

Age and Gender as Predictors of Psychological Well-Being

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Abstract

The current study was designed to explore the potential relationship of psychological well-being with age and gender. A sample of 400 individuals, representative of both genders (men=185 & women=215 within an age range of 17 to 50 years) was drawn from various colleges and universities of Khyber Pukhtunkhwa. Ryff's (1989) psychological well-being scale (middle version consisting of 54 items) was used as a tool to collect the relevant information. According to the results, gender accounted for significant variation in psychological well-being. Men outperformed women on four of six dimensions of psychological well-being (i.e., environmental mastery, personal growth, autonomy, and purpose in life). However, no significant gender differences were found on the aspects of positive relations with others and self-acceptance that indicates that, on average, men and women are alike in these dimensions. A strong relationship was also observed between age and psychological well-being attesting psychological well-being as dependent on age.

Keywords: Psychological well-being; Dimensions; Gender difference, Age

Introduction

The literature on psychological well-being has made considerable progress since the emergence of the field over fifty years ago. Recent surveys reveal that mental health experts including psychologists have focused enormously on various conditions that are likely to influence psychological well-being (eudaimonic) or subjective well-being (hedonic). The science of well-being attempts to discover what makes life satisfying or unsatisfying (Miller & Kelly, 2005). Given the well-being's central role in producing flourishing societies, a substantial body of research has searched for the factors contributing to well-being (Dambrun & Ricard, 2011). In addition to that, investigators/ theorists have viewed psychological well-being in different ways though psychological wellness generally indicates how people assess their lives. Diener, Oishi, and Lucas (2003, 2015) reported elements of cognition and affect. The cognitive element means evaluating the whole life in terms of amount of satisfaction one derives from it. The affective aspect hints at moods, emotions, and feelings (hedonic-subjective). One's affect

impacts his/her cognitive evaluation. For example, whatever present mood we are experiencing can influence our judgments. Bradburn (1969) thought of psychological well-being as the proper balance between positive affect (PA) and negative affect (NA).

Carol Ryff (1989) has viewed well-being a dynamic, multidimensional concept that is composed of subjective, psychological, and social components. Her concept of well-being differs from that of subjective well-being, or hedonic well-being. Psychological well-being seems to be more stable than subjective well-being which may fluctuate according to life experiences. Ryff made an effort to integrate various conceptions of psychological well-being prevalent from the period of ancient Greeks until the modern era (e.g., Jung's theory of individuation, Maslow's theory of self-actualization, etc) and defined psychological well-being in terms of dimensions of self-acceptance, autonomy, environmental mastery, purpose in life, positive relations with others, and personal growth (Ryff, 1989). These factors give a boost to resilience too, by mitigating a person's reactions to hostile situations, and keep folks energetic, zealous and occupied. Self-acceptance refers to acceptance of who you really are. It is a central component of psychological health. Autonomy hints at independence of thought and action; ability to refuse to give in to social pressures. Environmental mastery is, by and large, indicative of the individual's capability to manage complex environments; developing awareness of the surrounding opportunities and using them more efficiently. Personal growth refers to a sense of constant personal development; to realize one's potentials and weaknesses, rather than hiding behind them; and to discover what is holding us back from achieving optimal growth potential. The component of positive relations with others explains the importance of positive and supportive/productive relationships with other beings. Purpose in life indicates one's need to determine the real purpose of life; a sense of directedness. It also includes attaching a meaning to the existing and past periods of life, holding such beliefs that make life really purposeful.

Does well-being vary in relation to age and gender? There are studies which have attempted to find a relationship between age, gender, and psychological well-being. For example, in prior research on Malaysian students, investigators (Yusoff & Rahim, 2010; Zulkefli & Baharudin, 2010) reported noticeably low degree of psychological well-being among the Malaysian undergraduate university students (who were likely to be younger when compared to graduate students). In another research work on students from master's and PhD programs, Yang (2010) found that doctoral candidates,

irrespective of differing cultural backgrounds they were from, reported high well-being (less stress) than those who were pursuing master's degree. Because the doctoral students are generally considered older (senior) than the students from master's classes, this finding indicates positive influence of increasing age on well-being though the level of education may also be a factor in enhancing well-being (it needs to mention here that Yang's study was based on a different well-being instrument).

