

Teachers' Stress: Prevalence, Sources and Consequences of Occupational Stress among Iranian Teachers

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Abstract

A questionnaire survey was used to investigate the prevalence, sources, and consequences of stress among Iranian primary school teachers. Ten schools from district 4 of Tehran were randomly selected from the Iranian Ministry of Education Public School list, and from each one of these schools, 8 teachers were chosen, leaving a final sample of 80 full-time, primary school teachers. Data was collected via researcher-built questionnaire. The questionnaire consisted of three sections. The first section requested individual biographical information regarding sex, age, education status and teaching experience and a series of other variables which have been considered to be an issue of concern in the teaching profession. Section two corresponded to assessment occupational stress. Section three evaluated correlates of occupational stress. The main purposes of this study were to: 1) specify the prevalence of stress among Iranian primary school teachers at work, 2) determine the sources of



work pressure perceived as most stressful by primary school teachers, and 3) pinpoint the consequences of work stress measured as stress outcomes. The results of this study revealed high levels of work stress prevalent among elementary school teachers. Significant findings were found with few demographic variables. The most significant sources of work stress involved a variety of aspects of the teaching profession. Factor analytic statistics support the multidimensional rather than unidimensional nature of teachers' work stress. Finally, the most important consequences included 'dissatisfaction from job', 'boredom', 'occupational self-devaluation', and 'apathy towards job'.

Keywords: *occupational stress, teacher stress, sources of stress, stress outcomes.*

1. Introduction

The incidence of stress among teachers has received a considerable amount of attention since the late 1970's. Studies have compared teachers with other professions and have typically found that school teachers report one of the highest, and often the highest, levels of occupational stress [1,2,3].

In a well-known international review about teachers' stress, Kyriacou & Sutcliffe (1987) define teacher stress "as a response by a teacher of unpleasant emotions, such as tension, frustration, anxiety, anger and depression, resulting from aspects of her/his work as a teacher". According to this model of teacher stress, the experience of stress results from the teacher's perception that: 1) demands are being made upon her/him, 2) s/he is unable to or has difficulty in meeting these demands and 3) failure to do so threatens her/his mental and/or physical well-being. The key element in this model is the teacher's *perception of threat*. The demands made upon the teacher could be self-imposed or imposed by others. The most potent threats to well-being range from a fear of losing face or esteem to oneself, or in the eyes of others, to a fear of dismissal for incompetence. Kyriacou and his co-workers [4,5,6] have emphasized the role of the teacher's perception of her/his circumstances and the degree of control s/he perceives has over them. Other researchers [7,8,9] have

also agreed on the crucial nature of these factors and have converged on the same conclusions.

More importantly, teachers' stress has been found to be expressed in a variety of somatic (headache, dizziness, abdominal pain, sleeplessness, fatigue), psychological (job dissatisfaction, anxiety, tension, irritability, depression) and behavioral (use of medication, cigarettes, appetite) responses that are detrimental to the professional work teachers must perform [10]. Kyriacou and Sutcliffe [4] cite the work of several authors [11,12,13,14] and present a thorough analysis of how stress is manifested among teachers. They state that there exist two main types of common stress responses among teachers. The first is frustration, and is associated with headaches, stomach upsets, sleep disturbances, hypertension and body rashes, and in prolonged cases, depressive illness. The second is anxiety, and is associated with feelings of inadequacy, loss of confidence, confusion in thinking, and occasionally panic. Cases of severe anxiety may lead to psychosomatic symptoms such as a twitchy eye, a nervous rash, loss of voice, and weight loss. Prolonged stress can lead to nervous breakdown. Dunham and other researchers [12,15,16,10] have argued that absenteeism, truancy, leaving teaching, sickness absence and early retirement are forms of withdrawal associated with situations which become too stressful to tolerate.

In spite of the fact that some researchers believe that the incidence of stress among teachers has received a considerable amount of attention since the late 1970's in western countries [1], other researchers think that systematic research on stress in elementary teachers is still notably lacking, specially American researchers [17]. Some indicate that most of the literature consists of personal reports, casual observations, and techniques designed to remedy the problem [18,19,20,21].

Within the teaching profession, level and nature of stress experienced have been found to vary in relation to particular subgroups like biographical characteristics of teachers (i. e. age, sex, qualification, length of teaching experience, and position held in school [22]; teaching background, in terms of grade, school type [23] and sector, area and region. Some of these researches report very little association due to gender [22,24], subject taught [16]; and teaching grade [25,26,1] while



others report significant differences specially due to gender [27,28,29]. Much research has also focused on specific groups of teachers; student teachers [30,31] and probationary teachers [32,33], heads of departments [34], and headmasters [35,1].

Regarding the main sources of teachers' stress, Travers et al [25]. report that teachers are experiencing stress from a variety of sources, including work overload, the behavior of the pupils; lack of promotion prospects; unsatisfactory working conditions; poor relationships with colleagues, pupils and administrators; and a host of other problems. In previous years, two important reviews have been published addressing this issue. One early review [4] has a detailed listing of works done in this area, while in a later analysis by the same author (1987) only a summary has been included. After detailed perusal of the literature on sources of teachers' stress, it can be stated with confidence that indeed the sources of teachers stress are multiple and are not only related to disruptive pupils, as most people unfamiliar with the literature may expect. Although a thorough review of that literature is beyond the scope of the present article, for the present purposes, suffice it to say that empirical work has established a large number of sources of teacher stress which include relationships with colleagues, aspects of working conditions, pupil misbehavior, salary, status, and role conflict [22,36,10] and that these sources vary according to the rank the teachers occupy in the school organization. For instance, Cooper et al [1] in a national study on occupational stress of head teachers in England, have pinpointed somewhat different sources of stress than have research studies involving primary school teachers [22,37].

The incidence, prevalence and consequences of stress in the teaching profession has also been reported in several foreign countries such as England [38,39,40], USA, and Australia [41,28].

Within an Iranian context, initial attempts to investigate the nature and sources of teachers' stress have been reported in the Iranian literature [42,43]. However, besides the research performed by Rezai [43] which dealt with primary and secondary school teachers, most investigations have been concerned with professional groups other than teachers, such as nurses [44,45], medical school



interns [46], and librarians [47].

Rezai's [43] study suggests that further understanding of teachers' stress would be warranted if the sources of stress are better identified, taking in consideration cultural differences. This knowledge is believed to be highly instrumental in pinpointing possible links between stress and undesirable physiological, cognitive, emotional, and behavioral outcomes identified among teachers, including ill-mental and physical health symptoms [22,14], 'burnout' [24,48], work turnover [12], absenteeism [11], sickness absence [13], and job dissatisfaction [1,6,19,25]. with a sample of 413 primary and secondary school teachers, Rezai [43] found that one - fourth of the teachers were experiencing high degrees of work stress, and that male teachers rated significantly higher than female teachers. No difference was found between primary and secondary levels. Monthly earnings and salary was identified as the major source of work stress and exhaustion and frustration were the most widespread symptoms of stress. Finally, results from factor analysis of the sources of stress yielded twelve main factors that accounted for work stress among these Iranian subjects.

Taking into consideration this relatively limited information on teacher's stress, the present study thus represents an attempt to replicate previous findings and more specifically, it intends to: 1) determine the degree of stress prevalent among Iranian primary school teachers due to the job, 2) point out the most important sources of stress present in a primary school teacher's job, 3) find out whether cognitive, emotional, and behavioral symptoms are related to stress, and 4) determine whether there are differences among the various biographical categories in relation to objectives 1, 2 and 3 listed above.

2. Method

a) Sample

Ten schools from District Four of Tehran were randomly selected from the Iranian Ministry of Education Public School list, and from each one of these schools, 8 teachers were chosen, leaving a final sample of 80 full-time, primary school teachers. The median age was 36 with 60% female and 40% with a seniority from 1-30 years



of teaching, with a median of 13.5 years of experience.

b) Procedure

Data was collected by a female researcher via questionnaire administered in the different schools to groups of teachers. All questionnaires were to be filled anonymously. Seven questionnaires were excluded from the analysis because they were incomplete.

