Chapter 2
Literature Review

Abstract Literature review is based on previous studies focused on similar objectives. Comparing the results of this study with them can support or violate their achievement. Definition and value of mindfulness as the main keypoint of the research and its relationship with population of the research as well as independent variables of the study were illustrated in this chapter. Famous standard instruments measuring mindfulness as well as which one used in this research were described. Characteristics of sample of this study were placed at the end of the chapter.

Keywords Mindfulness · University · Age · Gender · Religion · Educational level · Health condition · Race · Family status · MAAS

2.1 Introduction

There is a large body of published literature regarding the application of mindfulness to address a broad range of difficulties and the development qualities (Davis 2014). This chapter discusses recent studies on mindfulness with emphasis on those related to university students and demographic factors. Literature review shows the importance of a study based on the point of previous researchers view as well as lack of study in that area. The value of mindfulness in life shall be discussed accordingly and different definitions of mindfulness shall be put forth before the relationship between mindfulness and university students is discussed and linked to this study. Different ways of measuring mindfulness shall also be elucidated and a brief introduction to Universiti Teknologi Malaysia shall be given. This chapter shall conclude with a summary of the main points previously discussed.

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2.2 The Value of Mindfulness in Life

Throughout their lives, most individuals encounter many challenging, and possibly traumatic, situations. How people respond to difficulties ranging from everyday problems to life threatening traumas determines how successfully they are able to cope with and overcome them. For example, although two people may have experienced the same difficult situation or environment, one person may cope effectively and seem to be minimally affected, or even positively influenced, while the other person may respond less effectively and experience less fulfillment or more psychological symptoms as a result (Collins 2009).

Sometimes we are swept away by the stream of thoughts, daily worries, psychological pressures and heavy responsibilities, and we prefer things to be different from what they are in this moment. This desire becomes stronger when we have pain and illness that further confound our attempts to feel better. Mindfulness can improve the quality of life by helping us to face the struggles we have in the experiences of life. So, the value and importance of mental health and mental power become utterly important here. Mindfulness is a part of mental hygiene which gives a person the coping ability to face challenging issues in life. In fact, mindful interventions have shown efficacy for a wide range of populations in treatment of psychological disorders (Baer 2003; Grossman et al. 2004; Hayes et al. 2006; Robins and Chapman 2004). In relation to this, mindfulness has found to be able to reduce social anxiety (Schmertz 2008).

Mindfulness increases moment to moment self-regulated behaviors; life satisfaction and well-being; human tolerance for logical approach; and acceptance of uncomfortable sensations and emotions (Eifert and Heffner 2003; Segal et al. 2003). Two components of self-regulating attention and adopting an open and accepting orientation toward one's experiences Mindfulness as the process of drawing novel distinctions or seeing things in new ways, help us to stay in the present (Langer and Moldoveanu 2000; Rempel 2012; Robins 2002). Mindfulness itself has been proposed as a measurable outcome of contemplative practices. Equanimity captures potentially the most important psychological element in the improvement of well-being (Desbordes et al. 2015).

Shapiro et al. (2006) considered three aspects for mindfulness: intention, attention, and attitude. It reduces the effects of negative psychological events, anxieties, depression, substance abuse, emotional instability, post-traumatic stress disorder, psychophysiological disorders, borderline personality disorder, and suicidal/self-harm behavior (Chiesa and Serretti 2011; Hofmann et al. 2010; Zoogman et al. 2015), and decreases recovery time after these events (Germer et al. 2005; Kabat-Zinn 1990; Shapiro et al. 2008). It makes balance in daily duties and enhances the awareness, control and openness in personal life to ultimately bring inner happiness (Shier and Graham 2011).

