, and wise mindfulness. In short, intention may determine the dimension of mindfulness and associated characteristics. Compassion towards others and spiritual intelligence in Study 2 may only be related to the attentional aspect when compassion and wisdom are intentionally developed through practices.

Although intention of mindfulness is important, whether it should be an explicit element of mindfulness needs to be investigated further as initial evidence did not support it as a component of mindfulness. Carmody et al. (2009) tested the theoretical model proposed by Shapiro et al. (2006). The intention component of mindfulness was assessed by asking participants to rate how important self-regulation, self-exploration, and self-liberation were to them. However, the intention component was excluded from further analyses due to weak or non-significant correlations with other variables. Thus, the mindfulness construct in Carmody et al. (2009) only contained attention and attitude, and this was against the role of intention emphasised in previous theoretical models of mindfulness.

## **7.3 Suggestions for future research to investigate mechanisms of mindfulness further**

### ***7.3.1 Accuracy of scales***

The results of this research of testing a model in which mindfulness is treated as a multi-faceted construct tended to indicate that some components of mindfulness are problematic. This could be due to several reasons. Firstly, the scales measuring components of mindfulness may not accurately represent all the proposed components of mindfulness. This can be dealt with in future by using other alternative scales to assess the same component of mindfulness in the model. If these alternative scales produce different results, then more investigations can be conducted to find out if and why the previously used scale was not a suitable indicator of the proposed component. Secondly, the proposed component of mindfulness might in fact be an invalid component of mindfulness. This may be the case if all scales fail.

Thirdly, the way of measuring the proposed components of mindfulness also affects the results. As discussed earlier in this chapter, a total score on a mindfulness scale was used for analyses in some studies, and scores of individual facets were entered into analyses in other studies. Also, different combinations of facets of a mindfulness scale such as the FFMQ rather than all the facets were employed in some studies. In Study 2, proposed components of mindfulness were measured by different scales. In other words, a total score of ethics, attention, and wisdom was not employed in the testing. The advantage of using a facet or scale for each component of mindfulness is that the effects of each element of mindfulness can be identified. The disadvantage is that a potentially useful component of mindfulness could be disregarded due to psychometric problems of the selected scale or facet. Alternatively, a scale could be designed to cover all the three proposed components of mindfulness in Study 2, and a total score of the scale is used to test the model. As discussed in Chapter 1, the *Noble Eight-fold Path* suggests that ethics, attention, and wisdom are a unity. By

using a total score of the scale, all proposed components of mindfulness would stay in the model.

Furthermore, future studies could employ a different well-being scale to measure the outcome variable in the model in Study 2. Since well-being can be viewed and measured from hedonic or/and eudaimonic approaches, studies should clarify what approach (es) they adopt, and choose the measurement instrument accordingly. Also, some concepts such as quality of life are often used interchangeably with well-being (Dodge, Daly, Huyton, & Sander, 2012). Due to lack of conceptual clarity between quality of life and well-being (Dodge et al., 2012), when a quality of life scale is employed by a study to measure well-being, what the study intends to measure should be stated clearly.

### ***7.3.2 Avoiding conceptual overlap between mediators and the mindfulness construct***

The issue of conceptual overlap between mediators and the mindfulness construct should be carefully dealt with in future studies. Future research should make sure that the components of mindfulness and mediators are clearly distinct, as the conceptual overlap between components of mindfulness and mediators would artificially inflate any associations between mindfulness and the mediator and in turn affect results of mediation effects. Correlations between components of mindfulness, and mediators should be inspected, and any high correlation may indicate the conceptual overlapping, which needs further attention.

### ***7.3.3 Testing the influence of intention on mindfulness constructs***

Future studies could investigate how intention would affect mindfulness constructs and mechanisms by comparing Buddhist practitioners with secular mindfulness practitioners. For non-practitioners or practitioners who participate in concentration practices, the construct of mindfulness may be relatively simple, and only contains aspects of attention. For people who participate in spiritual practices for a spiritual goal rather than developing concentration only, attentional ability may be integrated with ethics and wisdom. As a result, the construct of mindfulness has a tendency to become more complex and multi-dimensional.

#### **7.4 Summary and conclusion**

The current thesis investigated the conceptualisation of mindfulness, and mechanisms of mindfulness both theoretically and empirically. Important characteristics of Buddhist mindfulness were identified, and a model inspired by Buddhist theories was tested. Mindfulness based on Buddhism consists of ethics, concentration, and wisdom. Among the three components, ethics, and wisdom were found to be largely missing from psychology. The results of testing a model in which non-attachment mediated between mindfulness and well-being supports the relevance of the attention component of mindfulness, and indicates that wisdom could also be an important component of mindfulness that is overlooked by psychology. Although ethics as measured by compassion towards others, seems to be a redundant element of mindfulness in terms of improving secular well-being, more investigation is needed to identify whether compassion towards others is not an accurate indicator of ethics, or whether ethics is unable to be extended from Buddhist mindfulness to secular mindfulness.

Further testing of the model proposed in Study 2, could employ a comprehensive scale to include ethics, concentration, and wisdom to measure mindfulness. Alternatively, a different scale from the one used can be selected to assess ethics. Previous studies investigating mechanisms of mindfulness suggested that the choice of using individual facets measuring each components of mindfulness, or using a total score to measure an overall mindfulness construct in models affected results, and thus it is an important decision to make. This also indicated the importance of a theoretically supported mindfulness construct, especially when mindfulness is treated as a multi-faceted construct. Removal of any component of mindfulness should not only be supported by data but also theories of the mindfulness construct.

Since non-attachment partially mediated between mindfulness and well-being in Study 2, it suggests that the conceptual model of Study 2 may be improved by including more mediators. Possible candidate mediators include the three universal basic psychological needs of emotion regulation, clarity of internal experience, and ego quieting. Previous studies have indicated the need to distinguish between components of mindfulness itself and the mediators of mindfulness. Future studies aiming to develop a more accurate model than that of Study 2 should avoid the conceptual overlapping between mindfulness and its mediators. Mediators that have high correlations with components of mindfulness should not be included into a model. In addition, future studies should pay attention to intention of mindfulness practices as this factor may affect the dimensionality of the mindfulness construct.

Overall, the current thesis contributed to the conceptualisation of mindfulness in psychology by investigating the differences in mindfulness between Buddhism and

psychology, and by testing a hypothetical model explaining the mechanisms of mindfulness. It has provided information on the components of mindfulness derived from Buddhism that could be potentially useful for both MBIs, and studies of the mechanisms of mindfulness. Ethics and wisdom may be extended from Buddhist mindfulness to secular mindfulness. Future studies could conduct more investigations on these two potential components of secular mindfulness. In addition to using independent alternative scales to test the model of Study 2, a multidimensional scale that includes ethics, concentration, and wisdom might also be developed and proved for model testing. The model in Study 2 may be improved, and full mediation effects may be achieved by adding possible missing mediators into the model.

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SN48:56	Indriya-vibhanga Sutta: Analysis of the Mental Faculties
SN56:11	Patitthita Sutta: Established
	Dhammacakkavattana Sutta-The Discourse on the Setting in Motion of the Wheel (of Vision) of the Basic Pattern

**The following suttas cited in text are translated by others**

- AN10:61 & 62 & 10:58 & 9:14 Translated by Nyanaponika Thera and Bhikkhu Bodhi from the Pali, 1990 (*Anguttara Nikāya: Discourses of the Buddha: An Anthology Part III*, Kandy, Sri Lanka: Buddhist Publication Society).
- DN 16 Translated from the Pali by Sister Vajira and Francis Story from Pali, 2013 (*Maha-parinibbana Sutta: Last Days of the Buddha*, retrieved from <http://www.accesstoinsight.org/tipitaka/dn/dn.16.1-6.vaji.html>)
- SN22:110 Translated by Maurice O'Connell Walshe from the Pali, 2013 (*Araha.m Sutta: The Arahant*, retrieved from <http://www.accesstoinsight.org/tipitaka/sn/sn22/sn22.110.wlsh.html>)
- SN36:5 Translated by Nyanaponika Thera from the Pali, 2010 (*Datthabba Sutta: To Be Known*, retrieved from <http://www.accesstoinsight.org/tipitaka/sn/sn36/sn36.005.nypo.html>)
- SN45:159 Translated by Maurice O'Connell Walshe from the Pali, 2009 (*Agantuka Sutta: For All Comers*; Retrieved from <http://www.accesstoinsight.org/tipitaka/sn/sn45/sn45.159.wlsh.html>)
- SN46:3 Translated by John D. Ireland from the Pali, 2008 (*Samyutta Nikaya: An Anthology Part I*, Kandy, Sri Lanka: Buddhist Publication Society)
- SN47:10 *Bhikkhunupassaya Sutta: Directed and Undirected Meditation*; Translated by Andrew Olendzki from the Pali, 2013, Retrieved from <http://www.accesstoinsight.org/tipitaka/sn/sn47/sn47.010.olen.html>

SN48:9 & 48:10 Translated by Bhikkhu Bodhi from the Pali, 2000 (*The teachings of the Buddha: The connected Discourses of the Buddha*, A new translation of the Samyutta Nikaya, Volume II, Boston, USA: Wisdom Publications).

**Other classical works cited in text**

*Dhammapada*: Translated by Thanissaro Bhikkhu from the Pali, 1998 (Retrieved from [http://www.buddhanet.net/pdf\\_file/damapada.pdf](http://www.buddhanet.net/pdf_file/damapada.pdf))

*The Dhammasangani: A Buddhist manual of psychological ethics*, Translated by C.A.F. Rhys Davids from the Pali, 1900 (London: Royal Asiatic Society. Retrieved from <https://mywebpace.wisc.edu/jrblack/web/BU/PDF/manpsychethics.pdf>)

*The Milinda Panha: The questions of King Milinda*, translated by T.W Rhys Davids from the Pali, 1890 (Oxford: The Clarendon Press. Retrieved from <https://archive.org/details/questionsofkingm01davi>)

*The Platform Sutra of the Sixth Patriarch*: Translated by Yampolsky, Y. P. (1967) from Chinese. New York, USA: Columbia University Press.

## Glossary

### Glossary 1: Pali Glossary

Pali	Sanskrit	English
Abhidhamma Pitaka		The Basket of Ultimate Doctrine
Arahant	Arhat	A fully enlightened being
Ānāpānasati		Mindfulness of breathing in and out
Anguttara Nikāya		The numbered collection
ātāppa		Diligence
Avijjā	Avidyā	Ignorance; delusion
Bhāvanā		Bring into being, cultivation, or development; Meditation
Bhikkhu		A fully ordained disciple of the Buddha
Dhamma	Dharma	1:The liberating law discovered and proclaimed by the Buddha, is summed up in the Four Noble Truths; 2: Object of mind may be anything past, present or future, corporeal or mental, conditioned or not, real or imaginary.
Digha Nikāya		The collection of long discourses
Dukkha		Suffering, stress, or pain
Indriya		Faculty
Jhāna		Absorption
Kammatthāna		Objects and methods of meditation practice
Khuddaha Nikāya		The minor collection
Majjhima Nikāya		The collection of middle length discourses
Manasikara		Attention
Nibbāna	Nirvāna	Extinguishing; freedom from desire
Nikāya		Collections
Paññā		Wisdom, Understanding (insight and path)
Sallakkheti		Bare attention; to observe clearly
Samyutta Nikāya		The grouped collection

Sati	Smṛti	Mindfulness
Satipatthāna		The four foundation of mindfulness
Samādhi		Concentration
Samma sati		Right mindfulness
Samatha		Tranquillity
Sīla		Virtue; habit; rite
Sampajañña		Clear comprehension
Sutta	Sutra	Discourses
Sutta Pitaka		The Basket of Discourses
Sayādaw		Senior monk or abbot of a monastery
Tanhā		Craving
Thera		The Elders
Vedanā		Feelings
Vipassanā		Insight
Tipitaka		Three Baskets
Upatthāna		Establishment; presence
Vinaya		Discipline
Vinaya Pitaka		The Basket of Discipline
Visuddhimagga		The Path of Purification
Yoga		Effort

## Glossary 2: Other languages

Chinese	Pinyin	Japanese	English
無念	Wu nian		No-thought
無住	Wu zhu		Non-abiding
無相	Wu xiang		Non-form
禪	Chan		Chán; Zen
公案	Gong an	Kōan	Kung-an
悟	Wu	Satori	Enlightenment
座禪	Zuo chan	Zazen	A form of concentration meditation

## Appendix A: AUTECH approval letter for Study 1

11 April 2013

Chris Krageloh  
Faculty of Health and Environmental Sciences

Dear Chris

Re Ethics Application: **13/20 Differences and similarities between Buddhism and psychology in the conceptualisation of mindfulness: Development of a Buddhism Mindfulness Scale.**

Thank you for providing evidence as requested, which satisfies the points raised by the AUT University Ethics Committee (AUTECH).

Your ethics application has been approved for three years until 11 April 2016.

As part of the ethics approval process, you are required to submit the following to AUTECH:

- A brief annual progress report using form EA2, which is available online through <http://www.aut.ac.nz/researchethics>. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 11 April 2016;
- A brief report on the status of the project using form EA3, which is available online through <http://www.aut.ac.nz/researchethics>. This report is to be submitted either when the approval expires on 11 April 2016 or on completion of the project.

It is a condition of approval that AUTECH is notified of any adverse events or if the research does not commence. AUTECH approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

AUTECH grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to obtain this. If your research is undertaken within a jurisdiction outside New Zealand, you will need to make the arrangements necessary to meet the legal and ethical requirements that apply there.

To enable us to provide you with efficient service, please use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz).

All the very best with your research,



Dr Rosemary Godbold  
Executive Secretary

**Auckland University of Technology Ethics Committee**

Cc: Joanna Feng [knt0284@aut.ac.nz](mailto:knt0284@aut.ac.nz)

## Appendix B: Participant information sheet for Study 1

# Participant Information Sheet



### Project Title:

Differences and similarities between Buddhism and psychology in the conceptualisation of mindfulness: Development of a Buddhism Mindfulness Scale

### Invitation:

My name is Joanna Feng. I would like to invite you to participate in my PhD project. Participation is voluntary and anonymity is guaranteed. Thank you very much for considering participating!

#### WHAT IS THE PURPOSE OF THIS RESEARCH?

We are currently investigating to what extent there are differences and similarities in the way in which Buddhism and western psychology describe and define mindfulness. Based on the results, we may develop a Buddhist mindfulness questionnaire similar to the current mindfulness questionnaires used in psychology.

#### WHY HAVE I BEEN CHOSEN TO PARTICIPATE IN THIS RESEARCH?

You will have heard about this study through a Buddhist organisation. You have been invited to participate because you either a) are a Buddhist monk, nun or priest, b) a lay practicing Buddhist, or c) you have a strong interest in Buddhism.

#### WHAT HAPPENS IN THIS RESEARCH?

We would like to invite you to attend an interview or focus group session to discuss mindfulness in Buddhism. Prior to the interview or focus group session, we will ask you to complete a mindfulness questionnaire by rating an ideal Buddhist in your tradition. Please be aware to rate an ideal person, not yourself. You are later also invited to comment on the content of this questionnaire. We will use this information to amend the questionnaire.

#### WHAT ARE THE BENEFITS?

Mindfulness questionnaires in psychology have typically been developed in the West with non-Buddhist participants. It is hoped that the findings of the study will give us a deep understanding of mindfulness in Buddhism and also help us to successfully

modify current western mindfulness scales into a valid Buddhism mindfulness scale. This study will also provide some very useful information for mindfulness-based interventions in psychology.

### **What will be the risks involved?**

The questions are very general, and you will not need to share very personal information unless you wish to do so. You do not need to answer any question that you do not wish to answer, and if you experience discomfort or stress during the focus group or interview or when answering the questionnaire, you are free to withdraw at any stage, without questions asked.

### **HOW WILL MY PRIVACY BE PROTECTED?**

If you agree to participate, your responses will be anonymous. Participants will not be able to be identified from their responses. The answers to the questionnaire can only be used to categorise answers by calculating statistics, such as percentages and proportions.

