

THE PREVALENCE OF OCCUPATIONAL STRESS AND ITS ASSOCIATION WITH SOCIO-DEMOGRAPHIC FACTORS AMONG LECTURERS IN A PRIVATE UNIVERSITY IN MALAYSIA.

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ABSTRACT

Background: Stress in an inevitable situation in which one will go through in their lives. If stress is not resolved, it gets accumulated and thus may give significant implication on one's health. There are many types of stress and one of which is occupational stress may also contribute to major health hazards. The purpose of this study was to determine the prevalence of occupational stress among lecturers of a private university in Malaysia.

Materials and Methods: This cross-sectional study was conducted using Job Content Questionnaires (JCQ) to identify the occupational stress. This questionnaire consists of three parts which are socio-demographic, decision latitude and psychological job demand. The score of reliability test for decision latitude was 0.75 and the score for psychological job demand was 0.80.

Results: The prevalence of occupational stress among lecturers was 24.8%. The socio-demographic factors such as gender ($p=0.001$), level of education ($p=0.011$), income ($p=0.002$), job title ($p=0.005$), length of service ($p=0.001$) provides significant association to occupational stress.

Conclusion: This study revealed the 24.8% of a population found to have a occupational stress and found several demographic variables such as gender, level of education, income, job title and length of service which predictors of occupational stress. Therefore, to reduce negative impacts, preventive measures or intervention programs had to be implemented.

Keywords: Occupational stress, Private University, Lecturers, JCQ.

1.0 Introduction

Occupational stress can be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of workers (NIOSH U.S, 1999). Occupational stress and stressful working conditions have been linked to low productivity, absenteeism, and increased rates of accidents on and off the job (CWA, 2014). There are several factors that can contribute to occupational stress such as job demands, organizational factors, financial and economic factors, conflict between work and family roles and responsibilities, training and career development issues and poor organizational climate (NIOSH U.S, 2008).

In Malaysia, the education sector is one of the several sectors having a large number of workers. Education system in Malaysia is divided into two categories, public universities which are funded by the Government and private universities which are self-managed institutions (MOHE, 2014). There are thousands of lecturers working in the private universities and therefore there is a need to assess the occupational stress level among them. Lecturers play a main role in maintaining high academic performance which will reflect on to student's academic achievement. If a lecturer experienced too many stress at work, therefore they unable to perform their duties effectively, thus leading to lower productivity which will have negative impact on the students (Dorman, 2003).

Several studies have identified the prevalence of stress among university staff. Huda (2004) found that the prevalence of occupational stress among public university lecturers was 23.3%. Meanwhile in another cross-sectional study conducted among 61 lecturers from various faculties of another public university found similar results where the prevalence of stress was reported as 26.2% (Nur Aqilah, 2012).

There was one comparison study about stress in lecturers of public and private universities. Results showed that academic staff from the private university has higher occupational stress level than those from the public university. This study also reported that gender, university type, and academic status were predictors of occupational stress (Safaria, 2011).

Stress at workplace can affect the psychology and physiology of humans and may lead to prolonged depression. The stress at work has been identified as a contributor to accidents at work, increased occupational safety and health costs, cumulative trauma disorders, decreased work performance and disrupting of social lives (Zafir& Fazilah, 2006). Therefore, the purpose of this study is to determine the prevalence of occupational stress among lecturers of a private university in Malaysia. These results may contribute for preventive measures or intervention programs in order to reduce negative impacts.

2.0 Materials and Methods

This cross-sectional study was conducted in one of the private university in Malaysia. To select respondents, purposive sampling was used. The criteria for the selection include lecturers from various faculties who fulfilled the inclusive criteria were selected as participants. The inclusive criteria were (1) Malaysian citizenship, (2) Age 18 years old and

older and (3) lecturers who have contact or work directly in the laboratory and workshop. While the exclusive criteria's are (1) staff who on study leave and (2) on leave for more than three months (3) staff who take unrecorded leave. Sample size is calculated using formula by Robert V. Krejcie And Daryle W. Morgan (1970). A total 113 respondents males and females participated in the study.