Gender has also been shown as an important predictor in impacting one's psychological well-being. However, previous studies have yielded inconsistent findings in this regard. Pinquart and Sorensen's (2001) meta-analysis, which comprised individuals from various age groups including adolescents, adults, and older persons, demonstrated no significant gender differences in psychological well-being. Other investigators (Ruini, Ottolini, Rafanelli, Tossani, & Fava, 2003; Kaplan, Shema, & Leiti, 2008), however, maintained that men and women are not alike with respect to well-being construct. Ruini and co-researchers conducted a study on an Italian sample using Ryff's psychological well-being inventory and noted that Italian female participants of this sample were not as good as men in most aspects of psychological well-being. Contrary to what Ruini et al. (2003) found, Kaplan and co-workers showed that women scored significantly higher on personal growth than men. On the other hand, Ryff and Keyes's (1995) study that was carried out in the United States with the aim to examine gender differences, women reported higher scores in the dimension of positive relations but no significant differences emerged in any other aspect of psychological well-being.

In a nutshell, it is evident from above literature review that studies on well-being and demographics have shown a wide range of diversity. However, by and large, age and gender have shown association with psychological well-being.

Rationale of the Study

Positive Psychology is the scientific study of the strengths and virtues that enable individuals and societies to prosper. This field is founded on the notion that everyone aspires to live meaningful and fulfilling life, to make fullest use of abilities he/she holds. This branch of psychology brings attention to the possibility that focusing exclusively on the disease model (of human functioning) could result in a limited (and partial) understanding of an individual's condition. This viewpoint is quite similar to various empirical

models that Vaillant (2012) outlined while discussing different definitions of mental health, all of which emphasized positive aspects only. For instance, he asserted that mental health refers to the existence of multiple human capacities rather than absence of weaknesses. Similarly, expression of pleasant/positive emotions, or resilient behavior also indicate healthy mind.

Topics that have caught attention of positive psychology researchers are many including virtues, strengths (e.g., spirituality, hope, wisdom, flourishing and life satisfaction/well-being), as well as the ways how these can be strengthened by institutions and social systems. Empirical researches are under way to get clarity about the predictors of optimal functioning and well-being. Moreover, the role of demographics in enhancing well-being cannot be underestimated. However, existing literature review highlights inconsistency/contradiction in the findings in this respect. Some researchers assert that psychological well-being has nothing to do with gender, while others believe that both are related (as mentioned in the introductory section). Likewise, theorists and research scholars differ as regards whether age affects psychological well-being. All these facts provided a compelling reason to undertake a study in order to explore and develop better understanding of the impact of demographic factors on psychological well-being in Pakhtun culture. This work would add largely to the existing empirical body of research on the relation between psychological well-being and demographics.

Research Objectives

Keeping in view the theoretical and empirical linkage between psychological well-being and demographic variables such as age and gender, as mentioned above, the major purpose of the current study was to examine the inter-correlations among psychological well-being, age, and gender.

Hypotheses

Based on prior research on age and gender, the following hypotheses have been tested.

1. Men will get higher scores than women on the psychological well-being aspects of autonomy and personal growth.
2. Women will display higher scores than men on the psychological well-being aspect of positive relations with others.
3. Age is predicted to be positively associated with psychological well-being (total and aspects).

METHOD

Sample

A sample of 400 adolescents and adults including 185 men and 215 women, aged 17-50 ($M = 26.095$; $SD = 8.59$) enrolled in various courses of humanities, pure science, social science, agriculture, and engineering, at various universities and other educational institutions of Khyber Pakhtunkhwa, took part in this study. Participants were recruited through purposive sampling technique. Mean age of the men was higher (26.89; 8.89) than women (25.41; 8.28). The participation was voluntary and for this purpose, the subjects had to show their willingness in writing. After that, they were given a demographic questionnaire to indicate some personal information relating to age, education, occupation, and social class. Finally, they completed the self-report inventory on psychological well-being as described below.

