

## Correlates of Psychological Well-being amongst Graduate Students in Malaysia

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**Abstract:** The aim of this study was to examine whether there are differences in psychological well-being among graduate students in terms of demographic profile namely faculty, age, race, number of semesters of study, gender, marital and employment status and family size. Psychological well-being is measured using the Scales of Psychological Well-being with six dimensions including: autonomy, environmental mastery, personal growth, positive relationships with others, purpose and self-acceptance. A total of 534 graduate students (155 males and 379 females) were randomly selected in one Malaysian university. Data was analyzed using one-way ANOVA, and independent t-test. The finding of this study revealed significant differences in overall psychological well-being in terms of different faculties, ages, semesters of study, genders, marital status. As for differences in overall psychological well-being, it was established that there is significant differences in personal growth and positive relationship between students of different semesters of study. In addition, the result indicated that there is significant positive relationship among different semesters of study, ages, genders, and marital status. Significant difference in purpose in life was found for students of different gender and marital status. Moreover, this study showed that marital and employment status have a significant difference in autonomy while, the marital status showed positive and significant difference for overall psychological well-being, positive relationship, purpose in life, and self-acceptance. However, there are no significant differences in psychological well-being of graduate students across different races and family sizes.

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### 1 Introduction

In psychological well-being, two important approaches can be found: firstly, hedonic approach which talks about subjective well-being and it is related to happiness and secondly, eudaemonic approach, which is the connection between psychological well-being and human potential development. For the second view, scholars such as Maslow and Rogers are well-known and their focus is on self-actualization. Maslow's theory (1958) includes important needs that an individual must accomplish in order to grow and be fully-functioning. A person begins by satisfying the most basic needs and after fulfilling the first one, then moves on to the next, until he reach the highest level. Rogers (1963) established the idea of the fully functioning person which refer to people who can live fully with all of their own feelings and reactions.

On the foundation of this prior categorization, (Keyes, Shmotkin, & Ryff, 2002) have applied the concept of subjective well-being as the major determinant of hedonic tradition, taking particular importance in studies of affections and satisfaction with life (Díaz et al., 2006). The concept of psychological well-being (PWB) is taken to identify

eudemonic tradition, focusing on the enlargement of skills and personal growth, both considered as main determinants of positive functioning (Díaz et al., 2006). Concept of psychological well-being based on the definition by Ryff (1989) was applied to evaluate respondents in this study. Psychological well-being in this view refers to the extent to which people feel that they have meaningful control in their life and their activities.

Results of previous studies have showed that better management of daily stress is significantly related to higher levels of psychological well-being (Chida & Steptoe, 2008; Collins, Gleib, & Goldman, 2008) 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). Hence, different studies have been conducted in various places in the world to discover agents that affect students' psychological well-being. Previous study on American graduate students shown that doctoral students, no matter the culture, were reported having less overall stress and greater psychological well-being. In other words, PhD students were reported to have less academic

stressors than master students degrees (Yang, 2010).

In this regard, researchers such as Zulkefli and Baharudin (2010), Yusoff and Rahim (2010) and Zaid, Chan, and Ho (2007) indicated that the psychological well-being of Malaysian university students especially among medical undergraduates is low. Over the decades, students at undergraduate levels have been studied extensively, but limited studies have been done on graduate students. Since, Poor psychological well-being has been recognized as the most important reason of suicidal behavior, a sense of helplessness and lesser academic achievements (Puskar & Marie Bernardo, 2007). In addition, Investigations reveal that psychological well-being has significant positive effect on the students' academic performance (Bowman, 2010). One of the ways to better understanding the concept of psychological well-being is to discover the factors related to it. Some causes of psychological well-being can be related to demographic factors that are discussed in this study.

The meta-analysis by Pinqart and Sorensen (2001), which included participants ranging from adolescence to old age, concluded that there was no significant difference in psychological well-being between gender. Differences in gender were found in a study by Ruini et al. (2003). It is interesting that females in this sample presented lower levels of well-being in all dimensions but positive relations with others. In a research conducted in the United States showed that females has higher scores in this dimension but, no significant differences were found for any other components of psychological well-being (Ryff & Keyes, 1995). It was suggested that Italian women in this sample are in a worse condition than the men. Regarding demographic information and psychological well-being, Kaplan, Shema, and Leite (2008) showed that females score was significantly higher on personal growth than males. Lindfors, Berntsson, and Lundberg (2006) shows age-related differences in self-acceptance and gender differences, so females scored higher in personal growth, positive relationship with others and purpose in life than males, while males has the higher tendency in environmental mastery than females. Biró, Ádány, and Kósa (2011) revealed that psychological well-being was lower among female public health students than in the same age female group of the general population.

