THE EFFECTS OF ORGANISATIONAL FACTORS AND EXTRA-ORGANISATIONAL FACTORS ON WORK STRESS

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ABSTRACT

Work Stress has been considered as an important issue relating to workers’ day-to-day activity at work place. In any professions – doctors, teachers, police officers, lawyers, executives etc. are facing lots of pressure from work demand, which results in stress, and burn out. In this millennium work stress can be considered as disease of the century. One shall not escape from stress. There are various factors that contribute to work stress. These stem from both organisational and extraorganisational contexts. The aim of this paper is to investigate the impact of both organisational and extra-organisational factors on work stress among the married women teachers. The study found that the three organisational factors i.e. management and administration, pupil recalcitrance and time demands were significantly correlated with work stress. As for the extraorganisational factors, only the personal problems variable was found to be significantly correlated with work stress. A number of studies of teacher stress have been commissioned over the past decade by the major teaching unions (NUT, 1990; AMMA, 1987a, 1990).

INTRODUCTION

The Malaysian education system has undergone a process of rapid change. These changes are made to cater to the challenging needs of the society. But unfortunately teachers have found that insufficient support has been offered to help cope with this. Evidence in the literature has suggested that teacher work stress is related to both organisational and extraorganisational factors (e.g. Newton & Keenan, 1990; Kyriacou and Sutcliffe, 1978; Brown and Ralph, 1992). In the teaching profession, organisational factors include curriculum demands, student recalcitrance, time demands, poor working condition, poor school management and administration, lack of parental support and others. Extraorganisational factors include family, personal and social problems (Dua, 1994). As both are equally important stressors, which can bring about ill health, dissatisfaction among the teachers and harm to the organization, it is thus logical to extend the study and include both organisational factors and extraorganisational factors in the school environment.

With a better understanding of the relationship between organisational, and extraorganisational factors and teachers’ stress, it is hoped that the critical factors can be identified. If the factors are identified, it will bring about greater awareness among all those concerned, be it at the ministry level, state, district and school levels, the community at large and most important of all the teachers themselves. Subsequent steps should then be taken to assist the teachers in lessening their occupational stress. Options like coping strategies involving role reduction and cognitive restructuring can be considered. Every possible effort should be taken to ensure the general well-being of teachers who form the backbone of the formal education process.

LITERATURE REVIEW

Seyle (1956) defines stress as a non-specific response of the body to any demand made on it to adapt (what he called the General Adaptation Syndrome). Later, Monet and Lazarus (1977), have defined stress as external and/or internal demands (which) tax or exceed the adaptive resources of the
individual. Stress is person specific. What is stressful to one person is not necessarily stressful to another (AMMA, 1987), and one person’s stress may be another person’s adrenalin (Brown and Ralph, 1992).

According to Kyriacou and Sutcliffe (1978), teacher stress is a response of negative effect (such as anger or depression) by a teacher usually accompanied by partially pathogenic physiological and biochemical changes (such as increased heart rate or release of adrenocorticotropic hormones into the bloodstream) resulting from aspects of the teachers’ job and mediated by the perception that the demands made upon the teacher constitute a threat to his self-esteem or well-being, and by coping mechanisms activated to reduce the perceived threat.

Studies have also found a number of psychological variables that influence teachers’ vulnerability to stress or burnout (Farber, 1991). Most studies reported that teachers with an internal locus of control are less vulnerable to stress, but the findings from Newton & Keenan (1990) indicate otherwise; that is increase in job demands like conflict and quantitative workload are associated with increase in strain among internals too.

Locus of control is a personality variable that concerns people’s generalised expectancies that they can or cannot control reinforcements in their lives. People who hold expectancies that they can control reinforcements are considered to be internals, and people who hold expectancies that outside forces or luck controls reinforcements are considered to be externals (Spector and O’Connell, 1994).

Organisational Factors

One important part of our lives which cause a great deal of stress is our job or our work. Work-related stress is of growing concern because it has significant economic implications for the organizations through employee dissatisfaction, lowered productivity and lowered emotional and physical health of the employees (Mattheson and Ivancevich, 1987). Laughlin’s (1984) findings reported that as high as 34% of the teachers perceive teaching as very stressful and extremely stressful; 21% are fairly dissatisfied and very dissatisfied with teaching.

