COGNITIVE EMOTIONAL REGULATION, SOCIAL SUPPORT, AND PHYSICAL ACTIVITY AS PREDICTORS OF PSYCHOLOGICAL WELL-BEING AMONG GRADUATE STUDENTS AT A MALAYSIAN PUBLIC UNIVERSITY

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COGNITIVE EMOTIONAL REGULATION, SOCIAL SUPPORT, AND PHYSICAL ACTIVITY AS PREDICTORS OF PSYCHOLOGICAL WELL-BEING AMONG GRADUATE STUDENTS AT A MALAYSIAN PUBLIC UNIVERSITY

By

SOHEILA PANahi

Thesis Submitted to the School Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

February 2014
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DEDICATION

Dedicated

To my wise and patient mother,
who endured being far from me

To my brother, Mohammad Saeed Panahi
for his inspiration and understanding
The aim of the present study was to investigate the contribution of cognitive emotion regulation, social support, and physical activity on psychological well-being of Malaysian graduate students. For this purpose, 534 graduate students of one Malaysian university were recruited for the study. In determining the samples, proportional sampling was applied to selected samples from six faculties; namely Agriculture, Science, Engineering, Modern Languages, Educational Studies and Medicine.

Data were gathered and analysed using descriptive and inferential statistics. The respondents were asked to answer four sets of questionnaires on psychological well-being (autonomy, environmental mastery, personal growth, positive relationship with others, purpose in life, and self-acceptance), cognitive emotion regulation (self-blame, other-blame, rumination, catastrophysing, putting into perspective, positive refocusing, positive reappraisal, planning and acceptance), perceived social support (family, friends, and significant others), and physical activity (three levels of vigorous, moderate, and walking). In this study, the independent variables were cognitive emotion regulation, social support, and physical activity, while the dependent variable was psychological well-being. The results of the present study revealed that the level of psychological well-being mostly used by graduate students was personal growth. As for cognitive emotion regulation the findings demonstrated that the students scored the highest in the strategy, positive reappraisal. As for social support, the respondents depended more on their significant others rather than family and friends.

Eight demographic variables (faculty, age, race, number of semesters of study, gender, marital status, employment status, and family size) were also examined in
this study. The findings of this quantitative study displayed significant differences in the psychological well-being, particularly in terms of the different faculties, ages, semesters of study, gender, marital and employment status of the respondents. Similarly, significant differences were also found in cognitive emotion regulation of respondents of different faculties, age groups, races, and genders. Social support was also found to be different for respondents in different faculties, age groups, races, genders, and marital status. Moreover, the study showed that the respondents of different faculties, and gender were significantly different in their physical activities.

Meanwhile, Pearson correlation analysis confirmed positive relationships between psychological well-being and its components including personal growth, purpose in life, autonomy and age among the graduate students. The findings support that planning is the most influential variable on psychological well-being. Besides, factors such as catastrophysing, significant others, other-blame, reappraisal, self-blame, friend’s support, acceptance, putting into perspective, and walking activity influence graduate students’ psychological well-being. The study concluded that independent variables including cognitive emotion regulation, perceived social support, and physical activity contributed to the dependent variable; psychological well-being. The study supported the previous theories by indicating the relationship between independent (cognitive emotion regulation, perceived social support, and physical activity) and dependent (psychological well-being) variables as mentioned above.
Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia Sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

PERATURAN EMOSI KOGNITIF, SOKONGAN SOSIAL, DAN AKTIVITI FIZIKAL SEBAGAI PERAMAL KESEJAHTERAAN PSIKOLOGI DALAM KALANGAN PELAJAR SISWAZAH DI SEBUAH UNIVERSITI AWAM MALAYSIA

Oleh

SOHEILA PANahi

Februari 2014

Pengerusi: Prof. Aida Suraya Bt. Md. Yunus, Ph.D

Fakulti: Pengajian Pendidikan

Tujuan kajian ini adalah untuk menyelidiki sumbangan pengawalan emosi kognitif, sokongan sosial, dan aktiviti fizikal terhadap kesejahteraan psikologi dalam kalangan pelajar siswazah di sebuah universiti di Malaysia. Bagi tujuan ini, seramai 534 pelajar siswazah telah dipilih untuk menyertai kajian. Dalam menentukan sampel kajian, persampelan berkadar digunakan untuk sampel kajian yang dipilih daripada enam iaitu Pertanian, Sains, Kejuruteraan, Bahasa Moden, Pengajian Pendidikan dan Perubatan.