### **WHAT ARE THE COSTS OF PARTICIPATING IN THIS RESEARCH?**

The main cost of participating in this study is your personal time for attending the interview or focus group session that takes approximately 90 mins.

### **HOW DO I AGREE TO PARTICIPATE IN THIS RESEARCH?**

If you would like to participate, please contact the researcher on the details below. On the day of the interview or focus groups, the researcher will check again that you are happy to be part of the study. If you agree, the researcher will ask you to sign a consent form.

### **WILL I RECEIVE FEEDBACK ON THE RESULTS OF THIS RESEARCH?**

Findings of the current study will be available on request by contacting the researcher or the project supervisor (please see contact details below).

### **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 primary Project Supervisor, Dr Chris Krägeloh, [chris.krageloh@aut.ac.nz](mailto:chris.krageloh@aut.ac.nz), (09)921-9999 extension 7103

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEK, Madeline Banda, [madeline.banda@aut.ac.nz](mailto:madeline.banda@aut.ac.nz), 921 9999 ext 8044.

### **WHO DO I CONTACT FOR FURTHER INFORMATION ABOUT THIS RESEARCH?**

Researcher Contact Details:

For further information about this research, you could also contact Joanna Feng (researcher) at [joanna\\_xy@hotmail.com](mailto:joanna_xy@hotmail.com).

**Approved by the Auckland University of Technology Ethics Committee on 11 April 2013, AUTEK Reference number:**

**Appendix C: Questionnaire for Study 1**



By completing this questionnaire, you are  
consenting to participate in this study

Please read each item and rate an ideal Buddhist in your tradition. Please circle the number on the scale for each item that gives the best answer for an ideal Buddhist. For items you think irrelevant to mindfulness, please do not rate them, and please write down “not applicable” beside those items.

### The MAAS Questionnaire

	Almost never	Very infrequently	Somewhat infrequently	Somewhat frequently	Very frequently	Almost always
1. I could be experiencing some emotion and not be conscious of it until some time later. (MAAS1)	1	2	3	4	5	6
2. I break or spill things because of carelessness, not paying attention, or thinking of something else. (MAAS2)	1	2	3	4	5	6
3. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way. (MAAS4)	1	2	3	4	5	6
4. I tend not to notice feelings of physical tension or discomfort until they really grab my attention. (MAAS5)	1	2	3	4	5	6
5. I forgot a person's name almost as soon as I've been told it for the first time. (MAAS6)	1	2	3	4	5	6
6. I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there. (MAAS9)	1	2	3	4	5	6
7. I find myself listening to someone with one ear, doing something else at the same time. (MAAS11)	1	2	3	4	5	6
8. I drive places on “automatic pilot” and then wonder why I went there. (MAAS12)	1	2	3	4	5	6

9. I find myself preoccupied with the future or the past. <sub>(MAAS13)</sub>	1	2	3	4	5	6
10. I snack without being aware that I'm eating. <sub>(MAAS15)</sub>	1	2	3	4	5	6

### The KIMS Questionnaire

11. I notice changes in my body, such as whether my breathing slows down or speeds up. <sub>(KIMS1)</sub>	1	2	3	4	5	6
12. I pay attention to whether my muscles are tense or relaxed. <sub>(KIMS5)</sub>	1	2	3	4	5	6
13. When I'm doing something, I'm only focused on what I'm doing, nothing else. <sub>(KIMS7)</sub>	1	2	3	4	5	6
14. I tend to evaluate whether my perceptions are right or wrong. <sub>(KIMS8)</sub>	1	2	3	4	5	6
15. I'm good at thinking of words to express my perceptions, such as how things taste, smell, or sound. <sub>(KIMS10)</sub>	1	2	3	4	5	6
16. I drive on "automatic pilot" without paying attention to what I'm doing. <sub>(KIMS11)</sub>	1	2	3	4	5	6
17. When I'm reading, I focus all my attention on what I'm reading. <sub>(KIMS15)</sub>	1	2	3	4	5	6
18. When I do things, I get totally wrapped up in them and don't think about anything else. <sub>(KIMS19)</sub>	1	2	3	4	5	6

19. I tend to make judgments about how worthwhile or worthless my experiences are. (KIMS24)	1	2	3	4	5	6
20. When I'm doing chores, such as cleaning or laundry, I tend to daydream or think of other things. (KIMS27)	1	2	3	4	5	6
21. I intentionally stay aware of my feelings. (KIMS30)	1	2	3	4	5	6
22. I tend to do several things at once rather than focusing on one thing at a time. (KIMS31)	1	2	3	4	5	6
23. When I'm working on something, part of my mind is occupied with other topics, such as what I'll be doing later, or things I'd rather be doing. (KIMS35)	1	2	3	4	5	6
24. I get completely absorbed in what I'm doing, so that all my attention is focused on it. (KIMS38)	1	2	3	4	5	6
25. I notice when my moods begin to change. (KIMS39)	1	2	3	4	5	6

### The FMI Questionnaire

26. I am open to the experience of the present moment. (FMI1)	1	2	3	4	5	6
27. I know that I am not identical to my thoughts. (FMI2)	1	2	3	4	5	6
28. I sense my body, whether eating, cooking, cleaning or talking. (FMI3)	1	2	3	4	5	6
29. When I notice an absence of mind, I gently return to the experience of the here and now. (FMI4)	1	2	3	4	5	6

30. I can appreciate myself. (FMI5)	1	2	3	4	5	6
31. I notice how my emotions express themselves through my body. (FMI6)	1	2	3	4	5	6
32. I remain present with sensations and feelings even when they are unpleasant or painful. (FMI7)	1	2	3	4	5	6
33. I pay attention to what's behind my actions. (FMI8)	1	2	3	4	5	6
34. I easily get lost in my thoughts and feelings. (FMI9)	1	2	3	4	5	6
35. I notice that I don't need to react to whatever pops into my mind. (FMI10)	1	2	3	4	5	6
36. I watch my thoughts without identifying with them. (FMI11)	1	2	3	4	5	6
37. I observe how my thoughts come and go. (FMI12)	1	2	3	4	5	6
38. I let my thoughts run away with me. (FMI13)	1	2	3	4	5	6
39. I am aware how brief and fleeting my experience is. (FMI14)	1	2	3	4	5	6
40. I consider things from different perspectives. (FMI15)	1	2	3	4	5	6
41. I see how I create my own suffering. (FMI16)	1	2	3	4	5	6
42. I see my mistakes and difficulties without judging them. (FMI17)	1	2	3	4	5	6
43. I accept myself as I am. (FMI19)	1	2	3	4	5	6

44. I examine unpleasant, as well as pleasant, sensations and perceptions. (FMI20)	1	2	3	4	5	6
45. I feel connected to my experience in the here-and-now. (FMI21)	1	2	3	4	5	6
46. I accept unpleasant feelings. (FMI22)	1	2	3	4	5	6
47. I observe how experiences arise and fade away. (FMI23)	1	2	3	4	5	6
48. I am friendly to myself when things go wrong. (FMI24)	1	2	3	4	5	6
49. I avoid unpleasant feelings. (FMI27)	1	2	3	4	5	6
50. I experience moments of inner peace and ease, even when things get hectic and stressful. (FMI28)	1	2	3	4	5	6
51. I am impatient with myself and with others. (FMI29)	1	2	3	4	5	6
52. I am able to smile when I notice how I sometimes make life difficult. (FMI30)	1	2	3	4	5	6

### The FFMQ Questionnaire

53. I perceive my feelings and emotions without having to react to them. (FMI-18)	1	2	3	4	5	6
54. I watch my feelings without becoming lost in them. (FMI-25)	1	2	3	4	5	6
55. In difficult situations, I can pause without immediately reacting. (FMI-26)	1	2	3	4	5	6
56. Usually when I have distressing thoughts or images, I am able just to notice them without reacting. (MQ-1)	1	2	3	4	5	6

57. Usually when I have distressing thoughts or images, I feel calm soon after. (MQ-4)	1	2	3	4	5	6
58. Usually when I have distressing thoughts or images, I “step back” and am aware of the thought or image without getting taken over by it. (MQ-9)	1	2	3	4	5	6
59. Usually when I have distressing thoughts or images, I just notice them and let them go. (MQ-10)	1	2	3	4	5	6
60. When I’m walking, I deliberately notice the sensations of my body moving. (KIMS-9)	1	2	3	4	5	6
61. When I take a shower or a bath, I stay alert to the sensations of water on my body. (KIMS-13)	1	2	3	4	5	6
62. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions. (KIMS-17)	1	2	3	4	5	6
63. I pay attention to sensations, such as the wind in my hair or sun on my face. (KIMS-21)	1	2	3	4	5	6
64. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing. (KIMS-25)	1	2	3	4	5	6
65. I notice the smells and aromas of things. (KIMS-29)	1	2	3	4	5	6
66. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow. (KIMS33)	1	2	3	4	5	6
67. I pay attention to how my emotion affect my thoughts and behaviour. (KIMS-37)	1	2	3	4	5	6
68. I find it difficult to stay focused on what’s happening in the present. (MAAS-3)	1	2	3	4	5	6

69. It seems I am “running on automatic” without much awareness of what I’m doing. (MAAS-7)	1	2	3	4	5	6
70. I rush through activities without being really attentive to them. (MAAS-8)	1	2	3	4	5	6
71. I do jobs or tasks automatically, without being aware of what I’m doing. (MAAS-10)	1	2	3	4	5	6
72. I find myself doing things without paying attention. (MAAS-14)	1	2	3	4	5	6
73. When I do things, my mind wanders off and I’m easily distracted. (KIMS-3)	1	2	3	4	5	6
74. I don’t pay attention to what I’m doing because I’m daydreaming, worrying, or otherwise distracted. (KIMS-23)	1	2	3	4	5	6
75. I am easily distracted. (CAMS-6)	1	2	3	4	5	6
76. I’m good at finding the words to describe my feelings. (KIMS-2)	1	2	3	4	5	6
77. I can easily put my beliefs, opinions, and expectations into words. (KIMS-6)	1	2	3	4	5	6
78. It’s hard for me to find the words to describe what I’m thinking. (KIMS-14)	1	2	3	4	5	6
79. I have trouble thinking of the right words to express how I feel about things. (KIMS-18)	1	2	3	4	5	6
80. When I have a sensation in my body, it’s hard for me to describe it because I can’t find the right words. (KIMS-22)	1	2	3	4	5	6
81. Even when I’m feeling terribly upset, I can find a way to put it into words. (KIMS-26)	1	2	3	4	5	6

82. My natural tendency is to put my experiences into words. (KIMS-34)	1	2	3	4	5	6
83. I can usually describe how I feel at the moment in considerable detail. (CAMS-5)	1	2	3	4	5	6
84. I criticise myself for having irrational or inappropriate emotions. (KIMS-4)	1	2	3	4	5	6
85. I tell myself that I shouldn't be feeling that way I'm feeling. (KIMS-12)	1	2	3	4	5	6
86. I believe some of my thoughts are abnormal or bad and I shouldn't think that way. (KIMS-16)	1	2	3	4	5	6
87. I make judgments about whether my thoughts are good or bad. (KIMS-20)	1	2	3	4	5	6
88. I tell myself I shouldn't be thinking the way I'm thinking. (KIMS-28)	1	2	3	4	5	6
89. I think some of my emotions are bad or inappropriate and I shouldn't feel them. (KIMS-32)	1	2	3	4	5	6
90. I disapprove of myself when I have irrational ideas. (KIMS-36)	1	2	3	4	5	6
91. Usually when I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about. (MQ-8)	1	2	3	4	5	6

**Please write in the questionnaire format if you can, any item you think relevant to mindfulness in Buddhism that are currently not found in the existing mindfulness questionnaires.**

**Are you a**  monk/nun  Lay Buddhist who is actively involved in the day-to-day running a temple/community  Lay Buddhist who is a member of a temple/community  Lay Buddhist who is a not a member of any particular temple/community

**What is your Buddhism tradition?** \_\_\_\_\_

**How long have you been a Buddhist?** \_\_\_\_\_

**On average, how long do you practice meditation per week?** \_\_\_\_\_

**What is your age?** \_\_\_\_

**What is your gender?**  Male  Female

**HANK YOU FOR YOUR HELP**

Appendix D: Consent form for Study 1

INTERVIEW / FOCUS  
GROUP CONSENT FORM



*Project title:* Differences and similarities between Buddhism and psychology in the conceptualisation of mindfulness: Development of a Buddhism Mindfulness Scale

*Project Supervisor:* Dr Chris Krageloh, Prof Rex Billington, Prof Richard Siegert

*Researchers:* Joanna Feng

- I have read and understood the information provided about this research project in the Information Sheet.
- I have had an opportunity to ask questions and to have them answered.
- I understand that identity of my fellow participants and our discussions in the focus group is confidential to the group and I agree to keep this information confidential.
- I understand that notes will be taken during interview/the focus group and that it will also be audio-taped and transcribed.
- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- If I withdraw, I understand that while it may not be possible to destroy all records of the focus group discussion of which I was part, the relevant information about myself including tapes and transcripts, or parts thereof, will not be used.
- I agree to take part in this research.
- I wish to receive a copy of the report from the research (please tick one):  
Yes  No
- Please accept a \$40 koha for your centre.

Participant's signature:

.....

Participant's name:

.....

Participant's Contact Details (if appropriate):

.....  
.....

Date:

.....

*Approved by the Auckland University of Technology Ethics Committee on 11 April 2013, AUTEK Reference number 13/20 Note: The Participant should retain a copy of this form.*

## Appendix E: ATEC approval letter for Study 2



16 September 2014

Chris Krageloh  
Faculty of Health and Environmental Sciences

Dear Chris

Re Ethics Application: **14/264 The relationships between mindfulness, compassion, personal beliefs, and psychological wellbeing.**

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

Your ethics application has been approved for three years until 15 September 2017.

As part of the ethics approval process, you are required to submit the following to AUTC:

- A brief annual progress report using form EA2, which is available online through <http://www.aut.ac.nz/researchethics>. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 15 September 2017;
- A brief report on the status of the project using form EA3, which is available online through <http://www.aut.ac.nz/researchethics>. This report is to be submitted either when the approval expires on 15 September 2017 or on completion of the project.

It is a condition of approval that AUTC is notified of any adverse events or if the research does not commence. AUTC approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

AUTC grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to obtain this.

To enable us to provide you with efficient service, please use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz).

All the very best with your research,

A handwritten signature in black ink, appearing to read 'Kate O'Connor', written in a cursive style.

Kate O'Connor  
Executive Secretary  
**Auckland University of Technology Ethics Committee**  
Cc: Joanna Feng [knt0284@aut.ac.nz](mailto:knt0284@aut.ac.nz)

# Participant Information Sheet



DATE INFORMATION SHEET PRODUCED:

26 November 2014

**Project Title:**

The relationships between mindfulness, compassion, personal beliefs, and psychological wellbeing

**Invitation:**

My name is Joanna Feng. I would like to invite you to participate in my PhD project by completing a survey. Participation is voluntary and anonymity is guaranteed. Thank you very much for considering participating!

Every participant who returns the questionnaire by 31 January 2015 will be entitled to enter a prize draw. The winning prize consists of a \$100 petrol or supermarket voucher. There are 3x \$100 vouchers to be won in total. To be able to enter the draw, please make sure you enclose your contact details (such as an email address) on the small colored slip when returning the questionnaire. The first three entry slips drawn will represent the three winners, who will then be contacted for receiving the prize by 10 February 2015.

**WHAT IS THE PURPOSE OF THIS RESEARCH?**

This research will investigate the relationships between mindfulness, compassion, personal beliefs, and psychological wellbeing. Mindfulness is most commonly defined as the state of being attentive to and aware of what is taking place in the present.

**WHY HAVE I BEEN CHOSEN TO PARTICIPATE IN THIS RESEARCH?**

You have been invited to participate because you are an adult aged 18 years and above.

**Who will be excluded from this research?**

People who cannot read and understand English at a sufficient level will be excluded as questionnaires used in the current study are in English.

