

## A Study on Professional Stress of Engineering Teachers in the Chennai Region



Engineering

KEYWORDS :

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**ABSTRACT**

*Stress is currently a phenomenon that must be recognized and addressed in various professions and the teaching profession is no exception. Stress in the workplace can cause "job compassion fatigue". In the past teachers did not consider stress to be the primary cause when they needed to escape from the school environment, but rather claimed to be overworked in such a case. Far too many teachers have to take sick leave, whilst others are leaving the profession as a result of burn-out. Some teachers lack coping mechanisms to combat excess stress effectively, and this in turn can lead to absenteeism, alcohol and drug abuse, depression, frustration, hypertension, and other serious physical conditions, such as heart disease. Knowledge about stressors could be valuable in order to avoid and/or manage factors causing stress to teachers. The purpose of this particular research project was to establish which aspects of the teaching profession are stress-related in the George area. A questionnaire, of which one section was the "Fimian Teacher Stress Inventory", was administered to 132 secondary teachers. The data were statistically processed and the results interpreted. Interesting conclusions could be drawn from the results. Recommendations for teachers to manage their stress are based on these conclusions.*

**Introduction and background to the problem**

Stress is currently a phenomenon that must be recognised and addressed in various professions, because of the complexity of present-day society, and the teaching profession is no exception. On the contrary: if teachers nowadays want to escape from the school environment, they do not blame being overworked as in the old days, but rather complain about the work-related stress they experience (Saptoe, 2000:1). Cordes and Dougherty (1993:622) proclaim that such work-related stress causes "job compassion fatigue". In this regard mention is made of 'external' stressors causing stress, as the pressures come from the external environment, for example, from one's job or interpersonal relationships. On the other hand 'internal' stressors are related to the person him/herself, such as being ambitious, competitive, or materialistic (Yates, 1979:19). Dr Hans Selye, who is considered the pioneer of psychological stress (Everley & Rosenfeld, 1991:14) cautions that "complete freedom from stress is death", while some stress acts as a motivating agent for achievement. Such stress is necessary and contributes to a person's adequate functioning in life. However, various researchers indicate that a definite relation exists between work stress and a person's productivity (Warren & Toll, 1993:11). Too much or too little stress can reduce a person's productivity. Positive (good) stress (for example an opportunity, a promotion, a challenge) is referred to as 'eustress' by Fisher (1994:1) and Keiper & Buselle (1996:20). On the other hand, negative (bad) stress (e.g. tension, worry, frustration), which can cause serious ailments or discomforts, is called 'distress' (Keiper & Buselle, 1996:20) and this latter type of stress is likely to become the "disease of our time" (Schlebusch, 1998:11; Swart, 1987:162). Between these two extremes one can speak of normal stress (e.g. change, discomfort, noise), which is referred to as 'neutral' stress (Keiper & Buselle, 1996:20). Research done worldwide indicates that teachers' stress is becoming endemic (Van Wyk, 1998:3), which could have serious implications for the physical and mental health of teachers. Stress is considered to be the main factor contributing to job dissatisfaction, job related illness and early retirement in England (Van Dick, Phillips, Marburg & Wagner, 2001:258). A study by Tang (2001:892) indicated that the inadequate self-efficacy and negative attitude of Chinese teachers contributed to burn-out and was negatively linked to their mental health.

Work demands, pupil misbehaviour and negative feedback are the main contributors to teacher stress in Sweden (Jacobsson, Pousette & Thylefors, 2001:8). The same applies

for Scottish and Australian teachers, according to Pithers (1998:277). He commented that more stress similarities than differences are found in comparisons of teachers' stress internationally. Statistics (Van Wyk, 1998:5) indicate that teachers hand in more medical insurance claims than persons in other professions, have a four-year shorter life expectancy than the national average and often blame stress as reason for sick leave from school. Since each individual is unique, no two teachers will react the same way in a given stressful situation (Patel, 1991:25). One teacher may experience a situation as extremely stressful, while the next might experience it as exciting and challenging (Fisher, 1994:1). A person's reaction is largely determined by his/her type of personality (Patel, 1991:39, Yates, 1979:64). Furthermore, certain kinds of occupations are associated with higher stress levels. Biggs (1988:44) explains that persons in the helping professions are particularly prone to stress, because of their idealistic goals. Feldman (1998:165) lists teaching as one of the more stressful occupations. The South African educational system is in a transitional stage and change is the order of the day. The lack of discipline in schools, abolishment of corporal punishment, unmotivated learners, redeployment, retrenchments (right-sizing) and retirement packages for teachers, large pupil-teacher ratios and a new curriculum approach all contribute to raising the stress levels of teachers (Saptoe, 2000:6).

