Psychological Depression Factor and Productivity of Indonesia Construction Workers in Malaysia

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Abstract
Several past research studies which are community based and some important care populations declared that depression has some consequences which are job loss, reduction of job performance and productivity, loss of life and possessions. Construction work is one out of the many job described as 3D, that's dangerous, dirty and demeaning. Malaysian construction jobs are dominated by migrant workers, which includes Indonesian migrants as well. The main aim of this study is to determine the correlates and the prevalence of depression among Indonesia migrant construction workers in Penang, Malaysia and their influence on their productivity citing construction sites in Penang state. Their level of depression was assessed using BDI (Beck depression Inventory) measurement tool. The study was conducted using a survey with semi-structured questionnaire distributed to 250 numbers of Indonesian construction workers from about 20 different construction sites in Penang, Malaysia. Using SPSS description, frequency, regression and correlation analysis, the result shows that 43% of the construction workers are having mild depression, those with moderate depression are 36% and those with severe depression are 18%. This has an adverse effect on their productivity on site and their punctuality at work(Absenteeism). There is a strong statistical significance between their depression level and their productivity at work. This result will help all Site/Construction managers to be aware of construction workers' health and ability, hence less dangerous, dirty and demeaning task. It is suggested that more research can be conducted on their resilience and ability in the near future.

Keywords: Depression factor, Construction workers, productivity.

Introduction
Construction work connected stress can instigate damage to employees' psychological health condition and this in turn affects project performance but the harmful effect on the productivity of construction workers in Penang Malaysia have not received adequate attention in that academic research circle hence this research study.

Generally, construction workers are frequently subjected to high level stress that is linked to the work load on site (Love et al. 2010). This actually result to psychological health- impairment or disorders (Millon et al.,2004). Psychological depression or disorder is explained as a series of clinically significant syndromes or behavior in an individual facing distress or disability with an outstanding rise of danger of death, disability, pain or lack of freedom which is now acknowledge generally as the frequent challenges affecting at least 25% of the working population, (Sørensen and Munk-Joergensen 2011).

Psychological depression has significant effect on the productivity of workers and work performance on construction work site and as well lead to high cost of overhead in the work place (Millon et al.,2004; Dewa et al. 2012). As established in the literature, mental health challenges are considered the second largest class of occupational ill health after musculo skeletal problems and it is the main causal factor of increased sickness and disability (Hunsley et al. 2014). In most cases,depression, anxiety, bipolar disorders are commonly linked with significant symptom sternness and role diminishing (Kessler et al. 2005). For example, a victim of psychological

depression can have cognitive impairment leading to the situation whereby normal routine become more difficult. Besides, workers or an indicidual with mood disorders may be in need of frequent reassurance on their work productivity and performance because of their fatigue, anxiety, reduces levels of concentration at work, hence, decreased productivity.

Psychological depression can result to presenteeism in the work place such as construction site whereby the employees productivity reduced and employees could not undergo usual duties because of illness (De Lorenzo, 2013). Research has established that presenteeism caused almost 151 million days annual lost in the USA basically because of depressive orders while only 52 million days lost was recorded against bipolar disorders (Kessler et al. 2005). Likewise, presenteeism also cause blunt decision making, employment turnover, impaired productivity and accidents, all these can have greater effect on the project performance (Hilton et al. 2009), especially construction project.

In many occasions, majority of construction workers and employee generally that have psychological depression mostly desire to cover up their illness because of the fear of loosing their job and societal stigma (Dewa et al. 2012). A researcher submitted that the matter of psychological depression is usually sideline in the project management research, (De Lorenzo 2013).,especially in the construction sector and particularly, women in construction sector.

Construction workers are subjected to occupational stress that can brings about psychological depression and acute mental health challenges that can hindered project failure at any time or stage (Todd et al.,2014). It is very interesting to know that the increasing levels of occupational stress and psychological depression in the construction sector is well known but their impact on the productivity of construction workers are so limited, (Love et al. 2010)., most especially, Indonesian workers in the construction sector of Penang state of Malaysia. However, it seems that psychological depression factors are largely under estimated in the construction sector and this could means a knowledge gaps between construction project strategies, plans and instructions (Sunding and Ekholm, 2014). As confirmed by Patching and Best (2014), it is pertinent to reduce the impact of psychological depression factors on project performance using some crucial systems and procedures.

