

Assessment of Stress and Its Risk Factors among Primary School Teachers in the Klang Valley, Malaysia

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Abstract

Introduction: This cross-sectional study determined the workplace stressors, stress levels, mental health status and their influencing factors, among primary school teachers in the Klang Valley, Malaysia. **Methodology:** Nine primary schools in Klang Valley which fulfil the inclusive criteria were randomly selected from a list obtained from the Ministry of Education website. Two hundred and seventy two teachers from the selected school, volunteered to participate in the study. A questionnaire was used to determine socio-demographic background, working information and medical history. Teacher Stress Inventory was used to measure the stressor and stress levels; while General Health Questionnaire was used to measure the mental health status. **Result:** Results showed that most of the teachers experience moderate stress level (71.7%) and only 12.1% had low mental health status. Student misbehaviour was the main stressor in the school environment (mean= 2.62). Gender ($p=0.001$) and workload ($p=0.002$) showed a significant contributing factors towards mental health status. **Conclusion:** These primary school teachers experience stress mainly due to the student misbehaviour and the mental well-being were influenced by the workload and gender. Women teachers with heavy workload had lower mental health status.

Keyword: Primary school teachers, Stress, Teacher stress inventory, Mental health status

1. Introduction

Teaching profession comes with other roles and commitments to be made towards students, the community and the profession itself. Teachers are responsible to guide students to learn by providing clear directions and explanations in order to educate the future generation. Teachers must be role models and realize that each action taken will reflect upon his/her professional status as teachers (Connecticut Code of Professional Responsibility for Teachers).

Teaching has been proven as a stressful job based on previous studies (Shirley & Kathy, 2002; Kyriacou, 1989). Sveinsdottir, Gunarsdottir, and Fridriksdottir (2007) reported that the working environment for teachers is highly stress-provoking. Teacher stress is defined as an uncomfortable feeling, negative emotion such as anger, anxiety and pressure which originated from their work (Maslach & Jackson, 1984). Teachers have to cope with their task to give knowledge; as well as to educate students to be good citizens. With the increasing demand from students and parents, as well as the job requirement made by Malaysia's Ministry of Education, the stress levels are steadily increasing. Teachers in Selangor and Kuala Lumpur areas have been categorized as 'stressful teachers' since they have to spend 74 hours per week in teaching, as well as involved in curriculum activities (Abdul, 2005).

Mental illness among teachers has become an increasing problem in many countries (Bauer *et al.*, 2005; Bauer *et al.*, 2007; Weber, Weltle & Lederel., 2006). According to a study (Sveinsdottir *et al.*, 2007), psychiatric and/ or psychosomatic disorders are the leading causes of premature retirement among teachers. Stressors such as disruptive student, heavy workload and lack of support put teachers' mental health in danger (National Union of Teachers, 2009). Occupational stress has two conceptual definitions (David, 1984). The first one refers to physiological responses of the individuals such as increased heart rate, blood pressure, as well as the release of cortisol hormone into the blood stream that result from an individual's frustrations of the interaction with the environment. The second one refers to the negative appraisal from the environment itself such as workload and inadequate resources and time that are associated with the current job that lead to anxiety and chronic pressure in meeting the job demand. Another scholar defined stress as the physical, emotional and mental strain resulting from the mismatch between an individual and the environment (Bynoe, 1994). Stress is most likely to occur in situations where; demands are high, the amount of control in an individual is low, and there is limited support or help available for the individual. When a body receives stressor, it can increase the stress level. Proposed model of teacher stress by Richard and Christine (1989) included teaching history and personal factors as the stressor for job stress among the teachers. The positive and negative reactions may in turn influence the risk of developing psychosomatic symptoms. Model of teacher stress by Kyriacou and Sutcliffe (1978) defined potential stressors as physical (such as large number of pupil in classes) and psychological (such as poor relationship with colleagues). The model also contained additional variables such as recognition and inadequate resources and time as potential non-occupational stressor.