The questionnaire consisted of three sections. The first section requested individual biographical information regarding 1) age, 2) sex, 3) marital status, 4) number of children, 5) educational status, 6) teaching experience, 7) grade presently teaching, 8) extra private teaching, 9) number of students in the classrooms, 10) having a second or third job, 11) salary, 12) housing, 13) life expenses in relation to income, and 14) intention to leave the teaching profession if given a second choice. Section two corresponded to assessment of occupational stress. Finally, section three, addressed information regarding outcomes or symptoms of stress.

c) Measures

I) Work Stressors Measure. A scale to assess work stress, herein called Iranian Teachers' Stress Inventory (ITSI), was constructed specifically for the purposes of this study. It borrowed information from several factor analytic studies on sources of teachers' stress [6,37,25] as well as from personal interviews with Iranian teachers. The total scale included 57 work stressors, measured on a six-point Likert-type rating scale for each item, ranging from 'very definitely is NOT a source of pressure' to 'very definitely IS a source of pressure'. For this sample a Cronbach alpha coefficient of reliability was $\alpha = .91$ for the total scale.

II) Symptoms of Stress Measure. A scale to assess the consequences of occupational stress was specially designed for this purpose. This scale consisted of a 14 - item measure of global perceived stress (PSS) [49] and eleven items regarding cognitive, emotional, and behavioral consequences of stress, labeled Stress Symptoms Scale (SSS). Thus, the total scale assessing consequences or symptoms of stress consisted of 25 items and is referred to as the Total Stress Symptoms Scale (TSSS). For this



sample, a Cronbach alpha coefficient of reliability was $\alpha = .90$ for the total scale.

The Perceived Stress Scale (PSS) was considered because of recommendations by Cohen et al., (1983) about the suitability of this scale to be used as an outcome measure of general non - specific stress. The PSS items are measured on a five-point Likert-type rating scale for each item, assessing the degree of subjectively perceived stress from '0-never' at one end of the scale, to '5-very often' at the other end. Teachers rating the items from the PSS responded to this general question: "In the last month how often have you ...". The remaining items were chosen following a review of the research literature, interviews with teachers, as well as regarding information gathered through a pilot investigation prior to this project. These items addressed specific psychological, somatic and behavioral outcomes and were presented on a five-point Likert-type rating scale for each item. Teachers were asked to rate each item on a scale ranging from 'definitely disagree' to 'definitely agree'.

3. Results

a) Work Stress Prevalence

The mean ratings of the 57 work stress ITSI items along with corresponding percentages for all rating categories are shown in Table 1 for the total sample and for each of the biographical subgroups. Examination of stress means of the entire sample due to work stress revealed that approximately half of the teachers of the present sample reported having 'definitely' and 'very definitely' experienced stress due to the job. That is, 45.8% felt in the 5 and 6 rating categories.

To investigate whether work stress was associated with the biographical characteristics of the teachers, one MANOVA analysis was performed with whole occupational stress scale scores as the dependent variable and sex, qualifications, experience and grade level as independent variables. Similarly five one-way ANOVA analyses were computed for age, number of children in family, number of students in class, type of housing, and salary. Non-parametric Mann/Whitney U tests were computed for marital status, private teaching, having another job, life expenses covered and willingness to choose teaching again. The demographic categories employed are depicted in Table 1.



Table 1 ITSI Work Stressors: Distribution of Responses and Means for the Total Sample and according to Biographical Subgroups.

| Biographical Subgroups | N | Percentage of Stress Distribution | | | | | | Mean |
|----------------------------|----|-----------------------------------|----------|-----------|------|-----------------|------|--------|
| | | Very Definitely | | Generally | | Very Definitely | | |
| | | is not 1 | is not 2 | is not 3 | is 4 | is 5 | is 6 | |
| Total | 73 | 2.6 | 5.0 | 12.3 | 25.1 | 21.1 | 24.7 | 250.14 |
| Age | | | | | | | | |
| 23-30 | 19 | - | - | - | 15.8 | 84.2 | - | 4.84 |
| 30-40 | 30 | - | - | 3.3 | 13.3 | 76.6 | 6.7 | 4.86 |
| 40-54 | 24 | - | - | - | 25.0 | 58.3 | 16.7 | 4.91 |
| Sex | | | | | | | | |
| Male | 29 | - | - | 2.3 | 11.4 | 72.7 | 13.6 | 4.72 |
| Female | 44 | - | - | - | 27.6 | 72.4 | - | 4.97 |
| Marital Status | | | | | | | | |
| Single | 11 | - | - | - | 36.4 | 63.6 | - | 4.63 |
| Married | 62 | - | - | 1.6 | 14.5 | 74.2 | 9.7 | 4.91 |
| Number of Children | | | | | | | | |
| 1-2 | 45 | - | - | 2.2 | 13.3 | 82.2 | 2.2 | 4.84 |
| 3+ | 28 | - | - | - | 2.5 | 5.7 | 17.9 | 4.92 |
| Qualification | | | | | | | | |
| Under Diploma | 3 | - | - | - | 66.7 | 33.3 | - | 4.33 |
| Diploma | 57 | - | - | - | 17.5 | 71.9 | 10.5 | 4.92 |
| Post Diploma | 11 | - | - | 9.7 | 9.1 | 81.8 | - | 4.72 |
| BS Degree | 2 | - | - | - | - | 100.0 | - | 5.00 |
| Teaching Experience | | | | | | | | |
| 1-6 | 17 | - | - | - | 17.6 | 82.4 | - | 4.82 |
| 7-13 | 17 | - | - | - | 11.8 | 88.2 | - | 4.88 |
| 14-20 | 23 | - | - | 4.3 | 21.7 | 69.6 | 4.3 | 4.73 |
| 21-30 | 16 | - | - | - | 18.8 | 50.0 | 31.3 | 5.12 |
| Grade level | | | | | | | | |
| Grades 1,2 & 3 | 35 | - | - | 2.9 | 17.1 | 62.9 | 17.1 | 4.94 |
| Grades 4 & 5 | 26 | - | - | 19.2 | 80.8 | - | - | 4.80 |
| Other | 12 | - | - | - | 16.7 | 83.8 | - | 4.83 |
| Private Teaching* | | | | | | | | |
| Yes | 25 | - | - | - | 20.0 | 80.0 | - | 4.80 |

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|------------------------------|----|---|---|-----|------|-------|-------|------|
| No | 46 | - | - | 2.2 | 17.4 | 67.4 | 13.0 | 4.91 |
| Number of Students | | | | | | | | |
| 1-30 | 20 | - | - | - | 5.0 | 75.0 | 20.0 | 5.15 |
| 33-41 | 30 | - | - | 3.4 | 20.7 | 69.0 | 6.9 | 4.79 |
| 42-45 | 24 | - | - | - | 25.0 | 75.0 | - | 4.75 |
| Having another job** | | | | | | | | |
| Yes | 4 | - | - | - | - | 100.0 | - | 5.00 |
| No | 66 | - | - | 1.5 | 19.7 | 64.7 | 9.1 | 4.86 |
| Salary | | | | | | | | |
| 1-1200 | 23 | - | - | - | 13.0 | 87.0 | - | 4.86 |
| 13000-24000 | 47 | - | - | - | 21.3 | 63.8 | 12.8 | 4.87 |
| 25000+ | 3 | - | - | - | - | 100.0 | - | 5.00 |
| Housing | | | | | | | | |
| Own | 35 | - | - | 2.9 | 22.9 | 65.7 | 8.6 | 4.80 |
| Organization | 5 | - | - | - | 20.0 | 40.0 | 40.0 | 5.20 |
| Rent | 33 | - | - | - | 12.1 | 84.8 | 3.0 | 4.90 |
| Life expenses covered | | | | | | | | |
| Yes | 6 | - | - | - | 16.7 | 83.3 | - | 4.83 |
| No | 67 | - | - | 1.5 | 17.9 | 71.6 | 9.0 | 4.88 |
| Choose Teaching Again | | | | | | | | |
| Yes | 31 | - | - | 3.2 | 29.0 | 64.5 | 3.2 | 4.67 |
| No | 42 | - | - | - | 9.5 | 78.6 | 11.97 | 5.02 |

*Two subjects failed to give information.