**WHAT HAPPENS IN THIS RESEARCH?**

We would like to invite you to complete a questionnaire. We will use this information to explore the role of compassion, mindfulness, and personal beliefs on buffering stress and improving wellbeing.

#### **WHAT ARE THE BENEFITS OF THIS RESEARCH?**

It is hoped that the findings of the study will help psychologists and counsellors advance their understanding of the complex relationship between stress and wellbeing.

#### **What will be the risks involved?**

The questionnaires used are standard instruments that have been used numerous times around the world. You do not need to answer any question that you do not wish to answer.

#### **HOW WILL MY PRIVACY BE PROTECTED?**

Entry slips and completed questionnaires will be submitted separately, and your answers will therefore remain anonymous. The answers to the questionnaire can only be used to categorise answers by calculating statistics, such as percentages and means.

#### **WHAT ARE THE COSTS OF PARTICIPATING IN THIS RESEARCH?**

The main cost of participating in this study is your personal time to complete a questionnaire that takes between 20 to 40 minutes.

#### **HOW DO I AGREE TO PARTICIPATE IN THIS RESEARCH?**

Returning the questionnaire indicates that you agree to participate in this research.

#### **WILL I RECEIVE FEEDBACK ON THE RESULTS OF THIS RESEARCH?**

Findings of the current study will be available on request by contacting the researcher or the project supervisor (please see contact details below).

#### **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 primary Project Supervisor, Dr Chris Krägeloh, [chris.krageloh@aut.ac.nz](mailto:chris.krageloh@aut.ac.nz), (09)921-9999 extension 7103.

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEK, Kate O'Connor, [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz), 921-9999 ext 6038.

#### **WHO DO I CONTACT FOR FURTHER INFORMATION ABOUT THIS RESEARCH?**

Researcher Contact Details:

For further information about this research, you could also contact Joanna Feng (researcher) at [knt0284@aut.ac.nz](mailto:knt0284@aut.ac.nz)

**Approved by the Auckland University of Technology Ethics Committee on  
12/09/2014, AUTEK Reference number: 12/264**

# Participant Information Sheet



DATE INFORMATION SHEET PRODUCED:

04 October 2014

**Project Title:**

The relationships between mindfulness, compassion, personal beliefs, and psychological wellbeing

**Invitation:**

My name is Joanna Feng. I would like to invite you to participate in my PhD project by completing a survey. Participation is voluntary and anonymity is guaranteed. Thank you very much for considering participating!

Every participant who returns the questionnaire by 30 November 2014 will be entitled to enter a prize draw. The winning prize consists of a \$100 petrol or supermarket voucher. There are 3x \$100 vouchers to be won in total. To be able to enter the draw, please make sure you enclose your contact details (such as an email address) on the small colored slip when returning the questionnaire. The first three entry slips drawn will represent the three winners, who will then be contacted for receiving the prize by 20 December 2014.

**WHAT IS THE PURPOSE OF THIS RESEARCH?**

This research will investigate the relationships between mindfulness, compassion, personal beliefs, and psychological wellbeing. Mindfulness is most commonly defined as the state of being attentive to and aware of what is taking place in the present.

**WHY HAVE I BEEN CHOSEN TO PARTICIPATE IN THIS RESEARCH?**

You have been invited to participate because you are an adult aged 18 years and above.

**Who will be excluded from this research?**

People who cannot read and understand English at a sufficient level will be excluded as questionnaires used in the current study are in English.

**WHAT HAPPENS IN THIS RESEARCH?**

We would like to invite you to complete a questionnaire. We will use this information to explore the role of compassion, mindfulness, and personal beliefs on buffering stress and improving wellbeing.

#### **WHAT ARE THE BENEFITS OF THIS RESEARCH?**

It is hoped that the findings of the study will help psychologists and counsellors advance their understanding of the complex relationship between stress and wellbeing.

#### **What will be the risks involved?**

The questionnaires used are standard instruments that have been used numerous times around the world. You do not need to answer any question that you do not wish to answer.

#### **HOW WILL MY PRIVACY BE PROTECTED?**

Entry slips and completed questionnaires will be submitted separately, and your answers will therefore remain anonymous. The answers to the questionnaire can only be used to categorise answers by calculating statistics, such as percentages and means.

#### **WHAT ARE THE COSTS OF PARTICIPATING IN THIS RESEARCH?**

The main cost of participating in this study is your personal time to complete a questionnaire that takes between 20 to 40 minutes.

#### **HOW DO I AGREE TO PARTICIPATE IN THIS RESEARCH?**

Returning the questionnaire indicates that you agree to participate in this research.

#### **WILL I RECEIVE FEEDBACK ON THE RESULTS OF THIS RESEARCH?**

Findings of the current study will be available on request by contacting the researcher or the project supervisor (please see contact details below).

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#### **WHO DO I CONTACT FOR FURTHER INFORMATION ABOUT THIS RESEARCH?**

Researcher Contact Details:

For further information about this research, you could also contact Joanna Feng (researcher) at [knt0284@aut.ac.nz](mailto:knt0284@aut.ac.nz)

**Approved by the Auckland University of Technology Ethics Committee on  
12/09/2014, AUTEK Reference number: 12/264**

# Participant Information Sheet



DATE INFORMATION SHEET PRODUCED:

04 October 2014

## Project Title:

The relationships between mindfulness, compassion, personal beliefs, and psychological wellbeing

## Invitation:

My name is Joanna Feng. I would like to invite you to participate in my PhD project by completing an online survey. Participation is voluntary and anonymity is guaranteed. Thank you very much for considering participating!

Every participant who returns the questionnaire by 30 Nov 2014 will be entitled to enter a prize draw. The winning prize consists of a \$100 petrol or supermarket voucher. There are 3x \$100 vouchers to be won in total. To be able to enter the draw, please make sure you provide us your contact details (such as an email address) on the separate prize-draw-entry page after completing the questionnaire. The first three entry slips drawn will represent the three winners, who will then be contacted for receiving the prize by 20 Dec 2014.

## WHAT IS THE PURPOSE OF THIS RESEARCH?

This research will investigate the relationships between mindfulness, compassion, personal beliefs, and psychological wellbeing. Mindfulness is most commonly defined as the state of being attentive to and aware of what is taking place in the present.

## WHY HAVE I BEEN CHOSEN TO PARTICIPATE IN THIS RESEARCH?

You have been invited to participate because you are an adult aged 18 years and above.

## Who will be excluded from this research?

People who cannot read and understand English at a sufficient level will be excluded as questionnaires used in the current study are in English.

## WHAT HAPPENS IN THIS RESEARCH?

We would like to invite you to complete a questionnaire. We will use this information to explore the role of compassion, mindfulness, and personal beliefs on buffering stress and improving wellbeing.

#### **WHAT ARE THE BENEFITS OF THIS RESEARCH?**

It is hoped that the findings of the study will help psychologists and counsellors advance their understanding of the complex relationship between stress and wellbeing.

#### **What will be the risks involved?**

The questionnaires used are standard instruments that have been used numerous times around the world. You do not need to answer any question that you do not wish to answer.

#### **HOW WILL MY PRIVACY BE PROTECTED?**

Entry forms and completed questionnaires will be submitted separately, and therefore submission of the entry form for the prize draw will not be linked to the electronic submission of the questionnaire. The answers to the questionnaire can only be used to categorise answers by calculating statistics, such as percentages and means.

#### **WHAT ARE THE COSTS OF PARTICIPATING IN THIS RESEARCH?**

The main cost of participating in this study is your personal time to complete a questionnaire that takes between 20 to 40 minutes.

#### **HOW DO I AGREE TO PARTICIPATE IN THIS RESEARCH?**

Completing the questionnaire indicates that you agree to participate in this research.

#### **WILL I RECEIVE FEEDBACK ON THE RESULTS OF THIS RESEARCH?**

Findings of the current study will be available on request by contacting the researcher or the project supervisor (please see contact details below).

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#### **WHO DO I CONTACT FOR FURTHER INFORMATION ABOUT THIS RESEARCH?**

Researcher Contact Details:

For further information about this research, you could also contact Joanna Feng (researcher) at [knt0284@aut.ac.nz](mailto:knt0284@aut.ac.nz)

**Approved by the Auckland University of Technology Ethics Committee on  
12/09/2014, AUTEK Reference number: 12/264**

**Appendix I: Questionnaire for Study 2**



By completing this questionnaire, you are  
consenting to participate in this study

## Questions About Your Recent Life Experiences

Instructions: Following is a list of experiences which many people have some time or other. Please indicate for each experience how much it has been a part of your life **over the past month.**

<i>Statements</i>	<i>Not at all part of my life</i>	<i>Only slightly part of my life</i>	<i>Distinctly part of my life</i>	<i>Very much part of my life</i>
1. Disliking your daily activities	1	2	3	4
2. Disliking your work	1	2	3	4
3. Ethnic or racial conflict	1	2	3	4
4. Conflicts with in-laws or boyfriend's/girlfriend's family	1	2	3	4
5. Being let down or disappointed by friends	1	2	3	4
6. Conflicts with supervisor(s) at work	1	2	3	4
7. Social rejection	1	2	3	4
8. Too many things to do at once	1	2	3	4
9. Being taken for granted	1	2	3	4
10. Financial conflicts with family members	1	2	3	4
11. Having your trust betrayed by a friend	1	2	3	4
12. Having your contributions overlooked	1	2	3	4
13. Struggling to meet your own standards of performance and accomplishment	1	2	3	4
14. Being taken advantage of	1	2	3	4
15. Not enough leisure time	1	2	3	4
16. Cash flow difficulties	1	2	3	4
17. A lot of responsibilities	1	2	3	4
18. Dissatisfaction with work	1	2	3	4
19. Decisions about intimate relationship(s)	1	2	3	4
20. Not enough time to meet your obligations	1	2	3	4
<i>Statements</i>	<i>Not at all part of my life</i>	<i>Only slightly part of my life</i>	<i>Distinctly part of my life</i>	<i>Very much part of my life</i>
21. Financial burdens	1	2	3	4

22. Lower evaluation of your work than you think you deserve	1	2	3	4
23. Experiencing high levels of noise	1	2	3	4
24. Lower evaluation of your work than you hoped for	1	2	3	4
25. Conflicts with family member(s)	1	2	3	4
26. Finding your work too demanding	1	2	3	4
27. Conflicts with friend(s)	1	2	3	4
28. Trying to secure loans	1	2	3	4
29. Getting “ripped off” or cheated in the purchase of goods	1	2	3	4
30. Unwanted interruptions of your work	1	2	3	4
31. Social isolation	1	2	3	4
32. Being ignored	1	2	3	4
33. Dissatisfaction with your physical appearance	1	2	3	4
34. Unsatisfactory housing conditions	1	2	3	4
35. Finding work uninteresting	1	2	3	4
36. Failing to get money you expected	1	2	3	4
37. Gossip about someone you care about	1	2	3	4
38. Dissatisfaction with your physical fitness	1	2	3	4
39. Gossip about yourself	1	2	3	4
40. Difficulty dealing with modern technology (e.g. computers)	1	2	3	4
41. Hard work to look after and maintain home	1	2	3	4

## Questions About Your Day-to-Day Experiences

Instructions: Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what *really reflects* your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1	2	3	4	5	6
<i>Almost always</i>	<i>Very frequently</i>	<i>Somewhat frequently</i>	<i>Somewhat infrequently</i>	<i>Very infrequently</i>	<i>Almost never</i>
42. I could be experiencing some emotion and not be conscious of it until some time later.	1	2	3	4	5 6
43. I break or spill things because of carelessness, not paying attention, or thinking of something else.	1	2	3	4	5 6
44. I find it difficult to stay focused on what's happening in the present.	1	2	3	4	5 6
45. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	1	2	3	4	5 6
46. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	1	2	3	4	5 6
47. I forget a person's name almost as soon as I've been told it for the first time.	1	2	3	4	5 6
48. It seems I am "running on automatic," without much awareness of what I'm doing.	1	2	3	4	5 6
49. I rush through activities without being really attentive to them.	1	2	3	4	5 6
50. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	1	2	3	4	5 6
51. I do jobs or tasks automatically, without being aware of what I'm doing.	1	2	3	4	5 6
52. I find myself listening to someone with one ear, doing something else at the same time.	1	2	3	4	5 6
53. I drive places on "automatic pilot" and then wonder why I went there.	1	2	3	4	5 6
54. I find myself preoccupied with the future or the past.	1	2	3	4	5 6
55. I find myself doing things without paying attention.	1	2	3	4	5 6
56. I snack without being aware that I'm eating.	1	2	3	4	5 6

## Questions About Your Feelings Towards Others

Please answer the following questions honestly and quickly using the scale below:

57. When I hear about someone (a stranger) going through a difficult time, I feel a great deal of compassion for him or her.

*Not at all true of me*    1        2        3        4        5        6        7    *Very true of me*

58. I tend to feel compassion for people, even though I do not know them.

*Not at all true of me*    1        2        3        4        5        6        7    *Very true of me*

59. One of the activities that provide me with the most meaning to my life is helping others in the world when they need help.

*Not at all true of me*    1        2        3        4        5        6        7    *Very true of me*

60. I would rather engage in actions that help others, even though they are strangers, than engage in actions that would help me.

*Not at all true of me*    1        2        3        4        5        6        7    *Very true of me*

61. I often have tender feelings toward people (strangers) when they seem to be in need.

*Not at all true of me*    1        2        3        4        5        6        7    *Very true of me*

## Questions about your personal beliefs

Instruction: Read each statement carefully and choose which one of the five possible responses best reflects you. Please answer honestly and make responses based on ***how you actually are*** rather than how you would like to be.

Statements	<i>Not at all true of me</i>	<i>Not very true of me</i>	<i>Somewhat true of me</i>	<i>Very true of me</i>	<i>Completely true of me</i>
62. I have often questioned or pondered the nature of reality.	1	2	3	4	5
63. I recognize aspects of myself that are deeper than my physical body.	1	2	3	4	5
64. I have spent time contemplating the purpose or reason for my existence.	1	2	3	4	5

65. I am able to enter higher states of consciousness or awareness.	1	2	3	4	5
66. I am able to deeply contemplate what happens after death.	1	2	3	4	5
67. It is difficult for me to sense anything other than the physical and material.	1	2	3	4	5
68. My ability to find meaning and purpose in life helps me adapt to stressful situations.	1	2	3	4	5
69. I can control when I enter higher states of consciousness or awareness.	1	2	3	4	5
70. I have developed my own theories about such things as life, death, reality, and existence.	1	2	3	4	5
71. I am aware of a deeper connection between myself and other people.	1	2	3	4	5
72. I am able to define a purpose or reason for my life.	1	2	3	4	5
73. I am able to move freely between levels of consciousness or awareness.	1	2	3	4	5
74. I frequently contemplate the meaning of events in my life.	1	2	3	4	5
75. I define myself by my deeper, non-physical self.	1	2	3	4	5
76. When I experience a failure, I am still able to find meaning in it.	1	2	3	4	5
77. I often see issues and choices more clearly while in higher states of consciousness/awareness.	1	2	3	4	5
78. I have often contemplated the relationship between human beings and the rest of the universe.	1	2	3	4	5
79. I am highly aware of the nonmaterial aspects of life.	1	2	3	4	5
80. I am able to make decisions according to my purpose in life.	1	2	3	4	5
81. I recognize qualities in people which are more meaningful than their body, personality, or emotions.	1	2	3	4	5

82. I have deeply contemplated whether or not there is some greater power or force (e.g., god, goddess, divine being, higher energy, etc.).	1	2	3	4	5
83. Recognizing the nonmaterial aspects of life helps me feel centered.	1	2	3	4	5
84. I am able to find meaning and purpose in my everyday experiences.	1	2	3	4	5
85. I have developed my own techniques for entering higher states of consciousness or awareness.	1	2	3	4	5

### Questions About Your Approach to Life

**Instructions:** To help us understand your general approach to life and your views about yourself, others, and life in general, tell us the extent to which the following statements reflect your experiences at this point in your life. Select a number from 1 to 6 on the scale provided with each statement to rate the extent to which you agree with it.

Please answer according to what *really reflects* your experience rather than what you think your experience should be.

