## DEPRESSION AND ITS RELATIONSHIP TO LONELINESS AND LIFE EVENTS AMONG URBAN POOR IN THE FEDERAL TERRITORY, KUALA LUMPUR, MA-LAYSIA

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### ABSTRACT

This study examines the relationship between loneliness, life events and depression among 178 adults in the disadvantage community of Malaysia and to determine predictors of depression. A set of standardized questionnaires was used to measure depression, loneliness and stressful life events. The results showed that loneliness and stressful life events were related to depression. Results also showed that loneliness was a predictor of depression. Implications of the study in terms of theory and practice are also discussed.

Keywords: gender; emotions; adult; disadvantage community

## **INTRODUCTION**

The level of knowledge about mental health among Malaysians is still low (Abdul Kadir & Bifulco, 2010; Safari et al., 2011; Tahir et al., 2010; Yeap & Low 2009). Lack of knowledge about mental health is believed to be the main cause for the increase in mental health problems among young adult (Hunt & Einsenberg, 2010). Status of developing countries such as Malaysia and the process of urbanisation is happening makes life more complex and resulted in issues related to social, cultural and economic changes (Yeap & Low, 2009). All of these problems create an unhealthy lifestyle and stress, causing various health problems such as depression. Depression is a common mental health problem in Malaysia and an estimated 30% of adults suffer from depression once or more throughout life (Abd Kadir, 2012).

The level of depression is directly proportional to the increase in the age of an individual (Blazer et al., 1994). Mirowsky and Ross (1992) suggested that depression started to rise since early adulthood and lower levels of depression in middle-aged adults 45 years of age, while depression increases dramatically with age, particularly the influence of the cycle of

life, marriage failure, work load and economic status. Depression peaked in late adulthood at the age of 80 years and above. Individuals who entered the 50s phase are usually faced with the challenges and pressures because of the deterioration of health due to chronic illness, disability and they are less energetic. They feel isolated due to the edge by their families and communities or lost family members and peers. Apart from the loss of interest in activities and loss of direction, they also face a situation of losing their jobs and retirement as well as the challenges of financial problems. Some of the situations that happen to older adults who enter this final stage allow them a high risk to suffer from depression. Family and community are indispensable in providing support to these groups in ensuring the good mental health of late adulthood (Subramaniam, 2013).

According to the Suicidal Report in Malaysia by the Ministry of Health (2013), prolonged depression caused by stress or workload is a contributing factor to the increase in the suicide mortality rate in 2004 was between nine to 12 cases per 100,000 people while in 2012 there were 13 cases per 100,000 people in Malaysia. Depressed individuals potentially view themselves, the people around them and the future negatively. Hence, the mass media especially the Internet without realising it was a boost to the depressed individuals to commit suicide by the existence of more than 100,000 websites about suicide since the 1990s, and indirectly gave the idea of suicide to people who deal with depression. Deaths due to suicide are a real risk faced by people who suffer from major depression. Some individuals who suffer from mental problems also suffer from this type of delusional thoughts and hallucinations. Most of these symptoms occur almost daily, and may be reduced in proportion with time. Major depression is usually diagnosed as mood disorders and has always happened to women twice than men (American Psychiatric Association, 2000) across a range of cultures (Hirsch et al., 2012; Leung et al., 2014). There may be several explanations for these gender differences including the different hormonal structure of the female body and different social roles for women in the local culture (Brummett et al., 2014; Shimasaki et al., 2014).