This objective of this study was to determine the workplace stressors, stress levels, mental health status and their influencing factors, among primary school teachers in the Klang Valley, Malaysia

2. Methodology

2.1 Study background and design

This cross-sectional study was conducted in 9 primary schools, located in the Klang Valley. The selection criteria for the school selection were: Grade A national primary school which have more than 1000 students. The schools are located in the districts of Petaling Jaya, Kuala Lumpur, Klang, Hulu Langat, and Kuala Langat. Teacher's name lists were obtained from school administrator and they were selected based on voluntary basis. About 272 primary school teachers agreed to participate in the study. However, they have to fulfil the criteria such as having a minimum of one-year teaching experience, and not diagnosed with any chronic medical problem or take any medication and alcohol. Written consents were obtained from the respondents.

2.2 Instrumentation

Questionnaires were distributed to determine respondents' demographic and background status, occupational information, medical history and health complaints. The questions included age, gender, marital status, level of education and the employment year as teacher. Teacher Stress Inventory questionnaire was used for the assessment of individuals' perception on the potential stressors in the school environment (Boyle, Borg, Fazlon, & Baglioni, 1995). This questionnaire developed by Boyle *et al.* (1995) was validated and translated into Malay Language and was used to measure the stress levels and the stressors. This questionnaire consists of 5 sections; A) workload B) student behaviour C) interpersonal factors D) time and resources E) recognition. This questionnaire uses Likert Scale in the evaluation of responses whereby 1 mark were given for "No or less stress", 2 for "Medium stress", 3 for "High stress" and 4 for "Extreme stress". Total scores were categorized into low, medium and high stress.

The General Health Questionnaire (GHQ) used to determine the mental health status was developed by Goldberg and Hillier (1979). The GHQ was developed as a screening tool to detect those likely to have or be at risk of developing psychiatric disorders. It measures the common mental health problems/domains of depression, anxiety, somatic symptoms and social withdrawal. The items include 'have you lost much sleep?', 'have you felt

capable of making decisions about things?’ and ‘have you felt constantly under strain?’. The score was based on Likert Scale with 0 for “Not at all”, 1 for “Sometimes”, 2 for “More than sometimes” and 3 for “Often”. The questionnaire was self-administered, after a short briefing and consent letter was given to each respondent before the data collection.

3. Results

3.1 Demographic information

The main objective of the study was to identify the prevalence of stress and the influencing factors of stress among primary school teachers in Klang Valley, Malaysia. According to the Malaysian Ministry of Education, in 2009, there were approximately 219,766 primary school teachers and 69.1% of them were female (Ministry of Education). The ratio of respondents for this study was consistent with the statistics produced by the ministry. The average age was 34 years as the academic qualification requirements have to be fulfilled before being teachers (Table 1). About 66.5% of the respondents were female, while 81.3% were married and 56.3% had a certificate of education. Their employment years range from 1 to 35 years, with a mean of 10 (S.D= 4.73) years. The average salary was RM2495.59. Respondents spent 7 hours on the average, teaching or being in the school. About 57.4% of the respondents were classroom teachers, followed by 37.5% were subject teachers.

3.2 Stress and Mental Health Status

Table 2 showed the prevalence of stress and mental health status among the respondents. Questionnaire of Teacher Stress Inventory was used to determine the prevalence of stress among the respondents. Result showed that 71.7% of respondents experienced medium stress and 87.9% has high mental health status. There was an association between stress levels and mental health status ($p < 0.05$) (Table 3). Table 4 showed the mean score and standard deviations of the 5 stressors in school environment. The top stressor was “student misbehaviour” with a mean of 2.62. This was followed by “time and resource scarcity” (mean= 2.37), “workload” (mean= 2.32), “interpersonal relationship” (mean= 2.28) and “recognition” (mean= 2.26).