Data dikumpul dan dianalisis menggunakan statistik deskriptif dan inferens. Responden diminta untuk menjawab empat borang soal selidik iaitu kesejahteraan psikologi (autonomi, penguasaan alam sekitar, pertumbuhan peribadi, hubungan positif dengan orang lain, tujuan dalam kehidupan, dan penerimaan diri), pengawalan emosi kognitif (menyalahkan diri sendiri, menyalahkan orang lain, pemahaman, catastrophysing, meletakkan dalam perspektif, penumpuan positif, penilaian semula yang positif, perancangan dan penerimaan), persepsi terhadap sokongan sosial (keluarga, rakan-rakan dan lain-lain yang penting) dan aktiviti fizikal (tiga tahap iaitu kuat, sederhana, dan berjalan). Dalam kajian ini, pembolehubah bebas adalah pengawalan emosi kognitif, sokongan sosial dan aktiviti fizikal dan pembolehubah bersandar ialah kesejahteraan psikologi. Dapatan kajian ini menunjukkan bahawa peringkat kesejahteraan psikologi yang paling banyak digunakan oleh pelajar siswazah adalah pembangunan peribadi. Bagi pengawalan emosi kognitif, kajian ini mendapati bahawa pelajar mendapat markah tertinggi dalam strategi penilaian semula yang positif. Dari segi sokongan sosial pula, responden lebih bergantung kepada sokongan luar berbanding keluarga dan rakan.
Lapan pembolehubah demografi (fakulti, umur, ras, bilangan semester pengajian, gender, status perkahwinan, status pekerjaan dan saiz keluarga) juga telah dikaji. Keputusan kajian kuantitatif ini menunjukkan perbezaan yang signifikan bagi kesejahteraan psikologi di antara responden daripada fakulti, umur, semester, jantina, status perkahwinan dan status pekerjaan yang berbeza. Perbezaan yang signifikan juga didapati di antara pengawalan emosi kognitif bagi responden daripada fakulti, umur, bangsa dan jantina yang berbeza. Sokongan sosial pula didapati berbeza bagi responden dari fakulti, umur, bangsa, jantina dan taraf perkahwinan yang berlainan. Selain itu, kajian ini juga menunjukkan bahawa responden dari fakulti, dan jantina yang berlainan berbeza secara signifikan dalam aktiviti fizikal mereka.

Analisis pertalian Pearson mengesahkan hubungan yang positif di antara kesejahteraan psikologi dan tiga komponen pertumbuhan peribadi iaitu tujuan hidup, autonomi dan umur pelajar. Keputusan yang didapati menyokong bahawa perancangan adalah pembolehubah yang paling berpengaruh terhadap kesejahteraan psikologi. Selain faktor seperti melakukan sesuatu yang membawa bencana, individu yang bermakna bagi dirinya, menyalahkan orang lain, menilai semula, menyalahkan diri sendiri, sokongan rakan, penerimaan, meletakkan dalam perspektif dan aktiviti fizikal yang sederhana mempengaruhi kesejahteraan psikologi dalam kalangan pelajar siswazah. Kajian ini merumuskan bahawa pembolehubah bebas termasuk pengawalan emosi kognitif, persepsi terhadap sokongan sosial dan aktiviti fizikal menyumbang terhadap kesejahteraan psikologi. Kajian ini menyokong teori lampau dengan menunjukkan hubungkait antara pemboleh ubah tak bersandar (pengawalan emosi kognitif, persepsi terhadap sokongan sosial dan aktiviti fizikal) dan pemboleh ubah bersandar (kesejahteraan psikologi) seperti yang dibincangkan di atas.
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I certify that a Thesis Examination Committee has met on 11 February 2014 to conduct the final examination of Soheila Panahi on her thesis entitled "Cognitive Emotional Regulation, Social Support, and Physical Activity as Predictors of Psychological Well-Being among Graduate Students at a Malaysian Public University" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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DECLARATION