Furthermore, in the context of Malaysia, the National Morbidity Health Study (2011), found that the prevalence of depression among adults is 1.8 percent or 340,000 people, while the prevalence rate is 1.7 percent for anxious. Females were found to suffer from depression rate, is almost double than men by 2.3 percent (Malaysia Ministry of Health, 2012). Depression which is similar to other chronic diseases, should be treated. Medical costs for depression are actually far lower than any other disease. The main thing to note is identifying depression and seek treatment as early as possible. Medical doctors in the clinic as the first-line for the depressed patient to be seeking help must be sensitive to the symptoms of depression, including the physical pain that is undescribed by the patient who suffers from depression. Miech and Shanahan (2000) reported that adults who have low levels of education have increased rates of depression are higher in numbers in early adulthood and declines in middle adulthood, then the prevalence of depression suddenly increased in late adulthood. This applies to both the male and female gender. These things tend to happen to the urban poor who have low educational levels. Individuals, who have a 10-year period of education, tends to suffer from depression at the age of 52

years, while individuals with a period of education for 16 years were likely to be depressed at the age of 62 years showed that the urban poor have great potential to be depressed 10 vears earlier than those of other cities in the age cohort. Monthly income or low-income households as well as economic pressure also affect depression. Those who grew up as early adults usually start to build a new life in career and new families in urban area have tremendous pressure and the cause of the occurrence of depression. Coupled with the burden of family responsibilities and living in stressful life events. However, when a person enters late adulthood, the situation changed dramatically with decreasing levels of physical health, coping and flexibility decreases, the focus began to decrease in career and daily activities, loneliness, loss of employment and retirement make life more pressurised and increased rates of depression. The relationship between economic status and depression grow continuously throughout the duration of life and it is directed to physical health problems as a major interference mechanism. In addition, both the 'malaise' and depressed mood have the same development associated with socio-economic status and education throughout the human developmental (Miech & Shanahan, 2000).

Stressful life events became the starting point to the level of physical and mental health of individuals. This variable is summarised in the social factors that influence mental health leading to depression. Life struggles with low incomes, high workloads, unconducive living, the burden of household responsibilities and social stress leads individuals to become vulnerable to depression.

Loneliness has a strong association with depression (Doohan et al., 2010; Ozdemir et al., 2014; Switaj et al., 2014; Wan Mohd Azam et al., 2013; Yadegarfard et al., 2014). Early adults among males and females had higher rates of depression as a result of family rejection, low social support, a high level of loneliness, low protection factor and high negative risk factor which is related to suicide (Yadegarfard et al., 2014). Low levels of marital satisfaction and higher levels of loneliness are the cause of high levels of depression among adults who are married (Doohan et al., 2010). Low social support and loneliness also are due to the occurrence of depression among

late adults living alone without children (Wan Mohd Azam\_et al., 2013). Thus, this study examines the relationship between loneliness, life events and depression among 178 adults in the disadvantage community of Malaysia and to determine predictors of depression.

### METHOD

### **Participants**

Married adults living in low-cost housing apartments in the Federal Territory of Kuala Lumpur, Malaysia were chosen to participate in this study. Overall, the sample consists of 178 participants (87=men; 91=women). In terms of ethnicity, 78.7% (n=140) were Malays, Indians made up 9.6% (n=17), Chinese 9% (n=16), and the rest 2.8% (n=5) were Bumiputera from Sabah and Sarawak; Indian Muslim and Eurasians. No information is available on participants who are refused completing some socio-demographic questions.

### Measures used in this study

The questionnaires utilised assessed the demographical particulars, loneliness, stressful life events and depression. All questionnaires were translated into Malay and validated. The Beck Depression Inventory II (BDI-II; Beck, Brown & Steer 1996) used to measure depression in the field of clinical psychology and psychiatry in order to measure the intensity of depression among psychiatric patients (Beck et al., 2003) and identify depression that may occur in the population (Steer et al., 1985) and be using for over 55 years old in clinical field. BDI-II consists of 21 items that represents the symptoms of clinical depression. BDI-II can identify effectively the level of depression experienced by the clinical patient or civilian. It may also be able to reflect changes in the intensity of depression after some period of time. Symptoms were measured in the BDI-II were mood, pessimism, sense of failure, lack of satisfaction, guilty feeling, sense of punishment, self-hate, self-accusations, self-punitive wishes, crying spells, irritability, social withdrawal, indecisiveness, body image, work inhibition, sleep disturbance, fatigability, loss of appetite, weight loss, somatic preoccupation and loss of libido. The original Beck Depression Inventory was based upon clinical observations and descriptions of symptoms frequently given by depressed psychiatric patients as contrasted with those infrequently given by non-depressed psychiatric patients (Beck et al., 1961). The clinical observations and patient descriptions were systematically consolidated into 21 symptoms and attitudes which could be rated on a 4-point scale ranging from 0-3 in terms of severity. Choice answers given in the Beck Depression Inventory II (BDI-II) were represented at a value of 0, 1, 2, and 3. This is the value of calculated scores for depression. The total lowest score of this questionnaire is zero if each question is indicated on the (0). The highest score is 63 if each question is indicated on the (3). The total BDI-II has reported good reliability (Beck et al., 1961; Beck et al., 1988; Beck & Steer, 1984; Ramli et al., 2009; Quek et al., 1997; Swami et al., 2007). In this study, the value of the Cronbach's alpha for total BDI-II was 0.88.