Green, Freeborn, and Polen (2001) conducted a study to determine whether males and females vary regarding in components of psychological well-being. In this study 3,074 male and 3,954 female participated. Using hierarchical multiple regression analysis, and meta-analysis method, the finding of the

study displayed that, males were found significantly higher on self-acceptance, feeling of personal growth than women. Epstein (1993) also found the same result regarding gender differences in self-acceptance and personal growth.

Well-being can vary greatly in relation to age. Ryff and Keyes (1995) argued that elderly people experience less personal growth, and also suggest that mastering the environment and autonomy increases as people are advancing towards older stages in life. Mastering the environment tends to be better in the middle-aged and elderly than in young people, but remains stable from middle-age to older ages. A similar pattern can be observed with the dimension autonomy, but in this case the increase in this parameter from young people to middle age is less acute. Ryff and Keyes (1995) added that the dimensions self-acceptance and positive relations with others do not seem to vary with age. Ryff (1989) also claims that standard dimensions of well-being, such as purpose in life and personal growth, tend to be less important with age, and the situation become most extreme with elderly people. Kaplan, Shema, and Leite (2008) found that with increasing age, purpose in life is decreases. In addition, personal growth was higher in youngest age group. Highest level of environmental mastery found in age between 65 and 79.

Lindfors et al. (2006) investigated the construction of a Swedish translation of Ryff's psychological wellbeing scales namely, self-acceptance, positive relations with others, autonomy, environmental mastery, personal growth and purpose in life. Data was collected from 1,260 white-collar workers aged between 32 and 58 years. In this study, younger middle-aged adults scored higher on purpose in life and personal growth than did older middle-aged adults. In addition, women showed higher positive relations with others in comparison with men.

A cross-sectional survey in the United States with regards to age differences and psychological well-being components amongst young, middle, and older adults from the Midlife in the U.S, was carried out by Ryff and Singer (2008). Some dimension identified incremental profiles with age (e.g., autonomy, environmental mastery), whereas others demonstrate sharply decremental profiles from young adulthood to aging (e.g., purpose in life, personal growth), and still the rest illustrate small age disparity (e.g., positive relations with others, self-acceptance – only for females).

Ryff (1989) revealed that students in Educational major have better psychological well-being particularly in purpose in life and personal growth. In addition, according to Walker (2009) students in Education Science had higher grades of

psychological well-being than the students in field of Journalism. Bewick et al. (2010) showed that during the first year at university, students' psychological well-being changed significantly over time. Psychological well-being decreased significantly from pre-registration to semester one, and then slightly increased again in semester two. This pattern was similar for females and males. In year two the students' psychological well-being was slightly but significantly poorer during semester two compared to semester one.

Bewick et al. (2010) showed that during the first year at university, students' psychological well-being changed significantly over time. According to these researchers, psychological well-being decreased significantly from pre-registration to semester one, and then slightly increased again in semester two. This pattern was similar for women and men. In year two students' psychological well-being was slightly but significantly poorer during semester two compared to semester one. On the other hand, Terenzini, Theophilides, and Lorang (1984) reported that overall, the amount of personal development of university students are surprisingly steady during the third year.

Escribà-Agüir and Tenias-Burillo (2004) found that families with good marital relationship and equal decision making have high level of psychological well-being. And, Marks and Lambert (1998) showed contribution of marital students for psychological well-being. Finding of Bordbar, Nikkar, Yazdani, and Alipoor (2011) showed that there is no significant differences in psychological well-being based on marital status but unmarried students got higher mean scores than married students at the component of positive relations. Ryff and Singer (2006) found self-acceptance of married students is higher than unmarried. Fagg et al. (2008) supported the idea that being in employment status is related to better psychological well-being. This study aims to explore whether there are significant differences in psychological well-being and its' components based on students' demographic profile (faculty, age, race, number of semesters of study, gender, marital status, employment status, family size) among graduate students in one Malaysian University.