Furthermore, the new education approach of OBE, the management style of principals, new governing bodies for schools, the high crime rate in the country, coping with current political change and corruption in state departments are causing stress to teachers (Marais, 1992:306). Many teachers nowadays complain about low morale, illnesses such as hypertension, diabetes, ulcers and heart attacks, while others plan to leave the profession and go on early retirement (Saptoe, 2000:5; Van Wyk, 1998:5; Patel, 1991:115; Biggs, 1988:44). If a teacher reaches the stage of burn-out because of constantly functioning in stressful situations, it "involves a subtle but progressive erosion of behaviour, attitude, health and spirit that eventually inhibits an individual's ability to function effectively at work" (Berg, 1994:185). This is confirmed by Wrobel (1993:16), who contends that a significant number of teachers perceive the educational workplace as stressful, and will ultimately experience failure in their careers, or "job compassion fatigue" (Cordes & Dougherty, 1993:622).

### Working definitions

The concept stress is derived from the Latin word "strictus", which literally means taut (stiffly strung) (Van Wyk, 1998:18). Stress can be seen as physical force or pressure, or extreme scientific overload of an object, or a psychological condition brought about by specific demands of the environment on a person (Selye, 1974:82). For the purposes of this research, stress is seen as a psychological concept with negative connotations, which refers to a response to, or results from, the inability to cope with physical and/or mental demands, real or perceived, made on teachers as a result of their profession. This in turn causes an unpleasant emotional state (Saptoe, 2000:8; Louw & Edwards, 1995:628; Warren & Toll, 1993:9). Such stress can cause "job compassion fatigue" (Cordes & Dougherty, 1993:622). Berg (1994:185) confirms this as follows: "... (it) involves a subtle but progressive erosion of behaviour, attitude, health and spirit that eventually inhibits an individual's ability to function effectively at work". It involves emotional exhaustion, depersonalization and diminished personal accomplishment (Cordes & Dougherty, 1993:621), accompanied by frustration and strain.

Coping with stress refers to the prevention, avoidance or control of emotional stress (Pearlin & Schooler, 1978:12). It also refers to the reaction to reduce stress through effective management. This can include modification techniques, lifestyle changes or altering of the environment (Louw & Edwards, 1995:664; Cummings, Greene & Karraker, 1991 :92). It involves managing and reducing stress in such a manner that it brings the person relief. The concept teacher refers to a person, who is helping learners (children) to understand and learn, by giving them instruction in a school classroom (Hanks, 1990:1213).

### Statement of the problem and aim of the research

Based on the rationale given in the introduction, the primary problem of the research was formulated as follows: **What are the levels of stress in teachers in the George region?**

The secondary problem of the research was formulated as follows: **What is the extent of the relationship between certain identified stressors and stress in teachers in the George region?**

The primary aim of the study was thus to determine the levels of stress in teachers in the George region. The secondary aim of the study was to establish the extent of the relationship between certain identified stressors and stress in these teachers.

### Research design and methodology

#### Research design

A quantitative empirical investigation was done to solve the stated problem. The study can further be described as exploratory and nomothetic (Van den Aardweg & Van den Aardweg, 1993:157). The reason why a quantitative approach was preferred to a qualitative study stems from the specific problem statements, i.e. that the extent of teacher stress and the relevant relationships had to be quantified. It involved collecting information from a group of teachers by means of a questionnaire, including the "Fimian Teacher Stress Inventory" as one section of the questionnaire (Fimian, 1988:76). The data were statistically analysed and interpreted in order to test the following hypotheses:

**Null hypothesis 1 (H0,1):** The stress levels of teachers in the George area are equal to the population norm.

**Research hypothesis 1 (H1,1):** The stress levels of teachers in the George area are above the population norm.

**Null hypothesis 2 (H0,2):** The stress levels of teachers in the George area are not related to certain biographic variables and other identified stressors.

Research hypothesis 2 (H1,2): The stress levels of teachers in the George area are related to certain biographical variables and other identified stressors.

Based on the results of the research, some recommendations could be made.