1	2	3	4	5	6
<i>Disagree Strongly</i>	<i>Disagree Moderately</i>	<i>Disagree Slightly</i>	<i>Agree Slightly</i>	<i>Agree Moderately</i>	<i>Agree Strongly</i>

86. I can accept the flow of events in my life without hanging onto them or pushing them away.	1	2	3	4	5	6
87. I can let go of regrets and feelings of dissatisfaction about the past.	1	2	3	4	5	6
88. I find I can be calm and/or happy even if things are not going my way.	1	2	3	4	5	6
89. I have a hard time appreciating others' successes when they outperform me.	1	2	3	4	5	6
90. I can remain open to what life offers me regardless of whether it seems desirable or undesirable at a particular time.	1	2	3	4	5	6
91. I can enjoy pleasant experiences without needing them to last forever.	1	2	3	4	5	6

92. I view the problems that enter my life as things/issues to work on rather than reasons for becoming disheartened or demoralized.	1	2	3	4	5	6
93. I can enjoy my possessions without being upset when they are damaged or destroyed.	1	2	3	4	5	6
94. The amount of money I have is not important to my sense of who I am.	1	2	3	4	5	6
95. I do not go out of my way to cover up or deny my negative qualities or mistakes.	1	2	3	4	5	6
96. I accept my flaws.	1	2	3	4	5	6
97. I can enjoy my family and friends without feeling I need to hang on to them.	1	2	3	4	5	6
98. If things aren't turning out the way I want, I get upset.	1	2	3	4	5	6
99. I can enjoy the pleasures of life without feeling sad or frustrated when they end.	1	2	3	4	5	6
100. I can take joy in others' achievements without feeling envious.	1	2	3	4	5	6
101. I find I can be happy almost regardless of what is going on in my life.	1	2	3	4	5	6
102. Instead of avoiding or denying life's difficulties, I face up to them.	1	2	3	4	5	6
103. I am open to reflecting on my past mistakes and failings.	1	2	3	4	5	6
104. I do not get "hung up" on wanting an "ideal" or "perfect" life.	1	2	3	4	5	6
105. I am comfortable being an ordinary, less than perfect human being.	1	2	3	4	5	6
106. I can remain open to thoughts and feelings that come into my mind, even if they are negative or painful.	1	2	3	4	5	6
107. I can see my own problems and shortcomings without trying to blame them on someone or something outside myself.	1	2	3	4	5	6
108. When pleasant experiences end, I am fine moving on to what comes next.	1	2	3	4	5	6
109. I am often preoccupied by threats or fears.	1	2	3	4	5	6
110. I am not possessive of the people I love.	1	2	3	4	5	6

111. I do not have to hang on to the people I love at all costs; I can let them go if they wish to go.	1	2	3	4	5	6
112. I do not feel I need to escape or avoid bad experiences in my life.	1	2	3	4	5	6
113. I can admit my shortcomings without shame or embarrassment.	1	2	3	4	5	6
114. I experience and acknowledge grief following significant losses, but do not become overwhelmed, devastated, or incapable of meeting life's other demands.	1	2	3	4	5	6
115. I am not possessive of the things I own.	1	2	3	4	5	6

### Questions About Your Well-Being

Please answer the following questions are about how you have been feeling during *the past month*. Place a check mark in the box that best represents how often you have experienced or felt the following:

During the past month, how often did you feel ...	Never	Once or twice	About once a week	About 2 or 3 times a week	Almost everyday	Everyday
116. happy	1	2	3	4	5	6
117. interested in life	1	2	3	4	5	6
118. satisfied with life	1	2	3	4	5	6
119. that you had something important to contribute to society	1	2	3	4	5	6
120. that you belonged to a community ( like a social group, or your neighbourhood)	1	2	3	4	5	6
121. that our society is becoming a better place, for people like you	1	2	3	4	5	6
122. that people are basically good	1	2	3	4	5	6
123. that the way our society works makes sense to you	1	2	3	4	5	6

124. that you liked most parts of your personality	1	2	3	4	5	6
125. good at managing the responsibilities of your daily life	1	2	3	4	5	6
126. that you had warm and trusting relationships with others	1	2	3	4	5	6
127. that you had experiences that challenged you to grow and become a better person	1	2	3	4	5	6
128. confident to think or express your own ideas and opinions	1	2	3	4	5	6
129. that your life has a sense of direction or meaning to it	1	2	3	4	5	6

**What is your age?** \_\_\_\_\_

**What is your gender?**  Male  Female

**What is your ethnicity?** \_\_\_\_\_

**Do you belong to any religious faith?**

**Yes**

What religious faith do you belong to? \_\_\_\_\_

On a scale of 1 to 5, how religious would you rate yourself?

1                      2                      3                      4                      5

**No**

**Do you practice meditation, contemplation, or any spiritual practice?**

**Yes**

What form of meditation, contemplation, or spiritual practice are you practicing?

---

How long have you been practicing? \_\_\_\_\_

How often do you practice? \_\_\_\_\_

On average, how long do you practice each time? \_\_\_\_\_

**I used to practice regularly, but not anymore.**

How long did you practice for? \_\_\_\_\_

What form of meditation, contemplation, or spiritual practice?  
\_\_\_\_\_

When did you stop practicing? \_\_\_\_\_

**I tried meditation, contemplation, or any spiritual practice before, but never practiced on a regular basis.**

**I never practiced any form of meditation, contemplation, or any spiritual practice.**

**Do you have other comments?**

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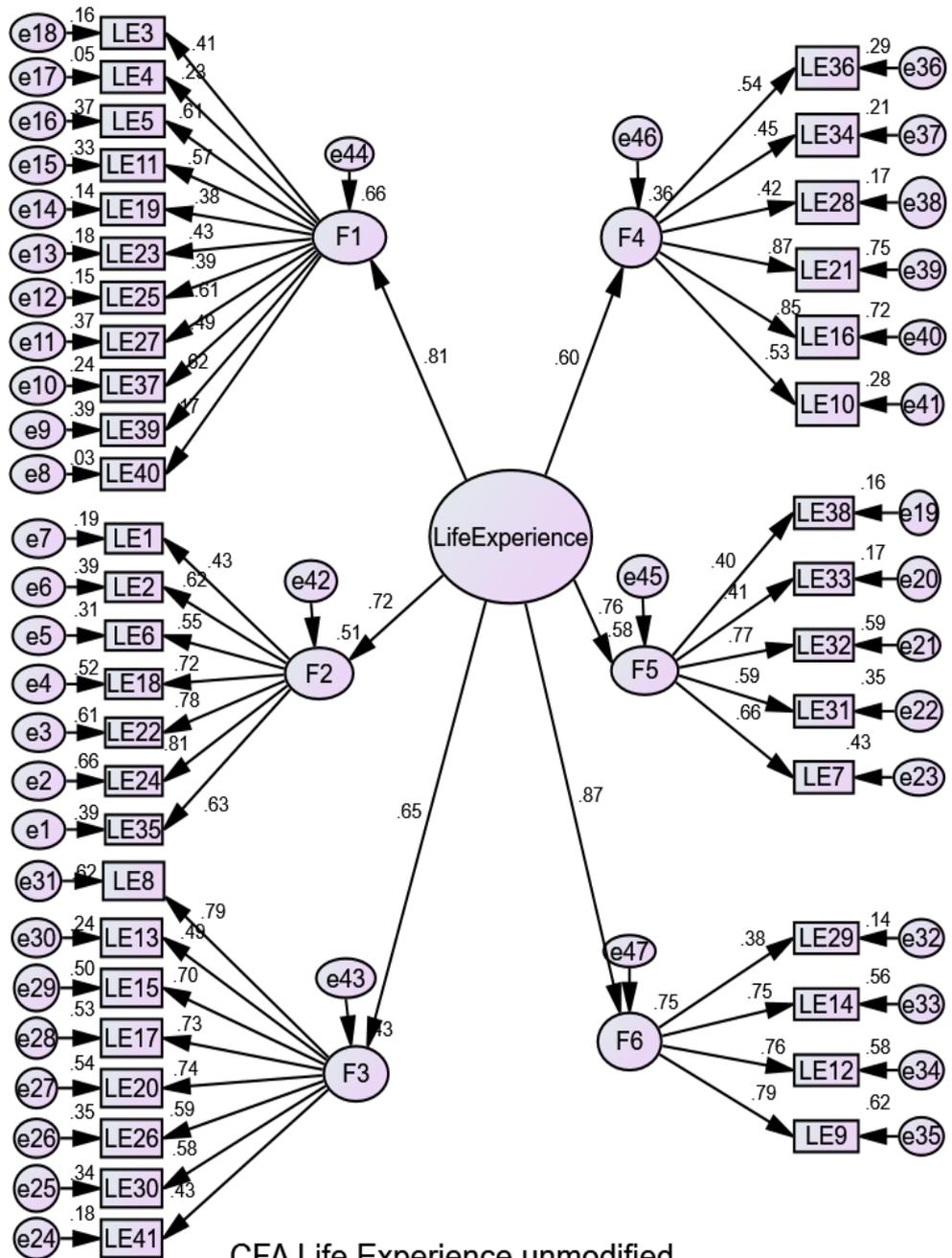
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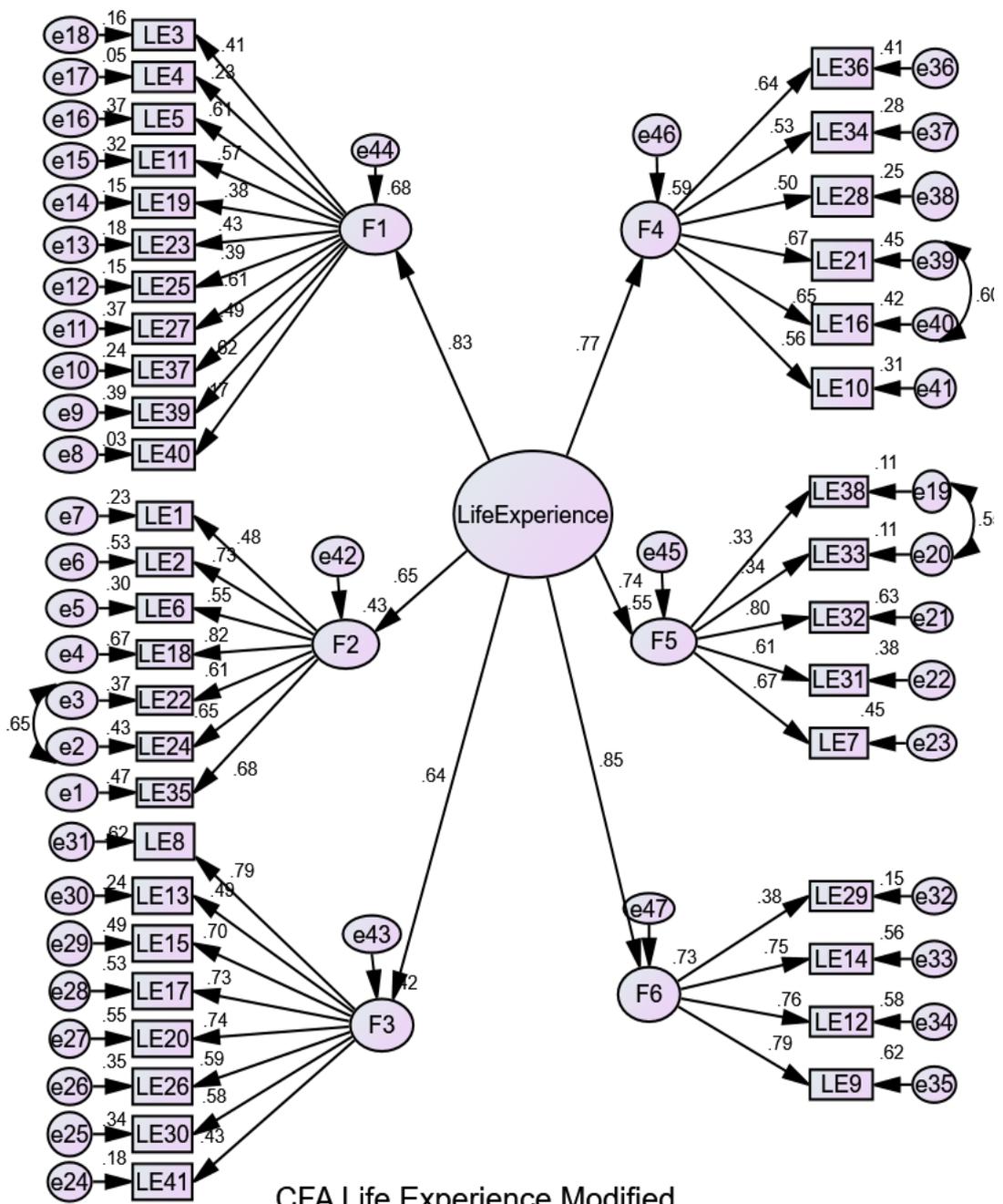
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**THANK YOU FOR YOUR HELP!**

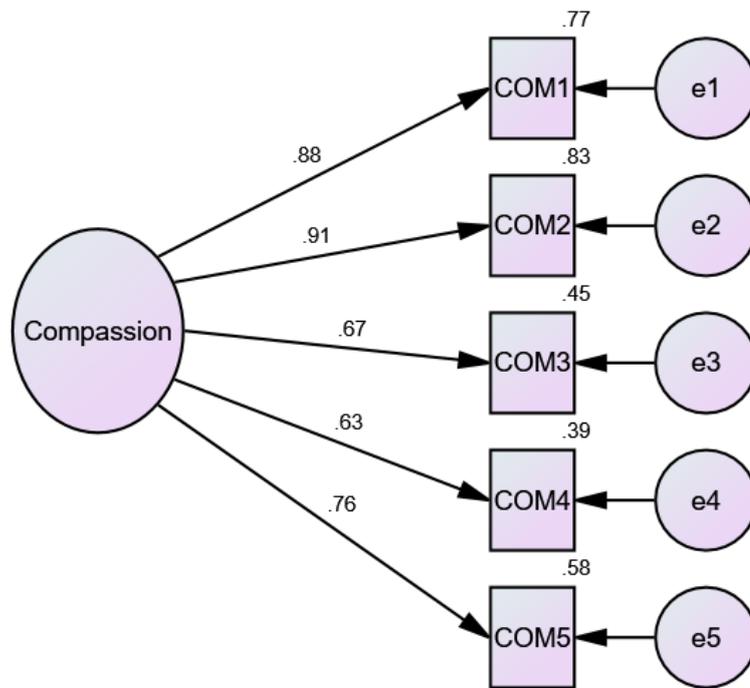
**Appendix J: CFA results of original and modified scales employed in Study 2**