Measure

Psychological Well-Being Scale

Researchers and theorists have concentrated much on psychological well-being because of its huge impact on one's quality of life. This construct was measured with the help of Scales of Psychological Well-Being developed by Ryff (1989). It is a six point Likert-type-scale containing 54 statements. The scale covers six domains of psychological wellness including self-acceptance, personal growth, purpose in life, positive relations with others, environmental mastery, and autonomy. Each area is assessed by 9 positive and negative items. According to Ryff (1989) the internal consistency of the scale, for all six dimensions, is above .80, whereas alpha coefficients from 0.659 to 0.828 were obtained in the current study. The highest possible score for each subscale/aspect is 54 and for the entire scale of psychological well-being, it is 324.

Procedure

This study was carried out to establish the relationship of psychological well-being with age and gender among student population from various colleges and universities of Khyber Pakhtunkhwa. All the subjects were contacted beforehand and assured with regard to confidentiality of their responses. After obtaining informed consent from them, personal information sheet was administered on the entire sample to get information relating to demographic profile of each of them. Later, the scale of psychological well-being was handed over to the subjects along with written instructions which were also verbally explained.

Results

Table-1

Descriptive Statistics for Age and Psychological Well-Being (N=400)

	Mean	Std. Deviation
Age	26.095	8.588
Positive Relations with Others	43.0475	8.0304
Environmental Mastery	39.285	7.643
Personal Growth	36.933	12.995
Autonomy	36.170	13.057
Self-Acceptance	41.415	7.729
Purpose in Life	42.730	7.924
Overall Psychological Well-Being	239.28	50.234

The mean age of the respondents was 26.095 with standard deviation of 8.588. Results with regard to mean scores indicate that the subjects obtained highest mean score on the well-being aspect of positive relations with others (43.048) with SD = 8.030, and lowest on autonomy (36.170) with SD = 13.057, which may be attributed to the collectivistic nature of culture which, in fact, downplays independence and endorses dependence on a core group of people, strengthening the relationships that keep the collectivist society intact. In such a society, mostly, parental control plays an important role in determining the youth's activities.

Table 2

Descriptive Statistics of Psychological Well-Being by Gender (N=400)

	Gender	Mean	Std. Deviation	n
Positive Relations –with others	Female	42.930	8.101	215
	Male	43.184	7.9672	185
Environmental Mastery	Female	38.247	7.506	215
	Male	40.492	7.644	185
Personal Growth	Female	34.693	12.238	215
	Male	39.535	13.392	185
Autonomy	Female	33.949	12.037	215
	Male	38.751	13.737	185
Self-Acceptance	Female	40.744	7.432	215
	Male	42.195	8.011	185
Purpose in Life	Female	41.781	7.445	215
	Male	43.832	8.331	185
Total Psychological Well-Being	Female	231.97	47.099	215
	Male	247.78	52.506	185

Table 2 shows that men were ahead of women in a number of well-being aspects. As can be seen, mean score of men on environmental mastery was 40.492 (SD = 7.644) and that of women was 38.247 (SD = 7.506). Mean score of men on personal growth was 39.535 (SD = 13.392) and that of women was 34.693 (SD = 12.238). Mean score of men on the aspect of autonomy was 38.751 (SD = 13.737) and that of women was 33.949 (SD = 12.037). Mean score of men on the aspect of purpose in life was 43.832 (SD = 8.331) and that of women was 41.781 (SD = 7.445). Mean score of men on the aspect of total well-being was 247.78 (SD = 52.506) whereas that of women was 231.97 (SD = 47.099).