Mindfulness works on the cognitive part of brain with qualifying attention at the moment to improve the mind's flexibility in stressful conditions (Moore 2009). Just imagine, you are stuck in traffic, then now you realize that, in this unexpected

situation, playing and speaking with your child riding with you is the best way not to waste your time and becoming frustrated or nervous (Wenk-Sormaz 2005). Mindfulness affects positive changes in self-regulation, values clarification, cognitive and behavioral flexibility, depression, rumination, stress, sleep quality and exposure (Caldwell et al. 2010; Carmody et al. 2009; McIndoo et al. 2016; Shapiro et al. 2006).

We need not react, think, or behave automatically as we always have done, dictated by thoughts, beliefs, and assumptions learned in the past. A mindful approach to experience is thus aligned with approaching experience with "a beginner's mind" (Bishop et al. 2004), which in turn fosters alternatives and creativity. Some well-documented benefits of mindfulness are as below:

1. Purposeful and self-regulated attention paid in a systematic way in the present moment (Marlatt and Kristeller 1999) combined with non-judgmental, multiple perspectives and conscious awareness that accept and acknowledge all thoughts, feelings, surroundings or sensation as the mind stream (Bishop et al. 2004; Silananda 1990).
2. Empowering skills for controlling concentration and having orientation to the moment by open and curious attitudes, and replacement of alternative categories, and as a whole coping with individual stresses, sufferings and problems (Grossman et al. 2004; Silananda 1990).
3. Ability to draw novel distinctions to create new perceptual categories, heightened sensitivity to the environment, and openness to new information (Demick 2000; Langer and Moldoveanu 2000).
4. Having appropriate insight by continual contact with experience. Subtle mind-full processes, like shining a flashlight inwards, to produce strong reactions and rapid change of mind stream (Laurie 2010).

On the contrary, mindlessness is characterized by the lack of attention to context due to reliance upon rigidly defined categories created in the past, and involves acting automatically without thought or knowledge of one's actions (Dauenhauer 2006) vice versa, in mindfulness. For instance, turning attention to breathing at any moment is intended to increase self-awareness and insight and reduces a maladaptive, automatic and habitual behaviors (Baer 2015). When thinking mindlessly, people may rely unquestioningly on information even if they have only been exposed to this information on one occasion or in one context that does not generalize to other situations (Demick 2000). Langer and Piper (1987) found that information presented in a mindful way leads to more creative use of novel objects than mindlessly presented information.

A significant point to note is that the concept of mindfulness has always been inclined towards spiritual movements rather than pure psychology. This has changed in the twentieth century where techniques associated with mindfulness were being applied in psychotherapy and this trend continued to expand in the early 1990s by integration of the discipline of mindfulness, originated from Buddhist roots, into clinical psychology as well as western philosophical systems (Sepp and

Embree 2010). In 2009, Langer empowered Western approach to mindfulness by proposing more creative and cognitive mindful approaches in psychology. Her view of mindfulness emphasizes on the openness to new data and perspectives, the increased control over the events of the moment, and devotion of more value to the process than the outcome.

Recently, academic research and studies about mindfulness, mindfulness-based interventions and its application in different organizations are increasing in Malaysia (Keng et al. 2015; Ling et al. 2015; Oly Ndubisi 2012) related to its positive impact integrating to psychological treatments, controlling and reducing cognitive and behavioral problems among different age groups, and promoting different aspects of mental health in social and individual life (e.g., stress reduction) (Hanan 2014; Hanan et al. 2011, 2013; Kar et al. 2014; King et al. 2011; Lan et al. 2014; Phang et al. 2016).

2.3 Mindfulness and University Students

Appropriate education needs self-mastery to deal with the responsibility required in today's world. Education is an area that often seems to abound in mindlessness (Langer and Moldoveanu 2000), but the potential for students to reap academic benefits from mindfulness is bountiful (www.ocbs.org). Research has confirmed that a college student's academic outcome is greatly influenced by his or her well-being. The term 'well-being' itself is a broad construct that can be defined in terms of theoretically and subjectively derived components characterized by hedonic (happiness and affect) and eudemonic (a sense of personal congruence in life) concepts (Karakashian 2011).

