

## PREDICTING ROLE OF MINDFULNESS AND PROCRASTINATION ON PSYCHOLOGICAL WELL-BEING AMONG UNIVERSITY STUDENTS IN MALAYSIA

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### ABSTRACT

*This study aimed to investigate the predicting role of mindfulness and procrastination on psychological well-being among university students. A total of 449 university students from both public and private universities were recruited using convenience sampling method. This quantitative correlational research used Mindfulness Attention Awareness Scale (MAAS) to measure mindfulness whereas General Procrastination Scale was used to measure procrastination. Psychological well-being, the dependent variable, was tested using the Ryff's Scale of Psychological Well-being. The study showed a significant relationship between mindfulness, procrastination and psychological well-being among university students. Besides, the results also revealed that procrastination was the strongest predictor of students' psychological well-being. The findings of this study may be beneficial to practitioners, universities, parents and individuals in order to further comprehend the current status of psychological well-being among university students. Programs and implementations should endorse the circumstance that certain form of procrastination indeed enhances performance and well-being of students.*

**Keywords:** *mindfulness; procrastination; psychological well-being; university students*

### INTRODUCTION

The term psychological well-being has always been that of interest, not only to researchers but to anyone who comes across it. The reason behind this inevitable interest comes from the term itself whereby the addition of "psychology" to "well-being" bring in much curiosity as to what it means and how are they presented in combination. Bradburn (1969) in one of the early researches attributing to psychological well-being studied the difference among negative affect and positive affect and concluded that happiness is indeed the perfect balance between these independent polar and named his concept the affect balance.

Diener (1984) then added the facet of life satisfaction as a predictor of well-being. For years, sociologists prominently conceived that life satisfaction is the key indicator of psychological well-being (Ryff & Keyes, 1995). Recent researches in this field have

highlighted other factors that also contribute to psychological well-being. Ongoing research in psychological well-being has broadened the horizons and made clear of more influencing factors, that correlates from both negative and positive sides. Mindfulness has been found to directly increase well-being (Howell & Buro, 2011). It is one of the factors that positively correlate with psychological well-being by its ability to predict depression, anxiety and stress (Gregoire, Bouffard, & Vezeau, 2012; Cash & Whittingham, 2010). On the other hand, procrastination has been hypothesized to negatively correlate to psychological well-being. Procrastination increases psychological vulnerability which causes dwindling of psychological well-being especially among students (Kiamarsi & Abolghasemi, 2013).

Besides, procrastination has been found to fuel suicide proneness, (Kilbert, LeLeux-LaBarge,

Tarantino, Yancey & Lamis, 2016) an indicator of psychological distress. Low psychological well-being has been proved to be linked to psychological distress, a factor that leads to suicide, depression, anxiety, mental disorders, stress and more.

Based on the statistics of people living with mental disabilities, the highest percentage of 14.2% percentage was attributed to depression (Mathers & Loncar, 2006). Among Malaysian population, a total of 5% are having common mental disorders like anxiety and depression, as a result of stressful life events (Krishnaswamy et al., 2011). Based on age groups, suicide was found to be the most prevalent cause of death among youths aged 15-29, and depression and poor mental health was the top cause of disability among youths (World Health Organization, 2014). National Institute of Mental Health (2012) found that 30% of college students were found to be depressed to the level where functioning was affected. The leading causes of stress among students were change in eating and sleeping habits, increased workload, and new responsibilities (Ross, Niebling & Heckert, 1999). Focusing on Malaysia, it has been found that a shocking 69% of people whom attended counselling services faced psychological problems (Women's Aid Organization, 2013). Besides, the second highest reason people opt for counselling was depression. According to the National Suicide Registry of Malaysia (2009) most people who suffer depression were found to tragically end their life by committing suicide. Reviews on age groups showed young adults are the group with highest number of suicide cases. Focusing on students. Depression level among students was rising to the extent whereby daily functioning was affected (e.g. Al-Busaidi, Bhargava, Al-Isma'ili, Al-Lawati, Al-Kindi, Al-Shafae, & Al-Maniri, 2011).

