A CROSS-SECTIONAL STUDY OF TEACHER STRESS AND JOB SATISFACTION AMONG SOUTH AFRICAN INDIAN TEACHERS IN THE DURBAN AREA

BY

HARI NARAIN GARBHARRAN

Submitted in partial fulfilment of the requirements for the degree of

MASTER OF MEDICINE

in the
Department of Psychiatry
University of Natal

Durban

1990 .

ABSTRACT

There is growing concern over the large number of Indian teachers in South Africa resigning from the profession to seek alternate employment or to emigrate. Despite this concern, very little empirical research has been undertaken to investigate the probable sources of stress and dissatisfaction among Indian teachers in this country. The present study was planned to investigate the incidence and association between emotional distress, work-related stress and job satisfaction among South African Indian teachers.

The research design involved the analysis of data on Psychological Stress, Event Stress and Satisfaction with Teaching, which was obtained from a sample of 75 Indian teachers drawn from schools in the Durban area.

Informed consent was obtained from the subjects prior to participation in the research. The 30-item General Health Questionnaire (GHQ), a Teacher Stress Questionnaire consisting of a 25-item Event Stress Inventory and a 25-item Satisfaction With Teaching Questionnaire, were administered.

The following were the major findings:

- The degree of emotional distress experienced by Indian teachers was significantly high.
- 2. Although the overall levels of work-related stress were high they were not significantly related to the number of years of teaching experience or to the mental health of the teachers.

- 3. There was a positive association between psychological distress and job dissatisfaction. The older teachers experienced greater psychological stress and job dissatisfaction.
- 4. Secondary school teachers were found to be experiencing more severe degrees of psychological distress, much higher levels of work-related stress and lower levels of job satisfaction than primary school teachers.

The findings highlight the need for further research and have implications for therapeutic intervention.

In this research the statistical planning and analyses, and recommendations arising from these analyses, have been done in consultation with Dr.Piet Bekker from the Institute for Biostatistics of the Medical Research Council.

PREFACE

This study represents original work by the author and has not been submitted in any form to another University. Where use was made of the work of other authors it has been duly acknowledged in the text.

The experimental work described in this dissertation was carried out in the Department of Psychiatry, University of Natal, and at Indian schools in the Durban area, from July 1988 to January 1990, under the supervision of Professor W.H. Wessels.

ACKNOWLEDGEMENTS

The author wishes to express his sincere gratitude to the following individuals for their assistance in the preparation of this dissertation:

Professor W.H.Wessels, supervisor, Head of the Department of Psychiatry, University of Natal, for his expert guidance, constructive criticisms and valued suggestions.

The Chief Executive Director of Indian Education for his permission to conduct the study.

The Principals of the various schools for their kind assistance in the distribution and collection of the questionnaires.

Mr. Basil Joseph Pillay (Clinical Psychologist, King Edward VIII Hospital), for his valued suggestions, constant guidance, concern and assistance.

Mrs. Pamela Naidoo (Clinical Psychologist, King Edward VIII Hospital), for proof reading of the preliminary draft of the dissertation.

To the subjects who participated in this study, without whom this study would not have been possible.

A special word of gratitude to my wife Sudha, for her constant support and encouragement and her limitless composure and perseverance in typing the draft and manuscript.

Finally, I wish to thank my children Vandana and Upendra, for their patience, forbearance and assistance throughout the period this project was in progress.

TABLE OF CONTENTS

		PAGE
CHAPI	IER 1 - INTRODUCTION	1
1.1	AIM	4
1.2	HYPOTHESES	4
CHAP	TER 2 - REVIEW OF RELATED LITERATURE	5
2.1	INTRODUCTION	5
2.2	HISTORICAL BACKGROUND	6
	2.3 CONCEPTUALISATION OF STRESS	6
	2.3.1 Locus of Control	9
	2.3.2 Learned Helplessness	10
	2.3.3 Personality Factors and Stress	10
	2.3.4 Previous Experiences and Life Events	11
	2.3.5 Bio - Psycho - Social Model	13
2.4	OCCUPATIONAL STRESS	1 3
2.5	TEACHER STRESS AND SATISFACTION WITH TEACHING	15
2.6	A BRIEF HISTORY OF INDIAN EDUCATION IN NATAL	24
2.7	CONCLUSION	26

CHAPI	rer 3 - PAT	TIENTS AND METHODS	29
3.1	SAMPLE SE	LECTION	29
3.2	INSTRUMEN	IS USED	30
	3.2.1	The 30 - Item General Health	
		Questionnaire	30
	3.2.1.1	Scoring	30
	3.2.2	Teacher Stress Questionnaire	31
	3.2.2.1	Biographical Inventory	32
	3.2.2.2	Event Stress Inventory	32
	3.2.2.2.1	Scoring	33
	3.2.2.3	Satisfaction With Teaching	
		Questionnaire	33
	3.2.2.3.1	Scoring	33
	3.2.2.4	Remarks	34
	TER 4 - RE		35
4.1		SON OF GHQ AND CGHQ SCORES	
	OF THE SA		37
	4.1.1	·	
		of Groups A, B & C	37
	4.1.2	Pairwise t-test of GHQ and CGHQ	
		Scores of Groups A, B & C	39
	4.1.3	Mean Total GHQ and CGHQ Scores	
		of Primary and Secondary Teachers	40
	4.1.4	Levels of Distress among Primary and	
		Secondary Teachers	41
4.2		SON OF EVENT STRESS SCORES OF	
	THE SAMPL		44
	4.2.1	Mean Total Event Stress Scores of	
		Groups A. B & C	1.1.

	4.2.2	Pairwise t-test of Event Stress	
		Scores of Groups A, B & C	45
	4.2.3	Mean Total Event Stress Scores of	
		Primary and Secondary Teachers	46
	4.2.4	Item Analysis of Event Stress Scores	47
4.3	A COMPARI	SON OF SATISFACTION WITH TEACHING	
	SCORES OF	THE SAMPLE	49
4	4.3.1	Mean Total Satisfaction With Teaching	
	•	Scores of Groups A,B & C	49
	4.3.2	Pairwise t-test of Satisfaction With	
		Teaching Scores of Groups A, B & C	50
	4.3.3	Mean Total Satisfaction With Teaching	
		Scores of Primary and Secondary	
		Teachers	5 1
	4.3.4	Item Analysis of Satisfaction With	
		Teaching Responses	52
4.4	A COMPARI	SON OF PSYCHOLOGICAL STRESS, EVENT	
		ND SATISFACTION SCORES IN RELATION	
		OF EXPERIENCE AND SEX OF SUBJECTS	5 3
CHAP	TER 5 - DI	SCUSSION OF RESULTS	5 7
5.1	LEVELS OF	PSYCHOLOGICAL DISTRESS	5 7
			0 1
5.2	THE RELAT	CIONSHIP BETWEEN PSYCHOLOGICAL DISTRESS	
		RS IN THE TEACHING ENVIRONMENT	59
5.3	THE RELAT	GIONSHIP BETWEEN PSYCHOLOGICAL DISTRESS	
		FACTION WITH TEACHING	61
			_

