JOB STRESS MANIFESTATIONS AND ITS ASSOCIATED FACTORS AMONG SECONDARY SCHOOL TEACHERS IN KUCHING DIVISION

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The teacher remains one of the most stressful occupations worldwide. Stressful working conditions can impact employee well-being indirectly by contributing to negative health behaviours or by limiting an individual's ability to make positive changes to lifestyle behaviours, such as smoking and sedentary behaviour. However, there is not much study on job stress manifestation done in Sarawak. The purpose of this study was to determine the association between the socio-demographic, anthropometric measurement, behavioural and clinical blood profile with job stress manifestation score among secondary school teachers in Kuching Division. This was a cross-sectional study with the simple random sampling approach on 201 secondary teachers in four schools in Kuching and Bau district. The results showed there was a significant association between stress manifestation among secondary school teachers with eating attitude and duration of teaching. This study also showed teachers engaged in moderate (63.5%) to vigorous (29.7%) physical activities but still their body mass index falls in the category of overweight (33.3%) and Obese Type I (33.3%). Stress management should be recommended to teachers so they can handle stress better. Teachers should also have regular health monitoring especially body mass index and engaged in healthy eating to prevent obesity. Further study on the prevalence of job stress and its manifestation is also needed and should expand to the entire Sarawak.
Abstrak

Tajuk: Manifestasi stress kerja dan faktor yang berkaitan di kalangan guru sekolah menengah di bahagian Kuching.

Guru merupakan salah satu pekerjaan yang paling stress di dunia. Keadaan tekanan kerja boleh memberi kesan kepada kesejahteraan pekerja dan secara tidak langsung akan menyumbang kepada tingkah laku kesehatan yang negatif atau mengehadkan keupayaan individu untuk membuat perubahan positif kepada tingkah laku gaya hidup, seperti merokok dan tingkah laku yang tidak aktif. Walau bagaimanapun tidak ada kajian yang lebih terperinci mengenai stress atau tekanan di tempat kerja dan manifestasinya dilakukan di Sarawak. Tujuan kajian ini adalah untuk menentukan hubungan antara sosio-demografi, pengukuran antropometri, perlakuan dan klinikal profil darah dengan skor tekanan kerja dan manifestasinya di kalangan guru-guru sekolah menengah di Bahagian Kuching. Ini adalah satu kajian keratan rentas dengan pendekatan persampelan rawak mudah dilakukan pada 201 orang guru sekolah menengah di empat buah sekolah di Kuching dan daerah Bau. Hasil kajian menunjukkan hubungan yang signifikan antara manifestasi tekanan di kalangan guru-guru sekolah menengah dengan sikap makan dan tempoh pengajaran. Kajian ini juga menunjukkan guru-guru yang terlibat dalam aktiviti fizikal sederhana (63.5%) kepada aktiviti fizikal paling tangkas (29.7%) walaupun indeks jisim badan mereka tergolong dalam kategori berat badan berlebihan (33.3%) dan Obes I (33.3%). Pengurusan tekanan perlu dicadangkan kepada guru-guru supaya mereka dapat menangani tekanan dengan lebih baik. Guru juga harus mempunyai pemantauan kesehatan yang lebih kerap terutama indeks jisim badan dan terlibat dalam pemakanan sihat untuk mengelakkan obesiti. Kajian lanjut mengenai prevalens tekanan kerja dan manifestasi juga diperlukan dan harus berkembang ke seluruh Sarawak.
CHAPTER 1: INTRODUCTION AND LITERATURE REVIEW

1.1 INTRODUCTION

1.1.1 Overview

It is virtually impossible for a human being in this modern and sophisticated era to have spent a day of life without encountering or experiencing multi-dimensional and diverse connotation of stress. The concept of stress has been around for centuries and probably took place since the descent of Adam and Eve from heaven onto earth. Only recently has the word stress been systematically conceptualized and become a subject of research. Stress is a term used to define the body's physiological and or psychological reaction to circumstances that requires behavioural adjustment (Nakao, 2010).