A study conducted by Kyriacou and Sutcliffe (1978) showed that about 20 per cent of the 257 teachers in the sample reported that being a teacher is either very stressful or extremely stressful. In addition, all the listed 51 sources of stress were positively correlated with self-reported teacher stress (ranging from 0.120 to 0.550 all p < 0.05). The mean ratings of the stressfulness range from M = 1.965 (pupils’ poor attitudes to work) to M = 0.953 (poor school facilities). The principal components analysis of the sources of stress indicated that these may be described largely in terms of four orthogonal factors: ‘pupil misbehaviour’, ‘poor working conditions’, ‘time pressures’ and ‘poor school ethos’. This finding supports work elsewhere (e.g. Coburn and Jovaisas, 1975; Rogers, 1977), indicating that sources of stress are multidimensional rather than unidimensional.

In a series of four surveys of teachers serving in state schools in Australia, Laughlin (1984) explored the relationships between various factors which gave rise to stress and the biographical characteristics of the teachers. He has isolated the five stress factors, pupil recalcitrance, time demands, poor school tones, community antagonism and curriculum demands. In comparison with the work done by Kyriacou and Sutcliffe (1978), the first three factors are similar while Laughlin has added two other

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1 Include matters like inadequate disciplinary policy of school, lack of consensus on minimum standards, attitude and behaviour of the headmaster, teachers and pupils, poorly motivated pupils, lack of recognition for extra work, trying to uphold/maintain standards, lack of effective consultation.
2 Poor school tone is composed of the variables ‘lack of encouragement to be involved in effective decision making”, “disenchantment with the school administration and/or staff members” and “lack of recognition for teachers’ contribution in teaching and/or organization”
factors i.e. community antagonism and curriculum demands. The study was also supported by Brown and Ralph (1992) and Solmon and Feld (1989). Borg (1990) summarizes the sources of teacher stress into five major categories of pupil behaviour, workload and time pressures, working conditions, relationship with colleagues and school ethos (e.g. lack of agreement on standards). Borg, et. al. (1991) also reported greater teacher stress due to the factors of ‘pupil misbehaviour’ and ‘time/resource difficulties’.

Tuettemann and Punch (1992) carried out a study on the psychological distress in secondary teachers. They concluded that the five stressors, namely inadequate access to facilities ($r = 0.25$), student misbehaviour ($r = 0.15$), excessive societal expectations ($r = 0.21$), intrusion of work into out-of-hours time ($r = 0.17$), total workload ($r = 0.10$), all correlate positively and significantly (at $p < 0.01$) with teacher distress. The above five stressors together with influence/autonomy, efficacy/achievement, colleague support and praise/recognition account for 22 per cent of the variance between female teachers.

Study by Boyle, et al. (1995) attests to the multidimensional nature of the sources of teacher stress construct, with workload and student misbehaviour accounted for most of the variance in predicting teaching stress. Gordon (2002) suggested that management is a prevalent stressor, particularly for men and for teachers in urban schools. Gordon also suggested that students' apathy, behaviours, attitudes and lack of motivation to learn were pervasive stressors for the teachers.

In Malaysia there have been numerous reports regarding stress experienced by the teachers. Chandra (1986) highlighted the mental stress experienced by primary school teachers due to excessive workload like unmanageable class size, huge amount of paper work and additional burden in organizing co-curricular activities. Ramanathan (1987) reports 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. He also comments on the additional work, pressure and tension experienced by the teachers due to changes which have taken place over the years. The National Union of the Teaching Profession secretary-general recently commended that the teachers’ stress may be caused by their being posted to a new environment and having to cope with a heavy workload. The Union has received many requests from teachers seeking advice and support (Star, 1998). Siti (1982) in her study on the effects of stress on the teachers, reported that the majority of the educators are experiencing moderate level of stress. Similar finding is also reported by Kassim (1990) in a study conducted among teachers teaching the integrated curriculum in the Malaysian secondary school.

**Extraorganisational Factors**

The interaction between home and work and the ‘juggling’ that this often create stress. There are potential stressors that exist in the life of the teacher, outside the work arena and affecting behaviour at work, which require consideration when assessing the sources and impact of teacher stress (Travers and Cooper, 1996). Bromet et. al.,(1988) revealed a positive association between occupational stress and marital stress.