3.3 Stress and Selected Variables

Table 5 shows that there was no significant association between stress and selected factors, such as work experience, job responsibility, marital status and education level ($p > 0.05$). Teachers’ job responsibility was based on their task such as subject teacher, classroom teacher and school administrator. With reference to Table 6, no significant association between stress with gender, job responsibility and school locations were found ($p > 0.05$).

3.4 Factors that Influence Mental Health Status

Table 7 shows the factors that influenced mental health status. The results from covariate analysis showed that there were 2 factors affecting mental health status when combined, namely gender ($p=0.001$) and teachers’ workload ($p=0.002$).

4. Discussion

4.1 Stress and Mental Health Status

The results showed that majority of the respondents experienced medium level of stress (71.7%) with most of them reported to have low complaints on health (87.9%). The study done by Milaat (1997) indicated the prevalence of stress was 38.2%, for school teachers in Jeddah. A study on teachers in Kinta District, Perak also showed that 43.2% reported their job to be very or extremely stressful (Amarnathan, 2000); whilst 62% of school teachers in Muar, Johor experienced medium stress (Shahrina & Jamaludin, 2005). From the result of the study, only 12.1% of the respondents reported to have complaints for the mental health status. The result proved that implication from the stress level will reflect the mental status face by the teachers, which in this study showed that moderate stress level will induce low complaint on mental health status.

This study showed that student misbehaviour was the leading stressor that caused stress to the respondents. It was followed by time and resource scarcity, workload, interpersonal relationship and recognition. Similar results by previous studies (Azizi, Shahrin, & Tee, 2007; Abdul, 2002; Zakiah, 2003) found that student misbehaviour was the main cause of teacher stress. Student misbehaviour among primary school children were increasing from 0.78 % in 2008 to 0.79 % in 2009 (Ministry of Education). Among the main issues related to children misbehaviour were bullying, absenteeism and disrespectfulness. According to Malaysian Education Ministry, student misbehaviour can be divided into 3 categories, namely heavy offense, moderate offense and light offense. Bringing drugs to school and rude against teachers were categorised as heavy offense while inappropriate attire falls under moderate offense. Teaching and Learning International Survey (TALIS) developed by Organization

For Economic Cooperation and Development (OECD) reported on the average, classroom disciplinary climate is viewed rather negatively by teachers in Malaysia and the percentage of lesson time due to disruptive student behaviour or administrative issues is relatively high compared to other countries under studied (Organization for Economic Cooperation and Development). Findings by Armanathan (2000) also revealed that student misbehaviour and recognition were the stressors significantly contributed to the teachers' stress levels.

4.2 Stress and Selected Variables

The results showed that there were no significant associations between the stress level with work experience, job responsibility, marital status and educational level. A study by Gold and Roth (1993) stated that unmarried teachers had a higher stress level than married teachers. Previous studies (Azizi *et al.*, 2007; Zakiah, 2003) showed that stress level did not differ significantly with education level. However, Kyriacou and Sutcliffe (1978) have proven that teachers with degree or higher academic qualifications were less stressed than their colleagues with lower academic qualification. The stress levels between respondents who were subject teachers, classroom teachers and school administrators also showed no significant difference, as well as the work experience. Job responsibility consists of subject teachers, classroom teachers and administrators. Subject teachers teach more than 1 specific subject, in many classes, while for the classroom teachers, even though they have the priority to teach their core subject, they have to handle and manage a class. They also have to handle any complaints from other students and parents on issues related to their class students. Teachers may also ask to substitute for another teacher and they viewed this situation as a stirring issue. As for the administrators, they have to manage the school and keep the school environment in order. Visitors from the district education office as well as instruction or any education development plan from the Ministry of Education are under their responsibilities (Education Development Plan for Malaysia 2001-2010). However, the result from this study did not showed any significant differences between those job responsibilities. Eventually, a study by David (1984), showed that least experienced class teachers and deputies were the most likely to report stress, while the heads of departments and school principals were the least likely. Beside this, the results of this study also showed there was no association between stress level and gender. Therefore, both male and female teachers showed the similar attitudes towards stress caused by the potential stressors in the school environment. Borg and Riding (1991) found that male reported greater stress than female teachers, however, Payne and Funham (1987) found that female teachers reported greater stress than their counterparts.