Self-administered questionnaires were used to determine the work demands and psychosocial aspects based on Karasek-Theorell Job Strain Model. (Figure 1). It is a model that has been widely used to study occupational stress factors. Two scales Job Content Questionnaire which consists of decision latitude and psychological demand was used to calculate the prevalence of occupational stress. The questionnaire was constructed by using likert-like score between 1 (strongly disagree) to 4 (strongly agree). For each scales, the score was dichotomized by median cut-off point. The respondent was grouped in high strain if they had high psychological job demand and low decision latitude while the rest was grouped as non-high strain. All these variables were calculated accordingly to the Job Content Questionnaire and User's Guide (Karasek, 1985). For this study, a validated Malay version of the Job Content Questionnaire (JCQ) was used to evaluate the participants (Hadi, Naing, Daud & Nordin, 2006).

		Psychological Job Demands (Demand)	
		Low	High
Decision Latitude (Control)	Low	Passive	High Strain
	High	Low Strain	Active

Figure 1: Karasek-Theorell Job Strain Model

2.1 Statistical analysis

Data were analyzed using SPSS version 21. The Chi-square test was used to determine association between categorical variables. The value of $p < 0.05$ was accepted as the significant level.

3.0 Results

According to Karasek-Theorell Job Strain Model, there are two factors that lead to occupational stress, namely decision latitude and psychological job demand. Based on Karasek-Theorell Job Strain Model, a combination of:

- high psychological job demand + high decision latitude = 'active'

- high psychological job demand and low decision latitude = 'high strain'
- low psychological job demand and high decision latitude = 'low strain'
- low psychological job demand and low decision latitude = 'passive'.

To determine the prevalence of occupational stress (high psychological job demands and low decision latitude), job strain was dichotomized into 'high strain' and 'non-high strain'. Non-high strain are low strain (low psychological job demands and high decision latitude), passive job (low psychological demands and low decision latitude) and active job (high psychological job demands and high decision latitude).

Table 1: Distribution of organizational factors in occupational stress. (N=113)

Organizational factors	n (%)
Decision latitude	
High decision latitude	59 (52.2%)
Low decision latitude	54 (47.8%)
Psychological job demands	
High psychological job demands	71 (62.8%)
Low psychological job demands	42 (37.2%)

Table 2: Distribution of occupational stress categories. (N = 113)

Occupational stress categories	n (%)
Active job	31 (27.4%)
Passive job	14 (12.4%)
High Strain	28 (24.8%)
Low Strain	40 (35.4%)

Table 3: Prevalence of occupational stress level. (N = 113)

Level of occupational stress	n (%)
High strain	28 (24.8%)
Low strain	85 (75.2%)

In this study, Table 1 shows the distribution of organizational factors in occupational stress while Table 2 shows the occupational stress categories. The prevalence of occupational stress was based on the results of high psychological job demands and low decision latitude which resulting 'high strain'. The result showed that respondents that had high strain were 28 (24.8%) and therefore the prevalence of occupational stress was also 24.8%.

Table 4 below described the frequencies and percentages of socio-demographic data. The data collected showed 65.5% respondents were female. The majority of respondents were aged between 31-40 years (57.5%). Approximately 76.1% respondents were married and the majority of respondents had incomes between Ringgit Malaysia RM 4001-5000. A total of 61.9% of respondents had master/PhD degree. The majority of respondents have served the university less than 5 years (73.5%).

The socio-demographic factors such as gender, level of education, income, job title, length of service provides significant association ($p < 0.05$) to occupational stress. The others socio-demographic factors ie age, marital status and number of children were not association with occupational stress.

The association between socio-demographic factors and occupational stress is shown as Table 4.

Table 4: Association between occupational stress and socio-demographic factors (N = 113)

	n (%)	Stress n (%)	χ^2	P value
Gender				
Male	39 (34.5)	17 (60.71)	11.306	0.001*
Female	74 (65.5)	11 (39.29)		
Age				
18 – 30	34 (30.1)	12 (42.86)	2.952	0.229
31 – 40	65 (57.5)	13 (46.43)		
> 41	14 (12.4)	3 (10.71)		
Marital Status				
Single	24 (21.2)	8 (28.57)	4.970	0.174
Married	86 (76.1)	19 (67.86)		
Divorced	2 (1.8)	0 (0.00)		
Widowed	1 (0.9)	1 (3.57)		
Education level				
Diploma	18 (15.9)	8 (28.57)	11.216	0.011*
Degree	25 (22.1)	10 (35.71)		
Master/phD	70 (61.9)	10 (35.71)		
Number of children				
0	33 (29.2)	8 (28.57)	1.438	0.487
1 – 3	60 (53.1)	17 (60.71)		
4 – 6	20 (17.7)	3 (10.71)		
Income				
< RM3000	22 (19.5)	12 (42.86)	15.212	0.002*
RM3001 – RM4000	20 (17.7)	6 (21.43)		
RM4001 – RM5000	61 (54)	9 (32.14)		
>RM5000	10 (8.8)	1 (3.57)		