Mindfulness had direct relations with employee work well-being and employee's basic psychological needs at work. Autonomy support at work and work adjustment are affected by mindfulness. Mindful people were less likely to feel need frustration even in unsupportive managerial environment. Mindfulness thus appears to act as a protective factor in controlling work environments. These result highlights mindfulness as an indicator of wellness at the workplace (Schultz et al. 2015).

Researchers have shown students with higher well-being (included mindfulness) have better outcomes in relationships (Burger and Caldwell 2000; Cunningham et al. 1988; Lyubomirsky et al. 2005) and perform better on variables associated with improved college performance, such as flexible thinking, originality (Lyubomirsky et al. 2005), decreasing inter-cultural obstacles and engagement in pursuits that give them a boost throughout the semester (Nawiroh 2010; Sheldon and Lyubomirsky 2006). To date, some studies have documented a positive correlation between mindfulness and perceived health and psychological well-being, and a negative correlation with maladaptive aspects of perfectionism in college students (Perolini 2012).

The rationale for selecting college students to study on mindfulness is based on the unique challenges they have to negotiate at this developmental stage as well as

the fact that, despite their young age, a high proportion of students endure physical and mental health problems. The period from the late teens through the mid-twenties has been recently termed 'emerging adulthood'. This period is characterized by challenges related to identity exploration that emerging adults are expected to negotiate which bring about anxiety and uneasiness over the fact that several important areas of their lives are not yet settled (e.g., love, work and living arrangements). However, this period is also blessed with more freedom, limited structure, and world of possibilities (Arnett 2004; Kuhlmann et al. 2015; Song and Lindquist 2015; Van der Riet et al. 2015).

Changes of life in first year of university including pressure to get a good degree, relationship, academic and financial issues lead to worse results in measurement of mental health and wellbeing than general population and even than during their subsequent professional careers (Bonifas and Napoli 2014; Cooke et al. 2006; Monk 2004). Students with higher level of mindfulness have increased quality of life, ability to cope with the challenges of faculties, better engagement in activities, judgement and decision making, bloster stress management skills and better academic achievement (Bonifas and Napoli 2014; Karakashian 2011; Kurtz 2011; Leong and Rasli 2013; Leroy et al. 2013). Students who are mindful, either through their character or through learning, tend to experience greater well-being, and that being more mindful tends to accompany more positive emotion, greater popularity and having more friends, and less negative emotion and anxiety (Weare 2012).

The link between more mindful actions has also been made to the organizational environment where more rigid bureaucracies not only hinders a mindful condition, but also promotes a mindless standardization (Hoy and Tschannen-Moran 2003). This is against the nurturing of mindful students because they need an environment which encourages them to experiment more and not be frightened of making mistakes. This also means the nurturing of a culture of trust in which people are not afraid of breaking new ground, taking risks, and making errors. Weick and Sutcliffe (2011) opined that organizational mindfulness can be increased in five aspects, i.e., being prepared for defeat, sensitivity to quality, reluctance to simplify, being resilient, and greaten the expertise.

The notion promoted here is that mindfulness should be understood and practiced by administrators of academic settings. For example, the principals ought to encourage playing with ideas, creating novelty, producing safe environment to take reasonable risks. As the leaders of the institutions, they can have profound effects on school mindfulness (Hoy et al. 2006). Simply following the school rules with senseless orders makes teachers and administrators mindless. This also calls for more scrutiny and refinement of expectations; realization of the subtleties of the experiences; and creating novelty towards the administration of the institution to improve functioning and foresight (Hoy and Tschannen-Moran 2003; Langer and Piper 1987). All of these are to create mindful minds which have the vigilance, openness, flexibility, and the ability to break set. Overall, participation in a low-intensity mindfulness course in a university's curriculum leads to an increased non-judgmental and non-reactive stance towards student's thoughts, feelings, and emotions, during the course period, and their mindfulness increased even further

after the course period. This increased mindfulness may help them in coping with stress given the pressure they are under and may improve their performance and their quality of life (De Bruin et al. 2015).