Declaration by Graduate Student

I hereby confirm that:
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LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>BABS</td>
<td>Bradburn Affect Balance Scale</td>
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<tr>
<td>CERQ</td>
<td>Cognitive Emotion Regulation Questionnaire</td>
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<tr>
<td>CET</td>
<td>Cognitive Emotional Theory</td>
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<tr>
<td>CFA</td>
<td>Confirmatory Data Analysis</td>
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<td>CFI</td>
<td>Comparative Fit Index</td>
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<td>COT</td>
<td>Causality Orientation Theory</td>
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<td>EM</td>
<td>Extrinsic Motivation</td>
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<td>GHQ</td>
<td>General Health Questionnaire</td>
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<td>HSE</td>
<td>Health Survey for English</td>
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<td>IM</td>
<td>Intrinsic Motivation</td>
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<td>IPAQ</td>
<td>International Physical Activity Questionnaire</td>
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<td>MSPSS</td>
<td>Multidimensional Scale perceived Social Support</td>
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<td>NFI</td>
<td>Non-normed Fit Index</td>
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<tr>
<td>OIT</td>
<td>Organismic Integration Theory</td>
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<tr>
<td>PGWB-S</td>
<td>Psychological General Well-being Index Short</td>
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<tr>
<td>PTG</td>
<td>Post-Trauma Growth</td>
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<tr>
<td>PVEST</td>
<td>Phenomenological Variant of Ecological Systems Theory</td>
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<td>REM</td>
<td>Rapid Eyes Movement</td>
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<td>RMSEA</td>
<td>Root Mean Squared Approximation</td>
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<td>RPWB</td>
<td>Ryff’s Psychological Well-being</td>
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<td>SEM</td>
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<td>SO</td>
<td>Significant Others</td>
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<td>SPF-Theory</td>
<td>Social Production Function Theory</td>
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<td>Self-Determination Theory</td>
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<td>SWLS</td>
<td>Satisfaction with Life Scale</td>
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CHAPTER 1
INTRODUCTION

1.1 Background of the Study

Investigations in the field of psychology have traditionally paid attention to studying mental health problems and their prevention. However, lack of psychological problem is not necessarily an indicator of psychological well-being of individuals. In recent years, there has been an increasing concentration on adult positive psychological functioning generally and mental health in particular. Studies by Keyes, Shmotkin and Ryff (2002), Ostir, Markids, Peek and Goodwin (2001), Pressman and Chohen (2005), and Ryff and Keyes have indicated that positive functioning, in its own right, has numerous merits during one’s life span. For instance, it has been related to better physical performance and improvement from illnesses (Keyes, 2005; Seligman, 2008), as well as better psychosocial performance (Lyubomirsky et al., 2005).

The scientific dialogue and study in the area of well-being has centred on hedonic versus eudemonic well-being (Waterman, 1993), while the hedonic approach advocates personal happiness in well-being; the proponents of the eudemonic approach claim that well-being is more than just happiness and encompasses actualization of one’s potentials or true nature (Ryan & Deci, 2001). Gallagher, Lopez, and Preacher (2009) and Robitschek and Keyes (2009) have considered three dimensions for well-being, which include emotional, psychological and social. According to Keyes, Shmotkin and Ryff (2002), people at a high level in these scopes have the lowest level of depression.

Psychological well-being has been depicted in relation to people’s satisfaction with their life as whole (Van Tran, 1987), their involvement with existential challenges (Linley et al., 2009), maintaining depression, hopelessness and perceived stress at a low level (Miglioretti et al., 2008), quality of life (Gonzalez et al., 2007), life satisfaction, cheeriness, optimism and morale (Moore, 2006), as well as the sense of hopefulness, happiness and self-satisfaction (Archer et al., 2005). Psychological well-being is not simply the lack of mental disorder (Kiefer, 2008). In the spirit of the eudemonic view, Ryff (1989) and Ryff and Keyes (1995) have formulated a multi-dimension form of psychological well-being. Each of the model’s six dimensions depicts a challenge that a person faces when he or she looks for function positively. Components of psychological well-being are autonomy, environmental mastery, personal growth, positive relationships with others, purpose in life and self-acceptance (Ryff, 1989).