**Three subjects failed to give information.

b) Sources of Stress and Biographical Characteristics

A MANOVA (Work stress × Sex × Qualification × Teaching Experience × Grade level) yielded significant main effects ($F(6, 72) = 2.30, p < .03$) and sex main effects. Differences between males and females on occupational stress reached significance, $F(6,72) = 5.02, p < .02$ women reported higher levels of work stress than men. Other main effects only approached significance, Qualification, ($F(6,72) = 2.19, p = < .14$) and Grade level ($F(6,72) = 1.95, p = < .16$).

In addition, there were three significant interaction effects.

First, a significant sex × qualification interaction effect was obtained, $F(1,72) = 4.79, p = < .03$. Although both male and female teachers with lower qualifications



(diploma and under) reported experiencing greater levels of occupational stress than their male and female colleagues with higher qualifications (diploma and university degree), female (and not male) teachers with lower qualifications reported considerably higher stress from work in relation to other female and male teachers with higher qualifications.

The second significant interaction involved qualification \times length of teaching experience, $F(1,72) = 3.94, p < .01$. The greatest difference in stress scores considering teacher qualification was obtained among teachers who had taught 14 to 20 years, and not for categories of experience indicating shorter or longer periods of time.

The third significant interaction was a qualification \times grade interaction, $F(1,72) = 7.19, p < .01$. Low qualified teachers from grades 1,2 & 3 reported greater stress than teachers with similar qualifications teaching in upper grades (grades 5, 6), while high qualified teachers presented a reverse pattern.

One-way ANOVA analyses yielded only one significant finding. Number of pupils in the classroom had a significant effect on job stress. Those teachers teaching 30 or less students reported higher levels of stress than teachers with bigger classes

$$F(1,72) = 8.57, p < .006.$$

Mann/Whitney U-statistics yielded a significant difference between those teachers who expressed intention to choose the teaching profession again if given a second choice and those who did not. Higher levels of job stress were reported by the latter, $Z = -2.09, p < .04$.

Results for marital status only approached significance, $Z = -1.6, p < .10$, married teachers reported higher levels of stress due to the job than single teachers.

c) Sources of Work Stress

The mean ratings of the responses to the 57 sources of stress are shown in Table 2. The distribution of the 57 responses assessed through skewness ranged from -2.12 to .63; the standard deviations from 0.95 to 1.51. For the whole ITSI scale, distribution of scores was approximately normal, with skewness of -.030, standard deviation 0.95, and Kurtosis 1.016. Table 3 presents the top 12 sources of pressure, which a

disproportionately high number of teachers (see percentages) rated as sources of stress. The majority of the 57 sources of stress were positively correlated with self-reported nervousness and stress (43 out of 57, r ranging from .009 to .350; four $P < .01$) and the PSS (46 out of 57, r ranging from .028 to .371; one $P < .01$).

Table 2 Sources of Stress: Mean, Correlations with Perceived Life Stress, Self-reported nervousness and stress (Item 3-PSS) and Loadings on the First (Unrotated) Factor.

| Item no. | Source of stress | Mean | Correlation with | | Loading on first factor. |
|----------|---|------|------------------|------------|--------------------------|
| | | | PSS Scale | PSS Item 3 | |
| 29 | Lack of attention to teacher's economic and life commodities. | 5.42 | -.090 | .171 | .333 |
| 17 | Being undervalued - Lack of respect and value for teachers. | 5.29 | .283 | -.005 | .623 |
| 24 | Salary discrimination between the teaching profession and other professions. | 5.21 | .120 | .271 | .438 |
| 26 | Lack of balance between amount of work and salary. | 5.18 | .248 | .221 | .566 |
| 19 | Establishing friendship and not principles as legitimate mode of organizational functioning. | 5.13 | .149 | .043 | .501 |
| 18 | Lack of enough support from society. | 5.08 | .192 | .291 | .501 |
| 54 | Covert discrimination and favoritism. | 4.92 | -.004 | -.083 | .451 |
| 55 | Having to adopt a negative role (such as sacking someone). | 4.82 | .005 | -.117 | .521 |
| 7 | Students not paying attention when you teach. | 4.79 | .242 | .002 | .364 |
| 31 | Great amount of work of teachers. | 4.75 | .128 | .222 | .409 |
| 30 | Lack of job security in the teaching profession (threat of impending redundancy or early retirement). | 4.74 | .066 | .327* | .637 |
| 57 | Misuse of my time by other people. | 4.74 | -.038 | .027 | .391 |
| 6 | Presence of weak students who are unable to understand and learn. | 4.72 | .185 | .002 | -.176 |
| 10 | Teaching in overcrowded classes. | 4.72 | .028 | .128 | .387 |
| 45 | Holding more than one job or doing extra teaching. | 4.68 | -.027 | -.010 | .644 |



| | | | | | |
|----|---|------|-------|-------|------|
| | Students not doing their homework. | 4.63 | .216 | -.188 | .241 |
| 11 | Size and physical condition of the classroom. | 4.63 | -.080 | .021 | .609 |
| 33 | Too high expectations from parents. | 4.63 | -.037 | .075 | .343 |
| 16 | Lack of attention to teachers' conditions and unrealistic expectations from them. | 4.60 | .345* | .130 | .490 |
| 27 | Lack of opportunity and sufficient resources for career promotion. | 4.59 | .065 | .100 | .722 |
| 23 | Influence of personal opinions in choosing the outstanding teacher of the year. | 4.58 | .202 | .200 | .466 |
| 8 | Confronting serious problems and also behavior problems. | 4.50 | .291 | .030 | .473 |
| 34 | Lack of teaching resources. | 4.50 | .150 | .091 | .331 |
| 38 | Lack of enough time to attend to pupils' academic and non-academic problems. | 4.49 | .132 | .070 | .471 |
| 3 | Presence of a difficult student in the class. | 4.48 | .316* | .070 | .299 |
| 15 | Lack of specialization/capacitation of school managers and supervisors. | 4.45 | .245 | .054 | .673 |
| 32 | Lack of cooperation from parents. | 4.40 | .209 | .132 | .047 |
| 50 | Factors not under your direct control. | 4.36 | .187 | .246 | .659 |
| 48 | Ambiguous and delicate factors in decision making. | 4.36 | .109 | .025 | .585 |
| 13 | A lack of encouragement from supervisors. | 4.34 | .099 | .009 | .571 |
| 49 | Not being able to 'switch off' at home. | 4.34 | -.108 | .093 | .212 |
| 35 | Ambiguous and not feasible laws and regulations. | 4.34 | -.141 | .016 | .393 |
| 22 | Threat of loosing your job due to policies. | 4.33 | .030 | -.021 | .566 |
| 41 | Forced to teach a subject about which you do not have enough knowledge. | 4.29 | .056 | -.181 | .554 |
| 39 | Demands my work makes on my relationships with my spouse/children. | 4.28 | .228 | .065 | .609 |
| 20 | Teacher evaluation policies. | 4.27 | -.065 | .160 | .586 |
| 53 | Job demands on your private and social life. | 4.25 | .184 | -.064 | .494 |
| 52 | Personal beliefs and convictions conflicting with those of the organization. | 4.21 | .045 | .089 | .546 |