Extraorganisational sources of stress include family problems (Pahl and Pahl, 1971), life crisis (Dohrenwend and Dohrenwend, 1974), financial difficulties, conflict of personal beliefs with those of the company and the conflict of company with family demands (Cooper and Marshall, 1976). Cooper and Marshall (1976) further elaborated that things such as family problems and life crisis are important potential stressors since they act in a feedback loop between work and the outside environment : problems outside work → affect → individuals at work → exacerbate → problems outside work” (p.22). If the close interrelationships between private life and work in western society are considered, it can be expected that stressful extraorganisational life events would exert negative
effects on feelings of well-being at work and consequently lead to a high degree of job tension. (Vossel and Froehlich, 1979).

The findings of the Vossel and Froehlich (1979) study clearly provide support for the assumption not only that there is a relationship between life stress and physical or psychological disorders but also that there is a relationship between life stress, conceptualized in terms of negative life change events, and other kinds of behavioural manifestations. Subjects experiencing negative life change events i.e. having a higher negative change score (NCS) record a higher mean on a job tension scale, JT (M = 33.73, SD = 6.17) while those having a lower NCS record a lower mean on JT (M = 27.07, SD = 4.93).

With demands within the family clash with work responsibilities, the home/work stress is likely to spill over to other spheres of life (Ray and Miller, 1994). This spillover occurs when the strain produced by stressors in one domain provokes stressful situations in another domain (Greenhaus and Parasuraman, 1987). Most research on spillover has focused on work spillover into family life (e.g. Burke, 1989; Small and RIkey, 1990; Staines and Pleck, 1983). Ray and Miller (1994) commended that although recommended by (Staines and Pleck, 1983), far less attention has been paid to the effects of spillover from these stressors to the outcomes in the workplace (Bhagat, 1983; Bhagat and Chassie, 1981; Greenhaus and Parasuraman, 1987).

The Influence of Locus of Control on Work Stress

A number of studies have provided evidence that individual personality traits, for example, locus of control and type-A personality, play substantial roles in occupational stress (Cooper et. al., 1994; Davey, 1994, Wilson et. al., 1990). Warr and Wall (1975) suggested that in investigating the relationship between stressors and stress the personality characteristics rather than biographical characteristics of the individual may be the more important determinant of individual differences in teacher stress. In the teaching profession, studies have also found a number of psychological variables that influence teachers’ vulnerability to stress or burnout. For example, teachers with an external locus of control - those who feel that their destiny is not in their own hands but rather is controlled by external events - are more likely to suffer from burnout (Cadavid, 1986; Fielding, 1982; McIntyre, 1984; Martin, 1987; Meehling, 1982; Stone, 1982; Zager, 1982).

Laboratory studies have also suggested that internals will tend to repress any strain they experience (Rotter, 1975). These findings are consistent with much recent research in psychology suggesting that, of all the factors explaining stress, controllability may be most important (Taylor, 1990). Even when studies control for demographic variables such as age, sex, race, years of teaching, school level, and marital status, personality variables such as locus of control, anxiety and self-esteem remain significant predictors of teacher stress (Meehling, 1982).

Study in locus of control by (Halpin et. al., 1985) has also found internal teachers who believe in their personal efficacy in influencing student performance and behaviour reported lower degree of stress. A study carried out by Soh (1986) concluded that internal secondary school teachers have lower means for stress from student behaviour and stress in general. Some longitudinal evidence that LOC may moderate the impact of work-related stressors on mental health outcomes (Parkes, 1991). In a student-teacher sample, Parkes (1991) found that an internal LOC buffers the impact of workplace stress.

Individuals with external locus of control, who do not believe that they control important aspects of their environments, will find the work environment to be more threatening and stressful (Payne, 1988; Robinson and Skarie, 1986). Empirical support can be found for this proposition in that locus of control has been shown to correlate with job stressors and strains (e.g. Hendrix, 1989; Newton and Keenan, 1990; Robinson and Skarie, 1986; Spector, 1982, 1988). However, in the study carried out by Newton
and Keenan (1990), who examine the moderating effect of locus of control, or I-E on the relationship between changes in job demands and changes in psychological strain across time; the results are more surprising. Their findings indicate that increase in certain job demands like role conflict and quantitative workload is in fact associated with greater increase in strain among internals. It is apparent that stress is not experienced uniformly by teachers, but varies from one individual to another (Albertson and Kagan, 1987; Dworkin et. al., 1990; Worrall and May, 1989).