Results of some previous studies have shown that a better management of daily stress is significantly related to higher level of psychological well-being (Chida & Steptoe, 2008; Collins et al., 2009) and more self-assurance in the capability to encounter challenges and possibly also a better ability to discover particular ways to react to life events (Andrews, 2001). In the same vein, the results of the study (Nordin et al.,
2010) among Malaysian undergraduate students revealed that a third of the Malaysian undergraduate population are experiencing anxiety and worries, confronted with issues of social dysfunction and confidence levels in their daily life.

In addition, according to Ryff (2008), psychological well-being either alters reaction to life proceedings, experiences and transitions, including child’s transition to adolescence and parents’ transition to midlife stage or changes with socio-demographic profile. According to the model of psychological well-being, happiness is an important determinant of well-being and is essential but not adequate for enjoying, particularly high levels of well-being (Raibley, 2011).

There are several factors which have effects on psychological well-being. One of these influential agents is cognitive emotion regulation. Cognitive emotion regulation strategies refer to cognitive coping strategies (self-blame, other-blame, rumination, catastrophizing, positive refocusing, planning, positive reappraisal, putting into perspective and acceptance) that people use after experiencing an unpleasant condition (Garnefski & Kraaij, 2006). Reactions to pressure, such as self-blame, rumination and catastrophizing, have been generally considered as associated with reporting more problems in emotion, whereas reactions such as positive reappraisal have been revealed to be related to fewer problems in adolescents (Garnefski, Boon, & Kraaij, 2003; Garnefski & Kraaij, 2006; Garnefski et al., 2002; Martin & Dahlin, 2005; Jermann, et al., 2006).

It appears that reappraisal usually leads to a smaller number of self-reported unpleasant effect, less physiological reactivity, and fewer shock (Feldner et al., 2006). In general, the ability to regulate negative and positive emotions in a context-sensitive manner is a hallmark of psychological well-being (Gross, 2007). Numerous studies have confirmed that those who utilize reappraisal repeatedly in their daily life report better psychological well-being (Gross & John, 2003; Nezlek & Kuppens, 2008). Indeed, earlier studies have indicated that reappraisal capability protects against depressive symptoms at high levels of strain (Troy et al., 2010). Thus, it is possible that well-being (low unpleasant effect, high pleasant effect and better life satisfaction) is related to reappraisal capability.

There is a close linkage between emotion regulation and stress coping. While stress coping is related to both negative and positive emotions, emotion regulation is broader in that it is engaged in the regulation of positive effects and involved in the opponent processes. Based on the adjustment of external problems people face, stress coping is more comprehensive than emotion regulation. Both emotion regulation and stress coping comprise managing of negative influence and reappraisals, i.e. the assessment procedure of the situations. The association between emotion regulation and stress coping could be depicted by the common neural structures including prefrontal cortex, anterior cingulate cortex and amygdala, which are engaged in the procedure of emotion regulation and reaction to stress (Wang, & Saudino, 2011).

One of the most important environment resources related to psychological well-being is social support (Suls & Wallston, 2003). Social support is defined as a multidimensional concept that comprises physical and instrumental aid, resource and
information sharing, as well as emotional and psychological support (Lopez & Salas, 2006). Social support is among the strongest predictors of long-term well-being and physical performance after a painful event. Researchers have indicated that social support improves capability of adults to bear life stress (Norris & Kaniasty, 1996; Schumm et al., 2006). In other words, how we cope with stress is often influenced by how much support we receive from others around us. Even more importantly, only the perception that support would be available if we needed it can greatly enhance our coping (Gurung, 2009). Three noteworthy sources of support are family, friends, and significant others (Canty-Mitchell & Zimet, 2000; Zimet et al., 1988).