R	E	F	Ε	R	E	N	С	E	S	6
Α	Р	P	E	N	D	I	Х			

Α	Consent	72
В	The 30-Item General Health Questionnaire	73
С	Teacher Stress Questionnaire	77

LIST OF TABLES

TABLE	DESCRIPTION	
I	Factors associated with Psychological Distress among Teachers	20
II	Items from the Satisfaction With Teaching Questionnaire on which Teachers most frequently rated themselves as Fairly Dissatisfied or Very Dissatisfied	23
III	Number of Schools, Teachers and Pupils in South Africa: 1987	26
IA	Demographic Characteristics of the Subjects in the Study	35
V	Mean Total GHQ and CGHQ Scores of Groups A, B and C	37
VΙ	Pairwise t-test of GHQ Scores of Groups A, B and C	39
VII	Pairwise t-test of CGHQ Scores of Groups A, B and C	40
VIII	Mean Total GHQ and CGHQ Scores of Primary and Secondary Teachers	41
IX	Distribution of GHQ Scores among Primary and Secondary Teachers	42
Х	Mean Total Event Stress Scores of Groups A, B and C	44

ΧI	Pairwise t-test of Event Stress Scores of Groups A, B and C	46
XII	Mean Total Event Stress Scores of Primary and Secondary Teachers	47
XIII	Item Analysis of Event Stress Responses of Subjects with GHQ Scores > 4	48
XIV	Mean Total Satisfaction With Teaching Scores of Groups A, B and C	49
ΧV	Pairwise t-test of Satisfaction With Teaching Scores of Groups A, B and C	51
XVI	Mean Total Satisfaction With Teaching Scores of Primary and Secondary Teachers	5 2
XVII	Item Analysis of Satisfaction With Teaching Responses of Subjects with GHQ Scores > 4	53
XVIII	Psychological Stress, Event Stress and Satisfaction Scores in Relation to Years of Experience and Sex of Subjects	54
XIX	Generalised Least Square Means of Psychological Stress, Event Stress and Satisfaction Scores according to Years of Experience	55

LIST OF FIGURES

FIGURE DESCRIPTION

1.	Bar Diagram Illustrating the Differences	
	Between The Mean Total GHQ and CGHQ Scores	
	of Groups A, B and C	38
2.	Pie Diagram Illustrating the Breakdown	
	of GHQ Scores (N = 75) in Relation to Primary	
	and Secondary Teachers	43
3.	Bar Diagram Illustrating the Differences	
	Between the Mean Total Stress Scores of	
	Groups A, B and C	45
4.	Bar Diagram Illustrating the Differences	
	Between the Mean Total Satisfaction With	
	Teaching Scores of Groups A, B and C	50

CHAPTER 1

INTRODUCTION

Stress is a common phenomenon and much has been written about its nature, aetiology, effects and management. There is a dearth of empirical research and literature regarding stress in Indian teachers in South Africa.

The subject of teacher stress has attracted considerable public and research attention in countries such as the United States, Australia and the United Kingdom (Kyriacou and Sutcliffe,1977; Louden, 1987; Lortie, 1975; McLaughlin and Shea, 1960). Dunham (1976), in a study of 658 schoolteachers concluded that more teachers are experiencing stress and that the incidence of severe stress is increasing.

A study of the cognitive correlates of teacher stress and depressive symptoms by Hammen and de Mayo (1982) demonstrated substantial levels of subjective stress associated with teaching. Teacher stress was reflected both in absences from work and in the relatively high occurrence of depressive symptoms.

Kyriacou and Sutcliffe (1978) examined various approaches used in the study of occupational stress. They postulated a model which would enable meaningful research to be conducted on the subject of teacher stress. According to these authors:

"Teacher stress may be defined as a response of negative affect (such as anger or depression) by a teacher usually accompanied by potentially pathogenic physiological and biochemical changes (such as increased heart rate or release of

(such as increased heart rate or release of adrenocorticotrophic hormones into the bloodstream) resulting from aspects of the teacher's job and mediated by the perception that the demands made upon the teacher constitute a threat to his self-esteem or well-being and by coping mechanisms activated to reduce the perceived threat".

There is an increased focus on the role of stress among South African teachers. In a special edition of TASA News (March 1988), articles from different South African newspapers relating to problem issues in teaching, were compiled. These articles highlighted the frustration being experienced by teachers 'in their efforts at negotiating a more acceptable working dispensation'. Some of the titles read as follows: "Teachers angry at being ignored", "Fed-up teachers may unionise", "Teachers on a collision course", "State not keeping promises - teachers", "Concern over teachers leaving", and "Teachers to plan new strategy".

Recently, there has been an increase in the number of Indian teachers in Durban presenting to psychiatrists, psychologists, physicians and general practitioners with psychosomatic complaints and psychiatric disorders. A review of the literature reveals that little empirical research has been done on the subject of teacher stress among Indian teachers in South Africa. The Research Bureau Probe conducted by the Teachers Association of South Africa [TASA] (1980), surveyed certain areas of work conditions of Indian teachers by means of a detailed questionnaire. The areas that were examined in this questionnaire included 'the job itself', 'rewards', 'work environment', 'management and supervision', 'personal factors', 'pupils', 'job satisfaction' and

'morale'. This study helped to highlight areas of stress and satisfaction or dissatisfaction among teachers. The extent or degree of emotional distress experienced by teachers in the sample was, however, not reliably measured with the use of any recognised instruments such as an anxiety scale. Without a valid estimation of such levels of psychological distress, comparative studies with teachers belonging to other education departments or other race groups, is not possible. Furthermore, the above study highlighted certain factors relating to the job description of teachers (eg.the amount of paperwork), as stressors. Factors in the teaching environment (according to Finlay-Jones, 1986), can "be defined 'post hoc' as stressors because of their statistical association with a measure of emotional distress".

Although there is regular exposure in the media on problems facing teachers in South Africa, empirical research on job stress and job satisfaction in teaching needs to be conducted. In view of the above considerations, a study was planned to measure the extent to which South African Indian teachers experience emotional distress, and the extent to which their working conditions are associated with emotional distress and job satisfaction or dissatisfaction. Ιn addition, the study would help to provide guidelines for the amelioration and prevention of stress in South African Indian teachers. This, in turn would decrease the chances of burnout occurring in pre-disposed individuals. Finally, such a study would stimulate further research in teachers of other racial groups so that comparisons between the groups could be made.