Table 3*Tests of Between-Subjects Effects (N= 400)*

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Gender	Positive Relations with Others	6.393	1	6.393	.099	.753
	Environmental Mastery	501.337	1	501.337	8.748	.003
	Personal Growth	2331.416	1	2331.416	14.265	.000
	Autonomy	2293.441	1	2293.441	13.887	.000
	Self-Acceptance	209.185	1	209.185	3.524	.061
	Purpose in Life	418.309	1	418.309	6.758	.010
	Total Psychological Well-Being	24857.954	1	24857.954	10.075	.002

Table-3 shows that the dependent variables of environmental mastery, personal growth, autonomy, purpose in life, and overall psychological well-being differed significantly in respect of the independent variable of gender. Men showed higher scores in all of the differences that emerged (see Table 2). However, well-being aspects such as positive relations with others, and self-acceptance did not differ in relation to gender.

Table-4

Inter-correlations among Psychological Well-Being Scale, its Aspects, and Age

		Age	Pos. Relations	Env. Mastery	Pers. Growth	Aut	Self- Accept	Purpose in Life	Total Well- Being
Age	Pearson	1							
	Correlation								
	Sig. (2-tailed)								
	N	400							
Pos. Relations	Pearson	.246**	1						
	Correlation								
	Sig. (2-tailed)	.000							
	N	400	400						
Env. Mastery	Pearson	.408**	.821**	1					
	Correlation								
	Sig. (2-tailed)	.000	.000						
	N	400	400	400					
Pers. Growth	Pearson	.311**	.494**	.736**	1				
	Correlation								
	Sig. (2-tailed)	.000	.000	.000					
	N	400	400	400	400				
Aut	Pearson	.292**	.503**	.733**	.979**	1			
	Correlation								
	Sig. (2-tailed)	.000	.000	.000	.000				
	N	400	400	400	400	400			
Self- Accept	Pearson	.235**	.917**	.826**	.542**	.559*	1		
	Correlation					*			
	Sig. (2-tailed)	.000	.000	.000	.000	.000			
	N	400	400	400	400	400	400		
Purpose in Life	Pearson	.213**	.907**	.808**	.486**	.498*	.928**	1	
	Correlation					*			
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		
	N	400	400	400	400	400	400	400	
Total Well- Being	Pearson	.330**	.829**	.921**	.871**	.877*	.861**	.824**	1
	Correlation					*			
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	
	N	400	400	400	400	400	400	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

Note: Read Pos. Relations as Positive Relations with Others, Env. Mastery as Environmental Mastery, Pers. Growth as Personal Growth, Aut as Autonomy, and Self-Accept as Self-Acceptance.

Table 4 reveals the correlations among age, psychological well-being (total) and its dimensions. From these results, significant positive correlations were found among age, overall psychological well-being, and all aspects.

Discussion

The goal of current study was to examine the pattern of relationships among psychological well-being, gender, and age. This study used Psychological Well-Being Scale which was developed by Ryff (1989). The correlations among the aspects of psychological well-being were statistically significant. The present findings are discussed below.

Gender wise variation in psychological well-being was supported by the data. Men tended to score significantly higher not only on the dimensions of personal growth and autonomy (as predicted) but also on the environmental mastery, purpose in life, as well as on overall psychological well-being (see Table 2 and 3). The differences were found to be statistically significant. However, no gender related differences were reported for the aspects of positive relations with others (contrary to hypothesis 2) and self-acceptance suggesting that the psychological well-being of men and women in these areas is comparable. These findings show consistency with prior mixed results that have been noted in various studies on well-being. For instance, Fuller, Edwards, Vorakitphokatorn, and Sermsri (2004) stressed that, just as in the United States, married men in the city of Bangkok too, have generally exhibited higher psychological wellness compared to married women. As the present work has chosen students as its sample, not married individuals in particular, therefore, it is better to focus on other studies. There are researchers who found no gender differences in terms of predicting autonomy (e.g., Allen, Hauser, Bell, & O'Connor, 1994), while Dornbusch, Ritter, Mont-Reynaud, and Chen (1990) have shown that women scored lower than men on this component and exactly the same was found in Perez's (2012) study on Pilipino sample, lending support to the present results on autonomy. Ryff and Keys (1995) reported no difference in the components of personal growth and environmental mastery between men and women which contradicts the present results. It has to be kept in mind that most of these prior studies were conducted in the developed western countries where discrimination against women is not that common or obvious. Therefore, it

may be true to say that the current findings are in line with cultural beliefs with regard to gender roles, and suggest that as women lack an equal status in a male-dominated society, this factor might have affected their scores on psychological well-being scale.