Defining stress is still an ultimate challenge and requires vast experience and knowledge due to its complexity. Not only defining stress is an encumbrance task, the stressor or reason one is under stress or the causative mediator of stress is also demanding.

The most frequent stressor identified in the accelerated phase of industrialization and urbanization of the world currently is work related problems, health related problems and subsequent financial problems. This is because workforces represent half of the global population and they contribute greatly to the economic and social value of contemporary society. In catching up with the demand of the job requirement in this competitive era, workers are exposed to unavoidable stress. A substantial part of the general morbidity of the working population relates to (WHO, 2006).
There are various jobs which are prone to stress and its consequences. Teachers are known to be one of the occupations which are exposed to job stress. According to a survey done by the University of Manchester Institute of Science and Technology has done in 2006, teachers are included in one of the occupations with high stress levels. In the survey, from a stress rating scale of 0 to 10 where 0 is no stress with 10 as most stressful; teachers’ rate their stress as 6.2 (Arandelović & Ilić, 2006).

Numerous models are available which explain stress, mainly due to its intricacy. For the purpose of this study, stress are being explained based on these models which are the Stimulus-based model of stress which views stress as a condition of the environment that is external to the individual and influences him or her in a disruptive way (Bemansour, 1998; Cooper et al., 2001; James, 1999; Rout and Rout, 2002).

Response-based model of stress in which describes stress in terms of the individual’s response to a threatening or disturbing stimulus (Bemansour, 1998; Rout and Rout, 2002). This model focuses on physiological, psychological and behavioural responses which may appear as consequences of stress (Pelletier and Lutz, 1999; Wilson and Hall, 2002).

Interactional and transactional models of stress: a psychologically based approach which views stress as an individual phenomenon which is both interactive and situational (Bermansour, 1998; Rout and Rout, 2002; Wilson and Hall, 2002). Further explanation regarding these models can be found in the literature review section.

Other models which discussed about stress and its effect on health can be witnessed in The Demand/Control support models are known as Karasek’s Model in which was developed for
work environments where “stressors” are chronic, not initially life threatening but could bring fatal consequences if left unattended, and are the product of sophisticated human organizational decision making. Stressful job strain effect as defined by Karasek's demand-control model of occupation as 'work in a job with high psychological demands and low control' has some impact on health and is mostly linked with enhanced cardiovascular risk (Karasek and Theorell, 1990). Another model which is effort-reward imbalance (ERI) model.

Stress in the workplace in teachers has a toll on their wellbeing by directly contributing to negative health behaviours or by indirectly limiting an individual's ability to make positive changes to lifestyle behaviours such as sedentary behaviour and smoking. Job stress has been linked to a range of adverse physiological and psychological health outcomes including cardiovascular disease, insomnia, depression and anxiety. In more than a dozen epidemiological studies over the last decade, occupational stress researchers have implicated job strain as a risk factor for heart disease (Schnall et al., 1994).

Each human has a unique and individual approach in relieving or alleviating stress. The same applies for teachers. Physical activity is regarded as an important component of a healthy lifestyle and one way of relieving stress. Psychosocial stressors have been suggested to play a mediating part to low leisure time physical activity (Magnus and Rosvall, 2005). A third of the world's adults are physically inactive and the couch potato lifestyle kills about five million people every year (Lee, 2012). Some teachers de-stress themselves by engaging in healthy exercises or yoga and other complaints being lethargy or lack of motivation to even do anything and spend most of their time sleeping. Comparing physical activity levels with population statistics on diseases like diabetes, heart problems and cancer, lack of exercise
claimed more than 5.3 million of the 57 million deaths worldwide in 2008. Inactivity was a risk factor compared to smoking or obesity (Lee, 2012).

The relation between stress and eating behaviour has been widely studied across the world. Stress can influence eating patterns in humans, and teachers who are known to be one of the most stressful occupations are no exception. Stress appears to alter the overall food intake in two ways, resulting in either under-eating or over-eating. This fact may be greater influenced by the stressor severity. Chronic life stress seems to be associated with a greater preference for energy and nutrient-dense foods, namely those that are high in sugar and fat. Evidence from longitudinal studies suggests that chronic life stress may be causally linked to weight gain, with a greater effect seen in men. Stress-induced eating may be one factor contributing to the development of obesity (Susan et al., 2007).

