

Evaluation and Validation International Students' Psychological Wellbeing Scale (ISPWS): Application of Rasch Measurement Model

Shima Mashayekhi ^{a,*}, Mohd Tajudin Md. Ningal ^a, Adibah Abdul Latif ^{a,b}, Newsha Mashayekhi ^b

^a Universiti Teknologi Malaysia, Faculty of Education, Skudai, Johor Bahru, Malaysia, 81300

^b Universiti Teknologi Malaysia, Skudai, Johor Bahru, Malaysia, 81300

* Corresponding author email address: mshima4@live.utm.my

Abstract

Today, the scenario in which people spend their whole lives in one place is no longer true for many. Thus, individuals around the world experience major changes in their lives when relocating and these variations require them to adapt to new situations. There is a lack of assessment instrument related psychological constructs for its occurrence, resulting in a substantial gap in researchers' understanding of the phenomena. The aim of this study is to prepare a set of useful and valid instrument based on the four important construct to assess psychological wellbeing among international students. This study conducted in five public research universities in Malaysia. The sample consisted of 442 male and female international students. The sampling technique in this research was purposive and quota sampling. The design of this study was conducted as survey research using a set of questionnaire. The result of this study showed the final format of the questionnaire was validated and the instrument is qualified to be used in related future studies to evaluate the overall psychological wellbeing of international students over the worlds based on four main factors which included in this survey (homesickness, mental health, attachment, and spiritual wellbeing). Advances in research on this topic may aid in the development of instrument, helping counselors to scale students' psychological wellbeing and try to help them to have more successful academical and social life.

Keywords: Mental health, Homesickness, Attachment style, Spiritual wellbeing, International students

1. Introduction

People today spend less time in environments familiar to them compared to people in the past because of issues such as migration, international tourism, dispatchments and international exchange programs. One of the important reasons for moving is relocating to pursue higher education (Stroebe et al., 2015; Vingerhoets, 2005).

In general, relocating to a new place induces strain. Moving from one familiar environment to a new and strange environment for whatever reason is usually considered as a stressful process (Jibeen, 2011; Mirsky, 2009; Tartakovsky, 2007). One of the numerous exciting experiences encountered by many young people is related to the transition linked to studying abroad. Many international students face various psychological problems (Furnham, 2010; Sandhu, 1994).

1.1 Homesickness

Homesickness is a depression-like reaction. It is also a normative pathology and can be defined as distress caused by separation from home and close relationships that can lead to intense preoccupation and ruminations about the

previous environment as well as having a strong longing to return to the old environment (Eurelings-Bontekoe, Vingerhoets & Fontijn, 1994; Soltani et al., 2011). Homesickness can occur in mild or severe forms. Severe Homesickness can result in unsustainable movement and create demanding situations for individuals (Thurber & Walton, 2012). Lindner (1940) reported that about 60 to 70% of students who settle at a university develop feelings of distress and homesickness (Soltani et al., 2011; Van Thurber et al., 2012; Tilburg et al., 1999). Of these, seven to ten percent suffered from a severe form of homesickness (Eurelings-Bontekoe, et al., 1998; Soltani et al., 2011).

Therefore, homesickness is a common experience among students and this study chose to focus on homesickness as an independent variable and mental health as a dependent variable. Along with other daily problems related to the migration, these individuals also face negative impacts on their mental health. Moreover, it is likely that other factors apart from homesickness have influence on students' mental health. Therefore, this study sought to identify the effectiveness of other theoretical factors (attachment and spiritual wellbeing) towards mental health as well.

1.2 Mental Health

Mental health is a global agenda that receives the attention of many. Previous studies found that mental disorders have an effect on all age group, and is associated with considerable economic and social costs (Campos, 2007; Sarmiento, 2015). In addition, the number of mental disorders occurrences among the population of education students had been growing increasingly (Castillo & Schwartz, 2013; Eisenberg, Gollust, Golberstein & Hefner, 2007). The number of higher education students who sought counselling help attested the severity of the psychological problems faced by the said group of individuals (Hunt and Eisenberg, 2010; Zivin, et al., 2009).

Many cases of mental pressure is associated with migrating to a foreign country and adapting to a different lifestyle. The pressure resulting from the above factors may put immigrants at the risk of contracting both physical and mental health issues (Ha, 2008; Kim and Yoo, 2016).