1.1 AIM

The aims of the study were:

- To determine the proportion of teachers who experience emotional distress.
- 2. To determine the degree of stress in teachers.
- 3. To highlight the factors in the teaching 'environment contributing to job stress and job dissatisfaction.
- 4. To examine the relationship between teacher stress and the following factors:
 - years of teaching experience
 - sex of subjects
 - type of school
 - nature of appointment
 - satisfaction/ dissatisfaction

1.2 HYPOTHESES

The following hypotheses were tested:

- South African Indian teachers experience a significant degree of emotional distress.
- There is a significant relationship between the mental health of teachers and workrelated stress.
- 3. There is a significant relationship between the degree of stress experienced by teachers and the degree of job satisfaction.

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

"The fields of psychology and ergonomics, psychiatry, internal medicine, physiology and pharmacology, sociology and anthropology all devote substantial resources to the study of stress. There has been concern for individual and community health, for greater work efficiency and job satisfaction." (Cox, 1978).

The fact that stress is an unavoidable aspect of modern life and can have serious effects on one's health, is well recognised. Such knowledge is obtained via the media-from radio, television, newspapers, magazines, pharmaceutical advertisements, etc., as well as encounters with practitioners, and other members of the medical profession.

Human beings experience stress as an unpleasant state of emotion. Researchers on stress have distinguished between 'eustress' (positive) and 'dystress' (negative) (Bernard, 1968; Selye, 1974; Pines, 1982). 'Eustress' is associated with adventurous, exciting and thrilling experiences, while 'dystress' is the painful, unpleasant kind of stress, which drains or exceeds the adaptive resources of the individual. The term 'stress' should thus be called, more appropriately, 'dystress'. An individual possesses a threshold or limit which is partly determined by the coping resources which he or she has developed. Stress occurs when internal and external demands go beyond this limit or threshold. Although some people appear capable of coping with

almost anything, studies have shown that once a certain limit is exceeded these powers begin to fail.

2.2 Historical Background

The use of the term `stress', as people currently understand it, is not very old. Throughout the nineteenth and early twentieth centuries it was loosely associated with ill-health. Pollock (1988), notes that the term `stress' rarely occurred in the psychiatric and psychological literature before the end of the second world war. It has only been in the last few decades that the importance of stress as a scientific concept, and its relationship to ill-health have become established.

In the 1920's Cannon studied the physiological effects of emotional arousal and demonstrated that physiological processes were influenced by emotional states. During the 1940's, Hans Selye established the concept of stress as a physiological state. He coined the term 'Stress' which he later stated should have been 'strain', the term used in physics. As in physics, it refers to a number of factors which exert pressure on the object to which some force is directed. (Selye, 1974). However, the term stress is now commonly and universally accepted.

2.3 Conceptualisation of Stress

There have been various attempts to provide a comprehensive and adequate definition of stress. Different points of view and various approaches have been described in the literature (Cox, 1978; Fisher,

1986). Baum and Singer (1987) conceptualise stress as follows:

"The `popularity' of stress, in part, is due to its central role in a person's reactions to environmental pressures, demands, threats, and so When an organism is placed in a situation in which some threat or danger is present or in which demands may overwhelm abilities to cope, a number of biological and psychological changes occur, behaviour is altered, and, in some cases, health is affected. We know that these changes occur; when people are crowded, exposed to noise, placed in demanding jobs with little control, faced with the death of a loved one, threatened with toxic exposure, or presented with major life changes, they exhibit many of these changes and a tendency to become ill. Stress is the process by which this occurs-by which external events are translated into psychological and biological changes and, ultimately, into health consequences. Stress includes the event and the perceptions of it, the response, and, ultimately the consequences".

Selye (1956, 1976) proposed a stage theory of stress which he termed 'The General Adaptation Syndrome'. He called the first stage 'Alarm Reaction', because during this time the body mobilizes it's forces to ward off stresses. In the second stage, 'Resistance', the individual is able to function in an apparently normal fashion. In stage three, called 'Exhaustion' adaption can no longer occur because of the severity of the cumulative effects of damaging stress. The General Adaptation Syndrome has for many years proved to be the dominant model used by the scientific and behavioural

sciences to explain the nature of stress and the stress reaction.

Fisher (1986), reviewed different approaches to the conceptualisation of stress and classified them as follows: stimulus (independent) variables; response (dependent) variables and internal (intervening) variables. Stimulus variables refer to stress variables found in the environment which could be physical or psycho-social. If environmental factors threaten to disturb the homeostasis of the individual and cause stress, the individual uses resources (eg. physiological and behavioural responses) in an attempt to terminate the stress and thus restore equilibrium. variables refer to the physiological or behavioural responses of the individual to stresses eg. sweating, the presence of circulating hormones such as catecholamines and cortisol. Internal variables refer to the individual's mental structures which determine the degree to which stresses are perceived and experienced. The importance of intervening mental activities in determining stress has also been emphasized by various interactional and transactional models.

Cox (1978), proposed a transactional model of stress, consisting of five stages. The first stage is determined by the person's external environment and also by internal needs which may be physiological or psychological. The second stage is concerned with how the individual perceives the demand and his own coping abilities. If there is an incongruence between perceived demand and perceived capability, stress will occur. The third stage is concerned with psychophysiological changes which represents the

response to stress and the coping methods which the individual possesses. The fourth stage refers to the consequences of coping. Both actual and perceived consequences are regarded as important. The fifth stage, is concerned with 'feedback', (which occurs at all other stages in the 'stress system', and has an effect on the outcome at each of these stages (eg. the consequences of failure influence the perception of demand, the perception of the capacity to cope and the damage caused by failure).

The above model of stress, regards stress as an intervening variable associated with the transaction between the individual and his environment.

In similar vein other modern stress models have evolved (Fisher, 1986; Baum & Singer, 1987). These models emphasize factors such as 'appraisal' (i.e. the individual's evaluation of what is occurring and what can be done in a given situation), and 'coping' (i.e. the cognitive and behavioural effort utilized to reduce, control or tolerate external and internal demands). Other psychological factors which are closely associated with appraisal and coping include the method in which an individual anticipates a situation; whether he is inner or outer orientated ('locus of control') and the influence of learned helplessness or hopelessness.

2.3.1 Locus of Control

The concept of `locus of control' evolved from a background of social learning theory (Lefcourt, 1976; Fisher, 1986). It helps to differentiate individuals who feel they have personal control over goals (`internalisers'), from those who do not

('externalisers'). Individuals thus differ in the manner in which they seek control. Some may favour personal skill, whereas others may opt for social or political control. 'Internals' are regarded as potent, effective and assertive, whereas, 'externals' are the opposite, and are prone to depression, feelings of helplessness or hopelessness and stress reactions (Abramson and Seligman, 1978).