## 2 Methodology

### 2.1 Research Design

A descriptive correlational research design was utilized in this study. In order to select the samples, multi-stage sampling technique was applied. The researcher started with the random selection of universities, then faculties of study and the class. Finally, simple random sampling technique was also used to select respondents from each class. Faculties

selected were Agriculture, Science, Engineering, Modern Languages, Educational Studies, and Medicine.

In this study, Ryff's (1989) psychological Well-Being scale was utilized. It is one of the most widely applied scales to assess psychological well-being. This scale was divided into to six different components (Ryff, 1989) which were analyzed independently. The response required is based on six point likert scale, from strongly disagree (1) to strongly agree (6). Each subscale has 14 items, making a total of 84 items (See Table 1). The dimensions analyzed were:

- i. Autonomy - assesses self-determination, independence, and an 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 - assesses 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 toward the self.

Before doing the actual study, a pilot study was conducted in order to test the reliability coefficients of the questionnaire in the novel circumstance. A total of 45 graduate students were randomly selected from six faculties (Agriculture, Science, Engineering, Modern languages, Education, Medicine) in one Malaysian university. To evaluate the internal consistency of the six psychological well-being subscales, Cronbach's alpha coefficients were calculated for all variables. It can be concluded that the Cronbach's alpha coefficients of the different subscales after removing two items (item number 8, 11) from autonomy, item number 42 from personal growth, and item number 63 from purpose in life, was in satisfactory level (ranged between 0.70 – 0.75) based on standard suggested by Kline (2005).

## 3 Results

In this study, the respondents were 534 graduate students from one Malaysian university. Their age ranges between 19 to 45 years, with 155 males (29%) and 379 females respondents (71%) with mean age of 27 years (SD = 4.7).

### 3.1 Comparison of Psychological Well-being Subscale Scores for Demographic Variables

This research was aimed to compare whether psychological well-being and its dimensions differ between graduate students of different faculties, age groups, semester of study, gender, and marital status.

### 3.2 Differences in Psychological Well-being across Faculties

Comparing respondents' scores of psychological well-being and its dimensions across faculties, one way ANOVA result showed that there were significant differences in personal growth ( $F(5, 528) = 3.51, P = .01$ ), positive relationship ( $F(5, 528) = 3.47, P = .003$ ), and psychological well-being ( $F(5, 528) = 2.34, P = .02$ ). Based on Tukey's Test, mean score of students in the Faculty of Engineering was

the lowest in personal growth ( $M = 4.36, SD = .72$ ), positive relationship ( $M = 4.05, SD = .67$ ), and overall psychological well-being ( $M = 3.91, SD = .32$ ). While, students from Faculty of Science scored the highest ( $M = 4.07, SD = .31$ ) in overall psychological well-being and positive relationship with others. In addition, mean score of students from Faculty of Medicine ( $M = 4.76, SD = .69$ ) was the highest among six faculties in personal growth.

**Table 1. Difference in Psychological Well-being Dimensions across Faculty**

Dimension	Faculty	N	Mean	F	Sig
Personal growth	Agriculture	76	4.64	3.51	.01
	Science	100	4.60		
	Engineering	81	4.36		
	Modern Languages	78	4.51		
	Educational Studies	116	4.52		
	Medicine	80	4.76		
Positive relationship	Agriculture	76	4.30	3.47	.003
	Science	100	4.45		
	Engineering	81	4.05		
	Modern Languages	78	4.28		
	Educational Studies	116	4.36		
	Medicine	80	3.30		
Overall Psychological well-being	Agriculture	76	4.05	2.34	.02
	Science	100	4.07		
	Engineering	81	3.91		
	Modern Languages	78	4.02		
	Educational Studies	116	4.05		
	Medicine	80	4.06		

N=534

### 3.3 Differences in Psychological Well-being across Age groups

Comparing the level of psychological well-being of students across different age groups, one-way ANOVA showed that there were significant difference in personal growth ( $F(4, 529) = 4.71, P = .003$ ), and overall score of psychological well-being ( $F(4, 529) = 2.39, P = 0.50$ ). The Tukey HSD test for psychological well-being identified that the mean score for the age group between 34 and 38 ( $M = 4.16, SD = .32$ ) is significantly higher than 19-23 ( $M = 3.95, SD = .35$ ). In addition, the mean scores of personal growth for the respondents from 24 to 28 years of age ( $M = 4.60, SD = .64$ ) and 34 to 38 ( $M = 4.82, SD = .66$ ) was significantly higher than 19 to 23 ( $M = 4.31, .69$ ).