The proportion of overweight and obese people has grown rapidly and obesity has now been widely recognized as an important public health problem. At the same time stress has increased in working life especially in demanding job scopes like teachers. The above mentioned problems could be associated if work stress promotes unhealthy eating habit and sedentary lifestyle and thereby contributes to an increase in body mass index or weight gain. Association between work stress and body mass index is being widely studied and reviewed dependently due to the fact that obesity plays a major role in contributing to the global burden of disease such as type 2 diabetes mellitus, cardiovascular disease, hypertension and certain cancers (WHO, 2000). It also drastically reduces quality of life of teachers and is costly in terms of absence from work and use of health resources besides posing numerous psychosocial problems such as depression, lowered self-esteem, job discrimination and other form of social stigmatization.
Stress can affect workers of any age and in any occupation but numerous reports and surveys are unanimous in identifying jobs which causes stress the most. Detailed examination of the linkages is personal factors, job stress, job satisfaction, physical activity, changes in eating behaviour and most of all cardiovascular risk. There are limited articles that look into the aforementioned among teachers, thus this study would explore from the perspective of the said occupation; looking into the circumstances of whether there is any link between stress manifestation in teachers with cardiovascular risk factors such as blood pressure, body mass index, total blood cholesterol, fasting blood glucose and waist and hip ratio, eating attitude (whether they indulge or avoid food) and lastly their involvement in physical activity when stressful. In other words manifestation of job stress among teachers is still very difficult to understand and a lot more perspective and issues of stress and its manifestation need to be explored.

Job stress has been linked to a range of adverse physical and mental health outcomes, such as cardiovascular disease, insomnia, depression, and anxiety. The purpose of this study is to see the occurrence of manifestation of stress with cardiovascular risk among secondary school teachers in the Kuching Division and to determine its relationship with eating behaviour or attitude and physical activity. The factors contributing to job stress in secondary teachers would not be emphasized in this study as it has been extensively deliberated in most journals.
1.1.2 Significance of the Study

The proportion of overweight and obese people has grown rapidly and obesity has now been widely recognized as an important public health problem. At the same time stress has increased and keeps on escalating in the ever-demanding work life. Both of these problems could be linked if work stress promotes unhealthy eating habits and sedentary behaviour or physical inactivity and thereby would indirectly contribute to weight gain.

Teachers seem to be one of the most stressful occupations globally. Teacher empowerment in many schools has expanded their role and involvement as part of a team in planning and decision making regarding school goals and policies (Blase and Blasé, 1994).

Chua (2001) reported that one of the indications of lack of commitment among teachers was due to occupational stress (burnout) where 43% of technical school teachers surveyed in the study experienced moderate to high level of burnout in the teaching job. Additionally another survey by Malaysia's National Union of the Teaching Profession (NUTP) revealed that 69% of teachers surveyed are stressed out, mainly due to increasing pressure and higher expectations from more demanding parents and students, as well as heavier workloads and fewer chances of career advancement.

Taking into consideration the above matter, UNESCO is launching its teacher strategy for 2012-2015 to introduce its priorities, action lines and role in relation to teachers. The main emphasis of the strategy is on supporting teachers for quality learning. The aim is to accommodate teaching forces that work in an environment which rewards professional improvement and that is committed to improve the opportunities for student learning with well qualified and best preparation of teaching practices.
In line with the guidelines of UNESCO, Malaysia has set a strategy to reach its goal through the blueprint. In 2006, the National Education Blueprint 2006–2010 was released. The Blueprint sets a number of goals, such as establishing a National Preschool Curriculum, setting up 100 new classes for students with special needs, increasing the percentage of single-session schools to 90% for primary schools and 70% of secondary schools and decreasing class sizes from 31 to 30 students in primary schools and from 32 to 30 in secondary schools by the year 2010. The Blueprint also provided a number of statistics concerning weaknesses in education. According to the Blueprint, 10% of primary schools and 1.4% of secondary schools do not have a 24-hour electricity supply, 20% and 3.4% respectively do not have a public water supply, and 78% and 42% are over 30 years old and require refurbishing. It was also stated that 4.4% of primary students and 0.8% of secondary students had not mastered the 3Rs (reading, writing and arithmetic). The drop-out rate for secondary schools was given as 9.3% in urban areas and 16.7% in rural areas.

