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The Role of Demographic Variables as the Moderator between Organizational Variables and Job Stress Among Teachers in Sabah

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ABSTRACT

A nationwide investigation into stress among teachers in the United Kingdom, found teachers to be reporting stress-related problems which were far higher than those of the population norms and other comparable occupational groups. Job stress can be influenced by personal factors (Matteson & Ivancevich, 1999). The present study examined the role of demographic variables as the moderator between organizational variables and job stress. A sample size of 177 teachers participated in this study revealed that teachers in Tawau and Lahad Datu experienced low stress levels. This study found that demographic variables do not serve as the moderator between organizational variables and job stress.

Keywords: Job stress, demographic factors, organizational variables

Introduction

Teachers have a wide range of interpretations on the meaning of the term stress, and on when they accept or deny the existence of stress in themselves or in their colleagues. Some teachers define stress as anxiety, fear, inability to cope, frustration and unhappiness, while others associate

Ramanathan (1987) as cited in Roselina et al. (2003) reported that teaching is a profession that produces its own assortment of tensions. Teaching carries with it a set of tensions and responsibilities unique to the profession. Due to the situation above, this study is to gauge the extent of the role of demographic variables as the moderator between organizational variables and job stress.

The many challenges in the work environment characterized by heightened competition, lack of time, uncontrollable factors, lack of space, continuous technological development, conflicting demands from organizational stakeholders (Hall & Savery, 1986) as cited in Aizzat et al. (2003), increased use of participatory management and computerization (Murray & Forbes, 1986) as cited in Aizzat (2003), greater uncertainty and others have resulted in higher job stress. Marmaya et al. (2007) found that there is a significant relationship between blocked career and time factors and job stress.

Raising standards of literacy has become a key issue for education policy in many countries. A critical factor in any attempt to improve education is the quality and consistency of teaching, thus there has been an increase in interest in teachers themselves. This has included not only what teachers’ do, but also what they know and believe and how teacher’s knowledge and beliefs relate to classroom practice. The stressfulness of teaching as an occupation is widely recognized and several studies had been initiated in many countries including United Kingdom, United States, Australia, and Malaysia to address its causes. A survey conducted by Chicago Teachers’ Union (Landsmann, 1979) disclosed that 56.6 % of the participating teachers had suffered physical or mental illness symptoms related to their teaching occupation.

The purpose of this study is to determine whether demographic variables (age, gender and marital status) moderate the relationship between blocked career and time factors towards job stress among teachers in Tawau and Lahad Datu.

Foot and Venne (1990) discovered a positive relationship between barriers to career advancement and job stress. When employees perceived a lack of career opportunities, they will feel uncertain about their future in the organization, which in turn, are likely to induce stress. For many workers, career progression is of overriding importance. By promotion, people do not only earn more money but gain increased status and experience new challenges.
The Role of Demographic Variables as the Moderator

Literature Review

According to Cooper (1998), time has been proposed as an important variable in occupational stress processes (e.g. McGrath and Beehr, 1990), but the study of it remains sketchy. It stands to reason that the longer one is exposed to a potentially noxious event, the stronger the consequences will be. There have been discussions, however about acute, time-limited stressors versus chronic, long-term stressors. In addition to the duration of the uncertainty specifically, it would also be relevant to see whether the same stressor over longer duration has greater effects on strains. Both acute, short-term occupational stressor (e.g. nurses dealing with patients for the first time; Eden, 1982) and chronic, long term stressors (e.g. role ambiguity and role conflict) have been found individually to predict strains, although the bulk of the research has focused on chronic stressors.

A study done by Humphrey (1998) found that twenty-three percent of the teachers identified various factors relating to time as a serious cause of stress. Of this number, 53 percent said they were put under stress because of insufficient time for planning. As might be expected, this condition was much more prevalent at the elementary school level where in some instances teachers are with the students all day long with little or no time at all for any kind of planning. This is of course due to the differences in organizational structure of the elementary school as compared to the secondary school. Twenty nine percent of the teachers who identified ‘time factor’ as stress inducing simply said that there was just not enough time in the school day to do the kind of job expected from them. Class interruptions for various reasons were considered by 18 percent of the respondents to be an unnecessary infringement on the time of teachers. Those in this category also complained that it took a great deal of time to get lessons back on an even keel because of such interruptions. Unreasonable deadlines also were a cause of stress and that they were victims of the “get it in tomorrow” syndrome (Humphrey, 1998). The issue of aging and work capacity is increasing in importance because of these demographic trends. The work capacity of older people is often incompatible with work demands and this situation can lead to stress, health problems and high mortality. Age-related changes occur in human physiological and psychological functions, in attitudes and ways of learning and in the acquisition of new skills. Such changes may have negative impact on stress and well-being, depending on the way changes
and learning possibilities are arranged (e.g. Czaja, 1988, Huuhtanen & Leino, 1992) as cited in Keita & Hurrell (1999).