2.3.2 Learned Helplessness

The concept of learned helplessness was developed by Seligman (1975). It refers to a state in which the individual feels that his actions can no longer produce desired changes in the environment and therefore, there is no point in continuing to try. He argued that life events have their greatest effects when the individual is unable to control them. This results in feelings of helplessness with associated behavioural inactivity. This response can become generalised and subsequently lead to the development of clinical depression and anxiety. Cox (1978) regarded helplessness as a valid aspect of the response to stress and he emphasized the importance of helping the individual to re-establish `control over his situation'. He felt that any help which did not succeed in doing this might leave the individual still feeling helpless, regarding his situation as `hopeless'.

2.3.3 Personality Factors and Stress

Research has demonstrated the important association between personality factors and arousal pattern (Pollock, 1988). Studies were done by Glass (1977) with Type A and Type B individuals. He found that Type A

individuals exert greater effort to control stressful events. The Type A individual is described as aggressive, ambitious, intense, moody and hostile. He exhibits an obsessional, perfectionist drive for prestige; an exaggerated sense of time urgency and is driven by extreme competitiveness, with no time for leisure. Such individuals are at greater risk of developing physiological symptoms including cardiac problems, due to the arousal pathology associated with high catecholamines and with the effects of shifts between sympathetic and parasympathetic activity.

The Type B individual is described as easy-going yet serious, less competitive with more time for leisure and hobbies. It is suggested that Type A individuals are genetically predisposed to exhibit the typical form of behaviour described above, although the extent to which they actually do so is modified by numerous other factors such as social milieu, manner of upbringing and type of occupation. This approach therefore argues that certain individuals are programmed to generate their own stress and are consequently at a higher risk of illness.

2.3.4 Previous Experiences and Life Events

An individual's experiences throughout life, especially in childhood, play an influential role in personality development. Just as the body develops susceptibility or immunity following exposure to infections, similarly, with exposure to psychological experiences, the development of a strong ego and adequate defence mechanisms (or vice versa), occurs. This suggests that, throughout an individual's life history there may be distortions in the developmental evolution of strategies against stress.

Holmes and Rahe (1967) investigated the relationship between 'life events' and illness. They acknowledge the significance of earlier research by investigators such as Parloff, Wolff and Selye who demonstrated the causal relationship between stress and illness. Holmes and Rahe (1967) emphasized the importance of life events such as marriage, bereavement, loss of spouse, etc., and alloted a score to each event in order of importance. The impact and varied effects of life events were demonstrated. Both positive changes (such as marriage) and negative changes (such as death or divorce) are considered stressful because both types require adjustments by the individual to new behaviour patterns.

Many criticisms have been levelled against the study of life events because it does not take into consideration the subjective evaluation of the event by the subject. Several theorists have highlighted the important features of this subjective evaluation which may be, for example, 'negative or positive', 'unexpected or anticipated' (Vingerhoets and Marcelissen, 1988).

Life events may also be viewed from a developmental perspective (Erikson, 1968; Levinson, 1978). Crisis periods occur between each stage of adult development and may involve significant re-evaluation of one's personal or professional life. These periods may have significant effects on an individual's self-esteem, marital relationship, or faith and investment in work. Though `normative', these transitional periods are nonetheless stressful, and leave an individual with a lowered capacity to cope successfully with other daily stresses.

2.3.5 Bio - Psycho - Social Model

Over the past decade the important relationship between health and psycho-social factors has been increasingly recognised in research and in therapy. Researchers, eg. Perris (1984), have become increasingly aware that the dominant position of the biochemical and neurophysiological perspective on health problems requires to be supplemented by findings derived from social scientific research.

Recent findings in stress research and in therapy within the field of stress and coping suggest that these findings can significantly contribute to the development of the bio-psycho-social model ie. a new, workable model (Mc Ewan, 1988). According to Strain (1978):

"Recent research has provided compelling evidence that psychological, social, and cultural -as well as biological-factors are involved, to varying degrees, in the initiation, course, and outcome of pathophysiological processes".

2.4 Occupational Stress

The literature on occupational stress has distinguished many different classes of job-related stressors and has shown correlations between these stressors and issues such as job satisfaction and worker productivity. It has been further demonstrated that job (or 'occupational') stress leads to dissatisfaction and to both psychological and somatic strain among workers in a variety of occupations (French, 1973; Kahn, 1964). The relationship between the perceptions of stressful situations and employee health and well-being has been

well documented by several studies (Beehr and Newman, 1978).

The psychological dimensions of the work environment includes the cognitive and the emotional spheres which can be inherent in the work itself or be an aspect of the work environment. Pines (1982), has shown that the cognitive and emotional spheres of the work situation have a major effect on the psychological well-being of the individual. According to him, the cognitive sphere is influenced by variables such as 'autonomy', 'variety' and 'overload', while the emotional sphere includes such variables as 'significance' and 'actualization and growth'.

Farber (1985) emphasized the important role that the tone and quality of the individual's daily relationships with family members and friends play in job satisfaction and job stress. For example, an individual with marital difficulties, would find it difficult to feel relaxed or comfortable at work, to care for clients or to gain satisfaction from the job. On the other hand, good relationships with family and friends provide a support network that mitigates the impact of work-related Bhagat (1980) also reiterated the stresses. interactive relationships between work-stress and life stress. He noted that high levels of work-related stresses, for example, role conflict, tended to increase the negative impact of life stress on work performance. The satisfactions and stresses of the individual's personal life and those of his professional life are. therefore, influenced by each other.

The relationship between occupational stress and health has received increased research attention over the past

two decades. In recent years there has been a greater concern with the effects of psychological variables such as time pressures, role conflict, decision-making and inter-personal relationships on the mental health of workers (Cooper and Marshall, 1980; Cherniss, 1980).

2.5 Teacher Stress and Satisfaction with Teaching

Numerous articles in both the popular press and professional journals have focussed on stress and job satisfaction in teaching (Finlay-Jones (1986). In one study, Kyriacou and Sutcliffe (1977) found that 73% of teachers in Britain were very satisfied or fairly satisfied with their jobs. They also noted a significant relationship between teacher stress and satisfaction.

Coates and Thoresen (1976) examined earlier studies (between 1933 and 1972) and noted that these studies focussed on variables such as `nervous breakdowns', `nervous symptoms' and `nervous conditions'(eg. fatigue, menstrual disorders, and situational reactions). These studies suggested that teachers experienced considerable strain, tension, or anxiety in the classroom, which could have serious negative effects on students. They conducted an extensive review of studies which considered teacher anxiety among beginning teachers and experienced teachers and summarized the findings of fifteen studies regarding the self-reported anxieties and concerns of beginning teachers as follows:

- a) their ability to maintain discipline in the class room,
- b) students' liking of them,

- c) their knowledge of subject matter,
- d) what to do in case they made mistakes or ran out of material, and
- e) how to relate personally to other faculty members, the school system, and parents.