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|----|--|------|-------|--------|------|
| 51 | Lack of information about pupils' psychology. | 4.18 | .032 | -.047 | .472 |
| 44 | Working with colleague(s) who hold views opposite to your own. | 4.18 | .057 | .098 | .545 |
| 56 | Lack of influence and power. | 4.14 | .024 | .094 | .453 |
| 28 | Lack of encouragement from school principals and managers. | 4.14 | .139 | .165 | .626 |
| 42 | Underpromotion - working at a level below my level of ability. | 4.13 | .164 | -.033 | .614 |
| 46 | Commuting - coming from and going to work. | 4.11 | .371* | .155 | .439 |
| 36 | Taking work home. | 4.03 | .163 | .074 | .337 |
| 14 | The way school managers and supervisors behave towards you. | 3.99 | .119 | .014 | .643 |
| 43 | Poor relationships among teachers. | 3.94 | .085 | -.157 | .576 |
| 40 | Lack of interest in teaching. | 3.92 | .182 | .032 | .640 |
| 21 | When your performance is compared with that of other teachers. | 3.92 | .312* | .208 | .455 |
| 1 | Pupils' verbal aggression and lack of respect. | 3.92 | .183 | .182 | .397 |
| 12 | Lack of participation of teachers in decision making and planning. | 3.91 | -.046 | -.121 | .641 |
| 37 | Lack of capacity to explain school subject content to pupils. | 3.88 | .092 | .132 | .572 |
| 25 | Undercapacitated in terms of knowledge. | 3.86 | .298 | .118 | .407 |
| 5 | Students fighting in class. | 3.89 | -.055 | -.350* | .135 |
| 9 | Managing the class. | 3.58 | .238 | .214 | .549 |
| 47 | Working with those of the opposite sex. | 3.27 | .188 | -.130 | .224 |
| 2 | Constant testing of the teacher by pupils. | 3.22 | .140 | .021 | .357 |

*p<.01

Table 3 The top 12 sources of pressure experienced by the teachers.

| Item No. | Source of pressure | Mean | SD | Percentage scoring 4, 5, or 6. |
|----------|--|------|------|--------------------------------|
| 29 | Lack of attention to teachers' economic conditions and welfare. | 5.42 | 0.95 | 93.0% |
| 17 | Lack of value and respect for teachers. | 5.29 | 1.17 | 91.3% |
| 24 | Discrimination between the teaching profession and other professions in terms of salary. | 5.21 | 1.09 | 95.9% |



| | | | | |
|----|--|------|------|-------|
| 26 | Lack of balance between amount of work and salary received. | 5.18 | 1.16 | 93.1% |
| 19 | Prevalance and priority to friendships instead of principles and the law. | 5.13 | 1.10 | 93.1% |
| 18 | Lack of support from society. | 5.08 | 1.24 | 90.4% |
| 54 | Hidden discrimination and favoritism. | 4.92 | 1.13 | 91.8% |
| 55 | Having to adopt a negative role (like sacking someone). | 4.85 | 1.09 | 91.8% |
| 7 | Lack of attention from students when teaching. | 4.79 | 1.17 | 89.0% |
| 31 | Work overload of teachers. | 4.75 | 1.36 | 85.9% |
| 30 | Lack of job security in the teaching profession. (Threat of impending redundancy or early retirement). | 4.74 | 1.29 | 87.7% |
| 10 | Teaching in overcrowded classrooms | 4.72 | 1.29 | 87.6% |

The 57 sources of stress were subjected to a principal component analysis. The first extracted factor accounted for 25.2 per cent of the total variance, with all 57 items loading positively on this factor. These loadings ranged from .047 to .722 and are shown in Table 4. Varimax rotation yielded a solution of sixteen factors, (with eigen values for the first four extracted factors 14.35, 4.89, 3.42, and 2.96, respectively). The items with loadings greater than .40 are shown in Table 4. The varimax rotation is justified because it produced factors that made sense conceptually, that is, the items seemed to group together logically.

Factor I was labelled 'Management structure of the school' (alpha = .905), factor II 'Relationships' (alpha = .901), factor III 'Teachers' work overload' (alpha = .898), factor IV 'Pupil - Teacher interaction' (alpha = .890), factor V 'Appraisal of teachers' (alpha = .851), factor VI 'Problems associated with teaching of pupils' (alpha = .835), factor VII 'Low organizational morale' (alpha = .810), factor VIII 'Lack of promotion and career opportunities' (alpha = .733), factor IX 'Undervalue of the teaching profession' (alpha = .872), factor X 'Lack of resources to optimize teaching' (alpha = .785), factor XI 'Teacher under capacitation' (alpha = .735), factor XII 'Role ambiguity' (alpha = .887), factor XIII 'Job - community interface' (alpha = .722), factor XIV 'Limited teaching resources' (alpha = .863), factor XV 'Personal demands of the teaching profession' (alpha = .891) and factor XVI 'Poor working conditions' (alpha = .901).

Table 4 Factor Analysis of the Iranian Teachers' Stress Inventory (ITSI): Loadings Greater than .40 on Varimax Rotated Factors (79.1% of the variance).

Factor I: Management structure of the school (25.2%).

| Loading | Item no. | Source of Stress |
|---------|----------|---|
| .871 | 14 | The way school managers and supervisors behave towards you. |
| .803 | 13 | Lack of encouragement from supervisors. |
| .751 | 16 | Lack of attention to teachers' conditions and unrealistic expectations from them. |
| .676 | 15 | Lack of specialization/capacitation of school managers and supervisors. |
| .558 | 12 | Lack of participation of teachers in decision making and planning. |
| .534 | 42 | Underpromotion - working at a level below level of ability. |
| .517 | 26 | Lack of balance between amount of work and salary. |
| .500 | 17 | Being undervalued - Lack of respect and value for teachers. |
| .406 | 28 | Lack of encouragement from school principals and managers. |

Factor II: Relationships (8.6%).

| Loading | Item no. | Source of Stress |
|---------|----------|--|
| .832 | 57 | Misuse of my time by other people. |
| .733 | 52 | Personal beliefs and convictions conflicting with those of the organization. |
| .671 | 51 | Lack of information about pupils' psychology. |
| .646 | 56 | Lack of influence and power. |
| .604 | 55 | Having to adopt a negative role (such as sacking someone). |
| .585 | 50 | Factors not under your direct control. |
| .585 | 54 | Covert discrimination and favoritism. |
| .561 | 45 | Holding more than one job or doing extra teaching. |
| .480 | 48 | Ambiguous and delicate factors in decision making. |
| .457 | 39 | Demands my work makes on my relationships with my spouse/children. |
| .456 | 49 | Not being able to 'switch off' at home. |
| .446 | 53 | Job demands on your private and social life. |

Factor III: Teachers work overload (6.0%).

| Loading | Item no. | Source of Stress |
|---------|----------|-----------------------------------|
| .866 | 36 | Taking work home. |
| .843 | 31 | Great amount of work of teachers. |



| | | |
|------|----|---|
| .629 | 9 | Managing the class. |
| .576 | 18 | Lack of enough support from society. |
| .562 | 10 | Teaching in overcrowded classes. |
| .415 | 30 | Lack of job security in the teaching profession. |
| .411 | 33 | Too high expectations from parents. |
| .406 | 3 | Presence of a difficult student in the class. |
| .406 | 29 | Lack of attention to teacher's economic and life commodities. |

Factor IV: Pupil - Teacher Interaction (5.2%).

| Loading | Item no. | Source of Stress |
|---------|----------|--|
| .851 | 1 | Pupils' verbal aggression and lack of respect. |
| .806 | 2 | Constant testing of the teacher by pupils. |
| .593 | 48 | Ambiguous and delicate factors in decision making. |
| .446 | 30 | Lack of job security in the teaching profession. |

Factor V: Appraisal of teachers (4.8%).

| Loading | Item no. | Source of Stress |
|---------|----------|--|
| .764 | 20 | Teacher evaluation policies. |
| .739 | 22 | Threat of losing your job due to policies. |
| .642 | 21 | When your performance is compared with that of other teachers. |

Factor VI: Problems associated with teaching of pupils (4.1%).

| Loading | Item no. | Source of Stress |
|---------|----------|--|
| .818 | 8 | Confronting serious problems and also behavior problems. |
| .759 | 7 | Students not paying attention when you teach. |
| .632 | 4 | Students not doing their homework. |
| .536 | 3 | Presence of a difficult student in the class. |

Factor VII: Low organizational morale (4.0%).

| Loading | Item no. | Source of Stress |
|---------|----------|--|
| .805 | 24 | Salary discrimination between the teaching profession and other professions. |
| .495 | 26 | Lack of balance between amount of work and salary. |
| .460 | 29 | Lack of attention to teachers' economic and life commodities. |
| .447 | 44 | Working with colleague(s) who hold views opposite to your own. |



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Factor VIII: Lack of promotion and career opportunities (3.2%).