1.3 Attachment

The attachment theory is a concept resulting from the cooperation of John Bowlby (1969) and Mary Ainsworth (1985). Following some extensive research by Bowlby, it was formularised that the attachment theory originated from several factors; cognitive and developmental psychology, psychoanalysis, cybernetics, ethnology and socio-biology as well as information processing (Bretherton, 1992). According to Bowlby's theory (1973), the most important aspect of attachment is that the nature and quality of relationships are largely determined by the caregiver's emotional availability and responsiveness to the child's needs.

The attachment theory makes connections between early experience and later functioning in the case of interpersonal and emotional relationships. "Working models" mediate this connection as internal representations. The repeated interactions between infant and caregiver resulted in the appearance of working models (Bowlby, 1973; Bretherton, 1990). In addition, Bowlby (1973) labeled "working models" as mental representations, which is referred to the expectation of infants in the case of accessibility and responsiveness of parents or other attachment figures. The "working models" are complementary and mutually confirms the view of people as worthy or unworthy of care (Bowlby, 1973).

1.4 Spiritual Wellbeing

By using the definition of spiritual wellbeing from the National Interfaith Coalition on Aging (NICA, 1975), Fisher (1998) proposed the term of spiritual wellbeing as a hierarchical multi-dimensional model. The model includes four secondary dimensions which are related to the spiritual wellbeing aspect. They are personal, communal, environmental and transcendental (Fisher, 1998; Fisher et al., 2000; Gomez & Fisher, 2003). Later on, Fisher (1999) expanded NICA's statement in light of extensive literature

search and his own research to broaden the description of spiritual wellbeing as a fundamental dimension of people's overall health and well-being and to integrate other dimensions of health (physical, mental, emotional, social and vocational).

The proposed model of spiritual wellbeing by Fisher (1998) falls under four headings: (1) Personal domain is about intra-relates with oneself. This domain consisted of having meaning, purpose and values in life. Also included are self-awareness, self-worth, self-esteem and identity; (2) Communal domain is associated with the quality and depth of inter-personal relationships between self and others which originates from morality, culture and religion. This includes love, forgiveness, trust, hope and faith in humanity; (3) Environmental domain is related to caring and nurturing for the physical and biological, to a sense of awe and wonder. For some people, it is the notion of unity and connectedness with the environment; and (4) Transcendental domain is expressed by the relationship of self with something or someone beyond the human level, a transcendent such as ultimate concern, cosmic force or God. This involves faith toward, adoration and worship of, and the source of mystery of the universe. In this model, spiritual wellbeing is reflected in the quality of relationships that people have with one or more of the four domains of spiritual health.

2. Material and methods

In this study, the researcher adapts the International Student Psychological Wellbeing Scale (ISPWS) by using the four scales which developed before by the work of other authors. In this study some adjustments were made for all parts of questionnaire in terms of language, format, font size, direction, clarity of meaning items, and match items to the objectives of the study. Some of complicated and long sentences also revised to simple or short sentences in order to be more clear and easy to understand for participants.

To fulfil the purposes of this study, the International Student Psychological Wellbeing Scale (ISPWS) was used. The ISPWS was selected as it is a convenient tool to use which comes with many advantages. The ISPWS consisted of five different parts. Part A consisted of 25 items and measured the homesickness sub-construct. Next, Part B tapped into the attachment sub-construct via 18 items. Part C measured the spiritual wellbeing sub-construct with 20 items. Subsequently, Part D contained 28 items which measured the individual's general health. Lastly, Part E consisted of five questions which were included to collect the respondents' demographic information.

2.1 Homesickness Questionnaire

The Homesickness Questionnaire (HQ) was developed by Archer et al. (1998) which is suitable for both adolescents and adults. The original version of the HQ had 33 items associated with various themes such as grief related homesickness, distress related to the attachment

missed, seeking to maintain the attachment, restlessness, anger, blame and guilt. The version used for this study had 25 items only. These items were retained as fit items after a construct validity analysis. The step was taken to achieve better validity and reliability. The HQ items were divided into two sub-constructs: Attachment to Home (14 items) and Disliking University (11 items). HQ was measured using the Likert-type scale, which rated from 1 (Strongly Disagree) to 5 (Strongly Agree). Table 1 shows the final retained items of the HQ. Several items were modified to reflect the changes in today's technology.