It is further hypothesised by these authors that problems anticipated by beginning teachers may be greater than those actually experienced by them.

With regard to experienced teachers, different concerns and sources of tension were reported. In summary, the chief sources of teacher anxiety amongst experienced teachers as indicated by seven studies which were reviewed, related to the following:

- a) time demands,
- b) difficulties with pupils,
- c) large class enrollments,
- d) financial constraints, and
- e) lack of educational resources.

Coates and Thoresen (1976) state that it is difficult to determine from these data the specific situations or combinations of situations that result in tension, because survey studies usually cannot establish functional relationships between events and behaviour.

Hammen and de Mayo (1982), with the use of a Teacher Stress Inventory, a Depression Scale and an Attribution and Cognition questionnaire, did a study amongst urban high school teachers who were experiencing high levels of teaching-related stress. It was found that the teachers experienced a particularly high level of stress related depressive symptomatology. The actual sources

of stress were fairly large in number, and included, student problems, administrative decisions, inadequate parent and public support, and insufficient training. The study suggested that the common experience of lack of control over solutions to the above-mentioned problems constituted the key psychological dimension associated with the depressive symptoms.

Sharp and Forman (1985) quote a comprehensive review of the literature on teacher stress by Turk, Meeks and Turk. They found seven problem areas which were consistently identified:-

- a) Poor school environment
- b) Pupil misbehaviour
- c) Poor working conditions
- d) Personal concerns of the teachers
- e) Relationships with parents
- f) Time pressures
- g) Inadequacy of training.

An interesting survey of 245 elementary school teachers in South East Texas was conducted by De Frank and Stroup (1989). They used a model interrelating the variables of personal factors, job stress, job satisfaction and symptomatology. They concluded that demographic factors and teaching background did not influence stress, satisfaction or health concerns. Although job stress was found to be the strongest predictor of job satisfaction, this stress had no direct relationship with health problems. The study also invited teachers to write in additional problems in an open-ended format and these were classified by the investigators into eleven categories as follows:

- Evaluation/appraisals (which referred to both a teacher competency test and in-class appraisals.
- 2. Administrative problems.
- 3. Day-to day teaching concerns.
- 4. Time constraints.
- 5. Placement issues.
- 6. Extra-curricular responsibilities.
- 7. Lack of needed resources.
- 8. Student problems (especially those related to discipline).
- 9. Interaction with other teachers.
- 10. Parental problems.
- 11. Personal/professional concerns.

Another finding of this study was that job satisfaction was lower among those teachers who had difficulty with the administration and with personal or professional affairs.

A study amongst public school teachers conducted by Sakharov and Farber (1983) found that the most common complaint of these teachers was that their work was physically and emotionally depleting, leading to overeating, oversmoking, depression, stomachaches and headaches. In addition they regarded bureaucratic problems as a major source of stress and dissatisfaction. Education administrators, who were under pressure from the central office, in turn put pressure on their teaching staff. Eighty three percent of the teachers in the study were dissatisfied with bureaucratic indifference towards pupils. Another aspect of bureaucracy that was a source of dissatisfaction was the problem of involuntary transfers. Eighty percent of the teachers in the study had experienced involuntary transfers that they considered stressful. The majority of teachers were cynical, disenchanted and pessimistic about future possibilities for positive change and could not foresee any solutions.

Sarason (1971) noted that teachers often felt that they were judged by supervisors according to the amount of material that they were able to cover in a given amount of time, and by their success in keeping their classes quiet and well-behaved, rather than by their actual ability to promote learning as they saw fit.

Several studies have examined the effects of teacher anxiety on teaching performance and on students (Coates and Thoresen, 1976; Galloway et al., 1982). Teachers with low-anxiety levels had the highest student ratings of teaching effectiveness. Students of high-anxiety teachers were found to be more disruptive than students of low-anxiety teachers. These studies suggest that anxiety in teachers may have a detrimental effect on both the teachers and the pupils.

Louden (1987) designed and conducted an extensive survey of teacher stress using a stratified random sample of approximately 20% of teachers and lecturers in Western Australian schools and colleges. Psychological distress was measured by means of the 30 item General Health Questionnaire (GHQ). In addition, a Teacher Stress Questionnaire was administered and the items related to aspects of teachers' background, personality, teaching experience and working conditions which were regarded as potential stressors. The results of the survey indicated that 40% of the teachers in the study experienced psychological distress (ie.those with GHQ

scores > 4). Of greater significance was that about 18% of the sample had GHQ scores > 10 and were therefore described as suffering severe psychological distress.

The following table indicates the factors that were associated with psychological distress among teachers.

TABLE I
FACTORS ASSOCIATED WITH PSYCHOLOGICAL DISTRESS AMONG
TEACHERS
(adapted from Louden, 1987)

PRIMARY TEACHERS	SECONDARY TEACHERS
Feelings of ineffectiveness and powerlessness.	Feelings of ineffectiveness and powerlessness.
Inadequate classroom facilities	Inadequate school facilities.
Involuntary transfers.	Involvement in further study.
Lack of opportunities for part-time work.	Lack of Departmental support.
Pressure of involvement in educational research and development.	Pressure of involvement in educational research and development.
Professional isolation in the classroom.	Lack of promotional prospects.
Time pressures.	Time pressures.
Unacceptable student behaviour.	Unacceptable student behaviour.

The results of this study supported the hypotheses of the authors that many teachers experience high levels of distress and that a significant part of this distress was related to the cumulative effect of factors in the teaching environment. This survey is of importance for the following reasons:

- The results support the findings of other studies which describe teaching as being one of the most stressful occupations.
- The incidence of severe psychological distress was found to be about twice that among teachers than in the general community.
- 3. The results of the survey provide important insights into the complex and pervasive problem of teacher stress.
- 4. Recommendations which may help towards ameliorating some of this stress, are made by the researchers (Louden, 1987).

Finlay-Jones (1986) conducted a survey of over 2000 state employed teachers in Australia. They found that 17% of teachers showed signs of severe psychological distress (as measured by the General Health Questionnaire), compared with 9% of a random sample of the population (Henderson et al., 1979). One-third of the teachers with severe psychological distress was not exposed to high levels of work related factors. regard to the remaining two-thirds of teachers, it was found that with greater exposure to work-related factors the percentage of teachers with severe psychological distress increased. The following factors were found to be important sources of stress: student misbehaviour; poor classroom design; lack of school facilities; involuntary transfers; and invasion of spare time by work.