THE STUDY AND THE METHODOLOGY

Considering all of the above, namely organisational factors, extraorganisational factors and locus of control together with the fact that that woman teachers form a substantial proportion in the teacher population in Malaysia, the study is thus carried out to examine the relationship between organisational and extraorganisational variables and the level of stress experienced by married female teachers. This study also examines the moderating effect of locus of control on the relationship between organisational factors and extraorganisational factors on work stress. The organisational factors are indexed in terms of school management and administration, pupil recalcitrance, curriculum demands and time demands. Extraorganisational factors are operationalised in terms of personal problems and family problems. The locus of control, grouped as either internals or externals was treated as the moderating variable. The sample of this study consisted of married female teachers. A convenience sampling of 140 married female teachers from seven government-aided secondary schools was selected. Usable data were provided by 127 teachers representing 92.1 per cent response rate.

Instrument

The stress level experienced by an individual was measured by using questions developed by Eliot (1994). Twelve items were adopted based on relevancy to the teaching profession as well as face validity of these items. The reliability coefficient was found to be 0.85. Eleven questions regarding organisational factors were derived from Solman and Feld (1987). The reliability coefficients of the four dimensions of school management and administration, pupil recalcitrance, curriculum demands and time demands were found to be 0.76, 0.51, 0.82 and 0.61 respectively. Six questions on extraorganisational factors were developed to explore the respondents’ perception of personal and family problems on work stress. The reliability coefficients were found to be 0.56 and 0.64. The moderating variable, locus of control was measured using eleven items adopted from the Internal-External Scale developed by Rotter (1966). The reliability coefficients were 0.52 for internal locus of control and 0.64 for external locus of control. All the three measures were six point ordinal scale questions.

RESULTS

The respondents’ profile is shown in Table 1.

<table>
<thead>
<tr>
<th>Table 1: Sample Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Head of Department</td>
</tr>
<tr>
<td>Graduate Non-Graduate</td>
</tr>
<tr>
<td>Teacher with Children Teacher with No Children</td>
</tr>
<tr>
<td>Age (Year)</td>
</tr>
<tr>
<td>Teaching Experience (Year)</td>
</tr>
</tbody>
</table>
Table 2
Multiple Regression Analysis for all Six Factors

<table>
<thead>
<tr>
<th>Variables in the Equation</th>
<th>Beta</th>
<th>T</th>
<th>Sig. T</th>
<th>Variables not in the Equation</th>
<th>T</th>
<th>Sig. T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>0.3875</td>
<td>5.560</td>
<td>0.0000</td>
<td>Curr. Demands</td>
<td>-1.275</td>
<td>0.2047</td>
</tr>
<tr>
<td>Pupil Recalcitrance</td>
<td>0.2284</td>
<td>3.384</td>
<td>0.0010</td>
<td>Family Problems</td>
<td>0.985</td>
<td>0.3267</td>
</tr>
<tr>
<td>Time Demands</td>
<td>0.1392</td>
<td>2.036</td>
<td>0.0440</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Problems</td>
<td>0.3316</td>
<td>4.871</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

School Management and Administration
As shown in Table 2, the results show that poor school management and administration are positively related with work stress. The relationship is found to be significant at the 1% level (beta = 0.3875; p = 0.0000), the result suggested that the greater the perception of poor school management and administration the greater is the degree of stress.

Pupil recalcitrance
The results show that pupil recalcitrance is positively related with work stress. The relationship is found to be significant at the 1% level (beta = 0.2284; p = 0.0010), suggesting thereby the greater the perception of pupil recalcitrance, the greater is the degree of stress.

Curriculum demands
The results show that the relationship is not significant at the 5% level (p = 0.2047), suggesting thereby that curriculum demands are not related with work stress.

Time demands
The results show that time demands are positively related with work stress. The relationship is found to be significant at the 5% level (beta = 0.1392; p = 0.044), suggesting thereby the greater the perception of excessive time demands the greater is the degree of stress.

Personal problems
The results show that personal problems are positively related with work stress. The relationship is found to be significant at the 1% level (beta = 0.3316; p = 0.0000), suggesting thereby the greater the perception of the demands from personal problems the greater is the degree of stress.

Family problems
The results show that the relationship is not significant at the 5% level (p = 0.3267), suggesting thereby that family problems are not related to work stress.