National Education Philosophy also gives a very big impact on the development of education that involves the Ministry of Education, formation of various new concepts in education, curriculum, co-curriculum, schools, teachers and students. In addition, the National Education Philosophy actually gives the educator a big push to betterment and great improvement in giving the aim and direct guidelines in their noble route imparting knowledge to students (Mok, 2006).

With the implementation of the National Education Policy and furthermore the release of the National Education Blueprint, teachers in Malaysia and particularly in Kuching are expected to be working geared towards achieving the preamble goals. Definitely this would be a challenge for the teachers and this matter could be perceived as something positive or
contradictory of positive. Those who perceived the task as negative could deem the task as a stressor and could be seen as physiological manifestation of stress. Romano & Wahlstrom (2000) found negative correlations between the level of teachers’ stress and their well-being; that is, the greater the stress the more negative the impact on the teacher’s personal well-being.

Thus in ensuring that the task is manageable, the teachers need to be equipped with the right knowledge, attitude and most importantly adequate and current training. In addition, the teachers need to be prepared mentally in facing the demanding students; and instilled in the teachers with the solitary aim which is to be able to conquer the ability of conveying quality and meaningful teaching to their students. Knowledge itself is insufficient. The art and technique of deliverance of information are vital for more rapid absorbance or better understanding of a particular subject among the students. The never-ending demand for state of the art knowledge or quality skills of the teachers is one of the reasons the teachers might be exposed to a lot of occupational stress.

Another issue for the teachers in Malaysia and particularly in East Malaysia would be facing is the teacher-pupil ratio which might leave a huge impact on the teacher as an individual and could be a contributory factor to the occupational stress. As one of the solution to this matter, the responsible authority would fill in this gap by directing teachers from West Malaysia to come and serve in Sarawak as the numbers of teacher in Sarawak are less. This would lead to another stressor such as difference of cultural background and having to serve in an unfamiliar environment and remote area. Differences in other cultures may result in another cause of stress (Al-Mohannadi & Capel, 2007).
The stressors among the teachers could be of many factors as quoted from the book by is not attributable to a single source. It can be and often is operationalized in various empirical and non-empirical ways to account for a numerous of “factors” or “problems” at any given time. However for the purpose of this study, factors or causes of stress would not be explored. This study would be discussing about the manifestation of stress towards the teachers.

As a conclusion it is no doubt that stress manifestation and its associated factors have an effect to the physical and psychological health of the teachers. Eating behaviour with physical activity has an additive role in contributing to the cardiovascular risk among teachers who have job stress. However there are no extensive studies done among teachers, especially in this part of the region example East Malaysia particularly, Kuching Sarawak. More studies should be done to tackle the above-mentioned issue. When an issue has been dissected thoroughly, then remedies could be instigated promptly within teachers who has a vital role in the development of building an intellectual nation. Teachers are the front-liners and role models for students and reliability of the future generation are partly their obligation. Health issues such as cardiovascular risk and job stress with its manifestation would also need to be dealt in a rational manner to ensure a healthier individual and community for a quality and sustainable way of life. A clear mind and soul will depict an optimum physical well-being
1.2 LITERATURE REVIEW

1.2.1 Introduction

This chapter will review several important literatures that will enable a better understanding of the purpose of this research. Definition, concept and theories in the context stress manifestation and its associated factors. The relationship between the above variables with a behavioural aspect which is eating behaviour and physical activity will be looked into as well.