UCLA Loneliness Scale (ULS; Russell, Peplau & Ferguson 1978) was used to assess the level of loneliness. This questionnaire consisted of 20-item scale questions designed to measure one's subjective feelings of loneliness as well as feelings of social isolation. The participants rated each item as either 'Often', 'Sometimes', 'Rarely' and 'Never'. Value of 'Often' = 3, 'Sometimes' = 2, 'Rarely' = 1 and 'Never' = 0. The value represents scores count for this instrument. The respondents were asked to identify the number that represented themselves over each statement in the questionnaires and to respond to the questions such as "I am unhappy doing so many things alone"; "No one really knows me well" or "People are around me but not with me". The loneliness scale contains negative items. However, these items do not need to be graded in reverse coded. The total lowest score for this questionnaire was zero if each question was marked on the answer 'Never', which represents the score of zero (0). The highest score was 60 if each question was indicated in the answer box 'Often', which represented the score of 3. Three levels of loneliness were distinguished by the scores achieved by the respondents, the high level of loneliness (score = 41 to 60), moderate level of lonelinessscore = 21 to 40) and low level of loneliness (score = 0 to 20). The total ULS also reported good reliability (Ayalon et al., 2013; Ayas & Horzum, 2011; Ben-Zur, 2012; Russell, 1996; Swami et al., 2007) In this study, the values of the Cronbach's alpha for total ULS was 0.94.

The Recent Life Events Questionnaire (RLEQ; Brugha, Bebbington, Tenant & Hurry, 1985) was used to measure the most stressful events in life. This questionnaire contained 21 items listing the most stressful life events within the past 12 months. However, this questionnaire can also be used to measure the events and impact in the longer term if necessary Life events were usually short-lived but may have more enduring consequences. Respondents can be distinguished from 'chronic difficulties', such as poverty or persistently discorded relationships. Negative life events such as divorce, death of a loved one, physical illness and unemployment have the capacity to affect individuals. The initial scoring is binary in Recent Life Events Questionnaire (RLEQ). The value of 1 was given if the life event has happened, and 0 if it has not. The total lowest score of this questionnaire is zero if any questions were not checked or left blank in the answer box. Scores of 21 being the highest score if each question was indicated in the 'Yes' answer box which represented the score of 1. The questionnaire does not have a cut-off point which said questionnaire was scored on the basis that the more life events the adult has been through, the higher the score, and therefore the greater the likelihood of some form of longer term impact on the adult. Another study reported the total RLEQ has good reliability (Abdul Kadir & Bifulco, 2010; Abdul Kadir & Bifulco, 2013). In this study, the value of the Cronbach's alpha for RLEQ was 0.95.