In the same vein, strong social relations (such as interactions with friends) contribute to one’s well-being (Argyle, 2001). For instance, undergraduates who are very cheerful are extremely social, have strong social relations, and slightly stay lonely (Diener, & Seligman, 2002). Several investigations have identified strong relationships between social affiliation, family and friends, and happiness (Lyubomirsky et al., 2005). In fact, researchers have also suggested that friends and family are not simply connected to happiness and they may play crucial causal roles in an individual’s life (Diener, & Oishi, 2005).

Finally, physical activity is also an important factor in one’s psychological well-being. Physical activity is depicted as any physical movement created by skeletal muscles that need to spend energy (World Health Organization, 2010). Research has obviously identified a positive relationship between physical activity and psychological well-being. It has been revealed that physical activity reduces the risk of increasing mental health problems such as burnout in a two-year follow-up study (Jonsdottir et al., 2010). Evidence also suggests that exercise establishes a pleasant sense of self, particularly amongst youth with low confidence. Dealing with physical activity may defend against suicidal attempts through its influence on psychological well-being (Taliaferro et al., 2009). Psychological well-being and physical health are interconnected and can have a deep influence on each other. Physical activity has been shown to increase psychological well-being by improving mood, reducing anxiety and the danger of depression, growing self-esteem and satisfaction with life, enhancing one’s ability to perform daily tasks throughout life and keeping a high quality of life into the aged years (Hoerger & Hoerger, 2005).

As for demographic factors and psychological well-being, Kaplan et al. (2008) claimed that women’s score is significantly higher on personal growth than that of men. There are also significant differences in the psychological well-being components in terms of age. For example, purpose in life reduces with the rising of age. Based on this study, the highest score in environmental mastery belonged to those in the ages of 65 to 79 years, while the youngest group attained a high score in personal growth.
1.2 Statement of the Problem

Poor subjective psychological well-being has been recognized as the most important reason for suicidal behaviour, a sense of helplessness and lesser academic achievements (Puskar & Marie Bernardo, 2007). Investigations reveal that psychological well-being has positive and significant effects on students' academic performance (Bowman, 2010). Hence, different studies have been conducted in various parts of the world to discover agents or factors affecting students’ psychological well-being. Over several decades, students at undergraduate levels have been studied expansively; however, limited studies have been done with those at graduate levels. Some previous investigations among American graduate students have shown that greater academic and environmental stress can be associated with maladaptive coping skills, while using more adaptive coping skills can be related to better psychological well-being. In addition, regardless of culture, doctoral students are reported to have less overall stress and greater psychological well-being. In other words, students who seek ph.D degrees are reported to have fewer academic stressors than those who seek masters degrees (Yang, 2010). Because they encounter conflicts of multiple roles, different patterns of advisory relationships, inadequate social support or financial constraints, apart from academic stressors (Goplerud, 1980; Koeske & Koeske, 1991; Offstein et al., 2004; Toews et al., 1993). For psychological well-being, master students (as adult learner) may not be as well as ph.D students using coping resources and strategies. As a result, physical illnesses, psychological distress and adjustment problems may become a concern if stress is prolonged for a period of time (Constantine et al., 2004; Kearney et al., 2005). Furthermore, students who are not capable of handling their study strains have been shown to be frequently in danger of experiencing mental, emotional, physical and psychological problems (James & Forest, 2002).

Several local investigators (Sherina et al., 2003; Zaid et al., 2007) have shown low psychological well-being as one of the main reasons for university students to be exposed to psychological problems such as depression and anxiety. In this regard, Zulkefli and Baharudin (2010), Yusoff and Rahim (2010) and Zaid et al. (2007) have demonstrated that the psychological well-being of Malaysian university students is low. According to Zulkefli and Baharudin (2010), a high percentage of low psychological well-being was found among students of Universiti Putra Malaysia. They reported that approximately half of the students (52.9%) scored low on the 12-item General Health Questionnaire. Likewise, Yusoff and Rahim (2010) revealed that the prevalence of stress among master students in Universiti Sains Malaysia was 36.4%. Based on this research, most of the stressors were found to be related to academic and performance pressures. And according to Salam et al. (2013), stress among Malaysian medical students was as high as 56% which is alarming. Meanwhile, the prevalence of stress among undergraduate students of USM was also reported, with a percentage of 29.6 (Yusoff et al., 2011).