| Loading | Item no. | Source of Stress |
|---------|----------|--|
| .859 | 19 | Establishing friendship and not principles as legitimate mode of organizational functioning. |
| .488 | 27 | Lack of opportunity and sufficient resources for career promotion. |

Factor IX: Pupils' Problems (2.8%).

| Loading | Item no. | Source of Stress |
|---------|----------|--|
| .794 | 5 | Students fighting in class. |
| .560 | 38 | Lack of enough time to attend to pupils' academic and non-academic problems. |
| .415 | 17 | Being undervalued - Lack of respect and value for teachers. |

Factor X: Poor teaching conditions (2.7%).

| Loading | Item no. | Source of Stress |
|---------|----------|-----------------------------------|
| .797 | 34 | Lack of teaching resources. |
| .791 | 32 | Lack of cooperation from parents. |

Factor XI: Teacher Undercapacitation (2.4%).

| Loading | Item no. | Source of Stress |
|---------|----------|---|
| .707 | 25 | Undercapacitated in terms of knowledge. |

Factor XII: Role Ambiguity (2.2%).

| Loading | Item no. | Source of Stress |
|---------|----------|--|
| .841 | 35 | Ambiguous and not feasible laws and regulations. |
| .427 | 33 | Too high expectations from parents. |

Factor XIII: Job - Community Interface (2.2%).

| Loading | Item no. | Source of Stress |
|---------|----------|--|
| .831 | 47 | Working with those of the opposite sex. |
| .531 | 46 | Commuting - coming from and going to work. |

Factor XIV: Limited teaching resources (2.1%).

| Loading | Item no. | Source of Stress |
|---------|----------|---|
| .745 | 37 | Lack of capacity to explain school subject content to pupils. |
| .516 | 40 | Lack of interest in teaching. |
| .421 | 41 | Forced to teach a subject about which you do not have enough knowledge. |



Factor XV: Personal demands of the teaching profession (2.0%).

| Loading | Item no. | Source of Stress |
|---------|----------|---|
| .571 | 53 | Job demands on your private and social life. |
| .548 | 6 | Presence of weak students who are unable to understand and learn. |

Factor XVI: Poor working conditions (1.8%).

| Loading | Item no. | Source of Stress |
|---------|----------|---|
| .568 | 10 | Teaching in overcrowded classes. |
| .441 | 11 | Size and physical condition of the classroom. |

To investigate whether there were any differences in responses to each of the sources of stress for the different biographical subgroups, the means of the responses were compared for each of the subgroups in turn. One - way ANOVA analysis variance followed by a Student-Newman-Keuls test were employed to compare differences for sex, Number of children and housing. Mann / Whitney U - tests were employed to compare differences for marital status, private teaching, having another job, life expenses covered and intention to choose teaching again. The items for which significant differences were obtained are shown in Table 5.

d) Consequences of Stress

The mean ratings of the responses to the 25 symptoms of stress are shown in Table 6. The distribution of the responses measures through skewness ranged from - 50 to 34; the standard deviations ranged from .36 to 1.25.

All of the 25 outcomes of stress, with the exception of item 22 ($r = -.01$), correlated positively with the PSS (r ranging from .03 to .76; thirteen items, $P < .01$). In the case of self - reported nervousness and stress (PSS - Item3), 20 items correlated positively, and five of these correlated significantly ($P < .01$), the remaining five items correlated negatively (r 's ranging from $-.06$ to $.09$). The correlations with work stress were in general lower and none was significant (r ranging from .07 to .28, with items 25 and 23 negatively correlated (r 's = $-.19$ and $-.08$, respectively) (see Table 6).

The 25 symptoms of stress were subjected to a principal components analysis. The first extracted factor accounted for 22.3% of the total variance (72.7%), with 24 out of 25 items loading positively on this factor. These loadings ranged from .106 to

.743 and are shown in Table 6. A varimax rotated factor matrix with an orthogonal solution for two or more extracted factors yielded a solution with 8 factors.

Factor I was labelled 'Psychological and somatic consequences of Work Stress' (sample of items included: job dissatisfaction - items 16, 15, 21, 24, exhaustion - item 18, occupational self-devaluation - item 20, boredom - item 17, lack of interest in the profession -item 23, in order of importance). Considering loadings of .50 and above, this factor was composed entirely of items other than PSS items. Factor II was labelled 'Lack of effectiveness in managing life events' (composed by items 4, 7, 6, 10, 25, 5 in order of importance), factor III 'Inability to cope' (items 8, 14, 2, in order of importance), factor IV 'Occupational self-devaluation' (items in order of importance: 20, 23, 15, 16,) factor V 'Time pressures' (items of importance: 13, 24, 11, 21), factor VI 'Unpredictability of life events' (items 1,3,5 inversely correlated), factor VII 'Insecure work environment' (items 19,9), and factor VIII 'Uncontrolability of life events' (items of 12, 9 inversely correlated).

Sex differences were investigated for the symptoms of stress. A t-test was performed for each of the items to compare the mean responses for males and females on all biographical categories.

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Table 5: Sources of Stress: Biographical differences in means

| Item no. | Source of stress | Biographical characteristics | | | | Intention to Choose Teaching Again |
|----------|---|------------------------------|--------|-------------------------------|---------------|------------------------------------|
| | | Age | Sex | Length of Teaching Experience | Qualification | |
| 1 | Pupils' Verbal aggression and lack of respect. | | F > M* | | | |
| 2 | Constant testing of the teacher by pupils. | | | | | |
| 3 | Presence of a difficult student in the class. | | | | | |
| 4 | Students not doing their homework. | | | | | C1 > C2* |
| 5 | Students fighting in class. | | | | | |
| 6 | Presence of weak students who are unable to understand and learn. | | | | | |
| 7 | Students not paying attention when you teach. | | | | | |
| 8 | Confronting serious problems and also behavior problems. | | | Q1 > Q2** | | |
| 9 | Managing the class. | | | | | |
| 10 | Teaching in overcrowded classes. | | | | | |
| 11 | Size and physical condition of the classroom. | | | | | |
| 12 | Lack of participation of teachers in decision making and planning. | | | | | |
| 13 | A lack of encouragement from supervisors. | | | | | |
| 14 | The way school managers and supervisors behave towards you. | | | | | |
| 15 | Lack of specialization/ capacitation of school managers and supervisors. | | | | | |
| 16 | Lack of attention to teachers' conditions and unrealistic expectations from them. | | | | | |
| 17 | Being undervalued - Lack of respect and value for teachers. | | | | | |
| 18 | Lack of enough support from society. | | | | | |
| 19 | Friendship and not principles as a mode of organizational functioning. | | | | | |
| 20 | Teacher evaluation policies. | | | | | |

A4 > A1, A2, A3

F > M*

F > M***

F > M**

F > M**

F > M*

F > M**

Q1 > Q2**

Q1 > Q2**

Q1 > Q2*

F > M*

C2 > C1**

C2 > C1***

C2 > C1*

C2 > C1**

C2 > C1**

C2 > C1**

TEACHERS' STRESS: PREVALENCE,...

| Item no. | Source of stress | Biographical characteristics | | | | Intention to Choose Teaching Again |
|----------|---|------------------------------|---------|-------------------------------|-----------------------|------------------------------------|
| | | Age | Sex | Length of Teaching Experience | Choose Teaching Again | |
| 21 | When your performance is compared with that of other teachers. | | | | | |
| 22 | Threat of losing your job due to politics. | | | | | |
| 23 | Influence of personal opinions in choosing the outstanding teacher of the year. | | | | | |
| 24 | Salary discrimination between the teaching profession and other professions. | | | | | |
| 25 | Underappreciated in terms of knowledge. | | | | | |
| 26 | Lack of balance between amount of work and salary. | | | | C2 > C1** | |
| 27 | Lack of opportunity and sufficient resources for career promotion. | | F > M* | | | |
| 28 | Lack of encouragement from school principals and managers. | | | L2, L4 > L1, L3** | C2 > C1** | |
| 29 | lack of attention to teacher's economic and life commodities. | | | | | |
| 30 | Lack of job security in the teaching profession. | | | L4 > L3, L2, L1** | | |
| 31 | Great amount of work of teachers. | | | | | |
| 32 | Lack of cooperation from parents. | | | | | |
| 33 | Too high expectations from parents. | | | | | |
| 34 | Lack of teaching resources. | | | | | |
| 35 | Ambiguous and not feasible laws and regulations. | | | L1 > L2, L3, L4** | | |
| 36 | Taking work home. | | | | | |
| 37 | Lack of capacity to explain school subject content to pupils. | | | | | |
| 38 | Lack of enough time to attend to pupils' academic and non - academic problems. | | | | | |
| 39 | Demands my work makes on my relationships with my spouse / children. | | F > M* | L4 > L1, L3, L2** | | |
| 40 | Lack of interest in teaching. | | F > M* | | C2 > C1* | |
| 41 | Forced to teach a subject about which you do not have enough knowledge. | | | | | |
| 42 | Underpromotion - working at a level below my level of ability. | | F > M** | | | |