Base on this aforementioned, this paper aim to evaluate of psychological depression factor and it effect on the productivity of Indonesian construction workers in Penang Malaysia.

Literature review

Psychological depression and related work stress among construction workers

Research shows that work related stress can result to both physical and psychological depression and disorder (Millon et al. 2004). Construction management Professionals and workers such as site managers, quantity surveyors, on site operatives and are exposed to high level work connected stress and depression (Love et al. 2010). Constantly, construction workers are subjected to change pressure and project management stress and depression (Patching and Best, 2014). Most often than none, work related depression and stress result to emotional and physical responses that occur whenever the the needs of the job does not meet up with the capabilities, requirements and needs of the workers which may result to poor health as well as injury (Torgersen et al. 2000). Causes of depression and stress on construction site includes among others, conflict, work overload, diverge series of personalities trait encountered on site, redundancy, financial pressure, constraint in budget, psycho-social dangers exposure, change of technology, clients demands and limited resources on site (CIOB 2010).

Those employees that are working directly with main contractors are subject to higher stress and depression with very poor psychological health when compared to those consultants because of their longer working hours, minimum work support and lack of certainty and clarity of purpose (Love et al. 2010). Likewise, it was confirmed that work related depression and stress can be minimized at the organizational level by adjusting the work time, improve career ladders,

reducing physical dangers, modifying the use technology and training use, empowerment and enrichment and rotation of job (Love et al. 2010). WHO (2010) expressed the word psychological depression and disorders comprises large set of symptoms with features of abnormal thoughts, relationships, emotions and behaviours. In another development, The American Psychiatric Association (2000) observed that psychological depression or disorders are series of clinically significant character or psychological syndromes in ones associated with distress, depression or disability with a remarkable increase of sudden death, disability, pain as well as loss of freedom. It may take so many years for psychological depression to form in an individual.

There are several theories and models that expatiate the possible causes of mental disorders and these include bio psychosocial model, psychoanalytic theories, evolutionary psychology and biomedical model. These theories details the causes of disorder in different means, likewise in the way they treat disorder and depression and the manner they categorize mental disorders. For instance, biopsychological model expantiate on how mental problems arises and how intervention can be engaged in work place (Marchand and Durand 2011). The model highlight that illness and health are established by a dynamic interface between biological, social and psychological factors. As reported by Wang et al. (2008a), mental disorder and psychological depression have multifactor causes. Workers' mental health generally, is not only associated with their place of work but as well as their family and relatives whom they live with as well as the society within which they entrenched (Wang et al. 2008a). In some cases, the transfer of stress from family to work and vice versa can as well have a great impact on workers psychological health condition (Marchand and Durand 2011). Three main theoretical models have detailed the relationship between work stress, depression and mental disorders in women and men on the basis of theory of demand-control. Meanwhile, some past research revealed that individual features such as chronic illnesses, unmarried and low family income (Patten et al. 2006; Wicks et al. 2005), family structure, like single-parent family (Wang 2004;Wicks et al. 2005) are most significant factors linked with psychological depression and mental disorders health challenges. Mental health problems relative to demographics have been confirmed to be more dominant among women and it decrease with age.

Besides, further cause of psychological depression and mental health challenges can be personal traits, educational level, health status, educational life style habits like alcohol consumption and smoking (Marchand and Durand 2011). Psychological stress, depression and mental health is now a great challenge for both developing and developed countries where more people and mostly workers are diagnosed to have emotional stress and mental depression (Chun, 2012). About 25% of working populations were affected by this predominant health challenges (Sørensen and Munk-Joergensen, 2011). For instance, in America, about 30% adults are affected by psychological depression and disorder annually (Kessler et al. 2005). At the same time, psychological depression and disorders resulted in the death of about 40,000 persons annually and accounted for greater disability adjusted life years (DALY) than other communicable diseases and unintentional injuries (Krishnaswamy et al. 2012). According to WHO, (2010), Malaysia has a 5% psychological depression and disorders in its population. Based on these facts, this paper seeks to study the psychological depression and its influence on the productivity of Indonesian construction workers in Penang Malaysia.