### The Questionnaire

The "Fimian Teacher Stress Inventory" (FTSI) (Fimian, 1988) was used as part of the questionnaire to obtain the relevant information regarding the stress the teachers experienced in the schools in the George area. This inventory assesses the stress levels and manifestations within the context of the work situation. Although this instrument was developed in the USA, it has been used successfully in numerous South African studies (Van Wyk, 1998:140; Saptoe, 2000:68).

The questionnaire comprised three sections: Section A consisted of the biographic variables gender, years of experience as a teacher, age, home language and highest level of education; Section B involved 49 stress-related questions concerning factors which could cause stress to teachers and Section C presented 8 questions regarding the person's personal stress levels and the intensity with which he/she experiences stress.

The items in Section B are grouped under the following sub-headings:

#### 1. Stress factors

- Time-management (important to ensure balance between all the roles and tasks of teachers, e.g. time to relax, wasting of time, time for preparation);
- Work-related stressors (including a variety of environmental events, such as preparation, workload, big classes, administrative work and responsibilities at school);
- Professional distress (including facets such as promotion, progress, salary and opportunities or acknowledgement in the work place);
- Discipline and motivation (including two important facets of the teacher-learner relationship, namely teacher authority and learner under-achievement);
- Professional investment refers to personal involvement of teachers with regard to their jobs, their stimulation in their jobs and their opportunities of improving their intellectual abilities.

#### 2. Manifestations of stress

- Emotional manifestations (indicate the ways in which teachers respond to stress in the school, e.g. depression, anxiety);
- Fatigue manifestations (e.g. sleeping habits, exhaustion);
- Cardiovascular manifestations (e.g. blood pressure, heart palpitations);
- Gastrointestinal manifestations (e.g. stomach pains, cramps, acid), and
- Behavioural manifestations (e.g. using prescription drugs, using alcohol, calling in sick).

Participating teachers were requested to read the statements related to stress, as well as their response to the stress, and to indicate their degree of agreement or disagreement, on a five-point scale of strongly disagree, disagree, neutral, agree, and strongly agree. The fact that this inventory has been used extensively in the past, for the same purpose, is regarded as proof of its validity (Fimian, 1988:76). Cronbach's alpha coefficients were used to prove the reliability of the inventory scores. For the purposes of this research, item analysis per scale was done (e.g. the 5 items for professional distress, the 6 items for discipline and motivation, the 8 items for time management, the 6 items for work-related stressors, the 4 items for professional investment, the 5 items for emotional manifestation, the 5 items for fatigue,

the 3 items for cardiovascular problems, the 3 items for gastrointestinal problems and the 4 items for behaviour problems). All the alpha coefficients obtained from the item analysis in this study were greater than 0.70, which confirmed the reliability of the scores.

**The research sample**

The available research sample was from five randomly selected secondary schools in the George area, where a departure of teachers from the profession, because of health and psychological reasons, was reason for educational concern. This area was chosen for the investigation also because of the researcher’s informal experience of complaints of teachers in the local community. For the purposes of the study, the demarcation of the area and the inclusion of five schools were acceptable. Respondents from both single and dual medium schools, as well as different language and race groups were included.

**Data collection and analysis**

Permission was obtained from the Western Cape Education Department to conduct the survey, after which approval of all the randomly selected schools was acquired. All teachers on the staff of the selected schools were invited to become involved in the research. The principal of each school distributed and re-collected the questionnaires via the school’s secretary, after which they were collected from the school again by the researcher. A total of 132 teachers agreed to participate and completed the questionnaire. Owing to ethical considerations, respondents remained anonymous. The biographical details of respondents are summarised in Table 1.

Each questionnaire was checked to ensure that it was suitable for further processing. Finally the Institute for Statistical Consultation and Methodology of the University of Port Elizabeth conducted the processing and statistical analysis. A 5% level of confidence ( $p < 0.05$ ) applied in all inferential statistics.