### Procedures

The sample of 178 adults in this study completed a survey between October and December 2014. A set of questionnaires were distributed directly to 280 adults identified by the principle investigator (PI). Distributed questionnaires formed by a face to face interview technique with individuals who have the potential to be the respondent. This technique is appropriate for those who are illiterate. Researcher and enumerators come to them from door to door of every house in the low-cost housing apartments. Prior to the questionnaires being distributed, the researchers first circulated a notice regarding this study to every

house involved. Questionnaires were distributed gradually on a weekly basis. The researcher and enumerators distributed questionnaires to the respondents every weekend on a Saturday and Sunday and on a Malaysian public holiday. This is because most of the respondents were not at home during the weekdays. Therefore, the weekends were the best time for the researchers to distribute the questionnaires to the respondents. An explanation concerning the confidentiality of the information in the study was given to all the respondents. Information relating to the names and addresses of the respondents were not required in the questionnaires. Self-administration was used to collect the data, the respondents completed the questionnaires in the community area under the supervision of the PI with the assistance of the enumerators. The respondents were given 15-20 minutes to complete the questionnaires for the assessment of loneliness, stressful life events and depression. There was a high level of returned questionnaires with 63.6% completing the questionnaires that were collected by the researchers and enumerators.

## RESULTS

# Correlation of loneliness, stressful life events and depression

The correlations revealed that loneliness and stressful life events were positively correlated to depression (table 1). The results showed that loneliness (r = 0.60, p<0.05) and stressful life events (r = 0.20, p<0.05) were significantly associated with depression.

 Table 1. Correlation of loneliness and depression

Variable	Depression	
Loneliness	0.60**	
Stressful life events	0.20**	

\*\*. Correlation is significant at the 0.05 level (2-tailed)

# Regression of loneliness, stressful life events on depression

Further analysis was carried out to examine predictors of depression. Using multiple regression analysis, a significant model emerged (table 2). The model showed that loneliness did predict depression with 36% of the variance explained (adjusted  $R^2=0.36$ , F=0.36, p<0.001) on depression. This result indicated that loneliness was correlated to depression to a certain degree. To be specific, those respondents who scored high in loneliness were found to have high depression.

 Table 2. Predictor of depression

Predictor variable	R	$R^2$	adjusted R <sup>2</sup>
Loneli-	0.60	0.36	0.36
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### DISCUSSION

This study examined the relationship between loneliness and life events with depression among urban poor in the outskirts of Kuala Lumpur and to determine predictors of depression. The results from the multiple regression analysis showed that loneliness was significantly a predictor of depression. In this respect, the study lends support to the previous studies that suggested that loneliness predicted depression. This direct association probably indicates the importance in improving the bonds between (close) people through increased emotional and social values. The previous studies among adults suggested that loneliness experienced by an adult is more likely to increase the level of depression. Solitude in depression affects general health. A healthy lifestyle plays a role in overcoming loneliness and depression (Swami et al., 2007). Loneliness in an adult was associated with a sense of loss for the people around caused by a busy daily routine, loss of spouse either through divorce or death and as such were not surrounded by family and friends. High levels of resilience can be a factor to overcome loneliness as a result of the loss of a loved one. However, there are many adults who continue to experience chronic depression in the long term (Ben-Zur, 2012). This result can be explained using the Beck's Cognitive Theory of Depression (1996). Beck believed that the inner life of depressed people was dominated by a set of assumptions that shaped conscious cognitions. These assumptions derived ultimately from the messages we received from family, friends and other significant people. Intentional or not, a depressed person's response to this process is via the acceptance of people. They seek attention in their families, organisations and communities. A study conducted by Barg et al. (2006) also stated that loneliness was associated with depression. Loneliness experienced by the respondents in this study relates to emotional loneliness and social loneliness that leads to depression (Doohan et al., 2010; Ozdemir et al., 2014; Switaj et al., 2014; Wan Mohd Azam et al., 2013; Yadegarfard et al., 2014). Meanwhile, those with low socio-economic status led to their marginalisation from the leadership of the local community and forced them to live a life in social isolation and depression (Miech & Shanahan, 2000; Abdul Rashid et al., 2014; Wan Abd Aziz et al., 2011; Wan Mohd, 2004; Jamaluddin et al., 2000).