Workplace Depression

It was established that depression has an incubation season of two weeks after which it will leads to depressed mood or loss of interest in a certain thing and all activities, American Psychiatric Association (2000). Depression includes an exhaustion of both mental drives and physical which can vary in magnitude (Watts 1966). In another means, it is a disorder or certain

collection of signs that are abnormal reactions to life's challenges and consists of emotional disturbances (D'Alessandro 1995). Depression is considered as the most incapacitating diseases on the earth and it is a common reason for suicide (MPA 2006). It is caused by suppressed anger displayed and turned to be inward self-hate and at time self-blame. People under depression are commonly lack self-expression publicly hence unable to attack those that disappoint them public because they are not able to verbally acknowledge in the open. The result is that they turn their disappointment and anger against themselves, attacking themselves in the process (Salmans 1995). Defeat, failure and loss may as well instigate depression. (Salmans, 1995).

Depression is very common and general and it is one of the most underrated illnesses in the society (Bowen et al. 2014). The life time depression occurrence in any country of the world is about 8 to 10% and it occurs both in the developing and developed countries of the world, (MPA ,2006). For example, in the US, the 12 months depression prevalence rates stood at 8.3%, Netherlands has 4.9% , 2.2% in Japan and 3.0% in Germany, (Bromet et al.,2011). Meanwhile, in Australia, the prevalence depression rates are recorded to be 6.3%, (Andrews et al., 2001). Annually, 19 million adults undergo depression in America, (Sands 2001).

Lerner et al.,(2011) submitted that depression is a major threat to the society relative to life quality, economic well-being and public health. Likewise, WHO,(2010) declared that 350 millions of people in the world faced depression challenges. But fortunately, depression is a treatable ailment and this can be achieved through the means of therapy and some antidepressant medications (Kazdin 2000). Depression is diverse in that it includes various treatments, causes and symptoms (Seok et al. 2014). As published by WHO,(2010) ,depression symptoms consists of loss of interest in an events or an activities for a minimum of two weeks, depressed mood, insomnia, significant impairment of activities, fatigue and energy loss, reduction in thinking and concentration capacity. At times, some under depression will experience tiredness after little effort or work, loss self-confidence, disturbed sleep, marked psycho motor obstruction, lack of appetite, agitation, loss of weight and libido (WHO,2010). Another major point is the depression's symptoms may be differ relative to individual's age and culture, for instance the older adults have tendency to experience symptoms such as thought of death and lack of appetite when compared to the younger adults (Friedman 2001).

Depression is believed to have a significant negative influence on workplace such as construction site. From past study, it was established that it accounted for increase of absenteeism and reduced work performance (Wells et al. 1996).

Hence, depression symptoms has significant influence on employment rather than physical symptoms because of the features associated with depression which results to low productivity, minimize decision making ability and concentration, job turnover and disturb sleep as well. A depressed person has low motivation to work, they usually isolate themselves from their colleagues and unable to contribute any tangible thing to their organization. Other illnesses also accompanied depression, such as anxiety, abuse of substance and other health disorder (Kendler et al. 1995). In essence, depression significantly impairs an organizations' productivity (Winkler 2012). Relative to this aforementioned, this study seeks to investigate the psychological depression of Indonesia workers and its influence on their productivity in the construction sector in Penang Malaysia.

Productivity

The fact that job satisfaction influence employees productivity, absenteeism and

turnover, then it can be said that it influence the overall effectiveness of the organization (Akroyd and Shewchuk, 1990). In a situation that an employer does not deliver the needs or requirement of employee, dissatisfaction like lower productivity, higher absenteeism, poor judgement, hostility, defensive behavior and reduction in creativity and job turnover (Buiser, 2000).