In this study, age plays an important role in determining whether it has a moderating effect on the teachers experiencing a higher or a lower stress. From general observation, the younger the teacher, the more likely they will experience stress at work. This could be due to the lack of life experiences to deal with their students or deadlines. As a result, the turnover rate for younger teachers is relatively high, this observation is supported by the results carried by Kyriacou & Sutcliffe (1979) which concluded that stress reduces as age increased.

Previous study done by Trocky and Orioli (1999) indicates that women do have more symptoms of distress than men, these symptoms arise from both work and personal environments, and that there are certain coping strategies and cognitive outlook that appear to act as buffering agents between stressors and symptoms. Gender role differentiation and the resultant work-family conflict would subsequently affect an individual’s work outcomes and well-being. Research on gender and the stressors associated with work and family roles has been the theme of numerous articles and books. In spite of this attention, several very basic questions remain unanswered or in adequately addressed. One of the unanswered questions is whether women suffer from greater “occupational stress” than men. In a recent meta-analysis, Martocchio and O’Leary (1989) could find only 15 studies of gender differences in occupational stress that offered sufficiently adequate methodologies for their findings to be trusted. About half of these studies are part of the Maslach Burnout Inventory (Maslach & Jackson, 1981) and the rest used a variety of measures, including blood pressure, psychosomatic complaints, the Center of Epidemiologic studies. However, they noted that the lack of a consistent pattern is not irrefutable evidence that gender differences do not exist, only evidence that there need to be a more systematic research on the topic conducted with comparable measures and comparable populations.

Research on stress in work and family roles has begun to focus on the meaning of roles to individual. Measures of role meaning have taken many forms, however making it difficult to compare findings across studies. Working wives are more likely to suffer from work-family conflicts due to their heavy job and domestic obligations (Gutek et al., 1991) as cited in Aizzat et al. (2003). Women have retained primary responsibility for domestic chores, particularly child-care, even though they hold full-time jobs (Haw, 1982, Nielby & Bielby, 1989) as cited in Aizzat et al. (2003).
**Hypothesis 1:**
Age will moderate the relationship between organizational variables (blocked career and time factors) and job stress.

**Hypothesis 2:**
Gender will moderate the relationship between organizational variables (blocked career and time factors) and job stress.

**Hypothesis 3:**
Marital status will moderate the relationship between organizational variables (blocked career and time factors) and job stress.

**What is Stress?**

Teachers have a wide range of interpretations on the meaning of the term stress and when they accept or deny the existence of stress in themselves or in their colleagues. Some teachers define stress as anxiety, fear, inability to cope, frustration and unhappiness, while others associate stress with personal weakness and professional incompetence (Dunham, 1984). Job stress has been defined as the nonspecific response of the body to any demands made upon it (Selye, 1976). It is considered to be an internal state or reaction to anything individuals consciously or unconsciously perceive as a threat, either real or imagined (Clark & Watson, 1991).

Work stress is also known as occupational stress, job stress or stress in organization. It is a condition in which the job related factors interact with the worker to disrupt his or her psychological or physiological conditions that cause him or her to deviate from normal functioning (Beehr & Newman, 1978). Previous findings in UK indicated that 19.2 million working days in UK were lost during 1955 due to work-related illness such as stress, anxiety and depression. Job stress has been defined as the nonspecific response of the body to any demands made upon it (Selye, 1976). It is considered to be an internal state or reaction to anything individuals consciously or unconsciously perceive as a threat, either real or imagined (Clark & Watson, 1991). Robbins (2001) defined stress as a dynamic condition in which the individual is confronted with an opportunity, constraint, or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important. Stress can be caused by environmental, organizational and individual variables (Matteson & Ivancevich, 1999, Cook & Hunsaker, 2001). Stress in the job could be
described simply as various degrees of incompatibility between the individual and his or her work environment. More specifically, job stress is concerned with work-related conditions that contribute substantially to the onset of the stress response. There are many stress-related conditions connected with one’s job, and it is well known that some kinds of employment are highly stressful, while others are considered relatively stress free. Various studies comparing such groups have indicated that those in highly stressful occupations tend to have a higher incidence of serious diseases, possibly resulting from stressful conditions on the job.