Table 1
Items for the Homesickness Questionnaire based on sub-constructs

Sub-Construct	Items
Attachment to home	1, 2, 3, 4, 5, 6, 7, 9, 10*, 12, 14, 17, 20, 22
Dislike university	8*, 11, 13*, 15, 16, 18, 19, 21, 23, 24, 25*

2.2 General Health Questionnaire (GHQ)

The GHQ, developed by Goldberg (1978), consisted of 28 items. The purpose of the GHQ was to assess the general health of individuals. The GHQ also measures emotional distress in medical setting. In the GHQ, the respondents were asked to compare their recent psychological state against their usual state. Through factor analysis, the GHQ was divided into four sub-constructs; Somatic Symptoms, Anxiety, Social Dysfunction and Depression. Each sub-construct had seven items. All items were scored based on a four-point Likert-type scoring system, ranging from 0 (not at all) to 3 (much more than usual). Table 4 shows the items of general health questionnaire based on its four sub-constructs.

Table 2
Items for General Health Questionnaire based on sub-constructs

Sub-Construct	Items
Somatic Symptoms	1, 2*, 3*, 4*, 5*, 6*, 7*
Anxiety	8*, 9*, 10*, 11*, 12*, 13*, 14*
Social Dysfunction	15, 16, 17, 18, 19, 20, 21
Depression	22*, 23*, 24*, 25*, 26*, 27*, 28*

2.3 Adult Attachment Scale

The Adult Attachment Scale, developed by Collins and Read (1990) comprised of 18 items, which measured three adult attachment sub-constructs; Close, Depend and Anxiety. Each sub-construct had six items. The "Close" sub-construct measured the extent to which a person was comfortable with closeness and intimacy. The "Depend" sub-construct on the other hand measured the extent to which a person felt that he or she could depend on others to be available when needed. Lastly, the "Anxiety" sub-constructs measured the extent to which a person was worried about being rejected or unloved. As Collins and Read (1996) stated, the following version of the scale, which was used in this study, has several revised

instructions and was slightly reworded to refer to close relationships rather than romantic relationships. In this study, all the original items were used with very little minor modifications. The modifications were made to reflect items more understand clearly. Each item was rated on a five-point Likert-type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Table 2 shows the items in the Adult Attachment Scale based on its three sub-constructs.

Table 3
Items for adult attachment scale based on sub-constructs

Sub-Construct	Items
Close	1, 6, 8, 12, 13, 17
Depend	2, 5, 7, 14, 16, 18
Anxiety	3*, 4*, 9*, 10*, 11*, 15*

2.4 Spiritual Wellbeing Questionnaire (SWBQ)

Gomez and Fisher (2002) published the Spiritual Wellbeing Questionnaire (SWBQ). The SWBQ comprised of 20 items, five items for each of the four sub-constructs: Personal, Communal, Environmental and Transcendental. Respondents were asked to indicate how they felt towards the statements which described their personal experiences over the last six months. The Spiritual Wellbeing Questionnaire was scores using a five-point Likert-type scale, rating from 1 (Very Low) to 5 (Very High). Table 3 shows the items of the Spiritual Wellbeing Questionnaire based on its four sub-constructs.

Table 4
Items for Spiritual Wellbeing Questionnaire based on sub-constructs

Sub-Construct	Items
Personal	5, 9, 14, 16, 18
Communal	1, 3, 8, 17, 19
Environmental	4, 7, 10, 12, 20
Transcendental	2, 6, 11, 13, 15

2.5 Demographic Information

The main purpose of this section was to obtain the needed respondents' background information. There were five demographic items as follow; gender, marital status, academic level of study, nationality, and location of study.

3. Results

Analyzing the data started with measuring content validity of questionnaire which checked by panel of experts. Then person reliability, item reliability, and dimensionality (construct validity) were checked by Rasch Measurement Model using Winstep software. Rasch analysis is person free measurement and it tests the structure of the persons and items in depth (Bond & Fox, 2007)

3.1 Reliability of Instrument

Reliability is applied for the consistency of a measure. According to Thomas (2009), when same results repeated in a test, it is considered reliable. The purpose of the reliability analysis is to determine the trustworthiness of the data. The rationale consistency is that the scale individual items or indicators, all should be measuring the same construct and thus construct and they would be highly inter-corrected. In this study, the result is presented in a Table 5. From the table, it can be seen all the factors are in a good range and acceptable.