## LITERATURE REVIEW

This study was guided by self-determination theory (SDT) (Ryan & Deci, 2000a). According to this theory, autonomy is accompanied by reflective awareness, thus the focus is on the role of mindfulness in self-control and wellness (Ryan, 2009). SDT states that mindfulness plays an important role in facilitating the choice of actions that are

congruent with one's basic psychological needs, interest and values. In situations that support autonomy, mindfulness is shown to be more greatly experienced (Ozyesil, 2012). Mindfulness has been found to be positively correlated with both life satisfaction and well-being, thus making individuals feel more competent and confident (Ryan & Brown, 2003). Mindfulness among students boost motivations towards achievement, builds competence and produces emotional, behavioral and cognitive actions directed towards meeting psychological needs (Reeve, 2012). Students who are coordinated through self-regulation and intrinsic motivation towards their academic work are likely to experience low levels of procrastination and role conflict, and high level of relatedness, thus high psychological well-being (Senecal, Julien & Guay, 2003).

Psychological well-being is wider than just happiness and life-satisfaction (Ryff & Keyes, 1995). It appears from life-span developmental context which indicates the differing challenges encountered at different stages of life cycle (Ryff & Singer, 1996). More specifically, it refers to some combination of positive emotional states such as happiness (the hedonic context) and operating with excellent effectiveness in social life as well as an individual (the eudaimonic context) (Deci & Ryan, 2008). This wide notion has been proved to have distinct biological correlates with that constitutes psychological ill-being (Ryff et al., 2006).

Mindfulness has been found to have a positive effect on psychological well-being and an adverse effect on psychological distress. High sense of autonomy complements the effect of mindfulness on both psychological well-being and distress (Parto & Besharat, 2011). The ability to remain tolerant towards one's own emotions and biological sensations leads towards lower levels of depression, anxiety and stress, thus high psychological well-being (Cash & Wittingham, 2010). Besides, studies on underlying psychological mechanisms of psychological well-being suggest that fulfilment of basic psychological needs enhances mindfulness and promotes its effect on psychological well-being (Chang, Huang & Lin, 2014). Mindfulness, in combination with meditation has been proved to promote

psychological well-being even further (Keune & Forintos, 2010).

Self-handicapping is a major part of what defines procrastination (Eerde, 2003). Self-handicapping, or procrastination has also been found to source anxiety, stress and depression. Students who procrastinate are psychologically vulnerable (Sahranc, 2011). In the domains of procrastination, high self-efficacy and low procrastination improves students' academic, psychic and personality functions amidst reducing psychological vulnerability (Kiamarsi & Abolghasemi, 2013). Research has also proved that delaying gratification and reducing procrastination accounts for high psychological well-being and higher college life-satisfaction (Caldwell & Mowrer, 1998; Savithri, 2014).

Given the literatures were established in the direct links among procrastination, mindfulness and psychological well-being. However, existing literatures are limited in examining the combined predictive effect of procrastination and mindfulness on psychological well-being among university students specifically in Malaysian setting. In order to fill in the knowledge gaps, this study intended to examine the predictive role of mindfulness and procrastination on psychological well-being. Based on these, three hypotheses were formulated:

- H<sub>1</sub>: There is a significant positive relationship between mindfulness and psychological well-being among undergraduates.
- H<sub>2</sub>: There is a significant negative relationship between procrastination and psychological well-being among undergraduates.
- H<sub>3</sub>: There is a significant negative relationship between mindfulness and procrastination among undergraduates.

## METHODOLOGY

### Participants

This research has been designed using the quantitative correlational research method. This study was administered amongst 449 undergraduate university students in Malaysia. Participants consisted of students from both public and private universities in Malaysia were recruited using convenience sampling method. Females made up 56.1% of the participants; whereas 43.9% were males. The mean

age of the participants was 21.26 (standard deviation=1.77), with the ages of participants ranging from 18 to 24 years old. Majority of the participants were Chinese who comprised of 40.1% of the total participants, followed by Indians, who comprised of 32.6% and Malays, 26.9%. A total of 77.7% of the participants came from private universities while 23.3% of participants came from public universities.

### Measures

Data was collected by two means, the pencil and paper method and online survey. The consents were obtained prior to data collection. Three instruments were used in this study to measure the variables under study.

### *Mindfulness Attention Awareness Scale (MAAS)*

Mindfulness was examined using Mindfulness Attention Awareness Scale (MAAS). The MAAS (Brown & Ryan, 2003) was designed to assess participants' mindfulness over time. Specifically, it measures the absence or presence of awareness and attention towards the happenings of the present moment. It is a 15-item, 6-point Likert scale questionnaire (1 = almost always to 6 = almost never) measurement. A total score is created by summing participants' response to each item. A high score in MAAS exhibits a high level of mindfulness. Cronbach alpha for the MAAS for the present study was 0.86.