According to Perry et al. (2007), students specifically face major sources of stress in terms of leaving home, new roommates, unfamiliar classes, and other important life events, together with the strain of on-going academic and social pressures. These pressures and the consequent emotional problems are the major reasons for
disruptions in the development of their academic activities, which will further lead to their failure in the academic performance. They may then experience stress, and the pressure make them prone to some serious mental disturbances (Sherina et al., 2003; Zaid et al., 2007).

However, a review of literature reveals that General Health Questionnaire (GHQ-12) has been used as a good measure for assessing the overall psychological well-being of students in Malaysia. Since GHQ-12 can give general mental health information about respondents, researcher tend to apply psychological well-being questionnaire in order to assess students’ psychological well-being in a more specific and detailed manner. In addition, research has focused on Malaysian undergraduates, especially medical students, rather than on the general student population (Sherina et al., 2003; Zaid et al., 2007).

This study contributed to body of knowledge in such way it established relations between independent variables and dependent variable which is not limited in literatures. So, lack of information entails that there is no clear comprehensive finding on the psychological well-being levels among Malaysian graduate students. There is also no information regarding contribution of types of coping strategies among graduate students’ psychological well-being. And also there is no available literature regarding the influence of subscales of cognitive emotion regulation, social support and physical activity, collectively, on the psychological well-being among graduate students. Meanwhile, substantial research has been done to indicate how cognitive emotional regulation, social support and physical activities are related to psychological well-being. Thus, the current study attempts to establish the extent to which these variables can predict the psychological well-being of graduate students.

1.3 Objectives of the Study

For this particular section of the present work, there are four parts (i) main objective, (ii) specific objectives, (iii) research questions and (iv) research hypothesis to be discussed, as follows:

1.3.1 Main Objective

The general objective of the current study was to identify whether cognitive emotion regulation, social support, and physical activity are significant predictors of graduate students’ psychological well-being.
1.3.2 Specific Objectives

The specific objectives of the current work are as follows:

1. To identify the levels of psychological well-being, types of cognitive emotion regulation, and the levels of social support and physical activities among respondents.

2. To identify whether there are significant differences in the psychological well-being and its subscales between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status, and family size).

3. To identify whether there are significant differences in the cognitive emotion regulation strategies between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status, and family size).

4. To identify whether there are significant differences in social support and its subscales between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status, and family size).

5. To identify whether there are significant differences in physical activities and their levels between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status, and family size).

6. To determine whether there are significant correlation between age and psychological well-being and its subscales (autonomy, environmental mastery, personal growth, purpose in life, positive relationship with others and self-acceptance) among the respondents.

7. To identify the extent to which cognitive emotion regulation, social support, and physical activities are significant predictors of the psychological well-being among the respondents.

8. To identify the extent to which cognitive emotion regulation strategies (self-blame, other-blame, rumination, catastrophizing, putting into perspective, positive refocusing, positive reappraisal, planning, and acceptance) are significant predictors of psychological well-being among the respondents.
1.4 Research Questions

This section formulates research questions based on the following objectives:

1. What are the levels of psychological well-being, types of emotion regulation, and levels of social support and physical activity among the respondents?

2. Are there significant differences in the psychological well-being and its subscales between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status and family size)?

3. Are there significant differences in the cognitive emotion regulation strategies between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status and family size)?

4. Are there significant differences in social support and its subscales between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status and family size)?

5. Are there significant differences in the physical activities and their levels between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status and family size)?

6. Is there any significant correlation between age and psychological well-being and its subscales (autonomy, environmental mastery, personal growth, purpose in life, positive relationship with others and self-acceptance) among the respondents?

7. To what extent are cognitive emotion regulation, social support and physical activities significant predictors of psychological well-being among the respondents?