Biographical characteristics

| <i>Item no.</i> | <i>Source of stress</i> | <i>Age</i> | <i>Sex</i> | <i>Qualification</i> | <i>Length of Teaching Experience</i> | <i>Intention to Choose Teaching Again</i> |
|-----------------|--|------------------|------------|----------------------|--------------------------------------|---|
| 43 | Poor relationships among teachers. | A2 > A1, A3, A4* | | | | C2 > C1**** |
| 44 | working with colleague(s) who hold views opposite to your own. | | | | | |
| 45 | Holding more than one job or doing extra teaching. | | | | L4 > L1, L3, L2** | |
| 46 | Commuting - coming from and going to work. | | | | | |
| 47 | Working with those of the opposite sex. | | | | | |
| 48 | Ambiguous and delicate factors in decision making. | | | | | |
| 49 | Not being able to 'switch off' at home. | | | | | |
| 50 | Factors not under your direct control. | | F > M*** | | | C2 > C1* |
| 51 | Lack of information about pupils' psychology. | | | Q1 > Q2* | | |
| 52 | Personal beliefs and convictions conflicting with those of the organization. | A2, A3 > A1, A4* | | L3 > L4, L2, L1** | | C2 > C1** |
| 53 | Job demands on your private and social life. | | | | | |
| 54 | Covert discrimination and favoritism. | A2, A3 > A1, A4* | | L4, L3 > L1, L2** | | C2 > C1**** |
| 55 | Having to adopt a negative role (such as sacking someone). | | | | | |
| 56 | Lack of influence and power. | A2 > A3, A4, A1* | F > M** | | | |
| 57 | Misuse of my time by other people. | A2 > A1, A3, A4* | | | | |

Key: Age: A1 = Under 30, A2 = 30-40, A3 = 40-50, A4 = Over 50.

Sex: M = Male, F = Female.

Qualification: Q1 = Diploma & Under, Q2 = Post Diploma & University Graduate.

Length of teaching experience: L1 - 1 to 6 years, L2 = 7 to 13 years, L3 = 14 to 20 years, L4 = Over 20 years.

Willing to choose the teaching profession again: C1 = Yes, C2 = No.

* p < .05, ** p < .01, *** p < .001

TEACHERS' STRESS: PREVALENCE,...

Table 6 Psychological, Somatic and Behavioral Symptoms of Stress: Means, Correlations with PSS and PSS-Item 3, ITSI and Loadings on the First (unrotated) Factor.

| Item No | Symptom of stress | Mean | Correlation with | | Loading on | |
|---------|---|------|------------------|------------|------------|--------------------------|
| | | | PSS Scale | PSS Item 3 | ITSI Scale | first factor (unrotated) |
| 15 | Dissatisfied from job because my salary and benefits do not cover my life expenses. | 3.89 | .225 | .307* | .072 | .741 |
| 16 | Dissatisfied from job because lack of economic security for the future. | 3.76 | .217 | .365* | .157 | .743 |
| 3 | Felt nervous and stressed. | 3.66 | .361* | 1.000 | .121 | .519 |
| 2 | Found yourself thinking about the things you have to accomplish. | 3.64 | .693** | .186 | .288 | .519 |
| 13 | Unable to control the way you spend your time. | 3.27 | .380** | .365* | .209 | .421 |
| 7 | Felt that things were not going your way. | 3.27 | .653** | .096 | .252 | .446 |
| 1 | Upset because of something that happened unexpectedly. | 3.26 | .438** | .415** | .227 | .243 |
| 17 | Feel bored at work. | 3.23 | .144 | .275 | .012 | .653 |
| 11 | Angered because of things that happened that were outside your control. | 3.18 | .428 | .354* | .134 | .316 |
| 14 | Felt difficulties were piling up so high that you could not control them. | 3.10 | .765** | .298 | .128 | .471 |
| 10 | Felt that you were not on top of things | 2.97 | .725** | .123 | .081 | .461 |
| 5 | Felt you were not effectively coping with changes that were occurring in your life. | 2.92 | .377** | -.156 | .133 | .377 |
| 4 | Could not deal successfully with irritating life hassles. | 2.90 | .614** | -.068 | .263 | .436 |
| 18 | Felt exhausted at work. | 2.89 | .033 | .184 | .017 | .502 |
| 12 | Felt you were unable to control the important things in your life. | 2.68 | .388** | .103 | .148 | .106 |
| 19 | Felt insecure in job environment. | 2.64 | .340 | -.038 | .033 | -.029 |



| | | | | | | |
|----|--|------|--------|-------|-------|------|
| 9 | Unable to control irritations in your life | 2.60 | .445** | -.089 | .066 | .295 |
| 20 | Felt job is not as good as other jobs | 2.60 | .200 | .201 | .066 | .620 |
| 6 | Felt lack of confidence in personal ability to handle personal problems. | 2.56 | .696** | .092 | .190 | .436 |
| 21 | Relatively dissatisfied with job. | 2.48 | .254 | .197 | .035 | .660 |
| 22 | Dissatisfied from work because it takes most of my time. | 2.37 | -.014 | .148 | .000 | .298 |
| 8 | Found that you could not cope with all the things you had to do. | 2.34 | .680** | .093 | .082 | .326 |
| 23 | Not interested in profession | 2.03 | .134 | .217 | -.087 | .628 |
| 24 | Dissatisfied with job | 1.77 | .168 | .133 | .191 | .489 |
| 25 | I am absent from work more often than my colleagues. | 1.77 | .105 | -.061 | -.198 | .182 |

* $p < .01$, ** $p < .001$

These analyses revealed only one significant result. Females reported significantly higher degree of occupational self-devaluation as expressed in: 'feel job is not as good as other jobs', $t (df71) = 2.16, p < .03$.

- Relationship between Work Stress and Psychological, Somatic and Behavioral Outcomes of Stress:

Pearson product moment correlations were obtained between whole scale ITSI scores and PSS, SSS, and TSSS scores, the relationships were found significant and in the expected direction. Results are presented in Table 7.

Table 7 Correlations between whole scale PSS, SSS, TSSS and ITSI scores.

| | ITSI | PSS | SSS |
|------|------|--------|--------|
| TSSS | .234 | .776** | .785** |
| ITSI | | .304* | .063 |
| PSS | | | .220 |

* p < .01, ** p < .001

In order to assess the predictive power of each ITSI factor with respect to psychological outcomes or symptoms of stress, regression analyses were conducted in a step-wise fashion. In the first step-wise regression analysis considering the 16 factors extracted from the ITSI as independent variables and the PSS as the dependent variable yielded highly significant results for the predictive role of factors 13 and 6: 'job-community interface' and 'problems associated with teaching of pupils', values are depicted in Table 8.

Table 8 Multiple regression analysis--Perceived Stress Scale (PSS)--total sample (n = 73).

| Step variable | Multiple | | Beta Coefficient |
|---------------|----------|----------------|------------------|
| | R | R ² | |
| Factor 13 | 0.353 | 0.124 | 0.353 |
| Factor 6 | 0.501 | 0.251 | 0.355 |

F (1,71) = 10.131; p < .0022

F (2,70) = 11.731; P < .0000

The other factors did not enter into the equation. In the second step-wise regression analysis, considering the factors extracted from the ITSI as independent variables and the 25-item symptoms scale (TSSS) as dependent variable highly significant results were obtained for factors 3, 16, 13, and 1, in this order of predictive importance. That is teachers work overload, poor working conditions, job-community interface and management structure of the school are predictors of stress outcomes as measured by the TSSS. The other factors did not enter into the equation. Values are depicted in Table 9.