Many researchers have concluded that job satisfaction which is the bedrock of productivity can be influenced by three major factor which are factors connected to specific type of job, factor related to individual employee and factor connected to work settings, (Baron and Greenberg, 2003). All these are related to the workers and their productivity on construction site. In this study, the factors connected with individual employees includes, age, marital status, education qualification and site job task.

Research Method

Setting and Sampling

The sampling for this research was collected from the Indonesia Embassy in Penang State of Malaysia. They include those legal migrants from Indonesia, recorded in the register of the embassy that they are working with registered construction company recognized by the Indonesia Embassy and Malaysian government. The criterias for participant eligibility includes ability to read and write and speak Indonesian language and age of above 18 years and have depression experience. In this case, the participants were asked if they have ever experience depression or they are experiencing depression. If they answer yes to the question about their willingness to participate in the survey and meet other criteria, then thay are admitted for the research participation.

About 272 Indonesia migrant construction workers that met the selection criteria and willing to participate in the survey but only 250 of them were able to complete the data and this figure was used for the analysis. This represent 91.9%.

Data Collection

Quantitative method of research was adopted in this study and a well structure questionnaire was distributed to all participants to achieve indepth feedback from the survey. The questionnaire was designed to be completed within 20 to 30 minutes with assistance of field workers incase of any interpretation and explanation.

Instruments

Social demographic factors

In this study, the social demographic factors that was considered as trigger factors of psychological depression of Indonesian construction workers are age, years spent in Malaysia, marital status and education.

Type of Psychological depression

The type of psychological depression that each participant have experienced or are experiencing were investigated by asking them some questions such as “do you ever experience psychologicall depression or emotional depression before or even now”?. If their response is “Yes”, then they were asked to explain the features of the depression they are going through. Based on this,the depression or trauma are classified with the ususal and generally known depression trigger factors like acute disease, death of loved one, financial problems, divorce/separation, domestic violence, work related stress, physical, mental and sexual abuse, acculturation related stress and culture shock etc.

Depression symptons

Beck Depression Inventory - II

This study make use of depression instruments called Beck Depression Inventory-II Instrument (BDI), which was highlighted by Beck (1985). The BDI-II instrument is authentic, fast, less expensive and commonly apply for the fact that it is self-rating scale to evaluate depression level according to the submission of (Demyttenaere, De Fruyt, & rgen, 2003). BDI scale of 21 items highlighted depression symptons such as sadness, frustration, feelings of punishment, hate speeches, discontent, isolation, boredom and guilt.

Generally,BDI-II is considered a legal instrument for the measurement of Indonesian depression populace. The dependability and consistency of Indo BDI-II was established in the literature, the Cronbach alpha was 0.90 for all the score (21 items), it has 0.80 as cognitive factor (with 7 items), the somatic factor which contain 9 items, has 0.81 and the affective factor with 5 items has 0.74. All these values shows an appropriate high internal consistency. The Cronbach's alpha of the Indo BDI-II per group has 0.90 respondents, while for CHD patients, it is 0.87 and for depressed patients, it is 0.91, (Ginting, Näring, van der Veld, Srisayekti, & Becker, 2013).

Construction workers productivity

Daily diary which consists 5 identical structured questions that centred on the moment in time when the respondents, that is, the construction workers was paged on site. The questions commences by requesting the construction workers if they were at work and if yes, they were asked if they were on break or on the job task when they were page. If they were on site doing the job task, more questions was asked applying 7-point self-leading scales about productivity. It involves responses to quality, efficiency and speed. The 7-point self-leading scale has responses of "low" for the minimum score and "high" for the maximum score. Then there are responses to a question about the degree to which the respondent was succeeding at the time of the page. This was also coded using 1-7 self-leading scale with responses of "not at all" for the least score and "very much" for the highest score. The Cronbach's alpha is 0.76.The scale range was then changed by using linear transformation, Wang, et al., (2006).