**Table 1 Biographical details of respondents**

Variables	n	%	Variables	n	%
Gender:			Home language	78	61.4
Male	60	45.8	Tamil		
Female	71	54.2	English	28	22.0
Total	131	100.0	Telugu	21	16.5
Years of experience			Total	127	100.0
1 – 10	53	40.2	Highest education qualification		
11 – 20	58	43.9	Bachelors degree	1	0.8
21 – 30	18	13.6	Masters degree	73	55.3
31 +	3	2.3	Master of Philosophy	31	23.5
Total	132	100.0	Doctorate	27	20.5
Age (years)			Post Doctorate	0	0.0
20 – 30	17	12.9	Total	132	100.0
31 – 40	74	56.1			
41 – 50	34	25.8			
51 – 60	7	5.3			
61 +	0	0.0			
Total	132	100.0			

**Results of the research**

The data obtained were statistically analysed and the results of the responses of respondents are summarised in Tables 2 – 6. In addition to biographical information, the data consisted of responses to individual items in the questionnaire and summated

inventory scores that were calculated as the mean of related items. To facilitate reporting frequency distributions, responses were categorised into Low, Average, and High groups. These were either based on responses to single 5-point Likert scale items (1 and 2 = Low; 3 = Average; 4 and 5 = High) or summated inventory scores (between 1.0 and 2.6 inclusive = Low; greater than 2.6 but less than or equal to 3.4 = Average; greater than 3.4 = High). The cut points of 2.6 and 3.4 were based on the fact that the range of 4 (5 minus 1) had to be divided into 5 equal intervals of 0.8 each. The descriptive statistics relating to the manifestation of stress are reflected in Table 2. To test the first null hypothesis whether teachers’ stress differs significantly from the norm for the general population, one-sample t tests were conducted using the norms as reported by Van Wyk (1998:157). Significant results were obtained for the following manifestations:

Emotional ( $t = 5.54; p < 0.005; > 2.5$ )

Cardiovascular ( $t = 8.0; p < 0.005; > 1.9$ )

Fatigue ( $t = 10.21; p < 0.005; > 2.0$ )

Behaviour ( $t = 6.45; p < 0.005; > 1.5$ )

A non-significant result was obtained for Gastronomical ( $t = 0.52; p < 0.604$ ), the implication being that the value for the teachers did not differ significantly from the norm of 2.5, as determined by Van Wyk’s research (1998).

Based on the results summarised in Table 2 it can be concluded that teachers’ stress manifests itself mainly on an emotional level, as well as to a lesser degree but still significant level (approximately one out of five) on a physical level (cardiovascular, gastronomical symptoms and fatigue). Silverman (1986:409) warns that prolonged stress can lead to physical problems such as migraine headaches, hypertension and peptic ulcers. This is of particular concern given that almost a third (31.1 %) of the respondents recorded high scores for the emotional manifestation of stress. Only a small proportion (approximately one out of 15) of teachers experienced behaviour disorders such as alcohol and drug abuse. (It can be assumed that they are highly unlikely to report these in any case.)

The results in Table 3 clearly indicate that a relatively large proportion (approximately one out of five) of teachers experienced high levels of psychological stress with regard to both the incidence and intensity thereof. The fact that more than 20% of the respondents indicated high levels of stress is a cause for concern. It tells a story of a significant number of teachers that are highly stressed, which could impede the teacher’s functioning in the workplace. To determine the relationship between the biographical variables Gender, Years of Experience and Education and the factors that cause stress to teachers in the work environment, analysis of variance (ANOVA) was conducted. No significant relationships were found for the personal stress factors.

The results relating to the teaching environment stress factors are reported in Table 4. It is clear from Table 4 that both gender and home language were significantly related to time management. Home language was also related to professional investment. This confirmed that the second null hypothesis can be rejected with regard to the indicated biographical variables. It can also be reported that gender related significantly to work-related stressors and home language related significantly to professional distress and discipline, but only at the 0.10 (10%) confidence level.

To clarify the significant relationships, the mean scores were calculated and are included in Table 4 (only for significant results). From Table 4 it is clear that for both time-management

and work related stressors; female teachers had the perception that they experience higher levels of stress on average (0 = 3.78 and 0 = 3.76) than males (0 = 3.37 and 0 = 3.45). It was also clear for time-management that English-speaking teachers had the perception that they are experiencing higher levels of stress (0 = 3.85 vs 0 = 3.69, 0 = 3.13), whilst for professional investment Afrikaans-speaking teachers believed that they are experiencing higher levels of stress (0 = 3.27 vs 0 = 2.94, 0 = 2.57) compared to teachers with other home languages.