Table 9 Multiple regression analysis -- Total Stress Syntoms Scale (TSSS) -- total sample (n = 73).

| Step variable | Multiple | | Beta Coefficient |
|---------------|----------|----------------|------------------|
| | R | R ² | |
| Factor 3 | 0.296 | 0.087 | 0.296 |
| Factor 16 | 0.412 | 0.174 | 0.553 |
| Factor 13 | 0.478 | 0.229 | 0.576 |
| Factor 1 | 0.523 | 0.273 | 0.219 |

F (1, 71) = 6.84; p < .01

F (2,70) = 7.17; p < .001

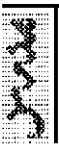
F (3,69) = 6.84 ; p < 0004

F (4, 68) = 6.40; p < .0002

4. Discussion

The results of this study reveal that 45.8% of the teachers from the sample of this study reported work stress in the 5 & 6 rating categories, which correspond to 'definitely is' and 'very definitely is a source of stress'. This finding discloses a higher level of occupational stress for primary teachers than that reported by other Iranian researchers [43] studying primary and secondary school teachers from Shiraz. This finding is, however, in agreement with previous findings in foreign countries [1,41,39,38,28,40], although the severity and scope of the problem reported in these countries appears to be even higher than that in the I.R. Iran [50,39,37].

Research performed abroad has generally found a high incidence of work stress among primary school teachers in comparison of teachers from middle or high school [1] and the reason cited for this state of affairs include among other things: a) the relatively lower levels of clerical and administrative support found traditionally in the case of the primary sector; b) primary schools are generally significantly smaller organisations than the other educational institutions, and therefore hold least options for variety, power and reward; c) the *perceived* image of primary school teaching by those both inside and outside the profession as one of a less demanding and less high status job, however mistaken this view may be; and d) the limited



teaching resources in primary schools, with the head teacher frequently called on to teach or substitute for brief periods for his/her staff. Considering the various analyses performed on sources of pressure experienced by teachers (Tables 2, 4, 6), these reasons seem plausible for Iranian teachers as well. It is pertinent to mention, however, that the issue of the difference between primary and secondary school and the nature of primary teachers' stress is still open within the Iranian context, since Rezai has reported no difference between these levels and the present study has focused only on the primary level.

Taking in consideration the high prevalence and incidence of teacher stress reported by foreign researches and the numerous significant but contradictory results found by the majority of works regarding the relationship of stress with biographical characteristics of teachers, it is suggested that perhaps a more fruitful avenue would be to investigate the personality characteristics rather than the biographical characteristics of teachers in inquiring about individual differences in teacher stress in the I. R. of Iran. The present research has yielded contradictory results in terms of sex differences in comparison to Rezai's work. Due to the limited number of subjects available for the present study, interaction effects must be interpreted with caution.

The mean ratings of the stressfulness of the 57 sources of stress indicate that the major sources of work stress cover a number of diverse aspects of the teachers' job. However, the presentation of the items in descending order of means in Tables 3 and 6 should be treated only as a general guide in view of the fact that when predictive statistics are carried out, those items with higher means are not necessarily considered in multiple regression equations as is the case in the present study in relation to the prediction of psychological, somatic and behavioral symptoms due to stress.

The principal components analysis of the sources of stress indicated that these may be described largely in terms of sixteen orthogonal factors: 'management structure of the school', 'relationships', 'teachers' work overload', 'pupil-teacher interaction', 'appraisal of teachers', 'problems associated with teaching of pupils', low organisational morale', 'lack of promotion and career opportunities', 'pupils' problems', 'poor teaching conditions', 'teacher undercapacitation', 'role ambiguity',



'job-community interface', 'limited teaching resources', 'personal demands of the teaching profession', and 'poor working conditions'. This study provides evidence for the multidimensional rather than unidimensional nature of sources of teacher stress and this finding is in agreement with Rezai's work which reports twelve factors as well as with foreign works of an early period [51,5,52] and of more recent times [36,25,10].

Considering factor analysis findings of the present study, it can be said that the managerial or organisational structure of the school is the major source of stress, followed by the type and nature of teachers' relationships in the job, teachers' work overload, pupil-teacher interaction and appraisal of teachers, as second, third, fourth and fifth factors, respectively. This finding is in contrast to the results obtained by Rezai, wherein the main source of stress was related to salary. In this respect, it should be mentioned that factor analytic studies with specific sub-groups of teachers have yielded differential factorial solutions or structures. For example, in a study involving British primary school teachers, the first four factors were: 'pupil misbehavior', 'poor working conditions', 'time pressures' and 'poor school ethos', These results are in contrast to those reported by Travers et al [25] and Cooper and Kelly [1] who considered secondary level and head teachers, respectively.

Differences in factor solutions may of course also indicate differences due to social and cultural contexts in which evaluation of stress takes place; thus, attention by researchers to this issue is of most importance for the establishment of genuine sources of stress in the teaching profession within the Iranian context.

This study has also revealed that particularly important sources of stress, in terms of intensity reported as measured by mean ratings (teachers' economic conditions and welfare, value and status of the profession and salary), or in terms of factorial structure of the sources of stress (managerial structure of school), are not necessarily the major predictors of outcomes of stress as measured by subjectively perceived general stress or by specific psychological, somatic and behavioral outcomes of stress derived from primary school teachers' work. Factors 3, 16, 13 and 1 which correspond to teachers' work overload, poor working conditions, job-community interface, and managerial structure of the school, respectively, were found to be the

main predictors of stress consequences. These findings suggest that there are some features in teachers' stress that are not intrinsic to the job and that can be tackled in an attempt to reduce stress.

The few differences for biographical subgroups in the importance of the sources of stress indicate that although there appear to be no significant differences in the overall level of work stress, the major sources of stress that contribute to the overall level may be composed somewhat differently. Moreover, this research does not support the contention that teachers' holding a second job are more vulnerable to occupational stress or suffer higher incidence of symptoms of stress.

The mean ratings of the 25 symptoms of stress indicate that 'feeling dissatisfied with the job due to lack of economic security for the future', 'feeling dissatisfied with the job because salary and benefits received do not cover life expenses', are the two most intensely felt outcomes of stress experienced. Furthermore, the loadings on the first (unrotated) factor indicate that these same psychological outcomes contributed the most to the negative disposition (affective, motivational and cognitive) expected to be a correlate (or negative response) of work stress (Kyriacou et al, 1977). It can be concluded, then, that there is a convergence between intensity ratings and factor analytic analyses in pinpointing the key role of psychological (as opposed to somatic or behavioral) consequences of work stress, namely, job dissatisfaction, in characterizing the nature of the outcomes of teachers' stress.

The criterion used to evaluate teachers' stress (ITSI) appear to have validity within the context of the questionnaire employed. Nevertheless, further research is warranted in order to establish its empirical validity, particularly in relation to response correlates of teacher stress and/or mediating individual and environmental variables that have been outlined by well-known models of teachers' stress [5,9] and by researchers who consider stress effects in general [53].

Finally, this research has elucidated important information on the type and intensity of work stressors, however, they apply to the demographic components of the questionnaire. Future research with more representative samples is warranted to establish the strength of the present findings and through these efforts provide the foundations needed for the initiation of preventive teacher stress management programs in this country.