8. To what extent are cognitive emotion regulation strategies (self-blame, other-blame, rumination, catastrophizing, putting into perspective, positive refocusing, positive reappraisal, planning and acceptance) significant predictors of psychological well-being among the respondents?
1.5 Research Hypotheses

The following hypotheses were postulated based on the research objectives:

1. There are significant differences in psychological well-being and its subscales between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status and family size).

2. There are significant differences in cognitive emotion regulation strategies between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status and family size).

3. There are significant differences in social support and its subscales between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status and family size).

4. There are significant differences in physical activities and their subscales between the respondents based on their demographic profile (faculty, age, race, semester of study, gender, marital status, employment status and family size).

5. There is a significant correlation between age and psychological well-being and its subscales (autonomy, environmental mastery, personal growth, purpose in life, positive relationship with others and self-acceptance) among the respondents.

6. Cognitive emotion regulation, social support and physical activities are to some degrees significant predictors of psychological well-being among the respondents.

7. Cognitive emotion regulation strategies (self-blame, other-blame, rumination, catastrophizing, putting into perspective, positive refocusing, positive reappraisal, planning and acceptance) are to some degrees significant predictors of psychological well-being among the respondents.

1.6 Significance of the Study

In every piece of research study, the researcher has the opportunity to offer data that aid practitioners to improve their practice, policy makers to improve policy decisions and other researchers in further explorations and contributions to existing research and literature. This study was carried out to better understand the contributions of graduate students’ cognitive emotion regulation on psychological well-being. In other words, being aware of their cognitive emotion regulation and using these strategies is beneficial for students. Firstly, they could think and act in a strategic way rather than impulsively when they face negative events. Secondly, this
behaviour will perhaps lead to finding more internal resources and consequent solutions for an unpleasant condition, which in turn causes them to explore themselves as successful and satisfied individuals, particularly when social support is not available for them.

The concept of social support can be helpful for students who make strong social networks to protect themselves against any probable pressure. Relying on this social support, they have opportunities to think about their personal growth and make life more meaningful day after day. Thus, this study is important for teachers and lecturers because, by being aware of the importance of giving social support, they are made realized that they are important supportive resources for their students. In fact, appropriate interaction between students and teachers could make academic life easy, successful and enjoyable for both of them.

This study is significant because it poses a challenge for further research due to the fact that cognitive emotion regulation strategies, social support and physical activities are the factors that influence psychological well-being of university students, and therefore, they should be given a priority in relevant research.

In particular, the study will support university policy makers to make the students aware of the importance of psychological well-being and to develop a help seeking attitude for their well-being. According to Salima (2010), students have problem in help seeking attitude towards psychological services. Moreover, policy makers at universities and institutions of higher learning may be encouraged to put compulsory sport courses for students regardless of the levels of education. Briefly, this study will help students to acquire self-actualization or at least, the promotion of optimal psychological well-being.

1.7 Scope and Limitations

In this study, cognitive emotion regulation, social support and physical activities are independent variables, while psychological well-being is a dependent variable. The study only covered two factors (demographic and psychological well-being) of psychological well-being. The population is limited to graduate students at master’s level at six faculties in one Malaysian University. In this study, ph.D students were excluded because they are more mature and thereby, they are supposed to have access to enough resources and are able to use resources effectively to reach to their psychological well-being.

The research was carried out through self-reported assessments of psychological well-being, cognitive emotion regulation, perceived social support, and physical activity. It is noteworthy that since the instruments of the study requires self-reporting, the findings are restricted to the perception of the respondents who may answer the questions in ways that are socially desirable rather than reveal their actual responses.
1.8 Conceptual and Operational Definitions

In this section, the variables of psychological well-being, cognitive emotion regulation, social support and physical activities are both conceptually and operationally defined.

1.8.1 Psychological Well-being

Psychological well-being refers to the extent that people feel their lives are under their control, their activities are meaningful and valuable, and they have good interactions with other people, optimistic feelings towards oneself and one’s past life (Ryff, 1989). Psychological well-being has six components:

i. Autonomy: assesses self-determination, independence and internal locus of control.

ii. Environmental mastery: measures one’s ability to manipulate and control complex environments.

iii. Personal growth: measures one’s needs to actualize and realize one’s potentials.

iv. Positive relationships with others: assess the ability to love, trust, and establish deep relationships with others.

v. Purpose in life: measures one’s sense of directedness and goals.

vi. Self-acceptance: assesses positive attitudes held towards the self.