**Stress in teachers**

**Table 2 Statistics regarding manifestations of respondent's stress**

Manifestations	Low		Average		High		Total		Mean	SD
Emotional	59	44.7%	32	24.2%	41	31.1%	120	2.9	0.69	
Cardiovascular	63	47.7%	40	30.3%	29	22.0%	132	2.64	0.55	
Gastronomical	70	53.0%	35	26.5%	27	20.5%	132	2.56	0.66	
Fatigue	61	46.2%	47	35.6%	24	18.2%	132	2.8	0.9	
Behaviour	110	83.3%	93	70.8%	96	72.3%	132	2.78	0.83	

**Table 3 Statistics to indicate if personal stress is a problem to respondents (How intensely do you experience stress? Is stress a problem to you?)**

Experience of stress	Low		Average		High		Total	
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
Intensity of stress	64	49.2%	39	30.0%	27	20.8%	130	100%
Incidence of stress	72	55.4%	29	22.3%	29	22.3%	130	100%

**Table 4 ANOVA results depicting the relationship between factors that cause stress in the teaching environment and certain biographical variables**

Stress factor	Variable	Category	Mean	F	p value
Time management	Gender	Male	3.37	12.22	0.0007**
		Female	3.78		
	Home language	Tamil	3.69	6.15	0.0029**
		English	3.85		
Telugu		3.13			
Educational	-	-	2.22	0.1133	
Work-related stressors	Gender	Male	3.45	3.22	0.0754+
		Female	3.76		
	Home language	Tamil	-	2.03	0.1356
		English	-		
Telugu		-			
Educational	-	-	2.18	0.1172	
Professional distress	Gender	Male	-	0.12	0.7269
		Female	-		
	Home language	Tamil	4.04	2.63	0.0766+
		English	3.69		
Telugu		3.60			
Educational	-	-	1.63	0.2008	
Discipline	Gender	Male	-	1.57	0.2125
		Female	-		
	Home language	Tamil	3.98	2.86	0.0612+
		English	3.50		
Telugu		3.96			
Educational	-	-	0.04	0.9611	
Professional investment	Gender	Male	-	0.48	0.4916
		Female	-		
	Home language	Tamil	3.27	4.84	0.0095**
		English	2.94		
Telugu		2.57			
Educational	-	-	0.61	0.5429	

\*\* significant ( p < 0.01)

\* significant ( p < 0.05)

+ reportable at the 0.10 level

The results in Tables 5 and 6 highlight the impact of stressors other than the biographical variables discussed above. From Table 5 it is clear that teachers' stress was mostly caused by their job (almost a third (33.1%) of the respondents indicated job as a major cause of their stress), more so than family matters, marriage problems or trouble with neighbours. This conclusion was confirmed by a Chi-squared test ( P2 = 56.98; df = 2; p < 0.0005).

It is apparent from Table 6 that professional distress, lack of discipline and motivation of learners, work-related stressors and inadequate time-management were significant factors with regard

to stress in teaching. Among these factors respondents referred to inadequate salaries, unmotivated learners, big classes and time demands as causing the most stress to them. This is also confirmed in the literature (Van Wyk, 1998:156; Marais, 1992:2; Buwalda & Kok, 1991:118). Although discipline and lack of motivation can be singled out as the most important teaching factor that causes stress (74.2%;  $P_2 = 10.81$ ;  $df = 2$ ;  $p < 0.004$ ), all the other factors were also important contributing factors.

**Discussion of results**

The research results are now discussed in terms of possible implications, and recommendations are made to help teachers cope with the stress they experience at school. From the statistical analysis of the data it was clear that teachers do experience stress and probably suffer from "job compassion fatigue" in schools in the George area (Saptoe, 2000:68). This finding is confirmed by research done by Van Wyk (1998:156) and Marais (1992:2) for the Eastern Cape and Free State. Despite the fact that certain factors were causing stress to the teachers in the George area, they seemed to be coping fairly well in their jobs. However, it is alarming that more than 20% of the teachers were suffering from severe stress and "job compassion fatigue". The goal should always be to build on strengths and improve the mental state of teachers further. The National Department of Education should design valid and reliable procedures to monitor the stress levels of teachers, in collaboration with the National Research Foundation (Van Wyk, 1998:187). This will enable them to respond in good time to the needs that develop in this regard. In-service training and support services could then be planned timeously to solve the problem. 1. With regard to 'Professional distress' the respondents indicated that inadequate salaries cause a great deal of stress, especially when taking into account the after-hours input their jobs demand

**Table 5 Statistics regarding the factors that cause stress to respondents (Which of the following factors cause you stress?)**