As gender roles reflect the society's concepts about how women and men are supposed (expected) to behave, therefore these roles are affected by the prevailing cultural norms. In Pukhtun culture, masculine roles are generally associated with dominance, strength, aggression, while feminine roles are connected with nurturing, subordination, and passivity. Cross-cultural literature indicates that children develop awareness about gender roles at very early age, around 2 to 5, and most of them firmly stick to the gender roles that are considered culturally appropriate (Kane, 1996). Parents often provide their sons with toy guns, trucks and other mechanical and active toys, the use of which promotes a greater sense of independence in boys, give them confidence about their hidden capacities (motor, etc), and make them to focus more on their individual development and personal achievements. The male members of society, as a result, develop a strong feeling or belief about themselves (sense of directedness) and become clear regarding life goals (and get committed to them) giving support to the functionalist perspective that men are inclined to pursue practical goals which make them more competitive and task-oriented compared to women.

This all contributes immensely to the strengthening of such personal traits as autonomy, personal growth, environmental mastery, purposefulness, and the like, among men. Such a culture-based scenario might be a powerful factor for the kind of results this study reveals with reference to boys in the matter of psychological well-being. These results give partial support to the evolutionary theory too. Geary, Byrd-Craven, Hoard, Vigil, and Numtee (2003), for example, stressed that men are mastery-oriented; they would like to choose a challenging task and face it competently (confirmation of present finding) while females are predisposed to form close interpersonal relationships marked by attention and care, which partly confirms the current result (contrary to what Geary and co-researchers stated, present study indicates that both men and women are almost equally high in the aspect of positive relations revealing their trust in close connections between individuals formed by mutual interactions and emotional bonds. It also means that men and women, all, may like to act in an acceptable manner which helps in developing and maintaining good relationships with those around).

In the same way, no gender difference is reported in the aspect of self-acceptance and both men and women have obtained relatively high mean scores on it which gives the impression as if they're satisfied with self, showing no displeasure about past experiences or certain personality aspects. It may also be argued that they both accept themselves as they actually are, and say yes to their lives (joyfully). It seems that perceived self and actual self-come closer to each other with the departure of teen age period as has been emphasized in different religions. Another explanation may be that, being students (regardless of age and gender), the main concern of male and female population is to set career goals which impel them look forward to and achieve success, rather than thinking negatively about the weaknesses/limitations they possess.

To establish the relationship of age with psychological well-being (total and aspects), correlations of the variables with age were computed (Table 4). Comparing the scores on psychological well-being with that of age, the present results pointed out that the individuals' level of psychological well-being (subscale wise and overall scores) changes significantly over time. Therefore, it can be concluded that, as people age, they have better well-being in comparison to the younger ones. These results are consistent with some past studies (e.g., Consedine & Magai, 2006; Martire, Stephens, & Townsend, 2000; Kaplan et al., 2008; Ryff & Singer, 2008; Walker, 2009). The same has been highlighted in a report that got published in a journal of Association for Psychological Science (2013). This report reveals that feelings of well-being increase with age, however it depends on the time period when one was born. Longitudinal research (using different measures to assess well-being) has also revealed that most people get very well adjusted during adulthood and show decline in neuroticism, and negative affect and an increase in positive affect (Ready, Åkerstedt & Mroczek, 2012). Similarly, using data from longitudinal studies on personality and social development, Kokko, Rantanen & Pulkkinen (2015) assessed relationship between mental health and personality traits of individuals at ages 33/36 up to 50, and found that the developmental course with regard to neuroticism and extraversion in middle-aged adults (compared to the younger ones) shows similarity with that of psychological well-being, that is, more than 80 percent of the respondents who were high in the aspect of extraversion or low in neuroticism, reported high psychological well-being. Vaillant's (1977) study suggests that as age increases, men tend to become more skilled in using coping mechanisms. However, women show high confidence level, and learn better coping mechanism after late adolescence (Helson and Wink, 1992).