As part of a wider research programme, the `Stress in Teaching' project, Galloway et al. (1982) examined the issues of job satisfaction and dissatisfaction in 296 primary and intermediate school class-teachers working in the Wellington Education area of New Zealand. The

Satisfaction with Teaching questionnaire that was adapted and used had been developed in Canada and later revised in Australia.

Teachers' ratings of overall satisfaction were as follows:

~	Very Satisfied	12.5%
_	Fairly Satisfied	67.6%
-	Fairly Dissatisfied	16.2%
_	Very Dissatisfied	1.4%
-	Not Known	2.4%

Approximately 62.5% of the teachers regarded their jobs as being either moderately stressful, very stressful or extremely stressful. According to the authors, this difference between the stress and dissatisfaction scores suggests that the concepts of stress and dissatisfaction are relatively independent. Furthermore, it would be more acceptable and less threatening for many people to admit to feelings of stress than to feelings of dissatisfaction. The items from the Satisfaction with Teaching Questionnaire (in the above study), on which teachers most frequently rated themselves as fairly dissatisfied or very dissatisfied are listed in Table II.

The results of this study suggest that job satisfaction is determined by the interaction between the teacher and many different aspects of the school. About four-fifths of the teachers in the study were at least fairly satisfied with their job and job satisfaction was highest among experienced teachers.

TABLE II
ITEMS FROM THE SATISFACTION WITH TEACHING QUESTIONNAIRE ON WHICH
TEACHERS MOST FREQUENTLY RATED THEMSELVES AS FAIRLY DISSATISFIED
OR VERY DISSATISFIED

	Percent of Teachers
The methods used to small teachers for promotion	7.5
The methods used to grade teachers for promotion	75
The attitudes of society towards education	7 4
The opportunities for useful inservice education	7 3
The preparation time available during the school day	72
The factors used to determine salaries	67
The status of teachers in society	59
The amount of preparation and correction time requir	ed
of you during and out of school time	59
The availability of ancillary staff to assist you	59
The number of hours of non-teaching duties each week	
The availability of facilities for your recreation	
activities	47

Source: Galloway et al. (1982)

In the second part of the study (Galloway et al., 1984), the General Health Questionnaire and a Stress Inventory were utilised together with the Satisfaction With Teaching Questionnaire. Correlations revealed that poor mental health, as indicated by higher scores on the General Health Questionnaire, was significantly associated with:

- a) higher stress ratings on the Stress Inventory (p < .001).
- b) less job satisfaction as measured by the Satisfaction With Teaching Questionnaire (p <.001).

Another interesting finding was that children's behaviour and educational progress were the most important sources of stress. However, these factors were also amongst the most frequently noted sources of satisfaction. The authors' explanation for this

negative correlation between stress and satisfaction was that, although teachers may feel satisfied with their relationship with most pupils in their classes, they may experience acute stress about their relationship with a few individuals.

In summary, the various studies on teacher stress that have been discussed, highlight the fact that stress in teaching is an important field of study. Several studies examined the relationship of stress and satisfaction in teachers. In the construction of teacher stress questionnaires and inventories, local conditions were taken into consideration. instruments from other studies were used, these were adapted for the prevailing conditions. Most of the studies examined similar potential stressors in the teaching environment eg. student misbehaviour, time pressures, bureaucratic issues, classroom facilities, relationship with colleagues and supervisory personnel, Several of the studies made suggestions and recommendations to help reduce stress and increase the enjoyment and satisfaction in teaching.

2.6 A Brief History of Indian Education in Natal

The first group of Indians were brought to Natal in 1860, by the British Government, to work as indentured labourers in the sugar cane fields. According to Naidoo (1989), the first schools for Indians were started by missionaries. By 1875 Indian children were allowed to attend White schools. In 1894 Indian education was placed under the control of the Natal Education Department. At this stage, there were 2452 Indian pupils in 26 schools (Behr, 1988). In 1909, an

education commission appointed by the Natal Government found 'grave disabilities' such as overcrowding, a shortage of schools and trained teachers, prevented many Indian children from attending school. A shortage of qualified teachers plagued Natal and teachers had to be imported from overseas from time to time. State-aided schools, and the double-shift or platoon system helped to relieve some of the problems by providing education for a larger number of children. In 1966, the control of Indian education was transferred to the Department of Indian Affairs. In 1976, the South African Indian Council took over control of Indian education. According to Behr (1988), there was a dramatic increase in the enrolment at Indian teacher-training institutions in the 1980's. By 1983, the number of qualified teachers outstripped the demand.

At present, education in South Africa is controlled by four government departments providing education for each of the population groups.

A breakdown of the number of schools, teachers and pupils in South Africa in 1987 for the different ethnic groups is indicated in the table below:

TABLE III

Number of Schools, Teachers and Pupils in South Africa: 1987

	Schools	Teachers	Pupils
African education in			
white - designated areas	7,631	50,331	1,885,373
Non independent homelands	5.322	63,549	2,818,640
'Independent' homelands	5,744	50,964	1,940,846
Coloured education	2,023	34,837	812,889
Indian education	440	11,013	234,476
White education	N/A*	52,688	954,454
Total	21,160	263,382	8,646,678

^{*} N/A - Not available

Source: Cooper et al. (1987)

It is evident that the number of schools, teachers and pupils comprising Indian education is in the minority in comparison to the other population groups. Naidoo (1989) notes that much progress has been made in Indian education, both culturally and socially. He is of the opinion that because the Indians form one of the smallest minorities in South Africa, they would be unlikely to effect significant changes in future educational policy.

2.7 Conclusion

On the basis of the above review of the related literature on stress (in general), teacher stress and satisfaction, the following conclusions are warranted:

- Although the subject of stress is an important area of research in many disciplines, there is a dearth of empirical research and literature regarding stress in Indian teachers in South Africa.
- The importance of stress as a scientific concept and its relationship to ill-health have only been established in the last few decades.
- Various conceptual models of stress have evolved. Some of these models emphasize stimulus, response and internal variables; appraisal mechanisms; coping and control mechanisms. Other models focus on the interaction between the individual and his environment (transactional and interactional models).
- Personality factors; previous experiences and life events; `learned helplessness' and `hopelessness 'are other factors which are important in the understanding of stress.
- There is a significant degree of emotional distress experienced by teachers the world over.
- Teacher stress is associated with a variety of personal, social and physical factors eg. inter-personal relationships, status, discipline problems, availability of apparatus and classroom facilities.

- Beginning teachers sources of stress relate to concerns with self while those of experienced teachers relate to concerns with students and their educational growth and with personal teaching performance.
- Although research suggests that teacher stress has a potentially detrimental effect on teacher and pupils' behaviours, the specific effects of teacher stress remain unknown, largely because of the lack of reliable and valid measuring instruments.