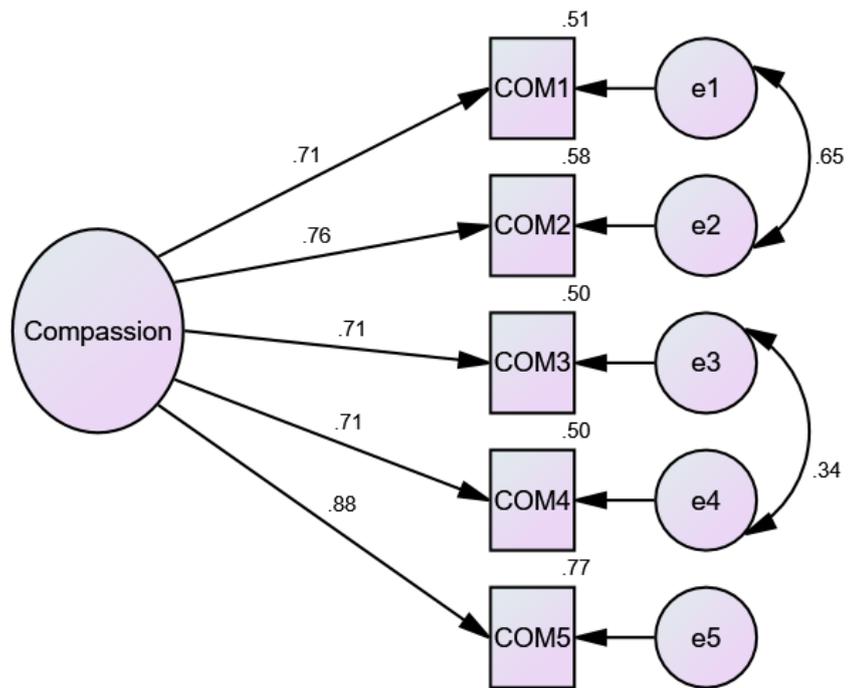
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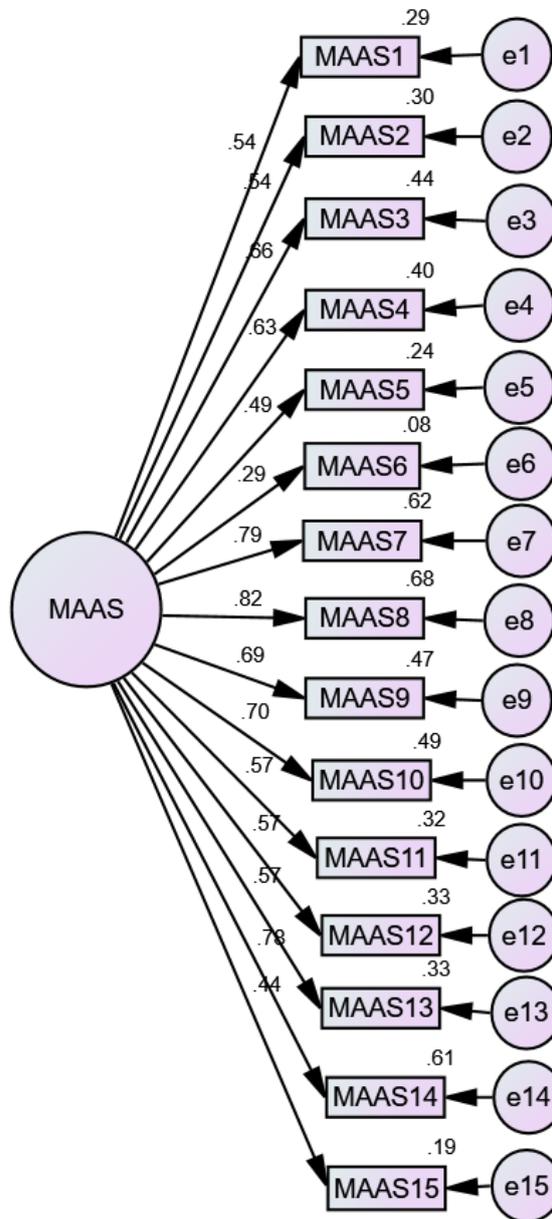
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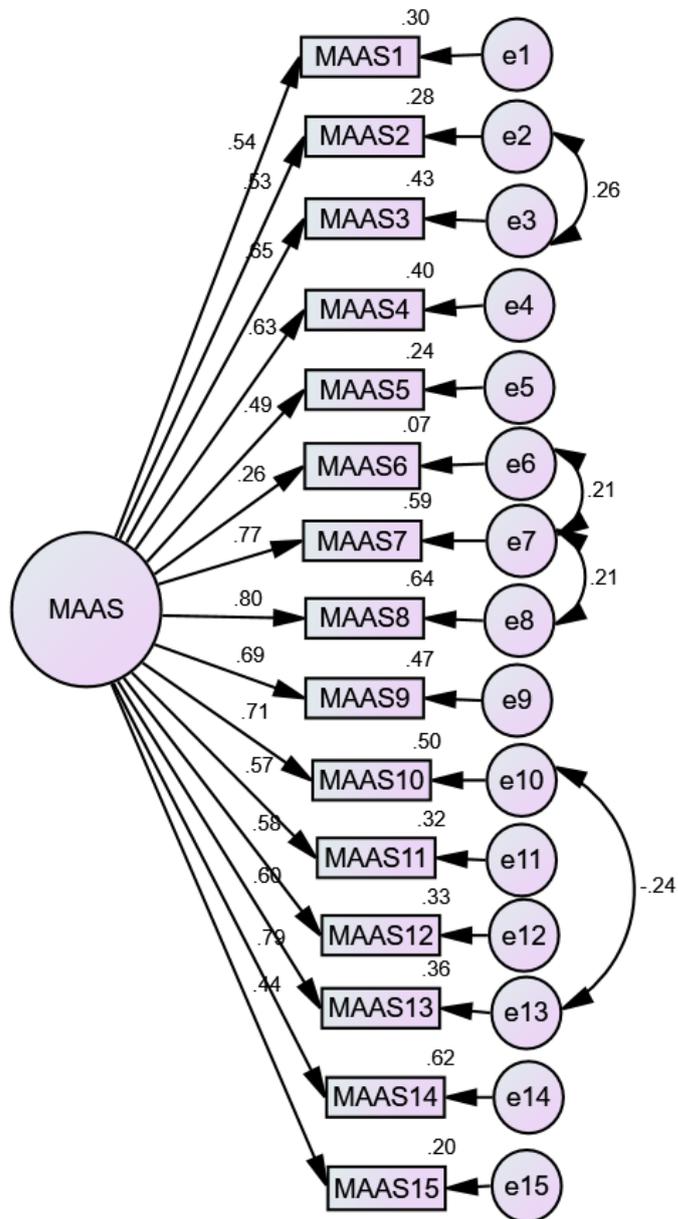
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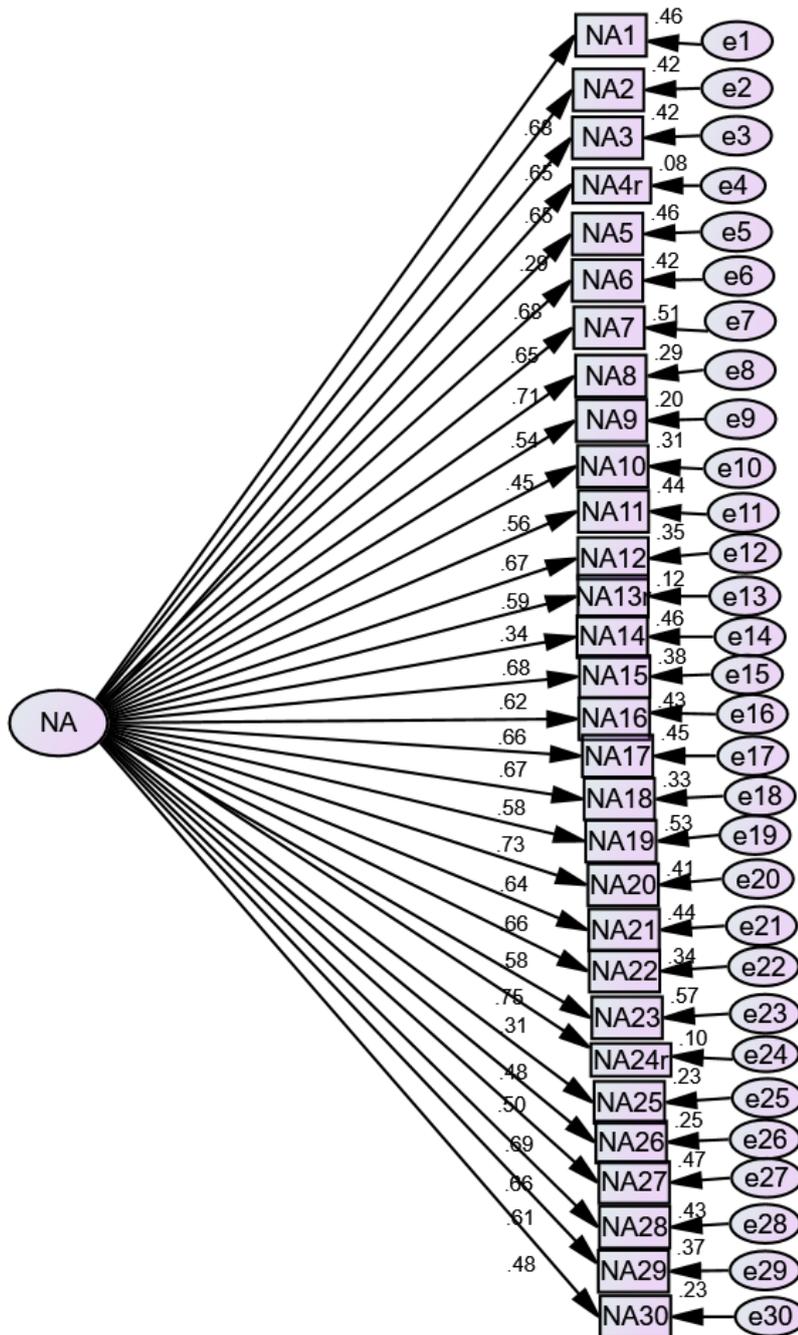
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 RMSEA=.077



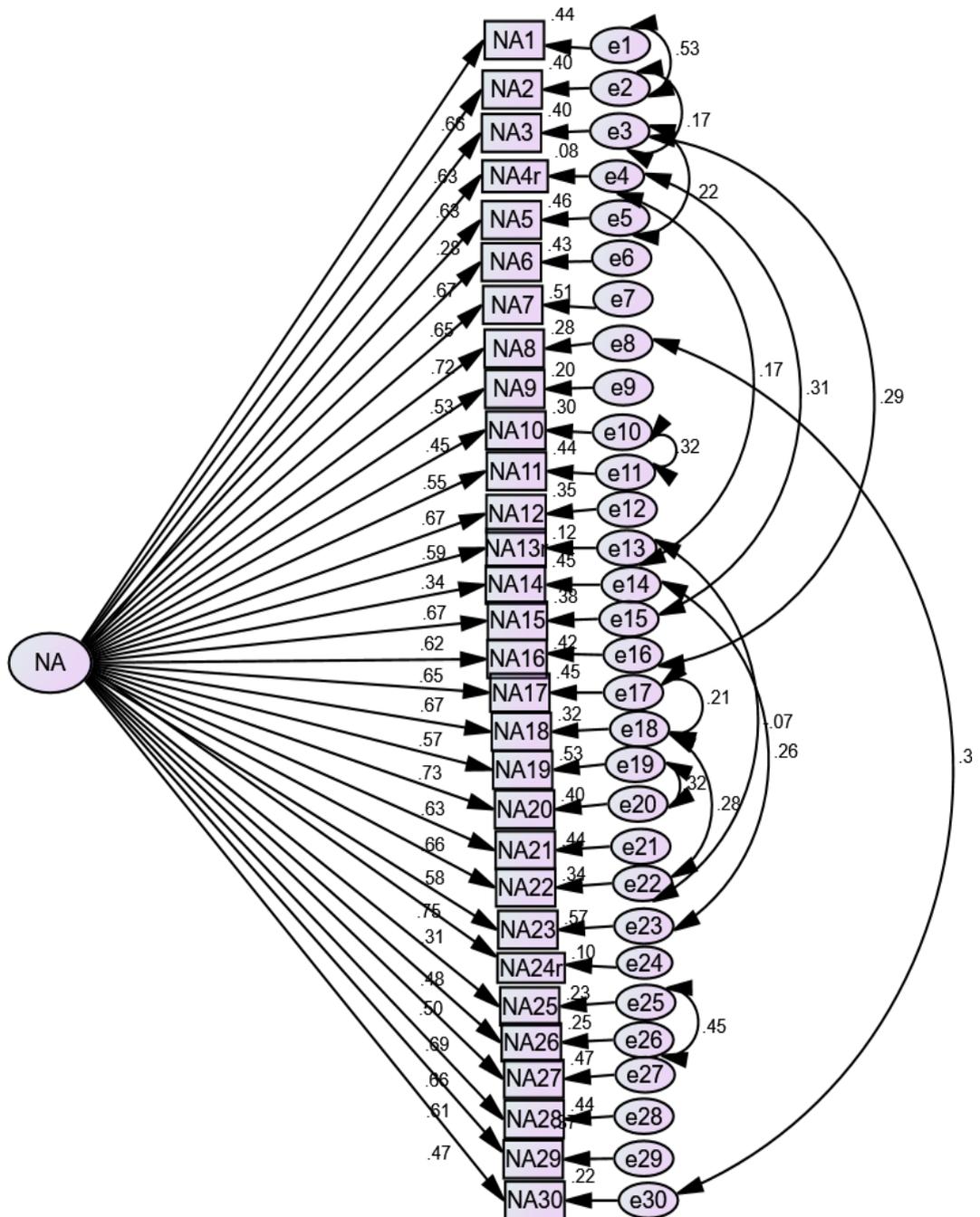
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 CFI=.916  
 RMSEA=.074



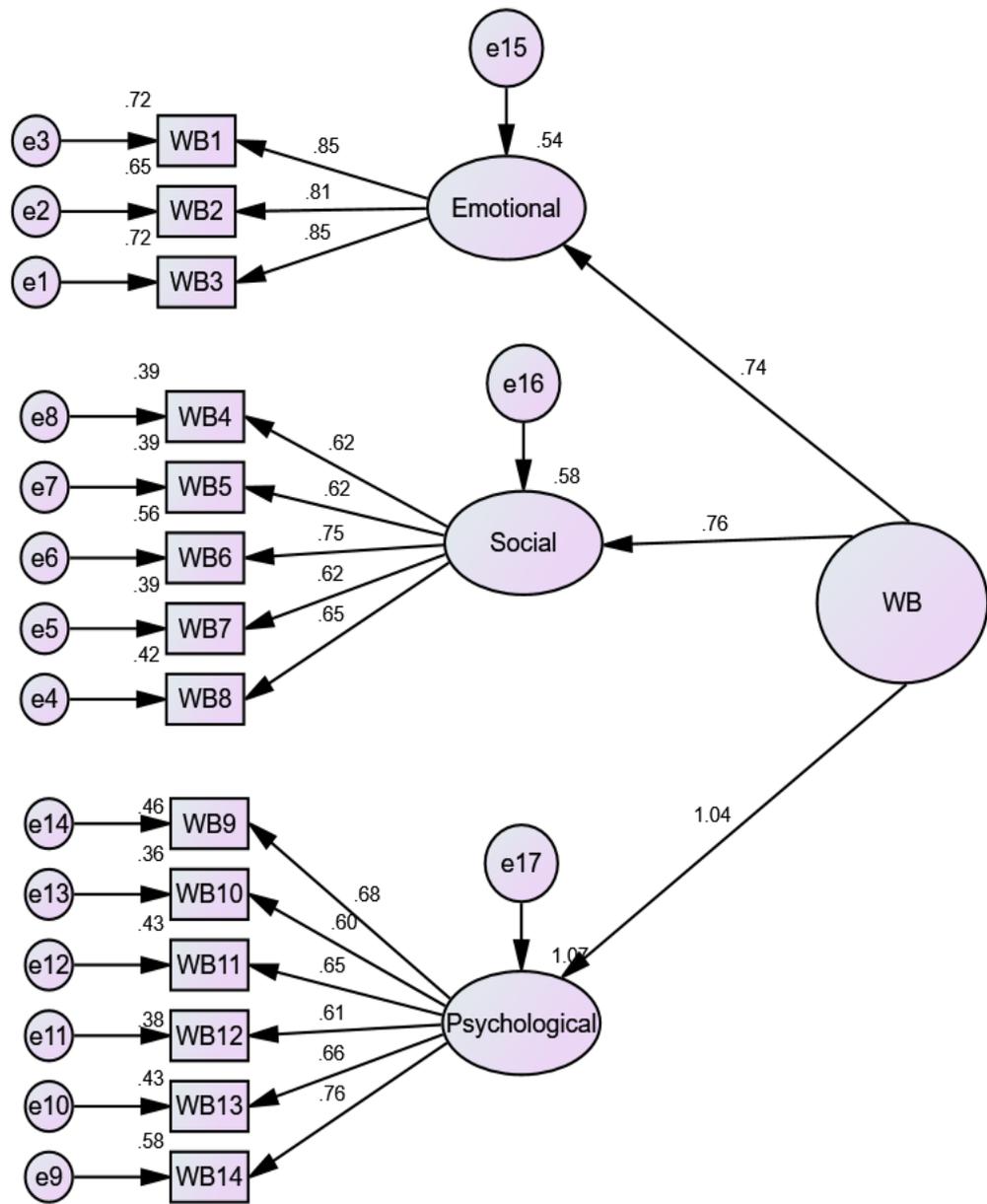
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 CFI=.947  
 RMSEA=.060