**Table2. Differences in Psychological Well-being Dimensions across Age Groups**

Dimensions	Age	N	Mean	F	Sig
Personal growth	19-23	86	4.31	4.71	.003
	24-28	305	4.60		
	29-33	85	4.56		
	34-38	32	4.81		
	39 and above	26	4.56		
Overall psychological well being	19-23	86	3.9	2.39	.05
	24-28	305	4.03		
	29-33	85	4.04		
	34-38	32	4.16		
	39 and above	26	4.08		

N=534

### 3.4 Differences in Psychological Well-being across Semesters

A one-way ANOVA analysis showed that there were significant differences among graduate students in overall psychological well-being ( $F(4, 529) = 2.91, P = 0.02$ ), personal growth ( $F(4, 529) = 3.43, P = 0.01$ ), and positive relationship with others ( $F(4, 529) = 3.13, P = 0.02$ ) across students of different semesters of study. The result of the Tukey HSD test indicated that the mean score of psychological well-being among respondents at semester one ( $M = 4.07, SD = .35$ ) was significantly higher than the students at semester two ( $M = 3.93, SD = .34$ ). Furthermore, the mean scores of personal growth for the respondents at semester four ( $M = 4.70, SD = .61$ ) was significantly higher than those at semester two ( $M = 4.35, SD = .66$ ). Mean score of positive relationship at semester one ( $M = 4.42, SD = .67$ ) was also significantly higher than those at semester two ( $M = 4.12, SD = .68$ ).

**Table3. Differences in Psychological Well-being Dimensions across Different Semester**

Dimensions	Semester	N	Mean	F	Sig
Personal growth	Semester1	180	4.57	3.43	.009
	Semester2	93	4.35		
	Semester3	152	4.58		
	Semester4	64	4.70		
	Semester5 and above	45	4.67		
Positive relationship	Semester1	180	4.41	3.13	.01
	Semester2	93	4.12		
	Semester3	152	4.30		
	Semester4	64	4.24		
	Semester5 and above	45	4.33		
Overall psychological well-being	Semester1	180	4.07	2.91	.02
	Semester2	93	3.93		
	Semester3	152	4.03		
	Semester4	64	4.04		
	Semester5 and above	45	4.08		

### 3.5 Gender Differences in Psychological Well-being

With respect to students differences in gender, the findings revealed that there was significant differences in positive relationship with others between males ( $M = 4.10, SD = .67$ ) and females ( $M = 4.39, SD = .68$ ), ( $t = -4.50, P < 0.05$ ), self- acceptance between males ( $M = 3.88, SD = .32$ ) and females ( $M = 3.99, SD = .35$ ), ( $t = -2.28, P < 0.05$ ), purpose in life between males ( $M = 4.19, SD = .64$ ) and females ( $M = 4.31, SD = .61$ ), ( $t = -1.99, P < 0.05$ ), and psychological well-being between males ( $M = 3.97, SD = .32$ ) and females ( $M = 4.06, SD = .33$ ), ( $t = -2.85, P < 0.05$ ). Based on the t-test result, females have better psychological well-being, positive relationship with others, higher self- acceptance, purpose in life in comparison with males. But, there were no significant differences in autonomy, environmental mastery, and personal growth between males and females.

**Table4. Gender Differences in Psychological Well-being Dimensions**

Levels	Gender	Mean	STD	t	Sig
Positive relationship with others	Male	4.10	.67	-4.50	.000
	Female	4.39	.68		
Purpose in life	Male	4.19	.64	-1.99	.04
	Female	4.31	.61		
Self-acceptance	Male	3.88	.32	-2.28	.02
	Female	3.99	.35		
Overall psychological well being	Male	3.97	.32	-2.85	.005
	Female	4.06	.33		

Male = 155, Female = 379

### 3.6 Differences in Psychological Well-being Based on Employment Status

Considering the psychological well-being in terms of employment status, the t-test analysis revealed that there was no significant differences in environmental mastery, personal growth, purpose in life, positive relationship, self-acceptance, and total psychological well-being between full time students (unemployed) and working students (employed) with exception of autonomy for employed ( $M = 3.81, SD = .49$ ) and unemployed

student ( $M = 3.68$ ,  $SD = .46$ ), ( $t = 3.11$ ,  $P < 0.05$ ). Descriptively employed students are more autonomous than full time students. Table 5 shows differences in psychological well-being by employment status.