Our findings reveal that stressful life events correlated to depression, which is consistent with other studies that found the stressful life events is related to depression (Abdul Kadir & Bifulco, 2013; Panaviotou & Karekla, 2013; Traviss et al., 2013) but not as a predictor of depression. Panayiotou and Karekla (2013) explained that stressful life events trigger depression that may affect an individual's well-being. Our findings were consistent with other studies where stressful life events were strongly correlated to depression (Traviss et al., 2013). This study showed such disadvantage can be exacerbated by poor sociodemographic factors among participants. In this study among participants in the outskirts of Kuala Lumpur, where low income related to low education and professional skills, therefore lack of education and income are seen as key factors contribute to poverty, and also likely to contribute to depression.

## Implications for policy and practice

This study adds a novel contribution to the existing knowledge about depression among adults in Malaysia. Our findings can be used to develop a specific intervention programme, and as a reference for related research and policy development for adults who also works in a variety of industries in Malaysia and other Asian countries. For instance, it creates awareness about the importance of mental health in individual and community aspects. Company organisation and community may consider activities for their workers and citizens in order to tie-up the bonds between the colleagues, companionship, family members and neighbours to prevent loneliness and to generate the harmonious life that can increase the positive emotion and tighten the social bonding. The predictor in our findings will help to improve individual well-being and thereby can reduce the depression among married adults. Antecedent from our findings, people in community will get a better understanding about mental health and they will take good care of their mental health as well as their physical health. In order to make sure they know their psychological condition especially the level of depression, psychologist and psychiatrist can create and promote an open day for mental health screening in their communities' area. There is a high potential for an individual to take part in a mental health screening test if they are knowledgeable about it. The mental health professionals can contribute their expertise in developing a specific intervention programme that is suitable for married adults who are also the urban poor in a metropolitan city.

### Limitations of the study

This study has several limitations. First, this study did not explore social support, social problem solving, family bonding and marital satisfaction. Thus, we suggest that future studies examine various risk factors of depression. Second, research design of this study was a cross-sectional study therefore causal relationship cannot be established. Finally, sampling of this study and sample size did not permit generalization.

## CONCLUSION

In conclusion, this study supports that loneliness and life events are positively significantly correlated with depression. The study also found that only loneliness was a predictor of depression. Although our study provided some information about loneliness, stressful life events and depression, these findings should be considered as preliminary. Despite certain limitations, our findings support the argument that loneliness needs to be considered when studying adult loneliness in relation to depression.

#### REFERENCE

- Abd Kadir, M.N. (2012). Adult depression. Official Portal MyHEALTH, Ministry of Health, Malaysia.
- Abdul Kadir, A.B. (2014). Clinical Procedure Guideline (CPG). Malaysian Clinical Psychology Conference-14. Kuala Lumpur, Malaysia.
- Abdul Kadir, N.B. & Bifulco, A. (2010). Malaysian Moslem mothers' experience of depression and service use. *Culture, Medicine, and Psychiatry, 34*(3), 443-467.
- Abdul Kadir, N.B. & Bifulco, A. (2013). Insecure attachment style as a vulnerability factor for depression: Recent findings in a community-based study of Malay single and married mothers. *Psychiatry Research, 210*, 919-924.
- Abdul Rashid, M.F., Ab Ghani, I., Ngah, I. & Mat Yasin, S. (2014). Evaluation of migration decision-selectivity factors in metropolitan area: A case of Klang Valley Region, Malaysia. *E-Bangi Journal* of Social Sciences and Humanities, 9(1), 034-044.
- American Psychiatric Association. (2000). DSM-IV-TR: Diagnostic and Statistical Manual of Mental Disorders. US: Washington DC.
- Ayalon, L., Shiovitz-Ezra, S. & Palgi, Y. (2013). Associations of loneliness in older married men and women. *Aging & Mental Health*, *17*(1), 33-39.
- Ayas, T., & Horzum, M. (2013). Relation between depression, loneliness, self-esteem and internet addiction. *Education*, 133(3), 283-290.
- Barg, F. K., Huss-Ashmore, R., Wittink, M. N., Murray, G. F., Bogner, H. R., & Gallo, J. J. (2006). A mixed-methods approach to understanding loneliness and depression in older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 61(6), S329-S339.
- Beck, A. T., & Steer, R. A. (1984). Internal consistencies of the original and revised Beck Depression Inventory. *Journal of clinical psychology*, 40(6), 1365-1367.
- Beck, A. T., Steer, R. A., & Brown, G. K. (2012). Beck Depression Inventory.
- Beck, A.T., Steer, R.A. & Garbin, M.G. (1988). Psychometric properties of The