Data collected by Terracciano, Costa, and McCrae (2006) in a longitudinal work, spanning over 42 years, indicated that, overall, emotional stability improves up to 70 years and after that it decreases slightly while healthy relations keep on increasing up to 50 years and decrease afterwards. Freund and Blanchard-Fields (2014) found that the scores on overall well-being and component of personal growth were significantly higher for two groups of students with age range 24 to 28 and 34 to 38 years than those ranging in age from 19 to 23 years. Similarly, Bowmen (2010) maintained that, normally, with advancing age, the level of students' sense of psychological well-being also increases. So it can be said that with every passing year, persons grow, meaning that they show more mature behaviour and know quite well how to keep their cool, maintain emotional balance, and perform well even under pressure/ stressful circumstances. They tend to think more clearly and thoroughly.

Conclusion, Limitations, and Future Directions

The present study confirms the relation of psychological well-being to gender and age. Men scored higher than women not only on overall psychological well-being, but also on four of six components including the environmental mastery, personal growth, autonomy, and purpose in life. These results might be indicative of gender socialization (differentiating socialization process) that starts from very early age and goes in favor of boys in some cultures including conservative Pakhtun society. The findings of this study also reveal that psychological well-being and age correlate positively. With increasing age, experience and knowledge expand which put adult individuals at an advantageous position. They perform better especially in regard to handling the pressures of life and other well-being domains. Since the entire sample of this study was comprised educated individuals only, the institution-based education might be one of the elements contributing to well-being. Therefore it is recommended that future studies should focus on educated vs. uneducated (or non-college educated) samples. Another limitation of the current study is its cross-sectional nature. In such researches people from different sections of life are selected and studied concurrently. These studies are not causal or relational. Rather they are observational in nature and unable to examine cause-and-effect bond between different variables. To answer the question whether psychological well-being and age positively relate to each other, longitudinal studies need to be conducted by employing subjects who differ widely in experience, opportunities, and education.

References

- Allen, J. P., Hauser, S.T., Bell, K. L., & O'Connor, T. G. (1994). Longitudinal assessment of autonomy and relatedness in adolescent-family interactions as predictors of adolescent ego development and self-esteem. *Child Development, 65*, 179-194.
- Bowman, N. A. (2010). The development of psychological well-being among first-year college students. *Journal of College Student Development, 5*(2), 180-200.
- Bradburn, N. M. (1969). *The structure of the psychological well-being*. Chicago: Aldine Publisher Co.
- Consedine, N. S., & Magai, C. (2006). Emotional development in adulthood: A developmental functionalist review and critique. In C. Hoare (Ed.), *Handbook of adult development and aging* (pp. 123-148). New York, NY: Oxford University Press.
- Dambrun, M., & Ricard, M. (2011). Self-centeredness and selflessness: a theory of self-based psychological functioning and its consequences for happiness. *Review of General Psychology, 15*, 138-157. doi:10.1037/a0023059
- Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, Culture, and Subjective Well-Being: Emotional and Cognitive Evaluations of Life. *Annual Review of Psychology, 54*(1), 403-425.
- Diener, E., Oishi, S., & Lucas, R. E. (2015). National accounts of subjective well-being. *American Psychologist, 70*, 234-242. <http://dx.doi.org/10.1037/a0038899>
- Dornbusch, S.M., Ritter, P. L., Mont-Reynaud, R., & Chen, Z.Y. (1990). Family decision making and academic performance in a diverse high school population. *Journal of Adolescent research, 5*, 143-160.
- Freund, A. M., & Blanchard-Fields, F. (2014). Age-related differences in altruism across adulthood: Making personal financial gain versus contributing to the public good. *Developmental Psychology, 50*, 1125-1136. doi:10.1037/a0034491
- Fuller, T. D., Edwards, J. N., Vorakitphokatorn, S., & Sermsri, S. (2004). Gender differences in the psychological well-being of married men and women: an Asian case. *Journal of Health and Social Behavior, 45*, 355-378.
- Geary, D.C., Byrd-Craven, J., Hoard, M. K., Vigil, J., & Numtee, C. (2003). Evolution and development of boy's social behavior. *Developmental Review, 23*, 444-470.