CHAPTER 3

PATIENTS AND METHODS

3.1 SAMPLE SELECTION

The investigator randomly selected primary and secondary schools in the Durban area. The principals of these schools were contacted to explain the study and to request permission to conduct the research. Participation of teachers in the research was on a voluntary basis. Their informed consent was obtained in writing after the nature and confidentiality of the investigation was explained to them (see appendix A). Of the 150 questionnaires that were distributed, 90 were returned representing a 60% response rate. Of these, 15 were rejected either because of missing data (5 subjects), or the selection criteria not being fulfilled (10 subjects). A sample of 75 subjects was used in this study. Teachers of both sexes, in full-time employment, and from both primary and secondary schools, comprised the sample.

Teachers not holding an education diploma or degree were not considered. In addition, any teacher with a history of a psychiatric disorder was excluded from the study.

The teachers were divided into 3 equal groups according to their teaching experience as indicated below:

- Teaching experience: up to 5 years (Group A).
- Teaching experience: between 5 and 10 years (Group B).
- Teaching experience: greater than 10 years (Group C).

3.2 INSTRUMENTS USED

The research design of the investigation involved the analysis of questionnaire responses of three groups of teachers.

3.2.1 The 30 - item General Health Questionnaire [GHQ]

Psychological stress was measured by the 30-item General Health Questionnaire (Goldberg, 1972; 1978), which has been used in studies of teacher stress (Galloway et al.,1984) [See Appendix B]. This instrument provides a general measure of emotional distress (such as tension, anxiety and depression) and also of social dysfunction. It has been validated in several studies, correlating highly with psychiatric interviews (Goldberg, 1972; Henderson et al., 1979; Tennant,1977).

3.2.1.1 Scoring

Each item of the GHQ has four possible answers, which typically are: not at all, no more than usual, rather more than usual, and much more than usual. To obtain a conventional GHQ score, no points are allotted to either of the first two answers and one point is given for either the third or fourth answer. The points are added to obtain a total score within the range 0 - 30.

Respondents with GHQ scores of 5 - 10 are regarded as experiencing 'psychological distress', while those with GHQ scores > 10 fall into the category of 'severe psychological distress'.

According to Finlay - Jones (1986), one statistical disadvantage of the above scoring method is that many respondents obtain a score of zero. Goodchild and

Duncan-Jones (1985) described a modification of the traditional scoring method, which increased the likelihood of detecting chronically distressed people. Instead of allotting no points to the second answer, one point is given to the second answer of some of the items, namely, items 2, 3, 14, 15, 16, 18, 19, 21, 22, 23, 24, 25, 28, 29 and 30. This is known as the revised score, or CGHQ score. Using this scoring technique, it is possible, for a subject with an original GHQ score of zero to obtain a score as high as 15.

In the present study, both the GHQ and the CGHQ scores were calculated so as to increase the likelihood of detecting distress among the respondents and to compare the discriminating abilities of each scoring system.

3.2.2 Teacher Stress Questionnaire

A Teacher Stress Questionnaire was constructed by the investigator to examine factors potentially relating to stress and satisfaction in the teacher's work environment. This questionnaire was based upon the findings of previous research into teacher stress and upon the current conditions within the Indian education system in South Africa, which has already been reviewed in Chapter 2.

A pilot study was initially carried out by the investigator among 20 teachers from three primary and two secondary schools. A questionnaire was administered to them to ascertain whether the items were understood by them and whether they would produce the responses that were relevant to the investigation. These teachers were also requested to make critical comments on the

content and design of the questionnaire. Their suggestions were utilised in the drawing up of the final version (See Appendix C).

The Teacher Stress Questionnaire was sub-divided as follows:

- 1. Biographical Inventory.
- 2. Event Stress Inventory.
- 3. Satisfaction with Teaching Questionnaire.
- 4. Remarks.

3.2.2.1 Biographical Inventory

The biographical inventory was used to obtain information such as name, age, sex, marital status, qualifications, current extra-mural studies, and experience. In addition, other details such as the name and type of school, post held and information regarding previous or present medical and/or psychiatric illness and the type of treatment, were elicited.

3.2.2.2 Event Stress Inventory

This section of the Teacher Stress Questionnaire constituted 25 items which were concerned with sources of stress in the teacher's work situation. These sources were identified as having strong associations with psychological distress in the literature review. The items focussed on various aspects of the teaching environment such as teacher status; relationships with pupils, other teachers and parents; characteristics of the school; available facilities; and the conditions of employment.

3.2.2.2.1 Scoring

A three-point scale was used ranging from: not stressful, slightly stressful to very stressful. Each item was equally weighted. 'Not stressful' was assigned 0 points, 'slightly stressful' 1 point and 'very stressful' 2 points. The scores on these items were totalled to give an estimate of event stress (ie. exposure to stressors in the teaching environment). Higher scores were taken to be indicative of exposure to higher levels of stressors in the teaching environment.

3.2.2.3 Satisfaction with Teaching Questionnaire

This section of the Teacher Stress Questionnaire constituted 25 items which were concerned with sources of satisfaction or dissatisfaction in the teaching environment. The review of the literature regarded these sources as having strong associations with satisfaction and dissatisfaction. Items 21 and 22 (The present political situation in the country; The creation of 'own affairs' governing authorities in South African education), were included because of the influence of political governing authorities on the education system in South Africa (TASA News, March 1988).

3.2.2.3.1 Scoring

A five-point scale: very dissatisfied, fairly dissatisfied, neither satisfied nor dissatisfied, fairly satisfied, and very satisfied, was used. Each item was equally weighted. The following system of scoring was utilized for each item:

Points

Very Dissatisfied	-2
Fairly Dissatisfied	- 1
Neither Satisfied nor Dissatisfied	0
Fairly Satisfied	1
Very Satisfied	2

The scores on these items were totalled to give an estimate of satisfaction or dissatisfaction. Higher score values were taken to be indicative of higher levels of satisfaction and lower score values (ie. those within the minus range) were taken to be indicative of higher levels of dissatisfaction.

3.2.2.4 Remarks

In this section, subjects were given the option to write in additional problems which they regarded as being relevant to this study eg. other stress factors and other sources of satisfaction and dissatisfaction in the teaching environment. In addition, subjects were invited to comment on the different items of the Teacher Stress Questionnaire.

CHAPTER 4

RESULTS

Of the 75 subjects, 38 were female, ranging from twenty-five to fifty-three years of age (mean age 32.2 years), and 37 were male, ranging from twenty-three to fifty-five years of age (mean age 32.8 years). The mean age for the total sample was 32.5 years. The subjects' teaching experience ranged from one to thirty six years (mean experience 9.2 years). The demographic details of the subjects are presented in Table IV.