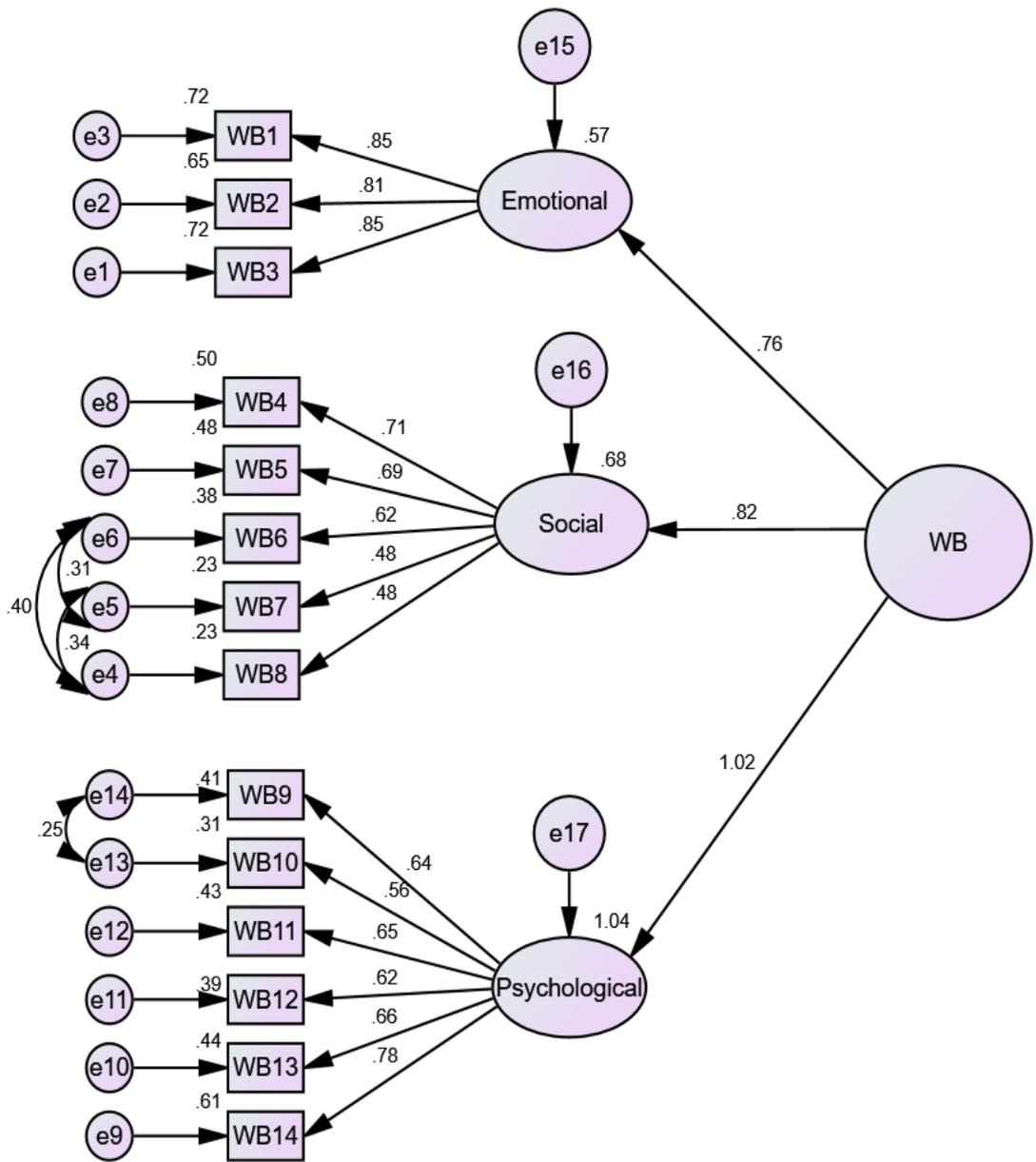
CFA Non-attachement Scale Unmodified  
 CFI=.797  
 RMSEA=.083



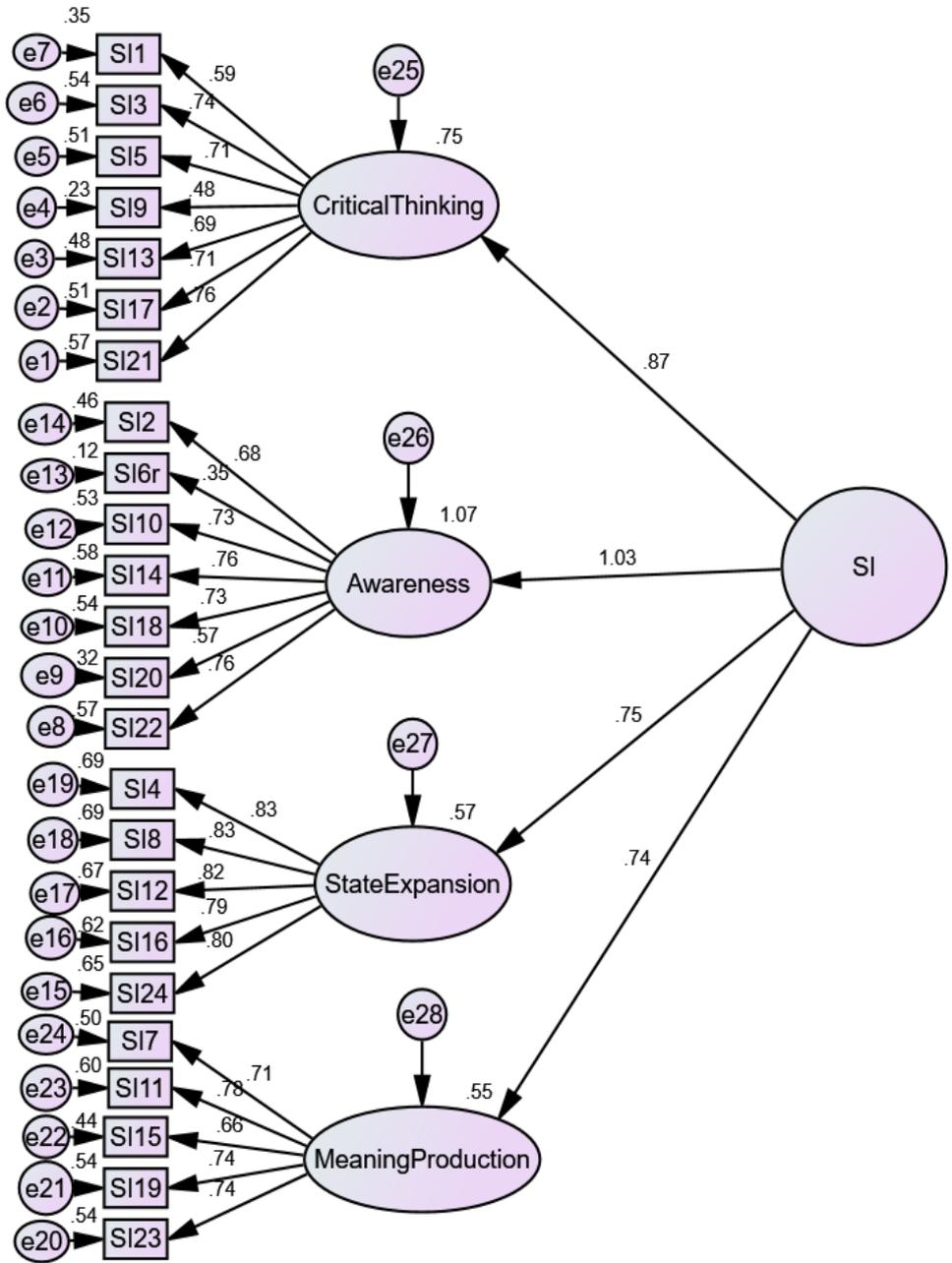
CFA Non-attachement Scale modified  
 CFI=.898  
 RMSEA=.060



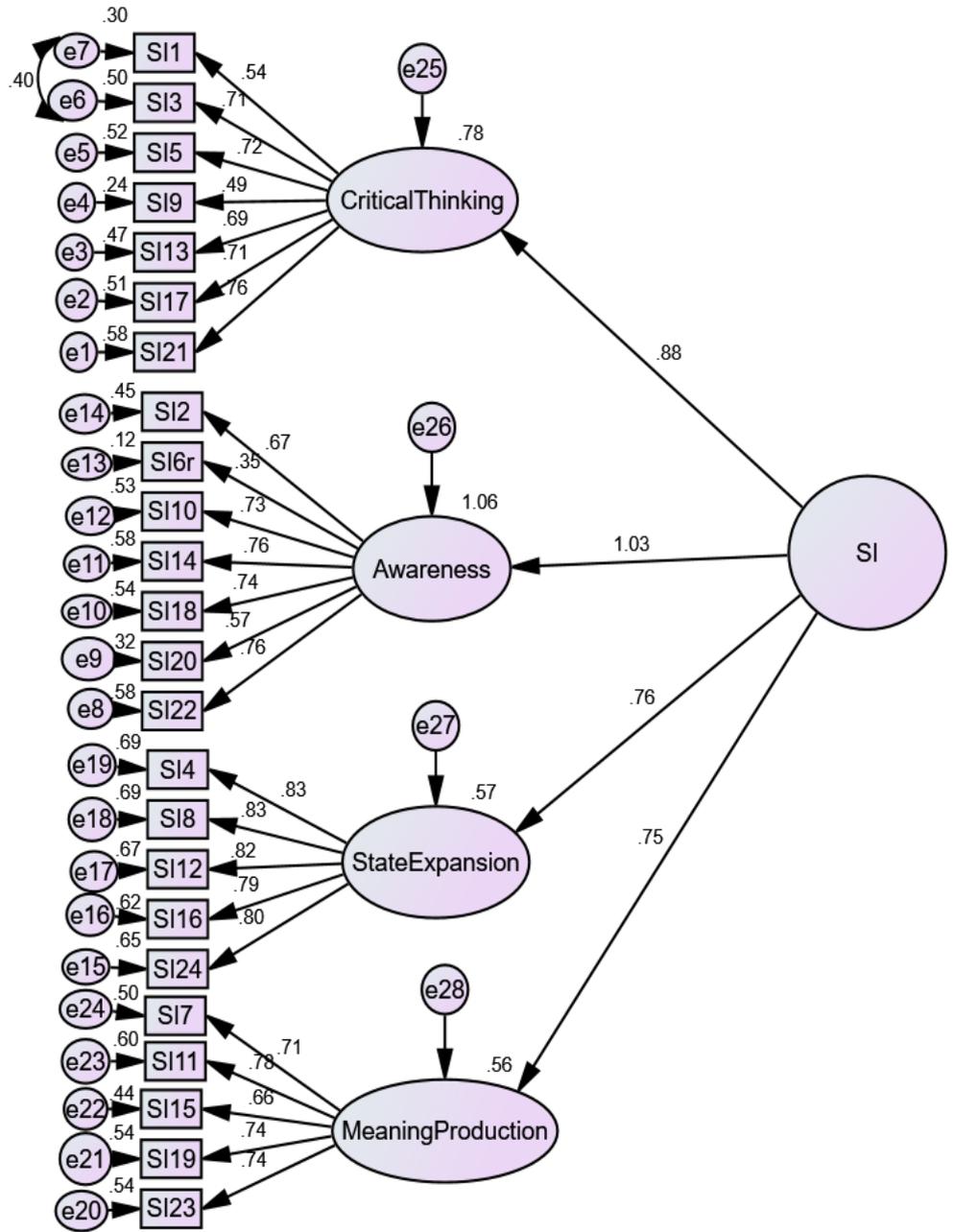
CFA WB Scale Unmodified  
 CFI=.917  
 RMSEA=.082



CFA WB Scale Modified  
 CFI=.956  
 RMSEA=.062



CFA SI Scale Unmodified  
 CFI=.892  
 RMSEA=.076



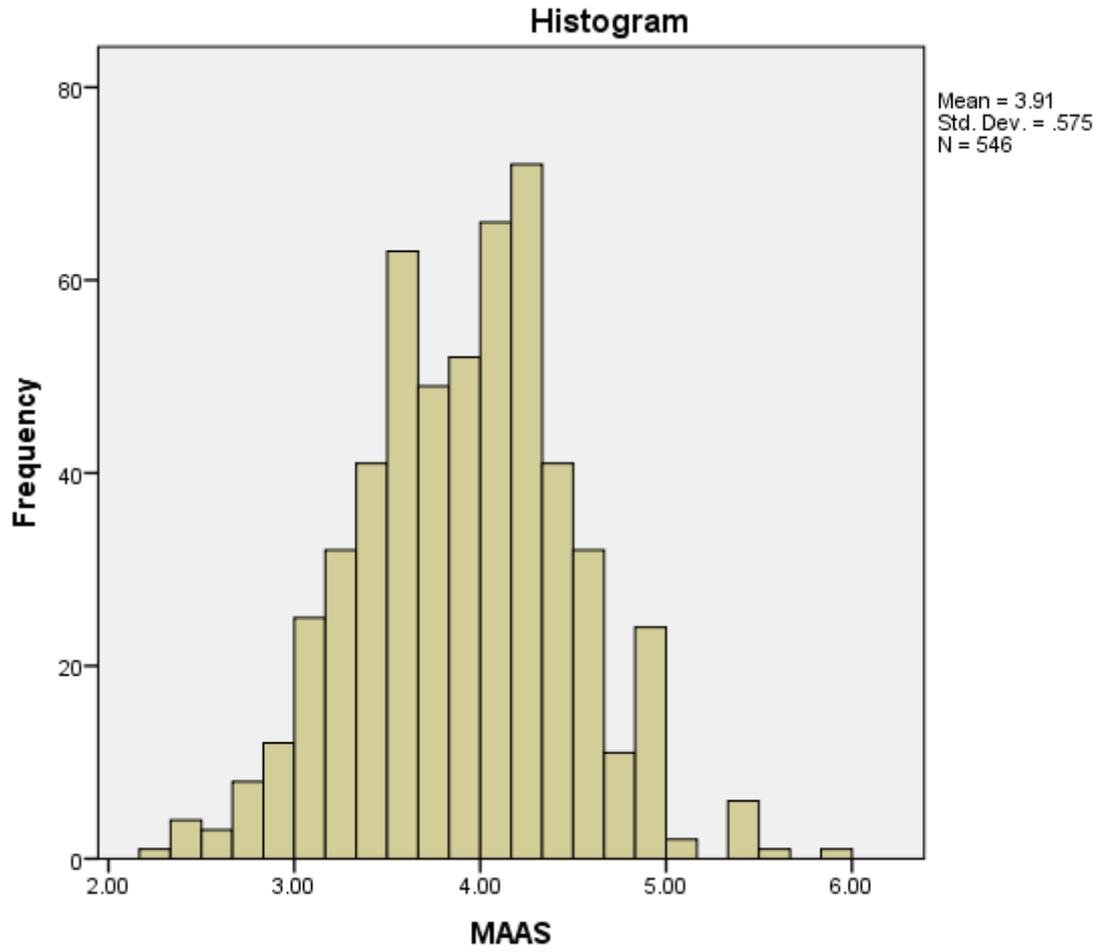
CFA SI Scale Modified  
 CFI=.903  
 RMSEA=.072