- Helson, R., & Wink, P. (1992). Personality change in women from the early 40s to the early 50s. *Psychology and Aging*, 7(1), 46–55.
- Kane, E. (1996). *“Gender, Culture, and Learning.”* Washington, DC: Academy for Educational Development.
- Kaplan, G. A., Shema, S. J., & Leite, C. M. A. (2008). Socioeconomic determinants of psychological well-being: The role of income, income change, and income sources during the course of 29 years. *Annals of Epidemiology*, 18(7), 531- 537.
- Kokko, K., Rantanen, J., & Pulkkinen, L. (2015). Associations between Mental Well- being and Personality from a Life Span Perspective. In M. Blatný (Ed.), *Personality and Well-being Across the Life-Span* (pp. 134-159). Palgrave Macmillan.
- Martire, S. R., Stephens, M. A. P., & Townsend, A. L. (2000). Centrality of women’s multiple roles: beneficial and detrimental consequences for psychological well being. *Psychology and Aging*, 15, 148-156.
- Miller, L., & Kelley, B. (2005). Relationships of religiosity and spirituality with mental health and psychopathology. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality*. (pp. 459-478), New York, NY: Guilford Press.
- Perez, J. A. (2012). Gender difference in psychological well-being among Filipino college student samples. *International Journal of Humanities and Social Science*. 2 (13), 84-93.
- Pinquart, M., & Sorensen, S. (2001). Gender differences in self-concept and psychological well-being in old age. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 56(4), 195-213.
- Ready, R. E., Åkerstedt, A. M., & Mroczek, D. K. (2012): Emotional complexity and emotional well-being in older adults: Risks of high neuroticism. *Aging & Mental Health*, 16, 17-26.
- Ruini, C., Ottolini, F., Rafanelli, C., Ryff, C., Fava, G. A. (2003). [Italian validation of Psychological Well-Being Scales (PWB)]. *Rivista di Psichiatria* 38(3):117-130.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality & Social Psychology*, 57(6), 1069-1081.
- Ryff, C.D. & Keyes, L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69 (4), 719-727.
- Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9(1), 13-39.

- Terracciano, A., Costa, P. T., & McCrae, R. R. (2006). Personality plasticity after age 30. *Personality and Social Psychology Bulletin*, 32(8), 999-1009.
- Vaillant G E. (1977). *Adaptation to life*. Boston: Little, Brown (p. 396). Harvard University, Cambridge, MA
- Vaillant, G. E. (2012). 'Positive mental health: is there a cross-sectional definition?' *World Psychiatry*, 11, 93-99.
- Walker, M. P. (2009). The role of sleep in cognition and emotion. *Annals of the New York Academy of Sciences*, 1156, 168 –197.
- Yang, Y. T. T. (2010). *Stress, Coping, and Psychological Well-Being: Comparison Among American and Asian International Graduate Students from Taiwan, China, and South Korea*. Doctoral dissertation, University of Kansas
- Yusoff, M. S. B., & Rahim, A. F. A. (2010). Prevalence and Sources of Stress among Postgraduate medical Trainees: Initial findings. *Journal of Psychiatry*, 11(2), 180-189.
- Zulkefly, S. N., & Baharudin, R. (2010). Using the 12-item General Health Questionnaire (GHQ-12) to Assess the Psychological Health of Malaysian College Students. *Global Journal of Health Science*, 2(1), 73-79.

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1. <http://www.psychologicalscience.org/index.php/news/releases/happier-withage.html>