A nationwide investigation into stress among teachers in the UK found teachers to be reporting stress-related problems which were far higher than those of the population norms and other comparable occupational groups. Kyriacou and Sutcliffe (1978) as cited in Janice (1996), in a study of 700 comprehensive school teachers in England found that 25 per cent of the sample recorded their job to be “very stressful” and “extremely stressful”. Spooner (1985) cited in Janice (1996) found that 19 per cent of his sample of 294 teachers reported their work to cause “much stress” or to be “extremely stressful”. The extent of the problem of teacher stress is further emphasized by Hodges’ findings that the number of male teachers dying while approaching the end of a career in teaching had doubled in the previous ten years and the number qualifying for a breakdown pension had more than trebled. In Malaysia, there have been numerous reports regarding stress experienced by teachers like Roselina (2003), Siti (1982), Kassim (1990), Yahya (1998) and Najihah et al. (2007).

Teachers, as the backbone of formal education, are facing so much stress due to the nature of their work. The implications of such studies throw concern on staff reactions to work pressure and the effect of stress on teachers’ health and well-being. This study will focus on primary school teachers in Sabah. Primary Education in Malaysia consists of 6 years of education – Standard 1 through 6. Students enter primary schools at the age of 7 and leave at the age of 12. Students are promoted to the next Standard, regardless of their academic performance. Until 2000, the Penilaian Tengah Sekolah (PTS) or Middle School Evaluation test was given to students in Standard 3 who passed a qualification test. Excellence in this test allow students to skip Standard 4. However, the test was removed from 2001 onwards due to concerns that parents and teachers were unduly pressuring students. Some have alleged that the demographics of those who scored well on the PTS are ethnically skewed. At the end of primary education, students in national schools are required
to undergo a national standardised test known as the *Ujian Penilaian Sekolah Rendah* (UPSR) or Primary School Evaluation Test. The subjects tested are Malay comprehension, written Malay, English, Science and Mathematics. In 2002, the government announced that from 2003 onwards, the teaching of Science and Mathematics was to be conducted in English, in order to ensure that Malaysia would not be left behind in a world that is rapidly becoming globalised.

**Research Methodology**

The respondents of this study were selected by using the technique of convenience sampling among the teachers. This study has targeted at least 150 respondents in order to increase the power of the test of the hypotheses testing and other statistical procedures.

The principle constructs were developed based on existing measures where possible, or they were adapted from similar scales. Although most items were based on previous empirical studies, the actual scales were developed to capture the context of this study. Measure validation was initially examined for each construct. Table 1 shows the summary of questionnaire and its sources.

The summary of the questionnaire design and its sources are presented in Table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of questions</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job stress</td>
<td>1-22</td>
<td>Maslach, 1986</td>
</tr>
</tbody>
</table>

A seven-point likert scale is used to determine and measure job stress felt by teachers to the given questions and statements listed in the questionnaires. The range of Likert Scale is on a 7-point measurement with the following (for section B and C).

The summary of the statistical tools for hypotheses testing are presented in Table 2.
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Research Results

In this study, 250 questionnaires were distributed equally to teachers in Tawau and Lahad Datu. A total of 186 were returned but only 177 were usable and therefore the response rate was 70.8 % (177/250). The majority of respondents were from Lahad Datu which comprise 112 (63.3 %) and the number of respondents from Tawau were 65 (36.7 %). In terms of gender, 104 (58.8 %) were males and 73 (41.2 %) were females. Most of the respondents were married which comprised 111 (62.7 %) while 66 (37.3 %) were single. In this study, ethnicity is divided into two groups because most of the respondents were Malay (Semenanjung) and local Sabahans. One hundred and eighty (66.7 %) were locals from Sabah and 59 (33.3 %) were Malays from Peninsular Malaysia. A total of 102 (57.6 %) have diplomas while 46 (26 %) have Certificates in Teaching. Only 15 (8.5 %) were bachelor degree holders followed by STPM and SPM of only 10 (5.6 %) and 4 (2.3 %) respectively.