## Appendix K: Testing assumptions

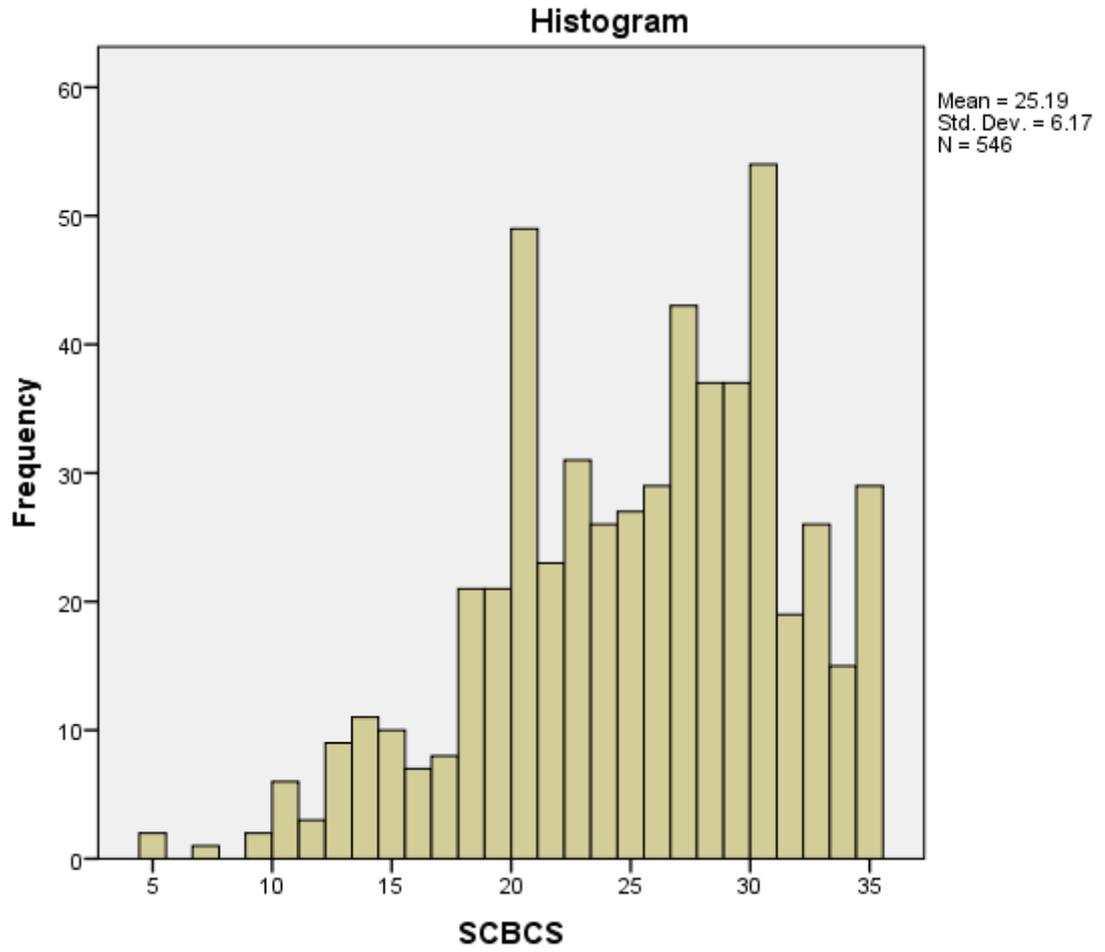
Since Shapiro-Wilk Test of normality is overly sensitive to large sample sizes, and the sample size of Study 2 (546) was large, this test was not conducted. Normality for Study 2 variables was assessed by a visual assessment of histograms as well as skewness and kurtosis. The histograms of the variables were presented from Figure K.1 to Figure K.5. Skewness and kurtosis values are presented in Table K.1. Since all the skewness and kurtosis values are between -2 and +2, the variables have normal distributions according to George and Mallery (2010). Thus, parametric tests were conducted. In addition, visual inspection of scatter plots (from Figure K.6 to Figure K.8) revealed that relationships between independent variables and the dependent variable of well-being tended to be linear. The independent variables did not have issue of multicollinearity, as correlations between them were less than 0.80. In addition, variance inflation factors were less than 10, and tolerance values were less than 0.20 (Tabachnick & Fidell, 2007).

Table K.1. *Skewness and kurtosis of Study 2 variables*

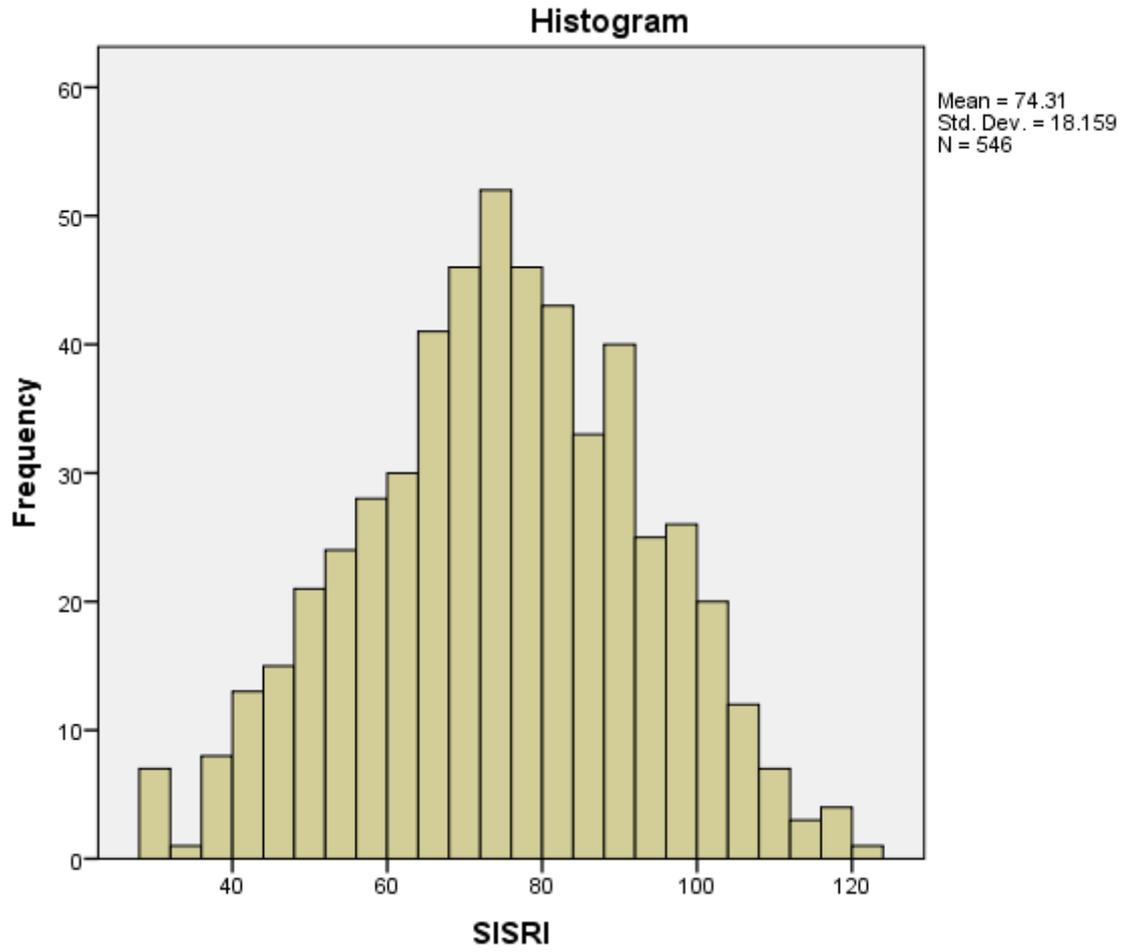
<b>Variables</b>	<b>Skewness</b>	<b>Kurtosis</b>
MAAS	0.05	0.13
SCBCS	-0.49	-0.19
SISRI	-0.09	-0.36
NAS	0.56	1.78
MHC	-0.54	-0.26



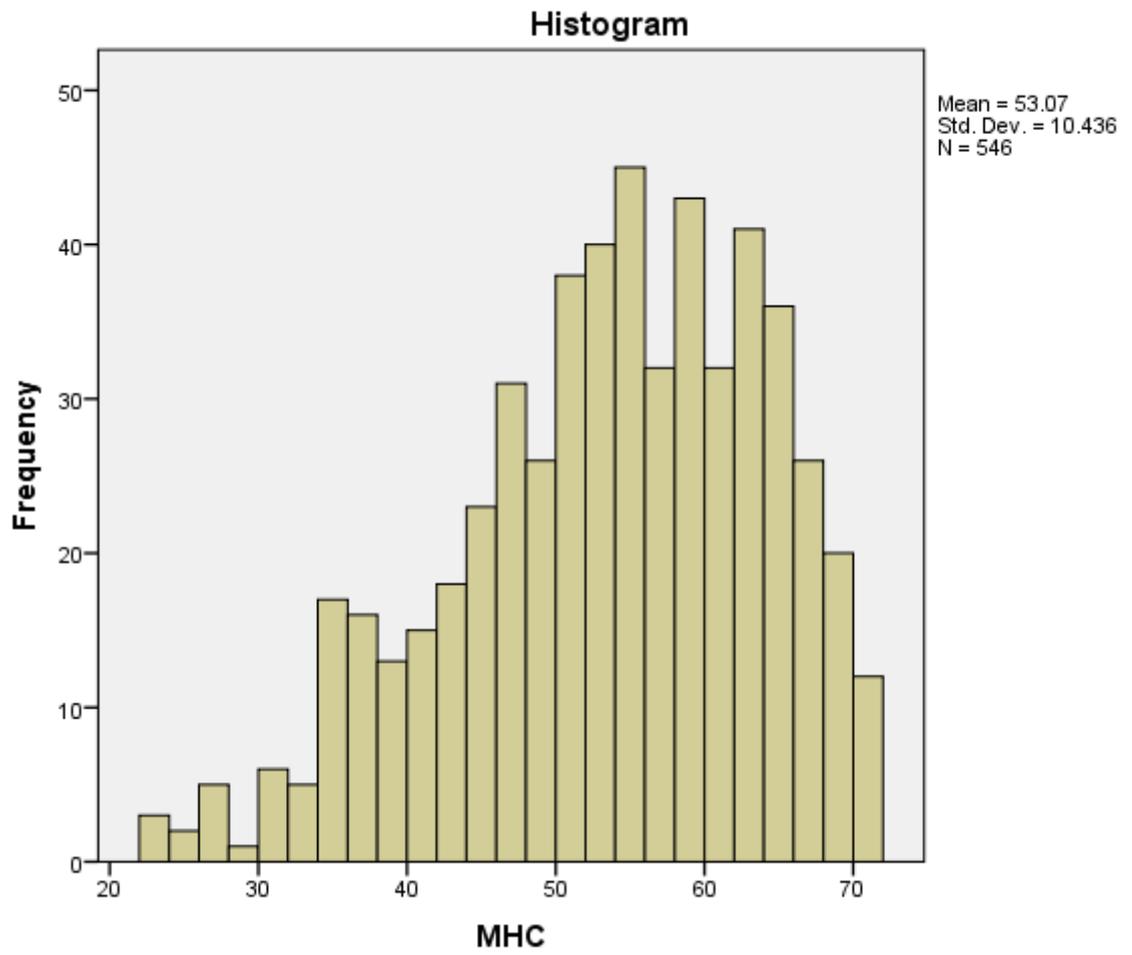
*Figure K.1.* Histogram of the MAAS scores



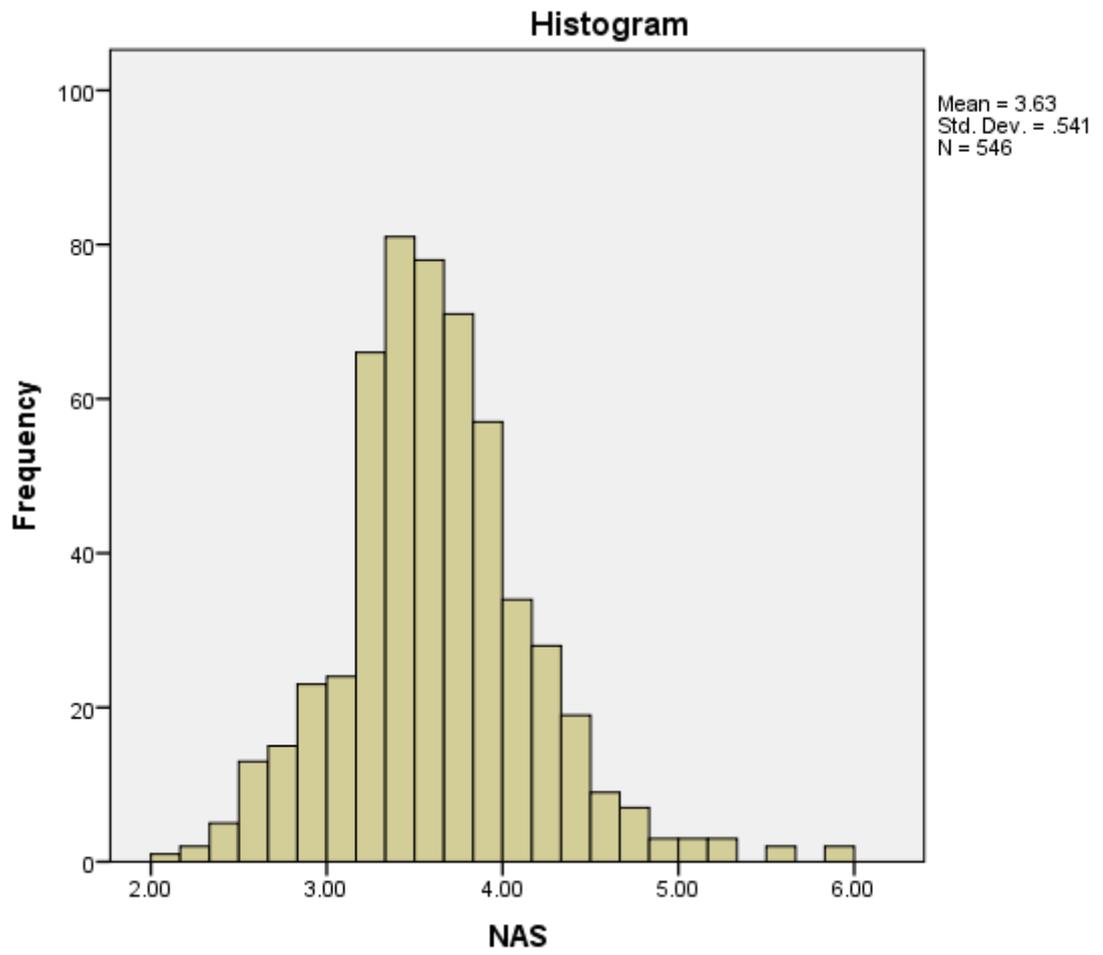
*Figure K.2.* Histogram of the SCBCS scores