**Table5. Differences in Psychological Well-being Dimensions and Employment Status**

Dimensions	Employment	Mean	STD	t	Sig
Autonomy	Employed	3.81	.49	3.11	.002
	Unemployed	3.68	.46		

Employed = 202, Unemployed = 332

### 3.7 Differences in Psychological Well-being across Marital Status

However, with regards to findings on psychological well-being differences across marital status, the result revealed that there was significant differences in overall psychological well-being between students who were single ( $M = 4.00$ ,  $SD = .34$ ) and married ( $M = 4.10$ ,  $SD = .35$ ) ( $t = -2.31$ ,  $P < 0.05$ ), autonomy between single ( $M = 3.69$ ,  $SD = .46$ ) and married students ( $M = 3.82$ ,  $SD = .49$ ) ( $t = -2.78$ ,  $P < 0.05$ ), positive relationship between single ( $M = 4.26$ ,  $SD = .69$ ) and married students ( $M = 4.41$ ,  $SD = .65$ ) ( $t = -2.51$ ,  $P < 0.05$ ), purpose in life between single ( $M = 4.23$ ,  $SD = .62$ ) and married students ( $M = 4.38$ ,  $SD = .60$ ) ( $t = -2.51$ ,  $P < 0.05$ ), and self-acceptance between single ( $M = 3.92$ ,  $SD = .52$ ) and married students ( $M = 4.04$ ,  $SD = .58$ ) ( $t = -2.34$ ,  $P < 0.05$ ). On the other hand, there were no significant differences in psychological well-being between dimensions and demographics factors of students such as differences in race and number of family members.

**Table6. Differences in Psychological Well-being Dimensions and Marital Status**

Dimensions	Marital status	Mean	STD	t	Sig
Autonomy	Single	3.69	.46	-2.78	.005
	Married	3.82	.49		
Positive relationship	Single	4.26	.69	-2.32	.02
	Marital	4.41	.65		
Purpose in life	Single	4.23	.62	-2.51	.013
	Marital	4.38	.60		
Self-acceptance	Single	3.92	.52	-2.34	.02
	Marital	4.04	.58		
Overall psychological well being	Single	4.00	.34	-2.31	.004
	Marital	4.10	.35		

Single = 380, Married = 151

## 4 Discussion

The findings of this study show that, there are significant differences in overall psychological well-being, personal growth, and positive relationship among the respondents in different faculties. It is important to note that mean score of the respondents in the Faculty of Engineering was the lowest in overall psychological well-being, personal growth and positive relationship compared to others. The findings of Lent et al. (2007) supported the usefulness of the social-cognitive model of academic satisfaction among engineering students. In addition, academic goal progress, self-efficacy, and environmental supports were individually and collectively predictive to engineering students' academic satisfaction or well-being indices.

In addition, Fleming, Engerman, and Griffin (2005) revealed that six persistence factors that surfaced among engineering students were family influences, financial motivation, mathematics and

science proficiency, academic advising, quality of instruction, and availability of faculty.

Vandriel et al. (1997) investigated curriculum innovation in higher engineering education. In Vandriel's study which was based on interviews results, it appeared that teachers perceived the development of problem-solving skills in relation to conceptual understanding as the central issue in higher engineering education. For example, they focus on the problem-solving process (selecting information, identifying and analyzing the problem, writing reports) in introductory courses, while in second-year courses, promoting the ability to synthesize are a central issue. To achieve the latter goal, students may be involved in design projects. Finally, in advanced courses, students are confronted with problems similar to the ones they are expected to deal with as professionals in the field. In this context, the importance of communication skills is increased. However, more researches are needed to consider the

factors mentioned above among graduate students as psychological indices.