Job title				
Prof/ senior lecturer	10 (8.8)	1 (3.57)	12.662	0.005*
Lecturer	59 (52.2)	9 (32.14)		
Assistant lecturer	44 (38.9)	18 (64.3)		
Length of service				
Less than 1 year	23 (20.4)	12 (42.86)	15.51	0.001*
1 – 5 years	60 (53.1)	11 (39.29)		
6 – 10 years	29 (25.7)	4 (14.29)		
11 – 15 years	1 (0.01)	1 (3.57)		

N = 113

*Significant level at $p < 0.05$

4.0 Discussion

A total of 113 respondents participated in the survey with a response rate of 75.3%. Based on the Karasek-Theorell Job Strain Model, it is concluded that the prevalence of occupational stress in this university was 24.8 %. This result showed that the prevalence was similar to those studies done among the public university lecturers.

Table 4 shows that out of 113 respondents (male = 39, female = 74), 28 respondents reported having stress in job and the males shows more stress than the female lecturers (60.71% and 39.29% respectively). This finding was consistent with Fauzia Khurshid, Zahir Uddin Butt and Sufiana K. Malik (2011) study which reported that male teachers are more stress than female teachers. However, a study by Triantoro Safaria, Ahmad Othman and Nubli (2011) reported contradictory results in which female have more stress than males. Another study by Nur Aqilah & Juliana (2012) in one of public university in Malaysia showed that female lecturers were significantly experienced higher stress level compared to male.

Respondents with income lower than RM3000 shows more stress than respondents of higher income. This may be caused by the high cost of living as this is university located in one of the largest metropolitan area in Malaysia. Another reason could be that these workers may be unsatisfied at work as they received inadequate salary and talk of opportunity for advancement which may lead to stress at work (Triantoro et. al. (2011).

As for job title, assistant lecturers (64.3%) show having stressed higher than others. This may be caused by having more multitasking workload from classroom teaching, workshop and laboratory duties need to be performed. This explanation is supported by Triantoro et. al. (2011) who explained that staff of different rank has different workload level therefore given different workload weightage of stress. Nada et al. (2012) suggested that the workload should be reduce to an acceptable level of each employee and must avoid work overload by changing the working environment.

Majority of the respondents (82.15%) who worked less than 5 years have more occupational stress than who worked more than 5 years. This phenomenon may happened because they

may take some time to adjust them self with university system. While according to Triantoro et. al (2011), the senior lecturers feel more comfortable in doing their job than junior lecturers.

The socio-demographic characteristics such as age ($p=0.229$), marital status ($p=0.174$), number of children ($p=0.487$) shows no significant association with occupational stress. Based on this demographic characteristics, it means that's the family factor does not contribute that much to the problem of occupational stress in the work place.

The results on the decision latitude and psychological job demand suggested that work related stress only happen when the power of decision-making is low while the mental burden on the employee job assignment is high. This supports the statement from Karasek (1998) which states decision latitude can be improved through participation in decision making as a strategy for reducing mental tension. This study found that employees who are given the opportunity to make their own decisions.

Although this university is a private university, the levels of occupational stress have no differences with stress level of public universities. It differs with the findings discovered by Triantoro et. al (2011) stating that academic staff that's works in private university has the higher occupational stress level than academic staff in public universities.

5.0 Conclusion and recommendation

The prevalence of occupational stress found in this university is 24.8 %. It is similar to the prevalence found in other universities. This suggests that 1 in 4 workers experienced occupational stress with the rest of population falling in the low strain group. Their ability on decision making in decision latitude factors has been identified to be one of the contributors to occupational stress in this group. It can be concluded that, this group of lecturers did not experienced high occupational stress level. This result may help the university management to implement preventive measures or intervention programs in order to reduce negative impacts among their workers. Future researchers are encouraged to identify suitable preventive measures and develop the intervention programs that give benefit to education workers.

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Declaration

The authors declare that there is no conflict of interest. All experiments have been conducted according to the principles expressed in the Declaration of Helsinki.

Authors contribution

Author 1: Contributing in literature review, preparing and planning research activities, methodological aspect and analysis data.

Author 2: Contributing in methodological aspects and data analysis.

Author 3: Contributing in literature review and methodological aspects.

Author 4: Contributing in literature review.

Author 5: Contributing in data analysis.

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