Beck Depression Inventory: Twentyfive years of evaluation. *Clinical Psychology Review*, 8(1), 77-100.

- Beck, A. T., Ward, C., & Mendelson, M. (1961). Beck Depression Inventory (BDI). Arch Gen Psychiatry, 4(6), 561-571.
- Ben-Zur, H. (2012). Loneliness, optimism, and well-being among married, divorced, and widowed individuals. *The Journal* of Psychology, 146 (1-2), 23-36.
- Blazer, D.G., Kessler, R.C. McGonagle, K.A. & Swartz, M.S. (1994). The prevalence and distribution of major depression in a national community sample: The National Comorbidity Survey. *American Journal of Psychiatry*, 151, 979-986.
- Brugha, T., Bebbington, P., Tennant, C. & Hurry, J. (1985). The list of threatening experiences: A subset of 12 life event categories with considerable long-term contextual threat. *Psychological Medicine*, 15, 189-194.
- Brummett, B. H., Babyak, M. A., Williams, R.
  B., Harris, K. M., Jiang, R., Kraus, W.
  E., ... & Siegler, I. C. (2014). A putatively functional polymorphism in the HTR2C gene is associated with depressive symptoms in white females reporting significant life stress. *PloS one*, 9(12), e114451.
- Caceda, R., Moskovciak, T., Prendes-Alvarez, S., Wojas, J., Engel, A., Wilker, S. H., ... & Stowe, Z. N. (2014). Gender-specific effects of depression and suicidal ideation in prosocial behaviors. *PloS one*, 9(9), e108733.
- Cacioppo, J.T., Hughes, M.E., Waite, L.J., Hawkley, L.C. & Thisted, R.A. (2006). Loneliness as a specific risk factor for depressive symptoms: cross-sectional and longitudinal analyses. *Psychology and Aging*, 21, 140-151.
- Ciarrochi, J., Said, T., & Deane, F. P. (2005). When simplifying life is not so bad: The link between rigidity, stressful life events, and mental health in an undergraduate population. *British Journal of Guidance & Counselling*, 33(2), 185-197.
- Doohan, E. A. M., Carrère, S., & Riggs, M. L. (2010). Using relational stories to predict the trajectory toward marital dissolution: The oral history interview and spousal feelings of flooding, loneliness,

and depression. *Journal of Family Communication*, 10(1), 57-77.