### *The General Procrastination (GP)*

Procrastination, on the other hand was measured using the General Procrastination Scale. The General Procrastination (GP) Scale for students is used to assess the degree of procrastination, and to identify high procrastinators. The GP scale is a 20-item, self-report scale developed by Lay (1986). The scale measures general procrastination in a variety of activities, from which the scale especially designed for student populations, includes several items related to academic tasks (Fee & Tangney 2000; Lay 1986). There are 10 reversed score items in this scale, and the combined score of all items generates a mean score, where a high mean score indicates a high level of procrastination, and a low mean score indicates low procrastination level. In the present study, the scale has a Cronbach alpha of 0.73.

### ***The Ryff Scale of Psychological Well-Being (RSPWB)***

Psychological well-being, the dependent variable, was analysed using the Ryff's Scale of Psychological Well-being. The Ryff Scale of Psychological Well-Being (RSPWB) is rooted in theoretical means. It converges in on the six dimensions of psychological well-being, which are self-acceptance, personal growth, purpose in life, positive relations with others, environmental mastery, and autonomy (Ryff, 1989). This scale consists of 54-items, equally split 9 items for each of the 6 scales. There are a total of 28 reverse score items. Items are scored on a 6-point scale ranging from 1 (strongly agree) to 6 (strongly disagree). High score on the Ryff's scales indicates high psychological well-being, and vice versa. In the present study, Cronbach alpha for the RSPWB was 0.89.

#### **Data Analysis Plan**

SPSS version 22 was utilized to test the hypotheses of the study. Three levels of analysis were conducted, namely descriptive, correlation analysis and multiple regression analysis. The descriptive analyses were tabulated to provide the overview and the distribution of the score of variables understudied. Pearson's correlation analyses were conducted to determine the relationship between mindfulness, procrastination and psychological well-being among undergraduates in Malaysia. While multiple regression analysis was generated to examine

the predictive role of mindfulness and procrastination on undergraduates' psychological well-being.

## **RESULTS**

### **Correlation among procrastination, mindfulness and psychological well-being**

The *Pearson correlation* analysis and descriptive statistics is presented in **Table 1**. Results showed that there was a significant positive correlation between mindfulness and psychological well-being [ $r(449) = .29, p < .001$ ] and negative correlation between procrastination and psychology well-being [ $r(449) = -.36, p < .001$ ] among university students. Moreover, in determining the relationship between mindfulness and procrastination, the results indicated a significant negative correlation between mindfulness and procrastination among university students [ $r(449) = -.29, p < .001$ ]. Thus, the higher the level of mindfulness among university students, the lower is their level of procrastination. Hence, the  $H_1$  to  $H_3$  were supported.

### **The predictor of Psychological Well-Being**

The finding of multiple regression analysis indicated that both procrastination and mindfulness accumulated 16% of variance in explaining psychological well-being among university students in Malaysia. Specifically, procrastination ( $\beta = -.30, p < .001$ ) have stronger predictive value on psychological well-being than mindfulness ( $\beta = .20, p < .001$ ).

**Table 1:** Descriptive Statistics and Correlations among Variables (N=448)

Variables	Mean	SD	1	2	3
1. Procrastination	2.97	0.43	1		
2. Mindfulness	3.74	0.76	-.29***	1	
3. Psychological well-being	203.46	26.39	-.36***	.29***	1

Note: \*\*\*  $p < .001$

**Table 2:** Regression Analysis Summary for Predictors of Psychological Well-Being (N=448)

Variable	B	SE B	$\beta$	$t$	$p$
Procrastination	-18.37	2.80	-.30	-6.56	.000
Mindfulness	7.02	1.57	.20	4.46	.000

Note:  $R^2 = .16$  (N= 447,  $p < .001$ );  $F(2, 445) = 43.68, p < .001$

## DISCUSSION

The present study aimed to examine the predicting role of mindfulness and procrastination on psychological well-being among university students in Malaysia. Results of the study denoted significant links among mindfulness, procrastination and psychological well-being among university students in Malaysia. Both procrastination and mindfulness significantly predicted psychological well-being. Precisely, mindfulness was positively associated with psychological well-being, while procrastination was negatively linked with psychological well-being.