2.4 Mindfulness and Demographic Factors

This section shall elucidate the documented works on mindfulness and selective demographic factors, which include age, gender, race, education level, health condition, family status, and religion. More emphasis shall be given to the definition of mindfulness through different lenses of some major religions in this modern society as well as by irreligion.

2.4.1 Mindfulness and Age

Baer (2008) opined that age can have influence on mindfulness because age affects the mind's ability to concentrate and judge better. On the contrary, Lykins and Baer (2009) have shown that there is no relation between age and mindfulness in people who have or have not embarked on the journey towards higher mindfulness. Nevertheless, Eastern mindfulness meditation techniques have been found to have the ability to possibly postpone degenerating of chromosomes, which means helping the practitioner to stay younger and create greater subjective well-being. In addition, elderly practitioners seem to have more acceptance of their relative age (Park 2011). Schroevers and Brandsma (2010) found no relationship between mindfulness and age. Mindfulness appears to be a promising intervention modality for youth (Zoogman et al. 2015).

2.4.2 Mindfulness and Gender

McRae et al. (2008) believed that men respond better to cognitive regulation due to greater use of automatic emotion regulation. On the other hand, women use positive emotions during reappraising negative emotions more than men. Gender differences in stress responsiveness, adaptability, and level of mindfulness scores may be related to differences in sexual steroid concentrations, such as estrogens (Pico-Alfonso et al. 2007). In some other studies, marginal association was reported between gender and mindfulness with greater trait mindfulness in males (Cresswell et al. 2007). Schroevers and Brandsma (2010) and Bellinger et al. (2015) found no relationship between mindfulness and gender.

2.4.3 Mindfulness and Race

Bhui et al. (2008) found ethnic differences within religions. For example, they found that Black Caribbean Christians use more religious coping than Irish and White British Christians and that Bangladeshi Muslims showed more dependence on religious coping than Pakistani Muslims. On the same note, Bjorck et al. (2001) found that Christian Asian-Americans use religious coping more than Christian Caucasian-Americans. In comparing Asians versus all other ethnic groups, dispositional mindfulness is not necessarily associated with ethnicity (Cresswell et al. 2007).

2.4.4 Mindfulness and Education Level

In some previous studies, the educational level was not significantly associated with mindfulness (Schmertz 2008; Schroevers and Brandsma 2010) but Franco et al. (2010) saw that mindfulness had influence on the levels self-concept, academic performance, and anxiety. There are articles which investigated the relationship between mindfulness and student programs in the university. Most of the researches have investigated the relation between mindfulness mediation programs and levels of education, and concluded that education levels did not differ significantly between meditators and non-mediators (Lykins and Baer 2009).

2.4.5 Mindfulness and Health Condition

Mindfulness has relationship with positive psychological effects (subjective well-being and behavioral regulation) and negative correlation with psychological symptoms and emotional reactivity (Keng et al. 2011; Leary et al. 2006). Spiritual growth was positively correlated with post-traumatic growth, and the acceptance of events without judgment was negatively related with this growth (Chopko and Schwartz 2009). The elements of mindfulness reduce anxiety, psychological distress, rumination, fear, worry, and anger by promoting the skills to avoid, suppress, or over-engage distressing emotions and thoughts (Hayes and Feldman 2004; Kabat-Zinn 1990).

2.4.6 Mindfulness and Family Status

Mindful awareness in parenting interactions allows parents to shift their awareness to the present moment parenting experience. During long-term relationship with

their child(ren), parents should attend to their child(ren)'s needs and exercise self-regulation to make wise choices in their actions towards the child(ren) (Duncan et al. 2009). Mindful parenting has been suggested to promote secure attachment relations between children and their parents (Siegel and Hartzell 2003). This has also been reported by Parent et al. (2011).