Factors	Minor		Moderate		Major		Total		P2 p value
Job	58	44.6%	29	22.3%	43	33.1%	130	100%	0.0005**
Family	90	69.2%	22	16.9%	18	13.8%	130	100%	0.462
Marriage	109	83.8%	12	9.2%	9	6.9%	130	100%	0.016
Neighbours	122	93.8%	6	4.6%	2	1.5%	130	100%	0.000

\*\* contributing significantly more than the norm

**Table 6 Statistics regarding the factors that cause stress in the teaching environment (Identify the factors which cause you stress in your present position, by agreeing/disagreeing with the statements on the scale provided)**

Factors	Minor		Moderate		Major		Total		P2p value
Professional distress	14	10.6%	26	19.7%	92	69.7%	132	100%	0.088
Discipline and motivation	11	8.3%	23	17.4%	98	74.2%	132	100%	0.004**
Work-related stressors	14	10.6%	36	27.3%	82	62.1%	132	100%	0.508
Time management	10	7.6%	46	34.8%	76	57.6%	132	100%	0.014
Professional investment	44	33.3%	38	28.8%	50	37.9%	132	100%	0.000

\*\* contributing significantly more than the norm.

from them and how negatively their salaries compare with those

of people in the private sector and other government departments. That is perhaps the reason why some teachers embark on second jobs, mostly to the detriment of the school and the learners. Others look for other propositions and change to completely new jobs for the sake of better incomes.

2. With regard to 'Discipline and motivation' respondents expressed concern about the fact that learners do not obtain better results and they blame this on the learners' lack of discipline and motivation a fact that causes teachers a great deal of stress. They blame the lack of discipline to a large extent on the fact that corporal punishment has been abolished (Saptoe, 2000:75). This situation can wear dedicated teachers down and can become unbearable with further negative implications, such as burn-out or health problems.

3. With regard to 'Work-related stressors' the introduction of rationalization (right sizing) and the new learner-teacher ratios has resulted in teachers having to deal with extremely large classes. Respondents' biggest complaints were the demands of having to deal with large numbers of learners (in some cases up to 60 at a time in the George area), and lacking space, infrastructure and resources. This situation leads to more disciplinary problems and teachers have to tolerate a high noise level and general rowdiness in the class. This can lead to feelings of frustration and helplessness.

4. With regard to 'Time-management' respondents indicated that the unnecessary wasting of time during a normal school day, as well as the neglect of personal priorities because of time demands of the workplace and little time for recreation are causing stress to many teachers. Some teachers spend long hours at school, help with extramural activities, such as sports coaching or refereeing, or are involved in meetings after hours and do their preparation and marking at home at night (Saptoe, 2000:72). They also develop guilt feelings if time is wasted unnecessarily and the consequent increase in workload (guilt feelings impede their efficient and constructive functioning) makes it worse.

5. In the category 'Professional investment' the biggest concern of respondents was that they are not given the opportunity to air their opinions or concerns and that their authority is rejected by principals, other colleagues and learners. They feel left out if nobody listens to them. They want to participate and contribute to the decision-making process of the school. If they are left in the "cold" it may cause them to become despondent.

6. With regard to 'emotional manifestations' of teachers' stress some respondents indicated that they were experiencing feelings of depression. This can become a serious illness through which teachers can be absent from their jobs for long periods of time, and eventually even lose their jobs. Suicidal thoughts and suicide attempts are not excluded as possibilities in such cases. If some teachers take leave from school this in turn creates a heavier workload on the shoulders of other teachers and can create a vicious circle.

7. Some respondents also complained of cardiovascular and gastrointestinal symptoms, and fatigue.

**Recommendations**

1. According to the results in Tables 2, 3, and 5 stress manifests itself mainly on the emotional, cardiovascular, fatigue and behavioural levels of teachers, at different levels of incidence and intensity and is caused mainly by their job. It is therefore recommended that principals and the Department of Education acknowledge emotional and physical health of teachers as important contributors to their efficient job functioning. Provision should be made for balance in their work program for each