Viviane, Christine, S. D., Carmen, Elena, and Christine, C. C. (2006) using multiple analyses, after adjusted for all confounding variables, showed a higher risk of lifetime anxiety disorders in male teachers. On the contrary, the study discussed that teachers did not seem to suffer from psychological distress as compared to non-teacher. However, their level of psychological distress grew with age. Compared to non-teachers, the teachers seemed to be more satisfied with their living condition in term of housing, environment or free time. Older teachers tend to complaint on noise and musculoskeletal symptoms while younger teachers were more likely to report on symptoms of common cold, stress and exhaustion (Viviane *et al.*, 2006). According to Fujino *et al.* (2001), workers with longer employment period, had the lowest quantitative workload and the skilled employee could easily finish a task. Doing repetitive, monotonous and under stimulating jobs by themselves were known to induce stress (Zakiah, 2003).

These schools which are located in 3 areas (urban, industry and rural) showed no correlation with the teachers' stress levels. Schools in the urban and industrial areas that were categorized into Grade A have more than 1000 students, whereas for Grade A rural schools, there were only 200 students. The number of teachers also varied within the area, in which there are more than 50 teachers in urban and industrial schools, with less in the rural schools (Ministry of Education). The workload is more with fewer workforces and therefore, work can be stressful. However, in the urban and industrial schools have different problems; with more teachers, they have to cope with more students and heavy demands from the school administrator as well as parents.

4.3 Factors that Influence the Mental Health Status

The factors that influenced the teachers' mental health status were workload. According to Rusli, Edimansyah, and Naing (2006), high job demand, increased environmental exposures and overtime work has increased the stress level. This result was consistent with Shankar and Famuyiwa (1991) stating that high workload increased the stress level. In urbanised and modern societies, high demands by parents and community that are constantly increasing is becoming unrealistic with the resources that are given to teachers (Sveinsdottir *et al.*, 2007). An Icelandic study indicated that sources of burnout and stress in the working environment are related to role conflicts, professional isolation, lack of support, ineffective teaching aids, student disciplinary and behavioural problems, inadequate working conditions and general lack of respect for the teacher's role (Travers & Copper,

1996). According to Dunham (1992), ineffective communication, tense interpersonal relationship between staff, heavy workload and unsuitable management style can be declared as the environmental stressors. Miller, Brown-Anderson, Willie, Peele, and Chen (1991) suggested if teachers were to work with an environment where supports such as good relationship with colleagues, enough resources and facilities were provided; the stress level could be minimized.

Results also showed there was a relationship between gender and mental health status. Female teachers tend to have poorer mental health status and higher stress level compared to male teachers (Yang, Ge, Hu, Chi, & Wang, 2009). The ratio of male: female teachers in Malaysia showed unbalanced number, leading us to conclude female teachers usually hold more responsibility in teaching than male teachers. They have to carry out various working load and moreover, female teachers have to perform domestic duties which may result in poor health status. Differences in psychological characteristic in male and female supported the reason. Females are more emotional and heavily affected by negative emotions, while male generally more independent and have rugged feelings. This will result in females are more susceptible to the impact of environmental stressors.

Findings also showed no relationship between mental health status with other variables such as school location, recognition, student misbehaviour and working experience. This finding was consistent with another study (Azizi *et al.*, 2007) that showed no significant difference with age; however inconsistent with Kyriacou and Sutcliffe (1978) which concluded that age and duration of teaching experience were associated with stress level. Faber (1991) implied that even though teachers may sustain working under high pressure workload, they might leave the profession when due recognition and appreciation were not given or when there is insufficient reward. Previous study (Tan, 1996) showed that the recognition had a significant relationship with stress.