2.4.7 Mindfulness and Religion

Although mindfulness is based on Buddhist beliefs and practices, mindfulness principles are evident across a variety of belief systems and can be applied to many contexts (Wallace and Shapiro 2006). Religion is a cultural way of coping from which people derive meaning for their lives (Lhewak 2010). For example, Holroyd (2003) described mindfulness as a type of altered state and pointed out that it involves concentrating and letting thoughts go; this is practiced in several religions, including Christianity, Hinduism, and Judaism. In fact, the terms 'religion' and 'spirituality' are frequently used interchangeably in psychology research on coping (Bhui et al. 2008).

Koenig et al. (1998) defined 'religious coping' as the utilization of religious beliefs and behaviors in the process of solving problems and dealing with stressful life events. Others have defined it as coping that incorporates specific religious practices, identities, and knowledge (Bhui et al. 2008). Research has also shown that individuals who used positive religious coping strategies and religious tasks demonstrated greater positive psychological adjustment and well being (Baer 2015; Bosworth et al. 2003).

2.4.7.1 Islam

As the website www.mindfieldnortheast.co.uk has mentioned, "*Islam is largely a life-long pursuit of the mindful state. All men (and women) are expected to live their lives with the utmost awareness in each and every action, often going far beyond the requirements of 'holy men' and women in other faith systems, and every sphere of activity, vocational, domestic and evotional, is imbued with the same sanctity*". In line with this, researchers such as Loewenthal et al. (2001) have found that Muslims use more religious coping than non-Muslims.

2.4.7.2 Buddhism

Probably the oldest written reference to mindfulness is the notion of "Sati" in the Buddhist Pali canon (Schmidt 2011). As it is stated in www.buddhism.about.com, "*The Buddha taught people how to realize the enlightenment rather than teach doctrines of enlightenment. He believed the way we realize enlightenment is*

through direct experience and mindfulness without psychological barriers between the experience and human and also mental filters".

Original Buddhist interpretation of mindfulness is "sustained, voluntary attention continuously focused on a familiar object without forgetting or distraction", interfering and meta-attention (monitoring one's own state of mind) (Grabovac et al. 2011; Thera 2014; Wallace and Shapiro 2006). A Buddhist's perspective on coping is that it is not just a reaction to stress, but also a way that one can be freed from suffering. Therefore, the goal is not to reduce the stress, but to change the individual's perspective or reaction to their stress through personal transformation using mental discipline (Chen 2006).

2.4.7.3 Christianity

"*All humans have been given the capacity of observing and grasping true and right concepts; it does not mean we take and practice a concept without critical thinking, but that we should be open to learn what our tradition has lost or ignored, or even deemed unnecessary to healthy life*" (www.Mindandsoul.info). This website also mentioned that "*Brother Lawrence found God present in whatever happened, or needed to be done, in the moment. He was choicelessly aware of the presence of his Lord in the sacredness of each moment*". It becomes clear at this point that mindfulness is within Christianity where God is believed to be present at the present moment.

2.4.7.4 Hinduism

In Hinduism, condition of calm consideration at the current present moment and condition of relaxed human mind, free of confusing feelings and thoughts are mentioned. The religion holds changing of the attitudes and encouraging religious enlightenment as the goals of Hindu Meditation. Based on this, two types of meditation have been born where one focuses on mindfulness meditation and another on concentrative meditation. In general, the mindfulness meditation is concerned on the experience and the perception of the human whereas the concentrative meditation focuses on the thoughtfulness on selected entities (www.radhasoamiji.org/hindu-meditation.htm).

2.4.7.5 Irreligion

For the non-religious, mindfulness is a power of mind not related to religion. It can help everyone to fulfill his or her psychological and physical deficits. In line with this, some modern scholars have encouraged religion to be kept as an 'identity'

while mindfulness is taken as a kind of peace in our mental hygiene, acting separately from religious beliefs. Nevertheless, the association between mindfulness and religious practices continue to prove strong in leading changes in emotional states (Bhui et al. 2008).