On the other hand, students from faculty of science scored the highest mean in overall psychological well-being and positive relationship. Trigwell, Prosser and Taylor (1994) explored teachers' intentions associated with specific teaching strategies. In this approach, teacher's-focus strategy was successful (importance of interaction). However, the specific teacher's strategy perhaps leads to appropriate communication or positive relationship among students. On one hand, positive relationships are related to pleasure and a positive mood (Ryff, 2001) which may influence quality of integration appropriately. On the other hand, there is a positive association between positive relationship with others and psychological well-being (Keyes, Shmotkin, and Ryff, 2002). It can be concluded that the strategy used by teacher leads to positive relationship which further influence psychological well-being of students.

In addition, mean score of medical students in personal growth was the highest among the respondents. Medical school has long been recognized as involving numerous stressors that can affect the well-being of students. It can be argued that although medical students has the highest personal standards, which gave them benefit on entrance to a well competitive occupation (and they grow in personal standards as it is shown in finding of the present study) but these standards were related to maladaptive perfectionism leading to extreme concerns about educational performance and eventually low level of psychological well-being among medical students (Yiu, 2005).

As it is observed, the finding mentioned above is contrary to the investigation of Ryff (1989) who revealed that respondents who major in education were good in psychological well-being particularly in purpose of life and personal growth. On the other hand, Walker (2009) found that students in Education Science gained higher grades of psychological well-being than the students in fields of Journalism and Art. Curiosity has relevance to nearly all facets of human functioning and opportunities for future research extend beyond psychology to areas such as business, education, politics, and journalism. Not everyone is prepared to benefit from opportunities for personal growth, but for the majority who are, curiosity is proposed to be a primary facilitator. (Kashdan, Rose, & Fincham, 2004). However, it can be argued that graduates from Faculty of Education in the current study perhaps do not possess enough prerequisites of personal growth.

Regarding purpose in life, youth need to be encouraged to link their daily activities in school or in extracurricular pursuits to long term personal aim

which is a critical step in fostering purpose (Damon, 2009). In this regard, graduate students perhaps could not connect their activities to the personal aims. Furthermore, the result found that there are no significant differences in personal growth between students from agriculture, science, education disciplines. Likewise, differences were found in positive relationship for students from agriculture, medicine, educational studies and those from engineering; however the differences were not significant. Similarly, there were also no significant differences between other components of psychological well-being such as autonomy, environmental mastery, purpose in life and self-acceptance between the six faculties.

Comparing the levels of psychological well-being in terms of age, the result of the study revealed that the overall psychological well-being and personal growth between students of 24 to 28 years old age group and 34 to 38 was significantly higher than that of 19 to 23 year old. Therefore, it can be concluded that students of the age between 34 to 38 years have better psychological well-being compared to other age groups. This result is in line with several earlier studies (Martire, Stephens, & Townsend, 2000; Kaplan et al., 2008; Ryff, 1989; Walker, 2009). Similarly, Bowmen (2010) claimed in general, the high age, the students' level of psychological well-being increases. Kokko (2012) displayed a steady and high level of psychological well-being between 36 to 42 years old. However, individuals who are older are more matured and may know how they can manage and cope with the situations.

Furthermore, the findings showed higher personal growth for young adults which is in accordance with the previous studies (Chen & Persson, 2002; Ryff, 1989; Ryff and Keyes, 1995; Lindfors, Berntsson and Lundberg, 2006; Ryff and Singer, 2008; Kaplan, Shema, and Leite, 2008). Because, youth see themselves as creating significant growth process from their adolescence and put vast prospect for the future, so personal growth score was higher (Ryff, 1991). Regarding purpose in life where there were no significant differences between different age groups, it can be argued that only young people with high ability can be more likely to exhibit purpose than other youth. For instance, youth who are intensively committed to purposes (Bronk, 2005; Damon, 2008) and high ability youth (Colangelo & Assoline, 2000; Coleman & Cross, 2005; Davis, 2006; Mendaglio, 2007) contribute to certain characters, such as being persistent, creative, sensitive, and regular strivers for mastery. However, there were no significant differences in autonomy, environmental mastery, positive relationship, purpose in life and self-acceptance across different age groups.