In order to assess the consistency and stability of the measurement scales, the reliability test using Cronbach Coefficient Alpha was undertaken. The results of the reliability test can be seen as in Table 3.

The Cronbach alpha reliability coefficients for all variables were obtained to test the accuracy of measurement in this study. The utilization of Cronbach’s Alpha to determine the reliability of the results, which is

<table>
<thead>
<tr>
<th>No</th>
<th>Item analysis</th>
<th>Statistical tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To investigate the reliability.</td>
<td>Reliability analysis (Chronbach’s Alpha)</td>
</tr>
<tr>
<td>2</td>
<td>To investigate the moderating effect of age, gender and marital status between blocked career and time factors towards job stress</td>
<td>Hierarchical regression</td>
</tr>
</tbody>
</table>

Table 3: Hypotheses Testing and the Statistical Tools

<table>
<thead>
<tr>
<th>No</th>
<th>Item analysis</th>
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</tr>
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<td>To investigate the moderating effect of age, gender and marital status between blocked career and time factors towards job stress</td>
<td>Hierarchical regression</td>
</tr>
</tbody>
</table>

Table 2: Hypotheses Testing and the Statistical Tools

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s Alpha Coefficient</th>
<th>Number of items</th>
<th>Number of Items deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job stress</td>
<td>0.858</td>
<td>13</td>
<td>7</td>
</tr>
</tbody>
</table>
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the extent to which a variable or set of variables is consistent in what it is intended to measure (Gefen et al., 2000). Sekaran (2003) stated that the closer the reliability coefficient value to 1.0, the better. Reliability that is less than 0.60 are considered to be poor, those in the 0.70 range is acceptable, and those over 0.80 are good (Sekaran, 2003 & Hair et al., 1998). As presented in Table 3, the Cronbach Alpha coefficient for job stress is 0.858 after deleting 7 items. Therefore, in general the reliability of measurement for job stress in this study is considered good.

Table 4: Descriptive Statistics of Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job stress (mean)</td>
<td>.00</td>
<td>4.20</td>
<td>1.4960</td>
</tr>
</tbody>
</table>

The minimum of 0 indicated never and the maximum of 6 indicates everyday. The mean on job stress is low (1.49 on 7 point scale). It indicated that the stress level among teachers in Tawau and Lahad Datu was low.

A lot of previous studies on job stress among teachers found that teachers experienced job stress, but this study found that teachers’ stress level in Tawau and Lahad Datu was low. This may be due to the situation where, the study was conducted only among primary teachers and the schools have low student enrolment and that the schools have generally good working conditions with good administrators and well-behaved students.

To test the moderating effect the previous results of the relationship between organizational variables and job stress by Marmaya et al. (2007) were used. From the data, then hierarchical regression used to test whether demographic variables moderate the relationship. The results were shown in Table 5, 6 and 7.

Table 5: Hypotheses Testing for Moderator (Age)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Test</th>
<th>Sig.</th>
<th>R²</th>
<th>Accepted or rejected (sig. level = 0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a: Blocked Career*Job Stress</td>
<td>Hierarchical Regression</td>
<td>0.651</td>
<td>0.459</td>
<td>Rejected</td>
</tr>
<tr>
<td>H1b: Time Factors*Job Stress</td>
<td>Hierarchical Regression</td>
<td>0.379</td>
<td>0.206</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
As shown in Tables 5, 6 and 7, it can be seen that age, gender and marital status do not moderate the relationship between blocked career and time factors towards job stress. Therefore, the hypotheses were rejected.

Conclusion

Both of the organizational variables have been found to have a positive relationship with job stress among primary teachers in Tawau and Lahad Datu (Marmaya et al., 2007). This is in line with previous research conducted by Greenhaus et al. (1987), Cooper (1988) and Pelsma et al. (1989). However, the demographic variables do not act as the moderator between role conflict, blocked career and job stress. This may be due to the low level of job stress experienced by respondents.

The low level of job stress experienced by primary school teachers in Tawau and Lahad Datu is good news for the teaching profession. This low level of stress may lead to better teaching quality among teachers in these two areas. It is interesting to note that the low scores on job stress was obtained even though the teachers were faced with the new education
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policy where they are required to teach mathematics and science in English.

It is suggested that future research be done on a profession where higher stress levels could be observed to observe the relationship of the variables used in the study and to validate the results of the study. Future research may be conducted to investigate the impact of other variables like job tenure, salary, job satisfaction on job stress.

References


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