Table 5
Result of person and item reliability of measurement based on constructs

Construct	Reliability	
	Person	Item
Homesickness	0.89	0.99
General Health	0.92	0.99
Attachment	0.77	0.98
Spiritual Wellbeing	0.89	0.96

Table 5 showed the person and item reliability values obtained from the survey were calculated by the Rasch Model Measurement. Referring to Table 5, the values of person reliability for all four constructs (Homesickness, General Health, Attachment, and Spiritual Wellbeing) were 0.89, 0.92, 0.77, and 0.89 respectively. In addition, the values of item reliability for the similar four constructs were .99, .99, .98 and .96 respectively. Since the values were in a good range (above 0.60), thus all construct values were acceptable and the instrument is qualified to be used in related future studies.

3.2 Validity of Instrument

Construct validity is essential to the perceived overall validity of the test. Construct validity is particularly important in the social science, psychology, psychometrics and language studies. Construct validity refers to "the degree to which a test measures what it claims, or purports, to be measuring. In this study, the result for construct validity is presented in Table 6. It can be seen that all the factors are in a good range and acceptable.

Table 6
Result of construct validity of measurement based on constructs

Construct	Construct validity
Homesickness	41.4 >40%
General Health	51.2 >40%
Attachment	49.6 >40%
Spiritual Wellbeing	44.8 >40%

Table 6 showed that the instrument were also satisfactory in terms of its construct validity (minimum value of 40%). From Table 6, the values of construct

validity for Homesickness, General Health, attachment, and spiritual wellbeing were 41.4%, 51.2%, 49.6%, and 44.8% respectively. Based on the final validity check, the instrument was deemed valid. Thus, all the items and respondents were retained.

4. Discussion

In this study, the first pilot study is used to find up reliability and validity of the data. The survey was distributed among the international students semester I, 2013-2014 who were studied in Universiti Teknologi Malaysia (UTM). 30 international students selected by random sampling as small sample size which is a minimum number of respondents which can receive real data (Wheeler, 2010). With applying the application of Rasch Model Measurement to analyze and measure data, researcher found unacceptable result in both reliability and validity of instrument;

In the second step, the instrument has been revised by four experts in field of measuring and also psychology. After experts' review and applying their comments to change some items, the instrument distributed between 60 international students in Universiti Teknologi Malaysia (UTM) by random sampling and this time the result found in a good range. Therefore, the instrument has been converted into appropriate one in order to use for the real data collection.

In the third step, the final format of instrument distributed among 442 international postgraduate students who were studied in five public research universities in Malaysia, namely Universiti Teknologi Malaysia (UTM), Universiti Malaya (UM), Universiti Putra Malaysia (UPM), Universiti Kebangsaan Malaysia (UKM) or Universiti Sains Malaysia (USM) by purposive and quota sampling at semester I, 2014- 2015. Consequently, the final format of the questionnaire was validated and the instrument is qualified to be used in related future studies to evaluate the overall psychological wellbeing of international students over the worlds based on four main factors which included in this survey (Homesickness, mental health, attachment, and spiritual wellbeing).

Acknowledgments

First and foremost I offer my sincerest gratitude to my supervisor, Prof. Datuk Dr. Mohd Tajudin Md. Ningal, who has supported me with his patience and knowledge. I cordially thanks to my co-supervisor, Dr. Adibah Abdul Latif, for her supports in analyzing data and very useful comments. The most special thanks go to my family for supporting me throughout all my studies, without whom I would never have been able to achieve so much.

References

- Adams, T. B., Bezner, J. R., Drabbs, M. E., Zambarano, R. J. and Steinhardt, M. A. (2000). Conceptualization and measurement