Data Analysis

In this study,the descriptive statistics were applied to express the socio-demographic or psychological factors. The descriptive analysis is measured through the mean and percentage of BDI scale testing. Pearson's correlation was used to test the relationships of the dependent and independent variables. Multiple regression was used to evaluate the association between psychological or social demographic factors and depression value. The depression level serve as dependent variable while psychological factors and productivity serve as independent variable. The man value of all the psychological factors were use in the multiple regression analyses. The p-value of ≤ 0.05 is cadopted as statistically significant value. Meanwhile, SPSS version 21.0 was used for the analyses of the data.

Results

Demography of respondents

The demography of Respondents

The age demography of the respondent as revealed in Table 1 shows that the respondents within the age bracket 18 -28 years recorded the highest frequency with 84.6% while those within the age bracket between 29 and 39 years has 10.5 %.The least of all the age bracket is 50-100 years of age with .4%. This is and indication that among the Indonesia construction workers in Penang Malaysia, those within the age bracket 20 and 28 are more than other age bracket. In the table, it is obvious that the education level of all the respondents revealed that those with high school qualification are more than those that are graduates, the

high school recorded 84.2% compare to those that are graduate, 8.3%. Those with elementary has 10.5%.

It is clearly shown that university respondents are the least percentage while, the high school graduates were the highest percentage of all the respondents. Meanwhile, elementary graduates have 11%. It shows that the respondents who are single have the highest percentage while the widow respondent has the least percentage of 6%. The result shows that Factory workers respondents are the highest percentage which is 84%, while, the Domestic helper were the least percentage of all the respondents.

The result of the demography on time in Malaysia of respondents as shown in table 4.1 shows that the respondents that have lived in Malaysia for 2-4 years is 48% and under a year is 39% while above 5 years is only 13 %. About the marital status,many of the respondents are single with 85.5% while married are 8.8%. Those that has spent 2-4years in Malaysia are more than those that spent only one year and less than a year.

The result of their depression level shows that those with mild depression recorded 43.4%, those with moderate depression has 36.0% and those with severe depression recorded 18.0%.

Psychological Factors of depression

The result of the data collected is shown in Table 2. Those factors that trigger depression in Indonesia construction workers were highlighted and using multiple regression, the N values are shown.

Table 1 Demography profile

	Frequency (n= 228)	Percent (%)
1. Age:		
18-28	193	84.6
29-39	24	10.5
40-49	10	4.4
50-100	1	.4
2. Education:		
Elementary (SD-SMP)	24	10.5
High school (SMA)	192	84.2
University	12	5.3
3. Marital Status:		
Single	195	85.5
Married	20	8.8
Widow	13	5.7
4. Occupation:		
Factory worker	228	100.0
5. Time in Malaysia		
0-1 year	89	39.0

N= 228		D Level	
Pearson Correlation	D Level	1.000	
	Age	.089	
	Education	-.249	
	Marital status	.139	
	Occupation	.290	
	Years in Malaysia	-.001	
Sig. (1-tailed)	Age		.091
	Education		.000
	Marital status		.018
	Occupation		.000
	Years in Malaysia		.494

2-4 year	109	47.8
above 5 year	30	13.2
6. Depression Level:		
0-13 (minimum)	6	2.6
14-19 (mild)	99	43.4
20-28 (moderate)	82	36.0
29-63 (severe)	41	18.0

Table 2 Pearson correlation of relationship between depression level and age, education, occupation, marital status and years in Malaysia of the respondents.

From the result,it can be seen that the p value for Age =0.91 and since *p* value 0.91> 0.005,then it can be said that Age has no statistical significant on the depression level of the construction workers. The pearson correlation 0.89. Which mean the higher the age, the higher the depression level.

The education *p* value = 0.000,this *p* value 0.000< 0.005 and it implied that the education level of the construction workers has statistical significant impact on the depression level of the construction workers. The pearson correlation is -.249 which indicates the higher the education, the lower the depression level.

Meanwhile, the marital status *p* value = 0.18 > 0.005, it shows that their marital status has no significant impact on their level of depression and the pearson correlation is .139 which indicate that the relationship is positive but low and either married or not, it has nothing to do with their depression level.