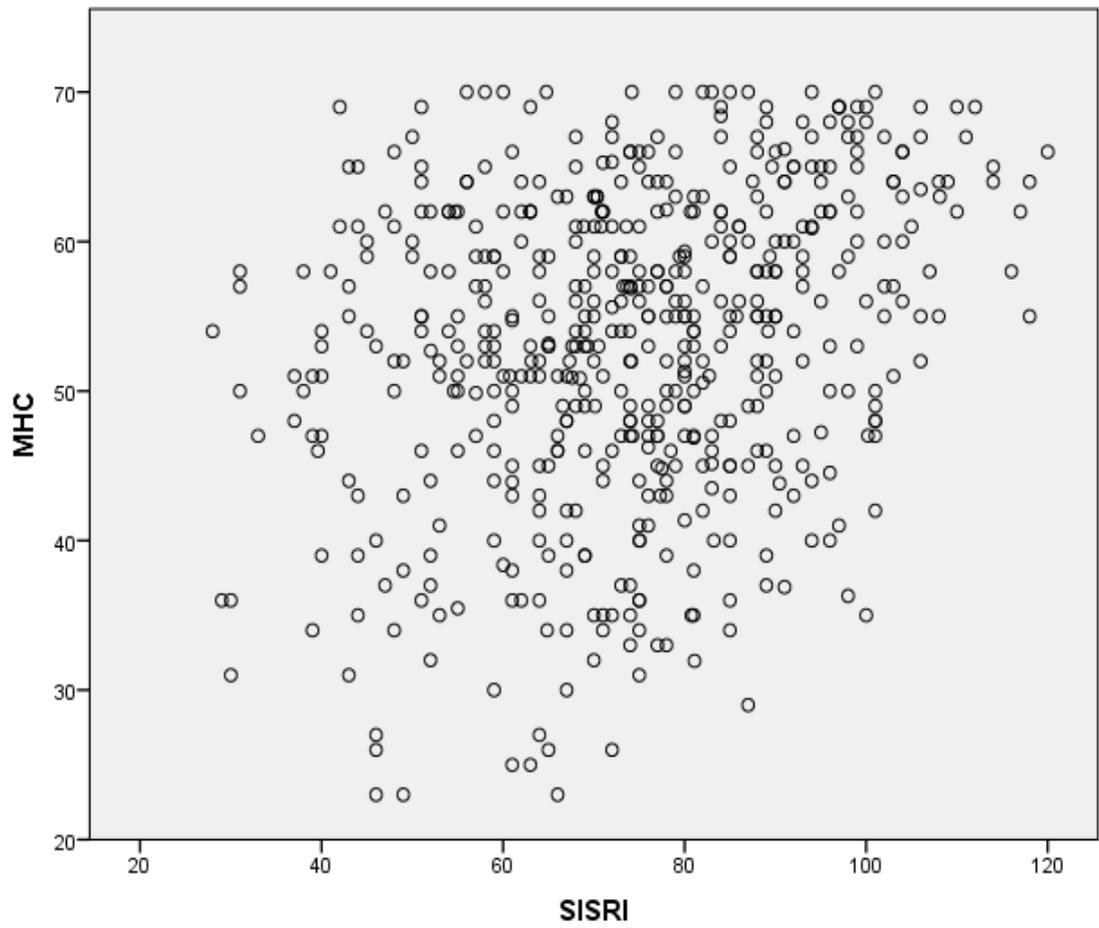
*Figure K.3.* Histogram of the SISRI scores



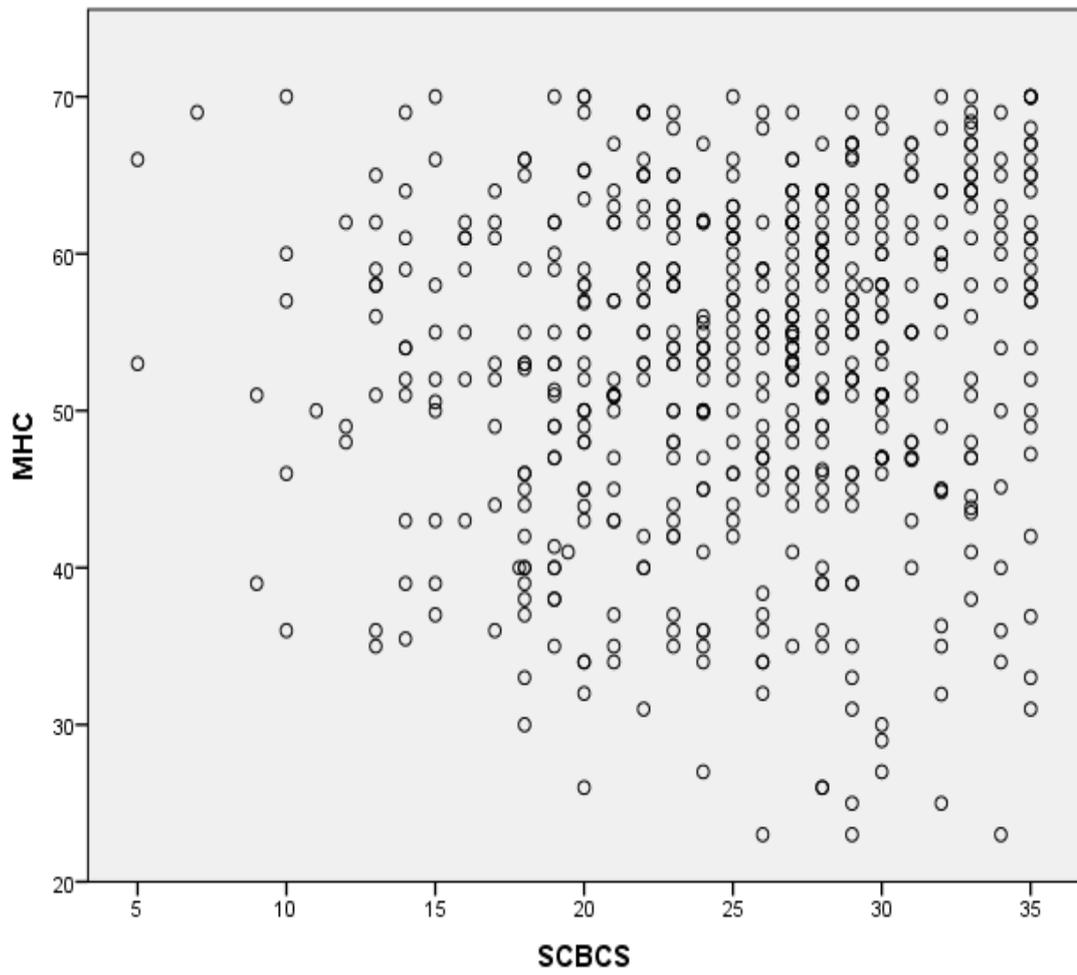
*Figure K.4.* Histogram of the MHC scores



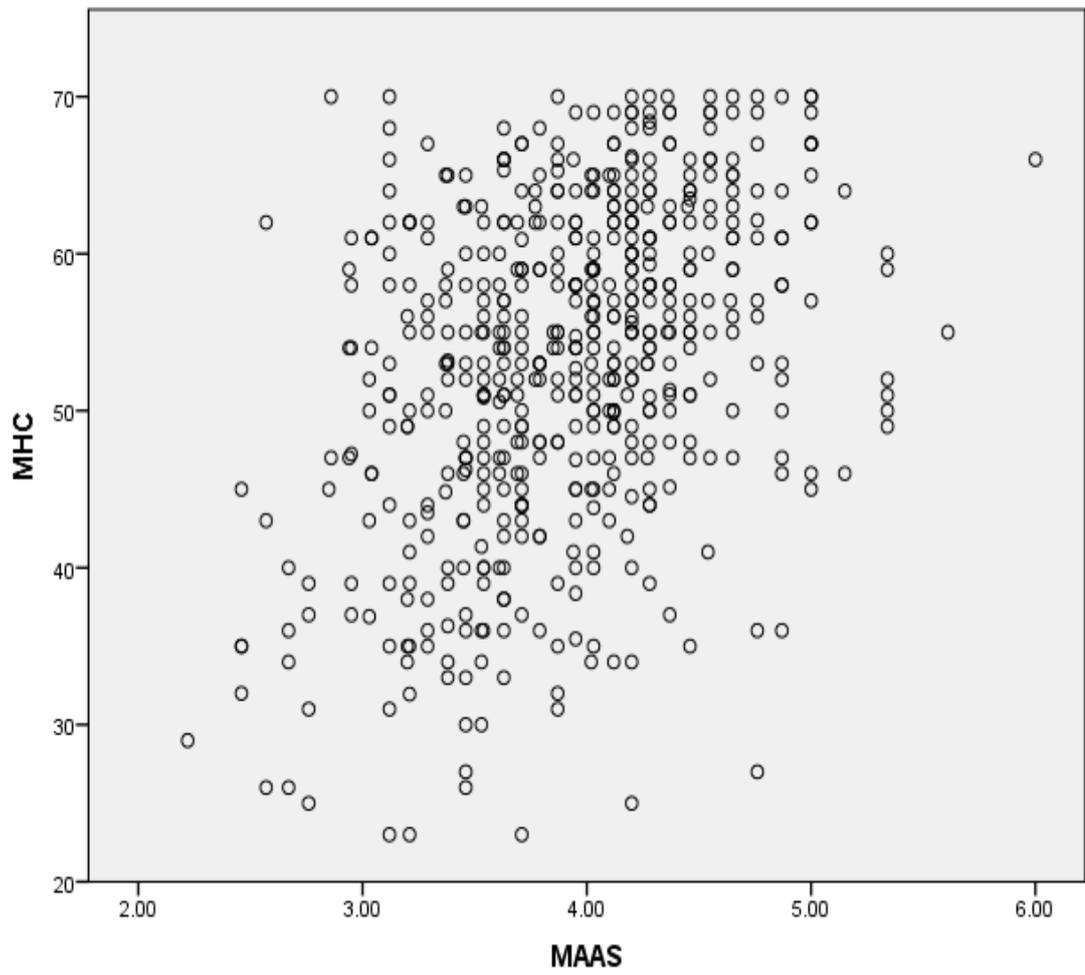
*Figure K.5.* Histogram of the NAS scores



*Figure K.6.* Scatterplot of the relationship between SISRI and MHC



*Figure K.7.* Scatterplot of the relationship between SCBCS and MHC



*Figure K.8.* Scatterplot of the relationship between MAAS and MHC

## Appendix L: The NAS-30 Rasch conversion table

*Converting from a uniformly rescored 26-item Non-Attachment Scale raw score (0 to 78) to an interval scale in logit units and in mean scores ranging from 1 to 6 for the younger (18-45 years) and the older (46-91 years) age groups.*

Raw score*	Interval measure				Raw score*	Interval measure			
	Age 18-45 years		Age 46-91 years			Age 18-45 years		Age 46-91 years	
	Logit	Mean	Logit	Mean		Logit	Mean	Logit	Mean
0	-4.13	1.00	-4.20	1.00	40	-0.24	3.07	-0.26	3.13
1	-3.42	1.38	-3.48	1.39	41	-0.17	3.11	-0.18	3.17
2	-2.98	1.61	-3.03	1.63	42	-0.09	3.15	-0.11	3.21
3	-2.71	1.76	-2.75	1.78	43	-0.02	3.19	-0.03	3.25
4	-2.52	1.86	-2.56	1.89	44	0.06	3.23	0.04	3.29
5	-2.38	1.94	-2.41	1.97	45	0.13	3.27	0.12	3.33
6	-2.26	2.00	-2.29	2.03	46	0.21	3.31	0.20	3.38
7	-2.16	2.05	-2.19	2.09	47	0.29	3.35	0.27	3.42
8	-2.08	2.09	-2.10	2.14	48	0.37	3.40	0.35	3.46
9	-2.00	2.13	-2.02	2.18	49	0.45	3.44	0.43	3.50
10	-1.94	2.17	-1.96	2.21	50	0.53	3.48	0.51	3.55
11	-1.87	2.20	-1.89	2.25	51	0.61	3.52	0.59	3.59
12	-1.82	2.23	-1.83	2.28	52	0.69	3.57	0.67	3.63
13	-1.76	2.26	-1.78	2.31	53	0.77	3.61	0.75	3.68
14	-1.71	2.29	-1.73	2.34	54	0.85	3.65	0.83	3.72
15	-1.66	2.32	-1.68	2.37	55	0.93	3.70	0.91	3.76
16	-1.61	2.34	-1.63	2.39	56	1.01	3.74	0.99	3.81
17	-1.56	2.37	-1.58	2.42	57	1.10	3.78	1.07	3.85
18	-1.52	2.39	-1.53	2.44	58	1.18	3.83	1.16	3.89
19	-1.47	2.42	-1.49	2.47	59	1.26	3.87	1.24	3.94
20	-1.42	2.44	-1.44	2.49	60	1.35	3.92	1.32	3.98
21	-1.38	2.47	-1.39	2.52	61	1.43	3.96	1.41	4.03
22	-1.33	2.49	-1.34	2.54	62	1.52	4.01	1.49	4.08
23	-1.28	2.52	-1.30	2.57	63	1.61	4.06	1.58	4.13
24	-1.23	2.55	-1.25	2.60	64	1.71	4.11	1.68	4.18
25	-1.18	2.57	-1.20	2.62	65	1.81	4.16	1.77	4.23
26	-1.13	2.60	-1.14	2.65	66	1.91	4.22	1.87	4.28
27	-1.07	2.63	-1.09	2.68	67	2.02	4.27	1.98	4.34
28	-1.02	2.66	-1.04	2.71	68	2.13	4.34	2.09	4.40
29	-0.96	2.69	-0.98	2.74	69	2.26	4.40	2.21	4.46
30	-0.90	2.72	-0.92	2.77	70	2.40	4.48	2.34	4.54
31	-0.84	2.75	-0.86	2.81	71	2.55	4.56	2.49	4.61
32	-0.78	2.79	-0.80	2.84	72	2.72	4.65	2.65	4.70
33	-0.71	2.82	-0.73	2.87	73	2.92	4.76	2.84	4.80
34	-0.65	2.85	-0.67	2.91	74	3.16	4.88	3.06	4.92
35	-0.58	2.89	-0.60	2.94	75	3.46	5.04	3.34	5.07
36	-0.52	2.92	-0.54	2.98	76	3.84	5.25	3.70	5.27
37	-0.45	2.96	-0.47	3.02	77	4.42	5.55	4.24	5.56
38	-0.38	3.00	-0.40	3.06	78	5.26	6.00	5.05	6.00
39	-0.31	3.03	-0.33	3.09					

**Note:** The following uniform rescoring of response options for all 26 items is required before converting into an interval scale: 1 to 0; 2 to 1; 3 to 1; 4 to 2; 5 to 2; 6 to 3. The 26-item raw score is calculated as the sum of rescored values from all NAS items except for Items 4, 13, 24 and 25.

## Appendix M: The MAAS Rasch conversion table

*Converting from a uniformly re-scored 13-item raw score (0 to 39) to an interval scale in logit units and in mean scores ranging from 1 to 6 for the national and student populations*

Raw score <sup>a</sup>	Interval measure				Raw score <sup>a</sup>	Interval measure			
	Students sample		National sample			Students sample		National sample	
	Logit	Mean	Logit	Mean		ogit	Mean	Logit	Mean
0	-5.45	1.00	-5.42	1.00	20	0.13	3.61	0.19	3.63
1	-4.59	1.40	-4.55	1.40	21	0.30	3.69	0.36	3.71
2	-3.97	1.69	-3.94	1.69	22	0.47	3.77	0.54	3.79
3	-3.53	1.90	-3.49	1.90	23	0.64	3.85	0.71	3.87
4	-3.17	2.07	-3.13	2.07	24	0.81	3.94	0.88	3.95
5	-2.86	2.21	-2.82	2.22	25	0.99	4.02	1.06	4.03
6	-2.59	2.34	-2.55	2.34	26	1.16	4.10	1.23	4.12
7	-2.34	2.46	-2.30	2.46	27	1.34	4.18	1.41	4.20
8	-2.11	2.57	-2.07	2.57	28	1.53	4.27	1.59	4.28
9	-1.89	2.67	-1.86	2.67	29	1.71	4.36	1.78	4.37
10	-1.69	2.76	-1.65	2.76	30	1.91	4.45	1.97	4.46
11	-1.49	2.85	-1.45	2.86	31	2.11	4.54	2.17	4.55
12	-1.30	2.94	-1.26	2.95	32	2.32	4.64	2.38	4.65
13	-1.12	3.03	-1.07	3.04	33	2.55	4.75	2.60	4.76
14	-0.93	3.12	-0.89	3.12	34	2.80	4.87	2.85	4.87
15	-0.75	3.20	-0.70	3.21	35	3.08	5.00	3.12	5.00
16	-0.57	3.29	-0.52	3.29	36	3.40	5.15	3.45	5.15
17	-0.39	3.37	-0.34	3.38	37	3.81	5.34	3.85	5.34
18	-0.22	3.45	-0.16	3.46	38	4.39	5.61	4.43	5.61
19	-0.05	3.53	0.01	3.54	39	5.22	6.00	5.25	6.00

Note: <sup>a</sup> The following uniform rescaling of response options for all 13 items is required before converting into an interval scale: 1 to 0; 2 to 1; 3 to 1; 4 to 2; 5 to 2; 6 to 3. The 13-item raw score is calculated as the sum of re-scored values from all MAAS items except for Items 6 and 15