- of the spiritual and psychological dimensions of wellness in a college population. *Journal of American college health*, 48(4), 165-173
- AhmadiGatab, T. (2011). Studying The Relationship Between Life Quality and Religious Attitude With Students General Health. *Procedia-Social and Behavioral Sciences*, 30, 1976-1979.
- Bakhshani, N. (2007). Role of personality styles (sociotropy/autonomy) and moderating effects of social support in clinically depressed patients. *Journal of Medical Sciences*, 7, 106-110.
- Beck, R., Taylor, C. and Robbins, M. (2003). Missing home: Sociotropy and autonomy and their relationship to psychological distress and homesickness in college freshmen. *Anxiety, stress, and coping*, 16(2), 155-166.
- Benn, L., Harvey, J., Gilbert, P. and Irons, C. (2005). Social rank, interpersonal trust and recall of parental rearing in relation to homesickness. *Personality and individual differences*, 38(8), 1813-1822.
- Berry, K., Wearden, A. and Barrowclough, C. (2007). Adult attachment styles and psychosis: an investigation of associations between general attachment styles and attachment relationships with specific others. *Social psychiatry and psychiatric epidemiology*, 42(12), 972-976.
- Bifulco, A., Moran, P., Ball, C. and Bernazzani, O. (2002). Adult attachment style. I: Its relationship to clinical depression. *Social Psychiatry and Psychiatric Epidemiology*, 37(2), 50-59.
- Bifulco, A., Moran, P., Ball, C. and Lillie, A. (2002). Adult attachment style. II: Its relationship to psychosocial depressive- vulnerability. *Social Psychiatry and psychiatric epidemiology*, 37(2), 60-67.
- Bradley, G. (2000). Responding effectively to the mental health needs of international students. *Higher Education*, 39(4), 417-433.
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American psychologist*, 32(7), 513.
- Cetinkaya-Yildiz, E., Cakir, S. G. and Kondakci, Y. (2011). Psychological distress among international students in Turkey. *International Journal of Intercultural Relations*, 35(5), 534-539.
- Chang, C.-S., Chang, F. M., Nakagaki, H., Morita, I., Tsuboi, S., Sakakibara, Y., et al. (2010). Comparison of the oral health and self-rated general health status of undergraduate students in Taiwan and Japan. *Journal of Dental Sciences*, 5(4), 221-228.
- Colarossi, L. G. and Eccles, J. S. (2003). Differential effects of support providers on adolescents' mental health. *Social Work Research*, 27(1), 19-30.
- Elizabeth Rippentrop, A., Altmaier, E. M., Chen, J. J., Found, E. M. and Keffala, V. J. (2005). The relationship between religion/spirituality and physical health, mental health, and pain in a chronic pain population. *Pain*, 116(3), 311-321.
- Emery, E. E. and Pargament, K. I. (2004). The many faces of religious coping in late life: Conceptualization, measurement, and links to well-being. *Ageing International*, 29(1), 3-27.
- Eurelings- Bontekoe, E. H., Brouwers, E., Verschuur, M. and Duijsens, I. (1998). DSM- III- R and ICD- 10 personality disorder features among women experiencing two types of self- reported homesickness: An exploratory study. *British Journal of Psychology*, 89(3), 405-416.
- Fisher, J. (2012). Staff's and family members' spiritual well-being in relation to help for residents with dementia. *Journal of Nursing Education and Practice*, 2(4), p77.
- Fisher, J. (2013). You Can't Beat Relating with God for Spiritual Well-Being: Comparing a Generic Version with the Original Spiritual Well-Being Questionnaire Called SHALOM. *Religions*, 4(3), 325-335.