2.5 Mindfulness Measurement

Consciousness consists of awareness and attention. Awareness is a continual background monitoring process and attention is a function of sensitively focusing awareness on the experience. Therefore, higher levels of mindfulness are equal to higher degrees of consciousness components (attention and awareness). However, there is substantial variability in these levels both within and between individuals (Black et al. 2012). A particular problem with mindfulness is the difficulty to observe and therefore to operationalize it. Even subjective information is challengeable since people who are not mindful do not recognize that they are not mindful (Eberth and Sedlmeier 2012). Trait and state of mindfulness have a wide spectrum (Mayer et al. 2011) with multidimensional constructs, as both are closely related but different constructs (Thompson and Waltz 2007).

There are eight currently available and validated mindfulness scales for adults (Bergomi et al. 2013) with intrinsically holistic with tightly interconnected aspects of mindfulness (Leary and Tate 2007). Some of them focus on specific populations such as clinical samples (Cognitive and Affective Mindfulness Scale, Southampton Mindfulness Questionnaire) or meditators (Freiburg Mindfulness Inventory).

- One of these is the Freiburg Mindfulness Inventory (FMI) (Buchheld et al. 2001; Walach et al. 2006) assessing openness to negative experience and non-judgemental present-moment observation. It was developed with mindfulness mediators.
- The Toronto Mindfulness Scale (TMS) (Lau et al. 2006) is often administered after a meditation exercise for the practitioners to rate the degree of awareness and accepting of their experiences during the meditation.
- In the Kentucky Inventory of Mindfulness Skills (KIMS) (Baer et al. 2004) measurement, four components of mindfulness are specified: accepting without judgment, describing, observing, and acting with awareness.
- The Five Facet Mindfulness Questionnaire (FFMQ) measures five factors of mindfulness (describing, observing, acting with awareness, no reactivity to inner experience, and non-judging of experience).
- The Southampton Mindfulness Questionnaire (SMQ) (Chadwick et al. 2008); first introduced as Mindfulness Questionnaire, MQ, Chadwick et al. (2005), unpublished manuscript, cited in Baer et al. (2006) is a 16-item scale with four related bipolar aspects of a mindful approach to distressing thoughts and images.

- The Cognitive Affective Mindfulness Scale—Revised (CAMS-R) (Feldman et al. 2007; Hayes and Feldman 2004) has a single factor construct of mindfulness with four components: orientation to present experience, awareness of experience, the regulation of attention, and acceptance/non-judgment towards experience.
- The Philadelphia Mindfulness Scale (PHLMS; Cardaciotto et al. 2008) is a 20-item questionnaire. The awareness subscale assesses noticing and being aware of thoughts, feelings, perceptions, and body sensations while the acceptance subscale is focused on the assessment of experiential avoidance.
- The Mindful Attention Awareness Scale (MAAS) (Brown and Ryan 2003) is a 15-item single factor self-report instrument measuring mindful trait. Attention to and awareness of life's experiences has been termed trait mindfulness. Day-to-day mindfulness or dispositional mindfulness is defined by Brown and Ryan (2003) as an inherent state of consciousness varying between and within a human that is characterized by the presence or absence of attention to or awareness of what is occurring in present experience.

The MAAS to be significantly and inversely associated, in medium-to-large magnitude, with a variety of mental health indicators (e.g., anxiety, hostility, depression, impulsiveness, somatization, disturbed mood, neuroticism, and negative affect) and positively associated with mental and physical health (e.g., self-esteem, optimism, positive affect, autonomy, self-control, perceived general health, physical functioning, and life satisfaction (Black et al. 2012).