Past studies (Chang, Huang & Lin, 2014; Parto & Besharat, 2011; Cash & Wittingham, 2010) affirmed that mindfulness examined with various other predictors of psychological well-being (distress, relatedness, competence) is consistent with current finding that links with psychological well-being. In explaining mindfulness, the ability to concentrate well on current tasks is preceded by an increased autonomy, which eliminates negative effect like stress and low self-esteem. High autonomy and subsequent eliminated stress enables a student to be further able to pay attention under any circumstance without any psychological noise, since no stress surfaces. Under these conditions, a student's life satisfaction increases, thus a high psychological well-being. According to Leung and Wu (2014), students with high mindfulness are more able than the others to recognize unpleasant and stressful moments, instead of fighting with it or fleeing from it. These individuals are alert to what is happening around them, and are able to accept and recognize fears. Through this, stress can be reduced greatly, which results in a promoted psychological well-being.

This result further strengthens the past findings (Caldwell & Mowrer, 2011; Kiamarsi & Abolghasemi, 2013; Ozer & Sackes, 2010; Savithri, 2014; Balkis, 2013; Sahranc, 2011). These studies have proven that procrastination directly contributes to the downfall of psychological well-being. Negative affects like stress, depression and anxiety have also been found to be fuelled up by increasing procrastination, as work undone piles up with a prolonged procrastination. This condition of increased pro-

crastination, in turn, takes a toll on the undergraduates' psychological well-being. The stated studies have found procrastination to be a current trend among students, with majority students exhibiting it as behaviour.

Converging into the current study, university students whom are delaying their tasks, and working at the eleventh hour are experiencing a dwindling level of psychological well-being. These students are pulling themselves to the verge of depression by delaying their tasks. The presence of high procrastination ultimately leads to lower life satisfaction and low happiness level, thus low psychological well-being. On the other hand, when procrastination is kept at bay, and tasks are completed well within the stipulated time, students need not work under pressure, avoiding unnecessary stress, anxiety and an array of negative emotions and affects, thus resulting in high level of psychological well-being.

According to Senecal, Koestner and Vallerand (1995), high mindfulness contributed towards low procrastination. When a student has a high mindfulness, a feeling of competence is born. This increases the efficiency, and in turn increases relatedness towards the task. With all these three present, the motivation to perform that particular task increases, thus the decrease in procrastination. In the current study, this is how mindfulness (autonomy) works in reducing procrastination. Vice versa, when mindfulness (autonomy), competence and relatedness are absent, the motivation towards the task goes dwindling, leaving the task to be postponed and resulting in procrastination.

The present study has several implications. The findings of the study will be able to contribute towards implication of programs and policies. The findings of this study may be beneficial to practitioners, universities, parents and individuals in order to further comprehend the current status of psychological well-being among university students. As an effort to empower students' psychological well-being, efforts to eliminate the behaviour of procrastination may need to be taken. For an example, consistent guidance from the teachers can act as a reminder for students to not delay their work. Besides, training such as mindfulness

can be incorporated as a mean to increase a students' concentration in almost any task given, granting them the ability to have greater autonomy and what they do and an increased feelings of competence.

In this study, there are a few limitations for future researchers to address while attempting to study similar fields. First and foremost, the current study was cross-sectional in nature, thus the findings obtained may not be persuasive as a longitudinal study could have been to illustrate the causal relationship between the selected variables. It is recommended for future studies to use the longitudinal research method. Besides, it is also recommended that future researches to examine the variables of active and passive procrastination in order to strengthen the current results and to obtain a holistic picture of the wide notion.

### CONCLUSION

This study concluded that undergraduates with low procrastination and high mindfulness, have a high psychological well-being. The results of the study also support both mindfulness and procrastination predicted psychological well-being. The findings of this study may be beneficial to practitioners, universities, parents and individuals in order to further understand the current status of psychological well-being among university students. Findings of current study have indicated mindfulness does not predict psychological well-being as strong as procrastination does, although mindfulness plays a pivotal role in predicting psychological well-being.

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### REFERENCES

Al-Busaidi, Z., Bhargava, K., Al-Ismaily, A., Al-Lawati, H., Al-Kindi, R., Al-Shafae, M., & Al-Maniri, A. (2011). Prevalence of depressive symptoms among university students in Oman.

*Oman Medical Journal*, 26(4), 235-239. doi: 10.5001/omj.2011.58.

Balkis, M. (2013). Academic procrastination, academic life satisfaction and academic achievement: The mediation role of rational beliefs about studying. *Journal of Cognitive and Behavioral Psychotherapies*, 13(1), 57-74.