- Fisher, J. and Brumley, D. (2008). Nurses' and carers' spiritual wellbeing in the workplace.
- Fisher, J. W. (2001). Comparing levels of spiritual well-being in State, Catholic and Independent schools in Victoria, Australia. *Journal of Beliefs and Values*, 22(1), 99- 105.
- Fisher, J. W. (2012). The importance of relating with God for spiritual well-being. *Spirituality: New reflections on theory, praxis & pedagogy*, 147-161.
- Fisher, S. and Hood, B. (1988). Vulnerability factors in the transition to university: Self- reported mobility history and sex differences as factors in psychological disturbance. *British Journal of Psychology*, 79(3), 309-320.
- Fournier, M. A., Moskowitz, D. and Zuroff, D. C. (2002). Social rank strategies in hierarchical relationships. *Journal of Personality and Social Psychology*, 83(2), 425.
- Francis, L. J., Robbins, M., Lewis, C. A., Quigley, C. F. and Wheeler, C. (2004). Religiosity and general health among undergraduate students: a response to. *Personality and Individual Differences*, 37(3), 485-494.
- Gilbert, P. (2000). The relationship of shame, social anxiety and depression: The role of the evaluation of social rank. *Clinical Psychology & Psychotherapy*, 7(3), 174-189.
- Given, L. M. (2008). *Qualitative Research Methods (Vol. 2)*: Sage.
- Greven, C., Chamorro-Premuzic, T., Arteche, A. and Furnham, A. (2008). A hierarchical integration of dispositional determinants of general health in students: The Big Five, trait emotional intelligence and humour styles. *Personality and Individual Differences*, 44(7), 1562-1573.
- Grimes, K. Coming to College: Correlations between Loneliness, Homesickness and Spiritual Well-Being.
- Hack-Polay, D. (2012). When Home Isn't Home—A Study of Homesickness and Coping Strategies among Migrant Workers and Expatriates. *International Journal of Psychological Studies*, 4(3), p62.
- Hammermeister, J., Flint, M., El-Alayli, A., Ridnour, H. and Peterson, M. (2005). Gender differences in spiritual well-being: are females more spiritually-well than males? *American Journal of Health Studies*, 20(1/2), 80.
- Harvey, I. S. (2013). The role of spirituality and Africana womanism in the self- management of chronic conditions among older African Americans. *Journal of Nursing Education and Practice*, 3(12), p81.
- Hatamzadeh, A., Molaie, A. and Shahidi, S. (2012). Effectiveness of Group Psycho Educational Training of Emotional Intelligence on Alexithymia and General Health in Iranian Students. *Procedia-Social and Behavioral Sciences*, 46, 968-972.
- Hendrickson, B., Rosen, D. and Aune, R. K. (2011). An analysis of friendship networks, social connectedness, homesickness, and satisfaction levels of international students. *International Journal of Intercultural Relations*, 35(3), 281-295.
- Hojat, M. and Herman, M. W. (1985). Adjustment and psychosocial problems of Iranian and Filipino physicians in the US. *Journal of clinical psychology*, 41(1), 130-136.
- Ibrahim, A. K., Kelly, S. J., Adams, C. E. and Glazebrook, C. (2012). A systematic review of studies of depression prevalence in university students. *Journal of psychiatric research*.
- Jafari, E., Dehshiri, G. R., Eskandari, H., Najafi, M., Heshmati, R. and Hoseinifar, J. (2010). Spiritual well-being and mental health in university students. *Procedia-Social and Behavioral Sciences*, 5, 1477-1481.