5. Conclusion

The results of this study showed that the prevalence of stress was at medium level (71.7%), while the 87.9% of the respondents had good mental health status. The main cause of stress among primary school teachers were students' misbehaviour. There was no significant association between stress levels with gender, marital status, educational level, work experience, job responsibility and school locations. This study also found that factors that influenced mental health status were gender and teachers' workload. Therefore, this study concluded that in the primary school environment, the main stressor to teachers' stress levels were mainly the students' misbehaviour. Female teachers with heavy workload in school or home were most likely to have poor mental health status.

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Table 1. Respondents Background

Variables		n	(%)
Gender	Male	81	(33.5)
	Female	191	(66.5)
Marital Status	Married	221	(81.3)
	Single	42	(15.4)
	Divorced	9	(3.3)
Education Level	Certificate	153	(56.3)
	Diploma	26	(9.6)
	Bachelor	93	(34.2)
Job Responsibility	Subject teacher	102	(37.5)
	Classroom teacher	156	(57.4)
	Administrator	14	(5.1)
Variable		Mean (S.D)	
Age (year)		34.74 (7.7)	
Total Salary (RM)		2495.59 (594.62)	
Work Experience (year)		10 (4.73)	
Work Duration (hour)		7 (1.45)	

n= 272

Table 2. Prevalence of Stress Levels and Mental Health Status

Main Variable	Variables	Frequency (%)
Stress Levels	Low	56 (20.6)
	Medium	195 (71.7)
	High	21 (7.7)
Mental Health Status	Good	239 (87.9)
	Poor	33 (12.1)

n= 272

Table 3. Association between Stress Levels and mental Health Status

Variable	Health Status		χ^2 value	p value
	Good	Poor		
Stress Level				
Low	52	4	8.059	0.018*
Medium	173	22		
High	14	7		

n= 272

* significant at p< 0.05

Table 4. Stress Scores According to the Stressors from the School Environment

Stressors	Stress Scores
	Mean ($\pm$ S.D)
Student misbehaviour	2.62 (0.78)
Time and source scarcity	2.37 (0.84)
Workload	2.32 (0.98)
Interpersonal relationship	2.28 (0.84)
Recognition	2.26 (0.83)

n= 272

Table 5. Association between Stress Levels with Work Experience, Job responsibility, Marital Status, and Education Level

Variable	Mean Square	df	F	p value
Work Experience	0.291	2	1.095	0.352
Job responsibility	0.780	2	2.936	0.055
Marital status	0.054	2	0.205	0.815
Educational level	0.120	2	0.453	0.636

n= 272

Table 6. Association between Stress Levels with Gender, School Area and Job Responsibility

Variable	Stress level			χ^2 value	p value
	Low	Medium	High		
Gender					
Male	22	63	6	1.195	0.550
Female	34	132	15		
School Area					
Urban	26	88	7	3.417	0.491
Rural	17	44	6		
Industry	13	63	8		
Job responsibility					
Subject teacher	27	71	4	6.441	0.169
Classroom teacher	26	114	16		
Administrator	3	10	1		

n= 272

Table 7. Variables Influencing Mental Health Status

Variable	Mean Square	df	F	p
School location	36.938	2	0.623	0.537
Gender	630.776	1	10.635	0.001***
Smoking status	84.508	1	1.425	0.234
Educational level	44.564	2	0.751	0.473
Marital status	50.094	2	0.845	0.431
Student misbehaviour	21.575	1	0.364	0.547
Time and resource scarcity	61.936	1	1.044	0.308
Interpersonal relationship	7.965	1	0.134	0.714
Workload	587.928	1	9.913	0.002**
Recognition	3.371	1	0.057	0.812
Age	221.216	1	3.730	0.055
Work experience	133.626	1	2.253	0.135
Working duration	72.764	1	1.227	0.269
Body mass index	191.260	1	3.225	0.074

R²= 0.240

** Significant at p< 0.01

*** Significant at p< 0.001

n=272