Occupation has *p* value 0.000 < 0.005, it means that the occupation, that is the job and task on site has statistical impact on the depression level of the construction workers. The pearson correlation is positive .290,low relationship,it means that their occupation satisfaction has a positive relationship with their depression level but a little low.

On the other hand, the years in Malaysia has a *p* value of 0.494 > 0.005 indicating that their years od staying in Malaysia has nothing to do with their depression level has it has no statistical

significal impact on depression level. The pearson correlation is -0.001, negative ad very very low relationship,meaning that the higher the years in Malaysia, the lower the depression.

Productivity

According to SAS (1996), GLIMMIX macro and mixed procedure were applied to evaluate a two-level random impact linear regression model with the postulation of an unstructured covariance matrix among the almost 2, 323 data records that were accomplished in the working period of the construction workers that participated in the survey. The 0-100 task centred and productivity outcomes were centred and regressed on dichotomous measures of the psychological and social demographical factors of age, education, marital status, occupation and years in Malaysia. Interaction terms were employed to investigate if the impact of depression varied significantly by demography. The statistical significance was evaluated with two side tests. As per the result, a total number of 25 moment–in-time evaluation was conducted for 250 numbers of Indonesia construction workers and it yielded 3,568 logically possible data assessment. Out of this 2,323 were fully accomplished(N=2,323). The result revealed that non response to individual diary entries was very high among the depressed Indonesia construction workers on all the sites visited compared to other construction workers that are not experiencing depression.

Discussion

The result of the psychological and social demographical factors on the depression level of Indonesian construction workers prove that, education level and occupation, that is the job task on site are most signicant of all the factors. That is they influence their depression level and then affect their productivity on construction site. The education has a negative relationship by pearson correlation, which means the higher the education level of the Indonesian construction workers, the lower their depression level, this may be due to their education advantage they will be able to develop resilience against the trigger factors of depression,this concur with the findings of other past study, (Zhong et al., 2016). On the other hand, Age has a very high negative relationship but not statistically significant on the depression level. The higher the age, the lower the relationship with depression level.

Occupation which indicates the nature of their work on construction site has positive relationship which mean the tedious their occupation on site, the higher their depression level, but in this case it is a low positive relationship.This is in line with past findings (Dollard, 2012; Palupi, Shih, & Chang, 2017). Meanwhile, it has a very strong statistical significants on the depression level. All other factors,such as marital status and years in Malasia, considered in this study has no statistical impact on the depression level.

The result of the productivity also revealed that those Indonesia construction workers that are facing depression tends to absent them self from work due to their depressed condition hence affect their productivity on site. This result tally with the findings of Wang, et al., (2006).

Conclusion

In conclusion, based on empirically and theoretical validated procedure, this paper was about to identify those psychological factors that trigger depression and has significant impact on the productivity of Indonesia construction workers in Penang Malaysia. The impact of these depression impact, although not evaluated, could has well caused some economic impact on the total output or productivity of the construction company where they work. This is because their continuous and frequent absentiseem from construction site can have a great impact on the

contract sum and contract period of the contract where they work. It is hopeful that with the findings of this paper, the construction managers will pay more attentions to the psychological health status of the employee,most especially, the foreigners which include the Indonesia construction workers.

Likewise, this study limited its investigation to some specific psychological factors with has a tally with some social demographic factor, this can be increased and extende to other foreign workers engaged in 3D type of job.

References

Akroyd H D and Shewchuk (1990), "Factors Related to Job Satisfaction of Radiographers", Radiologic Technology, Vol. 61, pp. 472-477.

American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders, 4th Ed., Washington, DC.

Andrews, G., Henderson, S., and Hall, W. (2001). "Prevalence, comorbidity, disability and service utilisation: Overview of the Australian national mental health survey." Br. J. Psychiatry, 178(2), 145–153.

Baron R and Greenberg J (2003), Behaviour in Organizations: Understanding and Managing the Human Side of Work, p. 154, 2nd Edition, Allyn and Bacon, Inc., USA.