- Johnstone, B., Yoon, D. P., Cohen, D., Schopp, L. H., McCormack, G., Campbell, J., et al. (2012). Relationships among spirituality, religious practices, personality factors, and health for five different faith traditions. *Journal of religion and health*, 51(4), 1017- 1041.
- Jung, E., Hecht, M. L. and Wadsworth, B. C. (2007). The role of identity in international students' psychological well-being in the United States: A model of depression level, identity gaps, discrimination, and acculturation. *International Journal of Intercultural Relations*, 31(5), 605-624.
- Keogh, B., O'brien, F. and Neenan, K. (2009). The clinical experiences of mature mental health nursing students in Ireland. *Nurse Education in Practice*, 9(4), 271-276.
- Lee, J.-S., Koeske, G. F. and Sales, E. (2004). Social support buffering of acculturative stress: A study of mental health symptoms among Korean international students. *International Journal of Intercultural Relations*, 28(5), 399-414.
- Makanui, P. K. (2012). Exploring Spirituality and Mechanisms Affecting Mental Health Outcomes: An Examination of Youth in Foster Care.
- McFadden, D. M. (2006). An Investigation of the Lived Experience of Spirituality and Religion in the Lives of Those Diagnosed with a Severe Or Chronic Mental Illness: St. Mary's University, San Antonio, Texas.
- McKinlay, N., Pattison, H. and Gross, H. (1996). An exploratory investigation of the effects of a cultural orientation programme on the psychological well-being of international university students. *Higher Education*, 31(3), 379-395.
- Miner, M. (2009). The impact of child-parent attachment, attachment to God and religious orientation on psychological adjustment. *Journal of Psychology and Theology*, 37(2), 114.
- Muda, W. (2008). The Malaysian national higher education action plan: Redefining autonomy and academic freedom under the APEX experiment. Proceedings of the 2008 ASAIHL Conference, University Autonomy: Interpretation and Variation, Universiti Sains Malaysia, Penang, 12-14.
- Peng, L., Zhang, J., Li, M., Li, P., Zhang, Y., Zuo, X., et al. (2012). Negative life events and mental health of Chinese medical students: The effect of resilience, personality and social support. *Psychiatry research*, 196(1), 138-141.
- Poyrazli, S. and Lopez, M. D. (2007). An exploratory study of perceived discrimination and homesickness: A comparison of international students and American students. *The Journal of Psychology*, 141(3), 263-280.
- Romaniuk, M. and Khawaja, N. G. (2013). University student depression inventory (USDI): Confirmatory factor analysis and review of psychometric properties. *Journal of affective disorders*.
- Sacks, S. K. (2002). The Relationship Between Spiritual Belief, Life Attitude, and Mental Health Among Physical Fitness Participants in Northern Indiana: Andrews University, School of Education.
- Sandhu, D. S. (1994). An examination of the psychological needs of the international students: Implications for counselling and psychotherapy. *International Journal for the Advancement of Counselling*, 17(4), 229- 239.
- Scott, J. (2005). On Spiritual Homesickness: Mothering Peace in HD's The Gift. *Journal of the Motherhood Initiative for Research and Community Involvement*, 7(1).
- Stroebe, M., Vliet, T., Hewstone, M. and Willis, H. (2002). Homesickness among students in two cultures: Antecedents and consequences. *British Journal of Psychology*, 93(2), 147-168.
- Tajalli, P. and Ganbaripanah, A. (2010). The relationship between daily hassles and social support on mental health of university students. *Procedia-Social and Behavioral Sciences*, 5, 99-103.
- Tartakovsky, E. (2007). A longitudinal study of acculturative stress and homesickness: high-school adolescents immigrating from Russia and Ukraine to Israel without parents. *Social psychiatry and psychiatric epidemiology*, 42(6), 485-494.
- Tartakovsky, E. (2008). Psychological well-being and ethnic identities of Jewish adolescents planning emigration from Russia and Ukraine to Israel: Changes during the post-perestroika period. *International Journal of Intercultural Relations*, 32(6), 553-564.
- Taylor, R. J., Chatters, L. M. and Jackson, J. S. (2007). Religious and spiritual involvement among older African Americans, Caribbean blacks, and non-Hispanic whites: Findings from the national survey of American life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 62(4), S238-S250.
- Thurber, C. A. (1995). The experience and expression of homesickness in preadolescent and adolescent boys. *Child development*, 66(4), 1162-1178.
- Thurber, C. A. and Sigman, M. D. (1998). Preliminary models of risk and protective factors for childhood homesickness: Review and empirical synthesis. *Child Development*, 69(4), 903-934.
- Thurber, C. A. and Walton, E. A. (2012). Homesickness and Adjustment in University Students. *Journal of American College Health*, 60(5), 415-419.
- Tilburg, M. A. V., Vingerhoets, A. J. and Heck, G. L. V. (1999). Determinants of homesickness chronicity: coping and personality. *Personality and individual differences*, 27(3), 531-539.
- van Tilburg, M. A., Eurelings-Bontekoe, E. H., Vingerhoets, A. J. and Van Heck, G. L. (1999). An exploratory investigation into types of adult homesickness. *Psychotherapy and psychosomatics*, 68(6), 313-318.
- Verschuur, M. J., Eurelings-Bontekoe, E. H., Spinhoven, P. and Duijsens, I. J. (2003). Homesickness, temperament and character. *Personality and individual differences*, 35(4), 757-770.
- Vitasari, P., Wahab, M. N. A., Herawan, T., Othman, A. and Sinnadurai, S. K. (2011). Re-test of State Trait Anxiety Inventory (STAI) among engineering students in Malaysia: reliability and validity tests. *Procedia-Social and Behavioral Sciences*, 15, 3843-3848.
- von Lersner, U., Wiens, U., Elbert, T. and Neuner, F. (2008). Mental health of returnees: refugees in Germany prior to their state-sponsored repatriation. *BMC international health and human rights*, 8(1), 8.
- Walker, K. L. and Dixon, V. (2002). Spirituality and academic performance among African American college students. *Journal of Black Psychology*, 28(2), 107-121.
- Wedekind, D., Bandelow, B., Heitmann, S., Havemann-Reinecke, U., Engel, K. R. and Huether, G. (2013). Attachment style, anxiety coping, and personality-styles in withdrawn alcohol addicted inpatients. *Substance abuse treatment, prevention, and policy*, 8(1), 1.
- Wilgis, M. J. (2007). A systematic review of recent research on adolescent religiosity/spirituality and aggressive/violent behavior.
- Wong, D. F. K. and Leung, G. (2008). The functions of social support in the mental health of male and female migrant workers in China. *Health & Social Work*, 33(4), 275-285.
- Yeh, P.-M. and Bull, M. (2009). Influences of spiritual well-being and coping on mental health of family caregivers for elders. *Research in gerontological nursing*, 2(3), 173-181.