1.2.2 Definition of stress

Defining stress is as complex as understanding it. Nevertheless, it is amazing that we experience stress in every second of the day in our walk of lives. Each individual has different views regarding stress. The Even scientific dictionary has an imprecise definition of stress. Research reveals the complexity of the stress phenomenon. In researchers' endeavour to understand it, they have developed different models of stress. Three main models of stress have been identified.

a) Stimulus-based model of stress: The stimulus-based model of stress emanates from physics, in particular the field of engineering (Rout and Rout, 2002). It views stress as a condition of the environment that is external to the individual and influences him or her in a disruptive way (Bemansour, 1998; Cooper et al., 2001; James, 1999; Rout and Rout, 2002). The perceptions of the individual are not taken into account in this approach. According to this model the load or demand placed upon a person (known as a stressor) exceeds the 'elastic limit' of the person's ability to cope or adapt to it (Wilson and Hall, 2002; Rout and Rout, 2002).
This approach focuses on the environment. We see this in people's reference to the source or the cause of their discomfort as being an event or set of circumstances such as having 'a high stress job'. Researchers who follow this approach to study the impact of a wide range of stresses including catastrophic events such as earthquakes, loss of a loved one or a job and more chronic circumstances such as living in crowded or noisy conditions (Hanif et al., 2011).

b) Response-based model of stress: The response-based model emerges from the field of medicine and is explained from a physiological perspective (Cooper, et al., 2001; Rout and Rout, 2002). It describes stress in terms of the individual's response to a threatening or disturbing stimulus (Bemansour, 1998; Rout and Rout, 2002). In this model the focus is on physiological, psychological and behavioural responses which may appear as consequences of stress (Pelletier and Lutz, 1999; Wilson and Hall, 2002). The physiological and psychological symptoms are not unique to stress and can therefore be attributed to other medical conditions (Wilson and Hall, 2002) the teachers in this model is described as a passive recipient who is pressurized by resultant stress (Wilson and Hall, 2002). The psychological component involves behaviours through patterns and emotions as when you 'feel nervous'. The physiological component involves heightened bodily arousal such as your heart pounds, your mouth goes dry, your stomach feels tight and you perspire.

c) Interactional and transactional models of stress: The interaction model of stress is a psychologically based approach which views stress as an individual phenomenon which is both interactive and situational (Bemansour, 1998; Rout & Rout, 2002; Wilson & Hall, 2002). It means that different individuals, when confronted with the same situation, respond differently. The transnational approach views stress as embedded neither in the individual nor
in the environment, but in the interrelationship between the stressor, the individual's perception of the situation and his or her subjective responses (Lazarus, 1999; Cooper et al., 2001). In the definition the role played by self-appraisal in determining an individual's stress level is recognized (Lazarus, 1999). In stressful situation the individual appraises the situation (primary appraisal) (Rout & Rout, 2002). Stress occurs when the individual perceives the situation as threatening to his or her important goals and feels unable to meet these demands (Rout & Rout, 2002). Secondary appraisals are made when the situation is judged as stressful (Rout & Rout, 2002). Therefore, the experience of stress arises from educators' perceptions of demands, the inability to meet those demands emanating from a lack of effective coping skills and the ultimate threat to the teachers' physical or mental well-being (Abel and Sewell, 1999). In this model teachers are actors and are not passive recipients of the external pressures (Wilson and Hall, 2002).

The transactional model corresponds to that of Kyriacou & Sutcliffe's (1978) view that the experience stress is the result of teacher's perception that demands are being made on him or her, that he or she has difficulty or is unable to meet these demands and that failing to do so threatens his or her mental and or physical well-being (Bemansour, 1998). This model acknowledges, on the one hand, that teaching and some schools in particular exert certain pressures on the teachers and those teachers, on the other hand, may react in different ways to bring a variety of adaptive resources to cope with the stresses (Wilson and Hall, 2002). From this model it can be seen that stress is a complex phenomenon. It is a process that involves a number of interacting, transactional elements encompassing stressors (environmental demands), individual perceptions, the coping resources available to the individual and the manifestations of the demands (Collins and Parry-Jones, 2000).