Respondents rate how often they are preoccupied and not pay attention to the present moment and act on automatic decision. This questionnaire is rated on 6-point Likert-type scale ('almost always' to 'almost never') and scores are ranged from 15 to 90 and higher scores indicated higher level of mindfulness. It has good internal consistency (alphas of 0.87 and 0.82 in adult and student samples, respectively). Its validity has been adequate and has the capability to distinguish mindfulness practitioners from the general population (Brown and Ryan 2003; Höfling et al. 2011).

This instrument was chosen for this study among above questionnaires for using in academic setting among undergraduate students. It is a subjective instrument, easy to administer, available, and low time consuming to answer. Secondly, its English version is easy to understand for undergraduate students in the first semester that may have not good English language. In addition, mindfulness as measured by the scale is positively related to a variety of well-being constructs (Dundas et al. 2013). Lastly, some of the developed instruments are specified for clinical populations, often administered after a meditation exercise (The Toronto Mindfulness Scale), or are developed with mindfulness mediators (e.g., Freiburg Mindfulness Inventory) while MAAS has not this characteristics.

2.6 Students in Universiti Teknologi Malaysia

Universiti Teknologi Malaysia, literally translated into The Malaysian University of Technology, is one of the five public universities recognized by the Malaysian Government as the leading research and educational hub. Increasing the number of universities while expanding the number of courses and accepting more students each year is a governmental policy in Malaysia (Alavi and Mansor 2011). This is to produce the type of graduate that can share knowledge and global collaboration. In UTM, the number of both local and foreign students have been increasing every year where the number of international students reached 2324 in 2010 (www.sps.utm.my), coming from countries such as Indonesia, China, Iran, Pakistan, Maldives, India, Myanmar, Taiwan, Sri Lanka, and even as far as Belgium.

Based on Sovic (2009), international and also national students are disparate in groups of different experience, backgrounds, skills, and ages. Therefore, though they study in similar environment, their perceived experience and challenges may be different (Lee and Rice 2007). Langer and Moldoveanu (2000) argued that the ability of organisations to achieve reliable performance in a changing environment depends on how individuals think, gather information, perceive the environment around them, and whether they could change their perspective to reflect the situation at hand. These abilities can definitely improve university wellbeing.

There is a significant improvement in "Malaysian Wellbeing Index" from 2000 to 2012. It can be attributed to the wide range of policies and programmes that have been implemented by the Government to enhance the quality and standard of living (Unit 2013). Panahi, Yunus and Roslan in 2013 in a study about "Correlates of Psychological Well-being amongst Graduate Students in Malaysia" found there were significant differences in overall psychological well-being in terms of different faculties, age, semester of study, gender and marital status. However, there are no significant differences in psychological well-being of graduate students across different races and family sizes (Clark et al. 2014).

On the other hand, in the study of Clark and his colleagues significant differences between the male and female Malaysian students were noted with males rating their subjective wellbeing as higher than the ratings by females. The younger students rated their happiness as significantly higher on the majority of life domains. Those attending Chinese schools rated themselves substantially higher in regard to their happiness with "achievement in life" while those in the other schools rated themselves higher on most of the other domains as well as significantly higher on "satisfaction with life as a whole".

2.7 Conclusion

This chapter shall conclude here with some re-cap of the major discussion points. Practice of mindfulness has long been associated with religion, and in recent times, the promoting of mindful practices has been extended into psychology with no

particular religion being mentioned. The value of mindfulness in life, alongside its different definition, shows that it is an integral part of mental health which has been studied, though not extensively. Stepping into university to pursue tertiary education is a major life turning point for many emerging adults, promising much hope but also stresses as they struggle to cope with the new environment; this has become the main reason for this study to select university students as the study sample.

The relationship between their demographic factors and level of mindfulness is of great interest, as some studies have documented significant relationship among the variables investigated. The discussion then proceeded to different ways of measuring mindfulness quantitatively. The discussion ended with a brief introduction to UTM as the leading research and educational hub in Malaysia and its composition of students.

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