A one way ANOVA analysis showed that there were significant differences among graduate students across different semesters of study on overall psychological well-being, personal growth, and positive relationship with others. Based on the results, overall psychological well-being of semester five students and above was higher compared to the other semesters. Bewick et al. (2010) indicated that during the first year at university, students' psychological well-being changed significantly over time. This is because they are more likely to be influenced by academic environments such as effective lecturers, materials for the study, dealing with challenging situation in which they need to find solution for their problems, in turn, is practice for becoming master. Having competence in environmental mastery may increase psychological well-being level. According to these researchers, psychological well-being decreased significantly from pre-registration to semester one, and then slightly increased again in semester two. This pattern was similar for females and males. In year two students' psychological well-being was slightly but significantly poorer during semester two compared to semester one.

Based on the findings of the study it can be argued that personal growth of students in their fourth semester is higher than students in other semesters. Terenzini et al. (1984) reported that overall, the amount of personal development of university students is surprisingly steady during the third year. This might be because, the respondents of the study comprised of graduate students and they have already acquired the foundations for reaching personal growth at the end of their academic year (semester four). Furthermore, in the present study, in positive relationship with others among students in semester one is higher. The graduate students might possess effective coping and psychological resources (Lazarus & Folkman, 1984; Wong, 1993) to communicate with the new situation. In general, it is realized that students overall psychological well-being, personal growth, and positive relationship are fluctuating at the first year (the first two semesters), but from third semester and above their score approximately increased or remained at a steady level. On the other hand, there are no significant differences between autonomy, environmental mastery, purpose in life, and self-acceptance in terms of different semesters.

Comparing psychological well-being amongst the students of different genders, as already pointed by Ryff and Marshal (1999), Pinquart and Sorensen (2000), Ryff (1989), Ryff and Keyes (1995), Kaplan, Shema, and Leite (2008), findings of the present study also revealed that females scored higher in positive relationship with others than males. This finding is in contrast with Ruini et al. (2003) and Lindfors et al.

(2006) who reported higher positive relationship with others among males rather than females. The inconclusive findings may be contributed by several factors. For example, men are mostly influenced by their occupational situations, while women have close relationship with social system's events (Whitbourne & Powers, 1994). These days social role of males and females have been changed, so that females took almost social responsibilities similar to males. These changes might influence psychological well-being aspects of genders.

Similar to finding of Lindfors, Berntsson, and Lundberg (2006), the current study also displayed that purpose in life in females is higher than males. In line with previous studies on gender by Ryff, (1989) and Ryff and Keyes (1995), the present survey also showed that there are no significant differences between genders in autonomy. However, findings of this study are in contrast with Ruini et al. (2003) that concluded females have lower score in this component. This might be related to family roles and social responsibilities between genders (Wells, 2010) in which females increased involvement in social responsibilities rather than domestic duties resulted in them being more autonomous.

Based on the finding of this study, females were also found to have higher self-acceptance than males. This finding is in contrast with finding of Green et al. (2001), Lindfors et al. (2006), and Epstein (1993). This might be because nowadays the social role of women has been increased compared to the past times where they used to assume the roles of house keeper and nurturing kids. It means females take more social responsibilities in addition to nurture children. This situation might increase their self-esteem and satisfaction, and in turn, leads to higher self-acceptance. Since people's perception of themselves changes with time, thus they can renew their perception when their situation changes (Ryff, 1991).

The finding shows that there were no significant differences in environmental mastery across gender. This is in line with results of Ryff (1989) who pointed out that young adults scored higher on personal growth and purpose in life than older adults, but older adults would score higher than young adults on autonomy and environmental mastery. On the other hand, Lindfors et al. (2006) showed that males scored higher in environmental mastery than women. Since environmental mastery is supposed to be experienced during a long time in life-span, hence, it is expected to be higher among older adults.

Based on the current findings, there was no significant difference in personal growth among students with different genders. This finding is in line



with Ryff (1989), Ryff and Keyes (1995). In addition, Kaplan et al. (2008), Lindfors et al. (2006) showed that females scored significantly higher on personal growth than males. On the other hand, Green et al. (2001), concluded that males are higher in feeling personal growth than females. However, since curiosity is an important component that is proposed to lead to personal growth, not everyone is prepared to benefit from opportunities for personal growth, but for the majority who are, curious is proposed to be a primary facilitator (Aron & Aron, 1997).