Bradburn, N. M. (1969). *The structure of psychological well-being*. Chicago: Aldine.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822-848. doi:10.1037/0022-3514.84.4.822

Caldwell, L. M., & Mowrer, R. R. (1998). The link between procrastination, delay of gratification, and life satisfaction: A preliminary analysis. *The National Honor Society in Psychology*, 3(4), 145-150.

Cash, M., & Whittingham, K. (2010). What facets of mindfulness contribute to psychological well-being and depressive, anxious, and stress-related symptomatology? *Mindfulness*, 1, 177-182. doi:10.1007/s12671-010-0023-4

Chang, J. H., Huang, C. L., & Lin, Y. C. (2014). Mindfulness, basic psychological needs fulfilment and well-being. *Journal of Happiness Studies*, 1-14. doi:10.1007/s10902-014-9551-2

Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology-psychologie Canadienne*, 49(3), 182-185. doi:10.1037/a0012801

Diener, E. (1984). Subjective-well-being. *Psychological Bulletin*, 95(3), 542-575.

Eerde, W. V. (2003). A meta-analytically derived nomological network of procrastination. *Personality and Individual Differences*, 35, 1401-1418. doi:10.1016/S0191-8869(02)00358-6

- Fee, R. L., & Tangney, J. P. (2000). Procrastination: A means of avoiding shame or guilt? *Journal of Social Behavior & Personality*, 15, 167–184.
- Gregoire, S., Bouffard, T., & Vezeau, C. (2012). Personal goal setting as mediator of the relationship between mindfulness and well-being. *International Journal of Well-being*, 2(3), 236-250. doi: 10.5502/ijw.v2.i3.5.
- Hayes, A. F. (2013). *Introduction to mediation, moderation and conditional process analysis*. New York: The Guilford Press.
- Keune, P. M., & Forintos, D. P. (2010). Mindfulness meditation: A preliminary study on meditation practice during everyday life activities and its association with well-being. *Psychological Topics*, 19(2), 373-386.
- Kiamarsi, A., & Abolghasemi, A. (2014). The relationship of procrastination and self-efficacy with psychological vulnerability in students. *Procedia – Social and Behavioral Sciences*, 114, 858–862. doi:10.1016/j.sbspro.2013.12.797
- Krishnaswamy, S., Subramaniam, K., Jemain, A. Z., Low, W. Y., Ramachandran, P., Indran, T., & Patel, V. (2011). Common mental disorders in Malaysia: Malaysian mental health survey 2003-2005. *Asia-Pacific Psychiatry*, 4, 201-209. doi:10.1111/j.1758-5872.2012.00180.x
- Lay, C. (1986). At last, my research article on procrastination. *Journal of Research in Personality*, 20, 474-495.
- Leung, J., & Wu, J. (2014). Moderating effect of mindfulness on daily hassles-stress relationship. *Educational Research Journal*, 29(1), 28-40.
- Mathers, C. D., & Loncar, D. (2005). Updated projections of global mortality and burden of disease, 2002-2030: data sources, methods and results. Retrieved October 15, 2014, from [http://www.who.int/healthinfo/statistics/bod\\_projections2030\\_paper.pdf](http://www.who.int/healthinfo/statistics/bod_projections2030_paper.pdf)
- Ministry of Health Malaysia. (2009). National suicide registry Malaysia annual report. Kuala Lumpur. Retrieved October 12, 2014, from [http://www.crc.gov.my/wp-content/uploads/documents/report/NSRM\\_report\\_2009.pdf](http://www.crc.gov.my/wp-content/uploads/documents/report/NSRM_report_2009.pdf)
- National Institute of Mental Health. (2012). Depression and College Students: Answers to college students' frequently asked questions about depression. *National Institutes of Health Publication No 12-4266*. Bethesda, MD. Retrieved October 15, 2014, from [http://www.nimh.nih.gov/health/publications/depression-and-college-students/depression-and-college-students\\_142093.Pdf](http://www.nimh.nih.gov/health/publications/depression-and-college-students/depression-and-college-students_142093.Pdf)
- Ozer, B. U., & Sackes, M. (2010, December 5). *Effects of academic procrastination on college students' life satisfaction*. Paper presented at International conference on education and educational psychology (ICEEPSY 2010), Kyrenia, Cyprus. doi:10.1016/j.sbspro.2011.02.063
- Ozyesil, Z. (2012). Mindfulness and psychological needs: A cross-cultural comparison. *Elementary Education Online*, 11(1), 151-160.
- Parto, M., & Besharat, M. A. (2011). Mindfulness, psychological well-being and psychological distress in adolescents: Assessing the mediating variables and mechanisms of autonomy and self-regulation. *Procedia - Social and Behavioral Sciences*, 30, 578–582. doi:10.1016/j.sbspro.2011.10.112
- Reeve, J. (2012). A self-determination theory perspective on student engagement. *Handbook of Research on Student Engagement*, 149-172. doi:10.1007/978-1-4614-2018-7\_7
- Ross, S. E., Niebling, B. C., & Heckert, T. M. (1999). Source of stress among college students. *College Student Journal*, 33(2), 312-317.
- Ryan, R. (2009). Self-determination Theory and Wellbeing. *Wellbeing in Developing Countries, 1*. Retrieved October 23,