Beck, A. T., Steer, R. A., & Carbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review, 8*(1), 77-100. doi: http://dx.doi.org/10.1016/0272-7358(88)90050-5

Bowen, P., Edwards, P., Lingard, H., and Cattell, K. (2014). "Occupational stress and job demand, control and support factors among construction project consultants." Int. J. Project Manage., 32(7), 1273–1284.

Bromet, E., et al. (2011). "Cross-national epidemiology of DSM-IV major depressive episode." BMC Med., 9(1), 90–91.

Buiser P (2000), "Surviving Managed Care: The Effect on Job Satisfaction in Hospital-Based Nursing", Medsurg Nursing, Vol. 9, No. 3, pp. 129-138.

Chun, M. (2012). "12% Malaysians suffer from some forms of mental illness." Sun Daily, Putrajaya February, 16, 17–19.

CIOB (Chartered Institute of Building). (2010). "Management in the construction industry: A report exploring managerial skills, training and the impact of the recession."

D'Alessandro, A. (1995). Managed behavioral health care: Provide training and development manual, Vol. 2, Of Course Publications, Clearwater, FL.

De Lorenzo, M. S. (2013). "Employee mental illness: Managing the hidden epidemic." Employee Responsibilities Rights J., 25(4), 219–238.

Demyttenaere, K., De Fruyt, J., & rgen, u. (2003). Getting what you ask for: on the selectivity of depression rating scales. *Psychotherapy and psychosomatics, 72*(2), 61-70.

Dewa, C. S., Corbière, M., and Durand, M. (2012). "Challenges related to mental health in the workplace." Handbook of occupational health and wellness, R. J. Gatchel and I. Z. Schultz, eds., Springer, Boston, 105–129.

Dollard, M. F. (2012). Psychosocial safety climate: A lead indicator of workplace psychological health and engagement and a precursor to intervention success. In C. Biron, M. Karanika- Murray & C. Cooper (Eds.), Improving organizational interventions for stress and well-being interventions: Addressing process and context (pp. 77–101). London: Routledge.

Friedman, H. S. (2001). The disorders, Elsevier, London.

Ginting, H., Näring, G., van der Veld, W. M., Srisayekti, W., & Becker, E. S. (2013). Validating the Beck Depression Inventory-II in Indonesia's General Population and Coronary