- Dykstra, P. A., & Fokkema, T. (2007). Social and emotional loneliness among divorced and married men and women: Comparing the deficit and cognitive perspectives. *Basic and Applied Social Psychology*, 29(1), 1-12.
- Hershenberg, R., Davila, J., & Leong, S. H. (2014). Depressive Symptoms in Women and the Preference and Emotional Benefits of Discussing Positive Life Events. *Journal of Social and Clinical Psychology*, 33(9), 767-788.
- Hirsch, J. K., Chang, E. C., & Jeglic, E. L. (2012). Social problem solving and suicidal behavior: Ethnic differences in the moderating effects of loneliness and life stress. Archives of suicide research, 16(4), 303-315.
- Jamaluddin, Z., Syed Ibrahim, S.S.A. & Abu Yazid, A. (2000). Seminar Paperwork's of National Social Work 2000, Social Developmental School, Universiti Utara Malaysia.
- Krejcie, R.V. & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement. 30*, 607-610.
- Lee, G.R. & Ishii-Kuntz, M. (1987). Social interaction, loneliness and emotional wellbeing among the elderly. *Research on Aging*, 9, 459-482.
- Leung, C. W., Epel, E. S., Willett, W. C., Rimm, E. B., & Laraia, B. A. (2015). Household food insecurity is positively associated with depression among lowincome supplemental nutrition assistance program participants and incomeeligible nonparticipants. *The Journal of nutrition*, 145(3), 622-627.
- Noor, N. M., & Mahudin, N. D. M. (2016). Work, Family and Women's Well-Being in Malaysia. In *Handbook on Well-Being of Working Women* (pp. 717-734). Springer Netherlands.
- Md Supi, S.S. (2014). Practice survey of paperworks in the state (selected) in Malaysia, the seminar fasakh and mental disorder, Institut Kefahaman Islam Malaysia (IKIM), Malaysia.
- Safari, I. N. M., Kassim, N., Iskandar, N. F., Mohamed, M. H., & Abdullah, M. Y. H. (2011). Tahap pengetahuan mengenai kesihatan mental dalam kalangan

pelajar Institut Pengajian Tinggi Awam (IPTA): kajian kes di UKM, Bangi. *Jurnal Personalia Pelajar. 14*, 37-44.

- Miech, R. A., & Shanahan, M. J. (2000). Socioeconomic status and depression over the life course. *Journal of Health and Social Behavior*, 162-176.
- Ministry of Health Malaysia. (2012). Advisory Council Meeting of Mental Health Promotion, Num. 1/2012. Official Portal of Ministry of Health Malaysia. http://www.moh.gov.my
- Ministry of Health Malaysia. (2013). The Suicidal Report in Malaysia. Malaysia.
- Mirowsky, J. & Ross, C.E. (1992). Age and depression. *Journal of Health and Social Behavior*, *33*(3), 187-205.
- Özdemir, Y., Kuzucu, Y., & Ak, Ş. (2014). Depression, loneliness and Internet addiction: How important is low self-control? *Computers in Human Behavior, 34*, 284-290.
- Panayiotou, G., & Karekla, M. (2013). Perceived social support helps, but does not buffer the negative impact of anxiety disorders on quality of life and perceived stress. Social Psychiatry and Psychiatric Epidemiology, 48(2), 283-294.
- Quek, K.F., Low, W.Y., Razack, A.H. & Loh, C.H. (1997). Beck Depression Inventory (BDI): A reliability and validity test in the Malaysian urological population. *Med J Malaysia*, 56, 285-292.
- Ramli, J., Yahaya, A., Yahaya, N. & Md Lazin, S.Z. (2009). Depression among orphanage's children in Kota Bharu District, Kelantan. *Jurnal Pendidikan*.
- Rosenthal, L., Earnshaw, V. A., Lewis, T. T., Reid, A. E., Lewis, J. B., Stasko, E. C., ... & Ickovics, J. R. (2015). Changes in experiences with discrimination across pregnancy and postpartum: Age differences and consequences for mental health. *American journal of public health*, 105(4), 686-693.
- Russell, D. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity and factor structure. *Journal of Personality Assessment*, 66, 20-40.
- Russell, D., Peplau, L.A., & Ferguson, M.L. (1978). Developing a measure of loneliness. *Journal of Personality Assessment*, 42, 290-294.