In contrast with findings from Pinquart and Sorensen (2001), Ruini et al. (2003), and Daraei (2012) this study shows that psychological well-being of female students were higher than male students. Gender is identified with social factors related to the various patterns of socialization of male and female such as family roles, professional expectations, types of occupation and socio-cultural, and also affects the processes of health and illness (Wells, 2010). However, any change in these characters might lead to changes in psychological well-being of individuals in both males and females.

With respect to the differences in psychological well-being across employment status, findings showed that there are no significant differences in overall psychological well-being, environmental mastery, personal growth, purpose in life, positive relationship, and self-acceptance between full time students and employed students with exception of autonomy. Working students who are employed obtained higher in autonomy than unemployed students. Fagg (2008) supported the idea that employment status is related to better psychological well-being and Bigatti and Cronan (2002) claimed that employment is associated with low level of psychological well-being. There is evidence that leisure provides a basis for well-being for employed young adults such as minority ethnic and racial groups (Melamed, Meir, & Samson, 1995). For instance, Haworth and Ducker (1991) found that unemployed young adults who took part in challenging and dynamic leisure activities, had higher psychological well-being than those who did not. In addition, ability of autonomy has long been paid attention to, as a fundamental advance task among college years (Chickering, 1969; Chickering & Reisser, 1993; Erikson, 1968). However, financial resource which is one of creative coping's elements and leads to psychological well-being (Wong & Wong, 2006) is available for them, which in turn, gratitude more physical and mental needs.

The result of this study revealed that students with marital status have better overall psychological well-being compared to single students. This is in line with previous study (Escribà-Agüir & Tenias-Burillo,

2004) who found that families with good marital relationship and equal decision making have high level of psychological well-being. It can be understood that merely being in marital status without high quality in relationships perhaps does not lead to optimal level of psychological well-being. Moreover, Marks and Lambert (1998) showed contribution of marital students for psychological well-being. Furthermore, similar result was found on positive relationship among married students. In this regard, finding of Bordbar et al. (2011) showed that there was no significant difference in psychological well-being based on marital status but unmarried students got higher mean scores than married students in the component of positive relations in addition to environmental mastery. On the other hand, Ryff and Singer (2006) revealed that people who never married showed higher levels of personal growth and lower levels of self-acceptance and positive relations with others than married people.

In this study, married students had higher score in purpose in life. Being married, and having a high quantity and quality of contact with other individuals, is associated with higher purpose in life (Pinquart, 2002). It implicitly referred to quality of relationship. This finding is in line with Ryff and Singer (2006) who showed that self-acceptance of married students was higher than unmarried ones. Seltzer, Greenberg, Floyd, and Hong (2004) concluded that parents who used accommodative coping has higher level of environmental mastery and self-acceptance. It can be argued that being in marital status without applying strong strategies, optimal psychological well-being would not be achieved.

Furthermore, based on the present findings, autonomy was significantly and positively higher between married than single respondents. Since autonomy is related to self-acceptance, self-acceptance is higher among married than unmarried, then it is expected that married have higher level of autonomy also. Attainment of autonomy has long been considered as a goal of highly educated persons (Boyer, 1987; Pascarella & Terenzini, 1991). It perhaps means that regardless of marital status, highly educated students should be independent. Regarding to what is mentioned above, it can be concluded that psychological well-being and its components perhaps are multi-factor concepts and are not identified with single agent. However, significant differences were not found in environmental mastery and personal growth between married and single respondents.

## 5 Conclusion

This study showed that there were significant differences between students of different faculties on the overall psychological well-being, personal growth, and positive relationship. Especially, students from

engineering were low, but students of science were high in the mentioned dimensions. Likewise, it is observed that with increasing age, overall psychological well-being of students also increased. Overall psychological well-being and positive relationship of students in semester one is high, but personal growth of students in semester four is highest. It means personal growth during the academic life increases. Females were reported to have higher level in psychological well-being and dimensions including positive relationship with others, self-acceptance, purpose in life, and autonomy than males, but there was no significant difference in personal growth and environmental mastery. Employed and unemployed students were different only in autonomy in which, employed students were more independent. In addition, married students had higher scores in overall psychological well-being, autonomy, positive relationship, purpose in life, and self-acceptance than single students. However, students did not differ in psychological well-being in terms of family size and race.

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