Table 3
Multiple Regression Analysis for Organisational Factors and Extraorganisational Factors

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Adjusted R Square</th>
<th>Significance F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisational Factors</td>
<td>0.3697</td>
<td>0.0000</td>
</tr>
<tr>
<td>Extraorganisational Factors</td>
<td>0.2128</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Organisational Factors and Extraorganisational Factors

Referring to Table 3, the results show that relationship exists at the 1% significant level (significance F = 0.0000), indicating that both organisational factors as well as extraorganisational factors play significant roles in contributing to work stress. However the adjusted R square based on the organisational factors is 0.3697 while the adjusted R square based on the extraorganisational factors is 0.2128. The results suggested that organisational factors are better predictors of work stress than extraorganisational factors.

Table 4

Key Multiple Regression Indicators

<table>
<thead>
<tr>
<th>Without Moderator Effect</th>
<th>With Moderator Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sig.T</td>
</tr>
<tr>
<td>Management</td>
<td>0.0000</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>0.6653</td>
</tr>
<tr>
<td></td>
<td>0.6764</td>
</tr>
<tr>
<td>Pupil</td>
<td>0.0002</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>0.1819</td>
</tr>
<tr>
<td>Curriculum</td>
<td>0.0559</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>0.2063</td>
</tr>
<tr>
<td></td>
<td>0.8853</td>
</tr>
<tr>
<td>Time</td>
<td>0.0008</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>0.1343</td>
</tr>
<tr>
<td></td>
<td>0.9575</td>
</tr>
<tr>
<td>Personal</td>
<td>0.0000</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>0.1763</td>
</tr>
<tr>
<td></td>
<td>0.0790</td>
</tr>
<tr>
<td>Family</td>
<td>0.0000</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>0.1799</td>
</tr>
<tr>
<td></td>
<td>0.7156</td>
</tr>
</tbody>
</table>
As shown in Table 4, the results show that no relationship exists at the 5% significant level, therefore the relationship between all the six independent variables and work stress are not moderated by internal locus of control.

**DISCUSSION**

From the study, the level of work stress perceived to be experienced by married female teachers has a mean of 2.47 with a standard deviation of 0.58, which reflects a marginally low stress level. This study is also able to show that work stress is positively related to the three dimensions of organisational factors which are school management and administration, pupil recalcitrance and time demands. School management and administration are significant at the 1% level with the highest standardized beta coefficient of 0.3875. This is consistent with Solman and Feld’s (1987) study which finds that poor school tone appears to be a particularly influential source of stress. The same study also commends that these variables appear to be fairly common “bureaucratic” concerns, but perhaps they assume greater importance in the schools where teaching duties override all other matters and effectively remove most teachers from the exercise of administrative power. The findings also supported Laughlin’s (1984) findings.

The relationship between pupil recalcitrance and work stress and between time demands and work stress are significant at \( p < 0.05 \), with standardized beta coefficients of 0.2284 and 0.1392 respectively. The findings are broadly in keeping with those found in studies carried out by Laughlin (1984), Solman and Feld (1989), Borg, et al. (1991) and Tuettemann and Punch (1992).

This study is also able to discover the positive relationship between work stress and the personal problems. This is consistent with the reports made by Vossel and Froehlich (1979), Bromet, et. al. (1988), Dua (1994) and Travers and Cooper (1996). A married female teacher is usually part of a dual-career couple. Dual-career family brings along with it related personal problems like role conflict, additional demands due to homemaking, relationship dilemmas and others. Thus it is understandable that personal stressors can easily lead to stress at the workplace.

Between organisational factors and extraorganisational factors, the multiple regression analysis shows that the organisational factors, has the higher adjusted R square value of 0.3697 compared to extraorganisational factors, which have an adjusted R square value of 0.2128. This indicates that the former is more important in predicting the variability in work stress and implies that married female teachers do not perceive extraorganisational factors, to be better predictors of work stress than organisational factors. The regression coefficients of the three organisational factors school management and administration, pupil recalcitrance and time demands and the extraorganisational factor personal problems are 0.24, 0.15, 0.11 and 0.25 respectively, implying that all the four factors have positive impact on work stress. In addition, with a coefficient of determination (\( R^2 \)) of 0.47, this shows that 47% of the variation in work stress can be explained by these four factors.