- Salloum, A., Stover, C. S., Swaidan, V. R., & Storch, E. A. (2015). Parent and Child PTSD and Parent Depression in Relation to Parenting Stress Among Trauma-Exposed Children. *Journal of Child and Family Studies*, 24(5), 1203-1212.
- Shimasaki, A., Kondo, K., Saito, T., Esaki, K., Otsuka, Y., Mano, K., ... & Iwata, N. (2014). A Genetic Variant in 12q13, a Possible Risk Factor for Bipolar Disorder, Is Associated with Depressive State, Accounting for Stressful Life Events. *PloS one*, 9(12), e115135.
- Simon, R. W., & Lively, K. (2010). Sex, anger and depression. *Social Forces*, *88*(4), 1543-1568.
- Steer, R.A., Beck, A.T. & Garrison, B. (1985). Applications of The Beck Depression Inventory.
- Stravynski, A. & Boyer, R. (2001). Loneliness in relation to suicide ideation and parasuicide: A population-wide study. Suicide Life Threatening Behaviors, 31, 32-40.
- Subramaniam, S. (2013). World Mental Health Day (National Level-18): Seminar Psychology Civilian Workers.
- Sulaiman, H. & Yahya, N. (1987). Housing provision and satisfaction of low income households in Kuala Lumpur. *Habitat International*, 13(4): 63-69.
- Swami, V., Chamorro-Premuzic, T., Sinniah, D., Maniam, T., Kannan, K., Stanistreet, D., & Furnham, A. (2007). General health mediates the relationship between loneliness, life satisfaction and depression. Social psychiatry and psychiatric epidemiology, 42(2), 161-166.
- Świtaj, P., Grygiel, P., Anczewska, M., & Wciórka, J. (2014). Loneliness mediates the relationship between internalised stigma and depression among patients with psychotic disorders. *International Journal of Social Psychiatry*, 60(8), 733-740.
- Tahir, M.K., Syed, A.S. & Mohamed, A.H. (2010). Mental health literacy towards depression among non-medical students at a Malaysian university. *Journal of Mental Health in Family Medicine*, 7, 27-35.
- Traviss, G. D., Meer, S., West, R. M., & House, A. O. (2013). Life events and difficulties and their association with antenatal distress in White and South

Asian women in the UK. *Social psychiatry and psychiatric epidemiology*, 48(5), 725-734.

- Turner, R.J., Wheaton, B. & Lloyd, D.A. (1995). The Epidemiology of Social Stress. *American Sociological Review*, 60, 104-25.
- Wan Mohd Azam, W.M.Y., Che Din, N., Ahmad, M., Ghazali, S.E., Ibrahim, N., Said, Z., Ghazali, A.R., Shahar, S., Razali, R. & Maniam, T. (2013). Loneliness and depression among the elderly in an agricultural settlement: Mediating effects of social support. *Asia-Pacific Psychiatry*, *5*, 134-139.
- Wan Mohd, W.S. (2004). Low-Cost Housing Accomplishment and Satisfaction in Kota Bharu, Kelantan. Thesis of Master in Science, Postgraduate School, Universiti Putra Malaysia.
- Wan Nor Azriyati Wan Abd Aziz, Faizah Ahmad, Noor Rosly Hanif, Wang Hong Kok. (2011). Pembasmian Kemiskinan Bandar kea rah Bandar Inklusif dan Sejahtera: Cabaran Kuala Lumpur. Journal of Surveying, Construction & Property. 2(1): 107-124
- Wong, C. K., Liang, J., Chan, M. L., Chan, Y. H., Chan, L., Wan, K. Y., ... & Wong, M. C. (2014). Prevalence and psychosocial correlates of depressive symptoms in urban Chinese women during midlife. *PloS one*, 9(11), e110877.
- Wynter, K., Rowe, H., & Fisher, J. (2014). Interactions between perceptions of relationship quality and postnatal depressive symptoms in Australian, primiparous women and their partners. *Australian journal of primary health*, 20(2), 174-181.
- Yadegarfard, M., Meinhold-Bergmann, M. E., & Ho, R. (2014). Family rejection, social isolation, and loneliness as predictors of negative health outcomes (depression, suicidal ideation, and sexual risk behavior) among Thai male-to-female transgender adolescents. *Journal* of LGBT Youth, 11(4), 347-363.
- Yahya, N. (1998). Housing quality and quality of life. *ANALISIS*, *5*(1&2),133-149.
- Yeap, R. & Low, W.Y. (2009). Mental Health Knowledge Attitude and Help-Seeking Tendency: A Malaysian Context. Kuala Lumpur: International Medical University.