- 2014, from <http://www.dehoopenter-trainment.nl/upload/file/self-determination.pdf>
- Ryan, R. M., & Brown, K. W. (2003). Why we don't need self-esteem: On fundamental needs, contingent love, and mindfulness. *Psychological Inquiry*, *14*(1), 27-32.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, *55*(1), 68-78. doi:10.1037/110003-066X.55.1.68.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069-1081.
- Ryff, C. D., & Keyes, C. L. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, *69*(4), 719-727. doi:10.1037/0022-3514.69.4.719.
- Ryff, C. D., Love, G. D., Urry, H. L., Muller, D., Rosenkranz, M. A., Friedman, E. M., Davidson, R. J., & Singer, B. (2006). Psychological well-being and ill-being do they have distinct or mirrored biological correlates? *Psychother Psychosom*, *75*, 85-95. doi:10.1159/000090892
- Ryff, C. D., & Keyes, C. L. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, *69*(4), 719-727. doi:10.1037/0022-3514.69.4.719
- Ryff, C. D., & Singer, B. (1996). Psychological well-being: Meaning, measurement, and implications for psychotherapy research. *Psychotherapy and Psychosomatics*, *65*, 14-23. Retrieved October 24, 2014, from [http://www.ssc.wisc.edu/wlsresearch/publications/files/\\_private/Ryff-Singer\\_Psychological.Well-Being.pdf](http://www.ssc.wisc.edu/wlsresearch/publications/files/_private/Ryff-Singer_Psychological.Well-Being.pdf)
- Sahranc, U. (2011). An investigation of the relationships between self-handicapping and depression, anxiety, and stress. *International Online Journal of Educational Sciences*, *3*(2), 526-540.
- Savithri, J. J., (2014). Interactive effect of academic procrastination and academic performance on life satisfaction. *International Journal of Science and Research*, *3*(3), 377-381.
- Senecal, C., Julien, E., & Guay, F. (2003). Role conflict and academic procrastination: A self-determination perspective. *European Journal of Social Psychology*, *33*, 135-145. doi:10.1002/ejsp.144
- Senecal, C., Koestner, R., & Vallerand, R. J. (1995). Self-regulation and academic procrastination. *Journal of Social Psychology*, *135*(5), 607-619. doi:10.1080/00224545.1995.9712234
- Sirin, E. F. (2011). Academic procrastination among undergraduates attending school of physical education and sports: Role of general procrastination, academic motivation and academic self-efficacy. *Educational Research and Reviews*, *6*(5), 447-455.
- Sirois, F. M., & Stout, D. (2011). *When knowing better doesn't mean doing better: Understanding the roles of procrastination and self-blame in the health and well-being of nurses*. Paper presented at the 7<sup>th</sup> Biennial Conference on Procrastination, Amsterdam, The Netherlands.
- Sirois, F. M., & Tosti, N. (2012). Lost in the moment? An investigation of procrastination, mindfulness and well-being. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *30*(4), 237-248. doi: 10.1007/s10942-012-0151-y.
- Thawabieh, A. M., & Qaisy, L. M. (2012). Assessing stress among University students. *American International Journal of Contemporary Research*, *2*(2), 110-116.
- Women's Aid Organization, (2013). WAO annual statistics 2013. Selangor, Malaysia. Retrieved October 12, 2014, from <http://wao.org.my/file/2013%20Statistics%20FINAL.pdf>
- World Health Organization. (2014). Preventing Suicide: A Global Imperative (Executive Summary). Retrieved October 22, 2014, from [http://www.who.int/mental\\_health/suicide-prevention/exe\\_summary\\_english.pdf?ua=1](http://www.who.int/mental_health/suicide-prevention/exe_summary_english.pdf?ua=1)