Heart Disease Patients. *International Journal of Clinical and Health Psychology, 13*(3), 235.
Hilton, M. F., Scuffham, P. A, Sheridan, J., Cleary, C. M., Vecchio, N., and Whiteford, H. A. (2009). "The association between mental disorders and productivity in treated and untreated employees." J. Occup. Environ. Med. Am. Coll. Occup. Environ. Med., 51(9), 996–1003.
Hunsley, J., Elliott, K., and Therrien, Z. (2014). "The efficacy and effectiveness of psychological treatments for mood, anxiety, and related disorders." Can. Psychol., 55(3), 161–176.
Kazdin, A. E. (2000). Encyclopedia of psychology, Vol. 1–8, American Psychological Association, Washington, DC.
Kessler, R. C., Chiu, W., Demler, O., and Walters, E. E. (2005). "Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the national comorbidity survey replication." Arch. Gen. Psychiatry, 62(6), 617–627.
Kendler, K. S., Walters, E. E., Neale, M. C., Kessler, R. C., Heath, A. C., and Eaves, L. J. (1995). "The structure of the genetic and environmental risk factors for six major psychiatric disorders in women: Phobia, generalized anxiety disorder, panic disorder, bulimia, major depression, and alcoholism." Arch. Gen. Psychiatry, 52(5), 374–383.
Krishnaswamy, S., et al. (2012). "Common mental disorders in Malaysia: Malaysian mental health survey, 2003–2005." Asia-Pac. Psychiatry, 4(3), 201–209.
Lerner, D., et al. (2011). Work accommodation and retention in mental health, Springer, New York.
Love, P. E. D., Edwards, D. J., and Irani, Z. (2010). "Work stress, support, and mental health in construction." J. Constr. Eng. Manage., 10.1061/(ASCE)CO.1943-7862.0000165, 650–658.
Marchand, A., and Durand, P. (2011). "Psychosocial and biological indicators in the evaluation of and intervention in mental health problems at work." Healthcare Papers, 11, 6–19.
Millon, T., Millon, C. M., Meagher, S., Grossman, S., and Ramnath, R. (2004). Personality disorders in modern life, Wiley, London.
MPA (Malaysian Psychiatric Association). (2006). "Mental disorders. Kuala Lumpur: Malaysian psychiatric association." ⟨http://www.psychiatry-malaysia.org/article.php?aid=56⟩ (Jun. 24, 2016).
Palupi, K. C., Shih, C.-K., & Chang, J.-S. (2017). Cooking methods and depressive symptoms are joint risk factors for fatigue among migrant Indonesian women working domestically in Taiwan. *Asia Pacific Journal of Clinical Nutrition, 26*(Supplement), S61.
Patching, A., and Best, R. (2014). "An investigation into psychological stress detection and management in organisations operating in project and construction management." Procedia Soc. Behav. Sci., 119, 682–691.
Patten, S. B., Wang, J. L., Williams, J. V., and Currie, S. (2006). "Descriptive epidemiology of major depression in Canada." Can. J. Psychiatry, 51(2), 84.
Salmans, S. (1995). Depression: Questions you have, answers you need, People's Medical Society, Allentown, PA.
Sands, R. G. (2001). Clinical social work practice in behavioral mental health: A postmodern approach practice with adults, 2nd Ed., Allyn and Bacon, Boston.
SAS Version 6.12. Cary, NC, SAS Institute, 1996.
Sørensen, H. Ø., and Munk-Joergensen, P. (2011). "P02-99—Mental health in the workplace." Eur. Psychiatry, 26(1), 694–695.
Seok, S. J., et al. (2014). "The Korean medication algorithm for depressive disorder: Second revision." J. Affective Disord., 167, 312–321.
Sunding, L., and Ekholm, A. (2014). "Problems and problem attention in construction sector: Understanding influence of human factors." Constr. Econ. Build., 14(2), 1–17.

Todd, N. J., Jones, S. H., Hart, A., and Lobban, F. A. (2014). “Aweb-based self-management intervention for bipolar disorder ‘Living with Bipolar’: A feasibility randomised controlled trial.” J. Affective Disord., 169, 21–29.
Torgersen, S., et al. (2000). “A twin study of personality disorders.” Comput. Psychiatry, 41(6), 416–425.
Wang, P. S., Beck, A. L., & Berglund, P. (2006). Effects of Major Depression on Moment-in-time Work Performance. *Year Book of Psychiatry & Applied Mental Health*, *2006*, 191-192.
Wang, J., Lesage, A., Schmitz, N., and Drapeau, A. (2008). “The relationship between work stress and mental disorders in men and women: Findings from a population-based study.” J. Epidemiol. Commun. Health, 62(1), 42–47.
Watts, C. A. H. (1966). Depressive disorders in the community, Elsevier, London, 8–24.
Wells, K. B., Sturm, R., Sherbourne, C. D., and Meredith, L. S. (1996). Caring for depression: A RAND study, Harvard University Press, Cambridge, MA.
WHO (World Health Organization). (2010). International statistical classification of diseases and related health problems, 10th Ed., Vol. 2,Geneva.
Winkler, P. (2012). “P-635-Depression in the workplace: What is being done by employers?” Eur. Psychiatry, 27, 1–2.
Wicks, S., Hjern, A., Gunnell, D., Lewis, G., and Dalman, C. (2005). “Social adversity in childhood and the risk of developing psychosis: A national cohort study.” Am. J. Psychiatry, 162(9), 1652–1657.
Zhong, B.-L., Liu, T.-B., Huang, J.-X., Fung, H. H., Chan, S. S., Conwell, Y., & Chiu, H. F. (2016). Acculturative stress of Chinese rural-to-urban migrant workers: a qualitative study. *PloS one, 11*(6), e0157530.