year. Coping with stress cannot be seen in isolation, but should cover all aspects of daily living (Squelch & Lemmer, 1994:181). Individual teachers must find ways to manage stress, for example, physical exercise and recreational activities, enough sleep, and a healthy diet (Keiper & Buselle, 1996:21). They can also practise the use of internal stress management strategies, such as positive self-talk, stress relief thinking, relaxing exercises and rest (Keiper & Buselle, 1996:21; Lamb, 1995:25; Beard, 1990:112). A teacher should furthermore develop his/her own personal plan to combat stress, for example, delegation of responsibilities, setting of realistic goals, better time-management and realistic self-assessment (Beard, 1990:113; Swart, 1987:162). Belonging to a support group can also help teachers to handle stress more effectively through the supportive relationship (Van Wyk, 1998:192; Keiper & Buselle, 1996:21; Travers & Cooper, 1996:174; Squelch & Lemmer, 1994:181; Beard, 1990: 113). In the case of serious problems teachers should consider external support strategies and obtain professional help, for example, medical help, therapy, learning of appropriate skills, or counseling (Saptoe, 2000:74). Stress management should form part of the curriculum of potential teachers and schools should organise workshops for teachers on how to deal with excess stress. Teachers who clearly know what is expected of them and who can manage to do their tasks, will have less stress. Experiencing that you make a difference in the lives of learners by improving their quality of life also reduces stress. Teachers should realise that they could link up with the strength of the Almighty through prayer and meditation, which provides them with a religious anchor to hold on to, according to Keiper & Buselle (1996:21).

2. Regarding the results in Tables 4 and 6, the following suggestions are made (more specifically addressing the factors contributing to the main stressors) to help release the stress teachers are experiencing:

- With respect to 'professional distress' teachers should be made aware of the fact that teaching is a vocation, and they should seek satisfaction and fulfillment in the changes they manage to bring about in the lives of their learners. If teachers across the board behave professionally it could improve the public image of the teaching profession and that could result in improved salaries. Dissatisfaction of teachers should not result in destructive and negative conduct, such as vandalism and strikes, because such actions take place to the detriment of the learners. For this reason stress coping skills should be included in the curriculum of prospective teachers and in-service training programs. If their training is improved they will feel more confident in their jobs (Keiper & Buselle, 1996:21; Travers & Cooper, 1996:174).

However, teaching also provides a living for them. In this regard they need to develop effective budgeting skills. It is further recommended that the best possible representatives of teachers unions negotiate a better salary structure (Saptoe, 2000:71), to improve their situation and to prevent teachers from leaving the profession. The school must also consider incentives for teachers to supplement or compensate for their inadequate salaries (Saptoe, 2000:74; Travers & Cooper, 1996:174) and reward extra effort and responsibilities appropriately. The school governing bodies can review these incentives annually. The Government must realize its responsibility in this regard and design better conditions of service, remuneration scales and promotion opportunities for teachers (Saptoe, 2000:77; Keiper & Buselle, 1996:21; Travers & Cooper, 1996:174; Beard, 1990:113).

- With reference to 'Discipline and motivation' teachers should be innovative and find effective ways other than corporal punishment to handle undisciplined behaviour of learners (Saptoe, 2000:71). The subject advisors should take responsibility for motivating the teachers in their teams, who in turn will hopefully become more enthusiastic and therefore motivate the learners.

The establishment of routines and effective classroom management will probably do much to improve discipline in classrooms. Teachers, who serve as role models, should instill self-discipline and furthermore present interesting lessons to learners to capture their attention and co-operation in class. Teachers must also make an effort to understand the problems of the learners and find ways to make them feel special and accepted.

Teachers should furthermore empower themselves more through further studies and regular workshops, by means of which they can gain confidence in themselves as teachers, through improved knowledge, skills and positive attitudes (Keiper & Buselle, 1996:21; Travers & Cooper, 1996:174). This in turn will enable them to become more effective teachers and motivate their learners more effectively. Co-operative teaching, interesting lessons and developing a sense of ownership in classroom duties and decision making can also help in motivating the learners.

The principal and his/her management team must take the initiative and responsibility with regard to discipline in the school. The school has to put a proper policy and code of conduct in place and ensure that all involved in the school know the rules (Saptoe, 2000:75). They can appoint a disciplinary committee, consisting of teachers, learners and parents to handle incidents. The clear guidance of the Education Department in this regard is suggested by Van Wyk (1998:187), who proposes that the South African Schools Act be revised to allow teachers to maintain order in schools.