5. References

- [1] Cooper, C.L. & Kelly, M. (1993). Occupational stress in head teachers: a national UK study. *British Journal of Educational Psychology*, 63, 130-143.
- [2] Cox. T. & Brockley, T. (1984). The experience and the effects of stress in teachers. *British Journal of Educational Research*, 10, 83-87.
- [3] Nevell, G. & Wahlund, I. (1981). Stressors and strain in white collar workers. In L. Levi (Ed.), *Society, stress and disease*. Vol. 4, *Working Life*, Oxford: Oxford University Press.
- [4] Kyriacou, C. & Sutcliffe, J. (1977). Teacher stress: A review. *Educational Review*, 29, 299-306.
- [5] Kyriacou, C. & Sutcliffe, J. (1978a). A model of teacher stress. *Educational Studies*, 4, 1-6.
- [6] Kyriacou, C. & Sutcliffe, J. (1979). Teacher stress and satisfaction. *Educational Research*, 21 (2), 89-96.
- [7] Phillips, B.N. & Lee, M. (1980). The changing role of american teachers: Current and future Sources of stress. In C.L. Cooper & J. Marshall (Eds.), *White collar and professional stress*. Chichester: Wiley.
- [8] Payne, R.L. & Fletcher, B.C. (1983). Job demands, supports, and constraints as predictors of psychological strain among school teachers. *Journal of Vocational Behavior*, 22, 136-47.
- [9] Tellenback, S., Brenner, S. & Lofgren. H. (1983). Teacher stress: Exploratory model building. *Journal of Occupational Psychology*. 56, 19-33.
- [10] Needle, R.H., Griffith, T., Svendsen, R. & Berney, C. (1980). Teacher Stress: Sources and consequences. *The Journal of School Health*, 10, 96-99.
- [11] Carranza, E. (1972). A study of the impact of life changes on high school teacher performance in the Lansing school district as measured by the Holmes & Rahe schedule of recent experience, Ph.D. thesis (Michigan State Univ.), DAI, 1973, 33, 9-A, 4996-7.
- [12] Dunham, J. (1976). Stress situations and responses. In *Stress in Schools*. Hemel Hempstead,: National Association of Schoolmasters.
- [13] Simpson, J. (1962). Sickness absence in teachers. *British Journal of Internal*

- Medicine*, 19, 110-115.
- [14] Solomon, J.C. (1960). Neuroses of school teachers. A colloquy. *Mental Hygiene*, 44, 79-90.
- [15] Hughes, C. (1990). Early retirement trend: inflating teacher shortage *Independent*, 5, November.
- [16] Bromley, D.A. (1981). The fate of the seed corn. *Science*, 313, 159.
- [17] Pellegrew, L. S. & Wolfe, G. E. (1982). Validating measures of teacher stress. *American Education Research Journal*, 19, 373 - 393.
- [18] Quick, J.C. & Quick, J.D. (1979). *Organizational stress and preventive management*. NY: Mc Graw-Hill.
- [19] Raschke, P.B., Dedrick, C.V., Stathe, M.J. & Hawkes, R.R. (1985). Teacher Stress: The Elementary's teacher perspective. *The Elementary School Journal*, 85 (4), 558-564.
- [20] Weiskoff, P. (1980). Burnout among teachers of exceptional children. *Exceptional Children*, 47, 18-29.
- [21] Werner, A. (1980). The principal's role: Support for teachers in stress. *Pointer*, 24, 54-60.
- [22] Kyriacou, C. & Sutcliffe, J. (1978b). Teacher stress, prevalence, source and symptoms. *British Journal of Educational Psychology*, 48, 159-167.
- [23] Rudd, W.G. & Wiseman, S. (1962). Sources of dissatisfaction among a group of teachers. *British Journal of Educational Psychology*, 32, 275-291.
- [24] Burke, R.J. & Greenglass, E. (1993). Work stress, role conflict, social support and psychological burnout among teachers. *Psychological Reports*, 73, 371 - 380.
- [25] Travers, C.J. & Cooper, C.L. (1993). Stress and status in teaching. *Management Review and Abstracts*, 6, 4, 16-23.
- [26] Dunham, J. (1984) *Stress in Teaching*. London: Croom Helm.
- [27] Pearlin, L.I. & Schooler, C. (1978). The structure of coping, *Journal of Health and Social Behavior*, 19, 2-20.
- [28] Laughlin, A. (1984). Teacher stress in an Australian setting: the role of biographical mediators. *Educational Studies*, 10, 7-22.
- [29] Patton, J. & Sutherland, D. (1986). Survey on symptoms of stress among EIS



- members in Clarkmannanshire schools (HMSO: Educational Institute of Scotland) Quoted in Travers & Cooper, 1993.
- [30] Gier, D.L. (1970). An investigation of dogmatism and stress of elementary student teachers, Ph.D. thesis (Univ. of Michigan), DAI, 31, 8-A, 4004.
- [31] Halpert, R.L. (1966). A study of the sources, manifestation and magnitude of stress among student teachers at UCLA, Ed.D. thesis (Univ. of California, Los Angeles), DAI, 1967, 27, 8-A, 2359.
- [32] Gough, R.G. (1974). The induction year-a sociological focus. MSc (Economics) thesis (Univ. of London, Institute of Education).
- [33] Taylor, J.K. & Dale, I.R. (1971). A survey of teachers and their first year of service. (Univ. of Bristol), Bristol, England.
- [34] Marland, M. (1971). Head of Department. London: Heinemann.
- [35] Anton, K.O. (1974). Identification and analysis of pressures on the secondary school principal relative to job satisfaction. Ph.D. thesis (Iowa State Univ.), DAI, 1974, 35, 1-A, 116-117.
- [36] Litt, M.D. & Turk, D.C. (1985). Sources of stress and dissatisfaction in experienced high school teachers. *Journal of Educational Research*, 78 (3), 178-185.
- [37] Pratt, J. (1978). Perceived stress among teachers: The effect of age, and background of children taught. *Educational Review*, 30, 3 - 14.
- [38] Kyriacou, C. & Pratt, J. (1985). Teacher stress and psychosomatic symptoms. *British Journal of Educational Psychology*, 55, 61-64.
- [39] Farber, B.A. (1984). Stress and burnout in suburban teachers. *Journal of Educational Research*, 77, 325-331.
- [40] McIntyre, T.C. (1984). The relationship between locus of control and teacher burnout. *British Journal of Educational Psychology*. 54, 235-238.
- [41] Docking, R.A. (1985). Changing teacher control ideology and teacher anxiety. *Journal of Education for Teaching*, 11, 63-76.
- [42] Motahar, K. (1370/1991). *Sources of stress among employees of the Iranian Ministry of Education*. Social Research Center, Office of the I.R. Of Iran Presidency.

- [43] Rezai, A.R. (1370/1991). Prevalence, sources and symptoms of stress among Iranian teachers. M.S. thesis, Shiraz University, I.R. Iran.
- [44] Furzin, Gh. (1373/1994). Comparative study on the level and sources of work stress among hospital nurses from cancer and general surgery units. M Sc thesis, Iranian Medical Sciences University, Tehran.
- [45] Zaghary-Tafreshi, M. (1374/1995). Stress in nurses. *Shafa*, 14, Tir-Mordad (July-August), 34-37.
- [46] Hassanzadeh, S. (1373/1994). Academic stressors among medical school interns from Shahid Babai School of Medicine, M Sc thesis, Ghazvin, I.R. Iran.
- [47] Sha'ari L. (1373 / 1994). Occupational stressors among librarians from the Tehran Medical Sciences University of tehran. MSe thesis Iraman University of Medical Sciences.
- [48] Kyriacou, C. & Sutcliffe, J. (1987). Teacher stress and burnout: An international review. *Educational Research*, 29 (2), 146-152.
- [49] Cohen, Sh., Kamarck, T. & Mermelstein, R. (1983). A global measure of stress. *Journal of Health and Social Behavior*, 24, 385-396.
- [50] Cox, T., Mackay, C.J., Cox, S., Watts, C., & Brockley, T. (1978). *Stress and well-being in school teachers*. Paper presented to the Ergonomics Society Conference on Psychophysiological Response to Occupational Stress, Nottingham University, Nottingham, England.
- [51] Coburn, D. & Jovaiscs, A.V. (1975). Perceived sources of stress among first-year medical students, *Journal of Medical Education*, 50, 589-595.
- [52] Rogers, R.E. (1971). Components of organizational stress among Canadian managers. *Journal of Psychology*, 95, 265-273.
- [53] Cooper, C.L., Bruce, D., Kirkcaldy, J. & Brown, J. (1994). A model of job stress and physical health: The role of individual difference. *Personality and Individual Differences*, 16 (4), 653-655.



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