The above result thus shows that married female teachers do not perceive the extraorganisational factors, to be more stressful than organisational factors. This is not consistent with reports from Pleck (1977) and Campbell, et. al.(1994). The reason may be due to the fact that events occurring in the home may be both a source of stress and a source of support, just like relationship at work, and may also mitigate or exacerbate the effects of stressors experienced in the work environment as suggested by Travers and Cooper (1996). The majority of the teachers in the present study are graduates (74%) with an average age of 38.6 years. This implies that with their educational level and at this stage in life, they are financially and emotionally stable. As a result they may experience less personal problems arising from role pressure or role overload. In a study by Cooke and Rousseau (1984), results revealed that although the demands of a family conflict with the demands of work, the
family also provides comfort and support to the teachers. This enables them therefore to overcome some of their non-job related problems that are usually associated with stress better than job-related problems.

In addition, the study is not able to show that there is any moderating effect on the relationship between the four individual dimensions of organisational factors and work stress among married female teachers with an internal locus of control. Similarly, no moderating effect is found in the relationship between the two individual dimensions of extraorganisational factors and work stress among married female teachers with an internal locus of control. This is contrary to researches carried out by Spector and O’Connell (1994). But Newton and Keenan (1990) who examine the moderating effect of locus of control, or I-E on the relationship between changes in job demands and changes in psychological strain across time, found that increases in certain job demands like role conflict and quantitative workload are in fact associated with greater increases in strain among internals.

This finding may explain the result that the moderating variable, locus of control is not significant in moderating the relationship between organisational factors, extraorganisational factors and work stress. Teachers in schools are now faced with increasingly higher job demands like having to deal with large classes, more serious disciplinary problems as well as handling additional non-teaching workload like doing more clerical jobs and covering for absent colleagues. With all these additional demands made on the teachers, internals may not experience lesser strain associated with job and non-job stressors compared to externals.

Another possible explanation is the teachers’ age in this study. Age is an important characteristic that may modify a teacher’s response to stress. This is because at each stage in life an individual may experience a particular vulnerability, and/or a particular mechanism of coping (McLean, 1979). Feitler and Tokar (1982) claim that teachers’ stress levels do vary with age and school location. More specifically teachers between the ages 31 and 44, and urban teachers report higher levels of stress. The teachers in this study have an average age of 38.6 years with a standard deviation of 8.9 years. Moreover six of the seven schools exception of in the study are located in the urban area, as such teachers in this sample may actually be experiencing high levels of stress anyway. Hence the personality differences may be buried with the problems of urban dwelling which seems to be more overriding than the individual differences in locus of control.

**CONCLUSION**

In conclusion, the data indicate that married female teachers perceive work stress to be positively and significantly related to the three organisational factors namely, school management and administration, pupil recalcitrance, and time demands. They also perceive stress at the workplace to be positively and significantly related with the extraorganisational factor, personal problems. However, the study is not able to show that the relationships between the four individual organisational factors on work stress are moderated by internal locus of control. Similarly, there is no moderation on the relationships between the two individual extraorganisational factors and work stress by internal locus of control.

The stress of balancing myriad roles played within the organization and outside the organization has received limited attention. It is even less in a non-western society like Penang. In sum, the perceived work stress experienced by the married female teachers in this study are said to be stem from both job-related and non-job related stressors in the local school setting. The results confirm the significant and positive associations between the three organisational factors and work stress as well as the extraorganisational factor, personal problem and work stress. Given the multidimensional nature of stress, this analysis reinforces the need to explore further other correlations in these two arenas which can better predict work stress.
Limitations

The present analysis is based on a sample consisting of 127 married female teachers teaching in 7 secondary schools in the Penang island. The island has a total of 1265 married female teachers in May 1998. As such, a larger sample is expected to provide a statistically firmer base to assess the relationship between organisational factors, extraorganisational factors and work stress. The design of this study is cross-sectional; as such the perceived work stress may be situational based on the experience and the environment at a certain time. To explore further the relationship and to gain a better insight into the work stress experienced by this group of teachers, a longitudinal design should be employed. It would be of benefits to the education service if empirical studies can be carried out to include more factors such as work environment and relationship with colleagues in relation to work stress to provide a better understanding of stress experienced by married female teachers in the local setting. It is also important to determine whether the findings hold true in larger samples that are more heterogeneous with regard to work and family situations.

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665