- With regard to 'Work related stressors' it is correct to admit that disciplinary strategies that work for small classes cannot be used for large classes. Teachers must be kept up to date with new teaching innovations through in-service training, and strategies such as group work must be implemented effectively (Saptoe, 2000:72; Keiper & Buselle, 1996: 21), even if necessary with additional help from voluntary assistants, such as available parents (Saptoe, 2000:72). Nash, Stock & Harper (1990:379) suggest that teachers become familiar with their own personal and social resources. Increased support mechanisms should be created (Travers & Cooper, 1996:174). With respect to large classes, well-managed peer assessment could also be considered. Governing bodies could monitor numbers and possibly appoint additional teachers out of school funds to alleviate the problem and to maintain high standards. Another suggestion is to combine two classrooms (such as in the case of pre-fabricated classrooms) in order to create more space and to have two teachers handling such a class group (Saptoe, 2000:75). Even poor communities have been resourceful and made sacrifices to build additional classrooms. Space should be well organized (Nash, Stock & Harper, 1990:379). The fact remains that the factors causing stress should be changed (Swart, 1987:162) and that which cannot be changed should be accepted (Lamb, 1995:25). Before introducing drastic changes of rationalization teachers should be consulted. A pleasant work environment is conducive to productivity and not only includes the physical environment, for example, facilities, resources and little disturbance, but also involves positive interpersonal relationships (Beard, 1990:113). The Education Department must be made aware of problem situations and should take responsibility for helping to solve them, e.g. by providing more schools and facilities.

- With reference to 'Time-management' prospective teachers need to receive specialised life skills training in time management. Teachers should learn to make full use of allocated class time and utilize their time constructively and effectively through self-discipline. They should lead a balanced life in which they also make time to relax (Nash, Stock & Harper, 1990:379). They should not volunteer for all committees and tasks (Lamb, 1995:25), merely for the sake of being more visible. They should

be able to handle stress better through practising a hobby or getting physical exercise (Nash, Stock & Harper, 1990:379). Teachers should also learn when to say "no", for example when they are unable to do a task or if the task is not their responsibility, and transfer more responsibilities to the learners (Travers & Cooper, 1996: 174). Teachers should not bite off more than they can chew (Lamb, 1995:25) and should share responsibilities with other colleagues (Selye, 1979:176). They can also try to find someone to help them or to replace them. Proper classroom management and a daily journal also save a great deal of time (Keiper & Buselle, 1996:21). It is the responsibility of the principal and his/her management team to see to it that no time is wasted during the normal school day (Saptoe, 2000:73). Furthermore, it is crucial to compile proper job descriptions for teachers and ensure that the work is spread out evenly among all, to prevent overloading of those conscientious individuals, who find it difficult to say no when asked to do a particular task.

• With regard to 'Professional investment' teachers must learn to apply life-skills and coping skills, such as assertiveness (Saptoe, 2000:73; Nash, Stock & Harper, 1990:379). The principal must put an "open channel" of communication in place so that teachers feel free to communicate with him/her. His/her leadership style will be crucial in this regard. A democratic and participatory management style should include teachers in the decision-making structures of the school (Squelch & Lemmer, 1994:181). If teachers can be actively involved in the well-being of the school and make a positive contribution in this regard, their opinions will be valued and asked for and they can become part of the school's policy-making (Travers & Cooper, 1996:174). Teachers must set realistic goals for their professional lives and order their priorities (Nash, Stock & Harper, 1990:379).

They should not take too much work home (Swart, 1987:162).

The Education Department must also put proper communication channels in place to the school. Furthermore, long leave for teachers needs to be re-introduced to give them a much-needed break from teaching when necessary (Saptoe, 2000:78). Politicians should also refrain from attacking and accusing teachers from public platforms, as this only contributes to low morale of teachers and a negative outlook towards the teaching profession as a whole. Less negative publicity in the media will contribute to an improved professional and public image for teachers (Travers & Cooper, 1996:174).

## Limitations

The following limitations of the study are acknowledged:

1. Not all the teachers in the southern Cape could participate in the study, because it was not required by the scope of the investigation.
2. Other data-collection methods than the questionnaire were not used, but could possibly confirm the results.
3. The results of the research cannot be generalised, because of the limited scope of the investigation.

## Conclusion

The results of this investigation indicated that the stress levels of teachers in the George area are average, but teachers nevertheless expressed concern about teaching factors that cause them stress. In this regard they mentioned inadequate salaries, lack of discipline in the school, unmotivated learners, coping with large classes, time demands, lack of involvement in decision-making, and emotional reactions such as depression. Teacher stress must be reduced, the negative implications of this stress must be addressed, and the confidence in the teaching profession must be restored. In this regard the responsibility lies not only on the shoulders of individual teachers, but also on principals of schools, school governing bodies, the Education Department and the Government. Education rightfully deserves a proud place in the community.

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