Subjective aspect of psychological well-being were considered in present research in which is referred to an individual’s favorable appraisal of his or her general satisfaction with life or satisfaction with diverse contexts of life such as marriage and employment status, as well as in positive and negative affect (Diener & Lucas 1999). In this study, the psychological well-being of university students was measured by using psychological well-being questionnaire (Ryff, 1989).

1.8.2 Cognitive Emotion Regulation

In the last few years, there has been a focus on how cognition regulates emotion, referred to as cognitive emotion regulation. Garnefski and Kraaiji (2007) define cognitive emotion regulation as the cognitive way of consciously managing and regulating information that causes emotional arousal. According to this theory, it is assumed that thinking and acting are associated with different processes. As a result, cognitive strategies are distinguished from behavioural strategies and are considered in a conceptually pure way. In addition, they hold that cognitive emotion regulation
is a procedure that aids in handling emotion after the occurrences of traumatic events. Based on Garnefski et al. (2001), the nine main emotion regulation strategies, which have gained specific attention, are as follows:

i. Self-blame: the state of thought that puts the blame of what you have done on yourself (Anderson, et al., 1994).

ii. Other-blame: the state of thought that puts the blame of what you have done on other people or environment (Tennen & Affleck, 1990)

iii. Rumination: the state of developing thoughts and feelings related to negative events in life (Nolen-Hoeksema et al., 1994).

iv. Catastrophysing: the state of thought that clearly emphasizes the fear of what you have done (Sullivan et al., 1995).

v. Putting into perspective: the state of thought that minimizes the seriousness and importance of the event compared with the other ones (Allan & Gilbert, 1995).

vi. Positive refocusing: the state of thought that focuses on the positive experiences rather than the actual event (Endler & Parker, 1990).

vii. Planning: the state of thought that handles negative events and manages the necessary steps to take (Carver, Scheier, & Weintraub, 1989; Folkman & Lazarus, 1988).

viii. Positive reappraisal: the state of thoughts that gives/with a positive meaning to/for the event concerning individual development (Carver et al., 1989; Spirito et al., 1988).

ix. Acceptance: the state of thought that withdraws self from what has occurred (Carver et al., 1989).

This study measured cognitive motion regulation from the assessment of students’ scores based on Garnefski’s cognitive emotional regulation questionnaire with these nine elements (1989).

### 1.8.3 Perceived Social Support

Perceived social support refers to the process of getting support from institutions and people around us such as family members, friends and neighbours. Social support can improve psychological well-being and help with the affective, physical and cognitive aspects of individual contribution. It also provides individuals with physical, psychological and social needs, such as self-esteem, loyalty, love, and the feeling of belonging to a group (Tan & Karabulutlu, 2005). Perceived social support refers to the perception of social support adequacy from three specific sources of family, friends and significant other (Zimet, Dahlam, Zimet, & Farley, 1988).
This study focused on the assessment of these three sources of support, the third of which, significant others including lecturers, boy-or girlfriends, and teachers (Zimet et al., 1988). In this study, the social support from the assessment of students’ scores were measured using Perceived Social Support Questionnaire Zimet et al. (1988).

### 1.8.4 Physical Activities

Physical activities are defined as “any bodily movement produced by skeletal muscles that require energy expenditure” (World Health Organization, 2010, p.53). In this research, the physical activities of graduate students were measured using the International Physical Activity Questionnaire (WHO, 2010). In this questionnaire, the frequency and duration of vigorous, moderate, and walking activities, as well as time spent sitting were recorded during the last seven days by the participants.

### 1.8.5 Graduate Students

Graduate students are those who are pursuing their studies after graduation to gain a master’s degree or ph.D. In this research, graduate students refer to post-graduate students who are pursuing a Master’s degree.
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