TABLE IV

Demographic Characteristics of the Subjects in the Study

Demographic	Group A	Group B	Group C
Characteristic	N = 25	N = 25	N=25
Age (mean yrs)	25.88	29.76	36.16
Experience (mean yrs)	3.74	7.98	18.76
Sex: male	12	12	13
female	13	13	12
Marital status:			
single	7	4	2
married	17	20	20
divorced	1	0	
widowed	0	1	2 1
Nature of appointment:			
permanent	22	25	22
temporary	3	0	3
Type of school:			
primary	16	11	15
secondary	9	13	10

Groups A, B and C were compared according to the following demographic characteristics:

Marital status
Nature of appointment
Type of school

The relationship between the groups on the above variables was tested for, using the Chi-square test.

As regards marital status, 'Divorced' (N = 3) and 'Widowed' (N = 2) could not be included in the Chi-square analysis, because their values were < 5. There was no significant difference between the groups as regards 'Single' (N = 13) and 'Married' (N = 57) [p=0.29].

There was no statistically significant difference between Groups A, B and C in terms of nature of appointment (p=0.19). It should be noted that there were only 3 subjects on temporary appointment in Group A (ie: up to five years teaching experience). There were only 3 subjects in Group C (ie: > 10 years teaching experience) who were on temporary appointment.

There was no statistically significant difference between Groups A, B and C in terms of type of school (p=0.41).

4.1 A COMPARISON OF GHQ AND CGHQ SCORES OF THE SAMPLE

GHQ and CGHQ scores of the sample were subjected to the following analyses:

Mean Scores of Groups A, B and C.

Pairwise t-test of GHQ and CGHQ Scores of Groups A, B and C.

Mean Scores of Primary and Secondary Teachers.

Levels of Distress among Primary and Secondary Teachers.

4.1.1 Mean Total GHQ and CGHQ Scores of Groups A, B and C

The result of the comparison between the mean total GHQ and CGHQ scores of Groups A, B and C on the 30--item General Health Questionnaire are presented in Table V and Fig. 1.

TABLE V
Mean Total GHQ and CGHQ Scores of Groups A,B and C

Mean Total Scores	Group A	Group B	Group C
GHQ	6.84	15.52	12.80
ССНО	12.12	19.48	18.16

MEAN TOTAL GHQ AND CGHQ SCORES OF GROUPS A, B AND C.

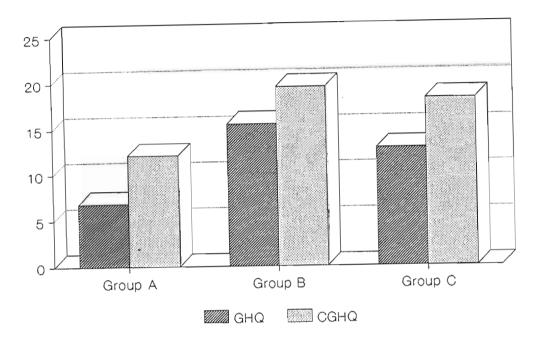


Fig. 1: Bar Diagram Illustrating the Differences
Between the Mean Total GHQ and CGHQ
Scores of Groups A, B and C.

The Mean Total GHQ scores of all three groups indicated distress (scores > 4 = `psychological distress'). However, Groups B and C (ie. scores > 10) fell within the category of `severe psychological distress'.

The Mean Total CGHQ score for each group was approximately 5 points greater than the corresponding GHQ score.

4.1.2 Pairwise t-test of GHQ and CGHQ Scores of Groups A, B & C

The Scores of the pairwise t-test of GHQ (separate variance) and CGHQ (pooled variance) for Groups A, B and C on the 30-item General Health Questionnaire are presented in Tables VI and VII.

TABLE VI
Pairwise t-test of GHQ Scores of Groups A, B and C

		E VARIANC	Ľ
Group	t-value	DF p-value	
A VS B	-3.99	37 0.0003	
A VS C	-2.77	37 0.0087	
B VS C	1.02	47 0.3141	

Pairwise comparison of GHQ scores of Group A differed significantly from Group B at the .001 level of significance (p = 0.0003). Group A also differed significantly from Group C at the .01 level of significance (p = 0.0087). There was no significant difference between Groups B and C.

TABLE VII
Pairwise t-test of CGHQ Scores of Groups A, B and C

Group	POOLE!	D VAR	I A N C E p-value
A VS B	-3.85	72	0.0003
A VS C	-3.16	72	0.0023

On the pairwise comparison of CGHQ scores, Group A differed significantly from Group B at the .001 level of significance (p = 0.0003). Group A also differed significantly from Group C at the .01 level of significance (p = 0023). Here again there was no significant difference between Groups B and C.

4.1.3 Mean Total GHQ and CGHQ Scores of Primary and Secondary Teachers.

The result of the comparison between mean total GHQ and CGHQ scores of primary and secondary teachers on the 30-item General Health Questionnaire are presented in Table VIII.

Mean	Primary Teachers N = 43	Secondary Teachers N = 32	t value p
GHQ	10.02	13.56	-1.72 0.10
CGHQ	15.26	18.69	-1.97 0.05

A t-test (2 sample analysis) was used. The Mean Total GHQ scores of both groups indicated `severe psychological distress' (GHQ scores > 10). Although the Mean Total GHQ score of the secondary teachers was greater than that of the primary teachers, this difference was not significant (p = 0.10). The Mean Total CGHQ score for each group was approximately 5 points greater than the corresponding Mean Total GHQ score.

4.1.4 Levels of Distress among Primary and Secondary
Teachers

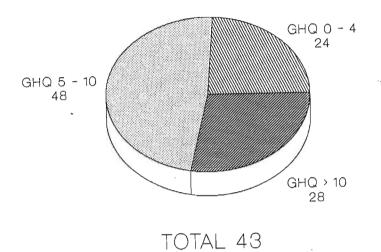
The result of an analysis of the levels of psychological distress (as measured by GHQ scores) according to type of school, is presented in Table IX and Fig. 2.

			PERCENTAGE	WITH
RESPONDENTS	N	GHQ SCORE 0 - 4	GHQ SCORE 5 - 10	GHQ SCORE > 10
Primary Teachers	43	24%	48%	28%
Secondary Teachers	32	15%	30%	55%
TOTAL	75	20%	40%	40%

Of the primary school teachers (N = 43), 48% had scores of 5-10 as compared to 30% of the secondary school teachers (N = 32). Forty percent of the total sample (N = 75) had scores within this range. These subjects could be regarded as experiencing psychological distress.

More significantly, 28% of the primary teachers and 55% of the secondary teachers had GHQ scores > 10. Of the total sample (N = 75), 40% fell within this range.

PRIMARY TEACHERS



SECONDARY TEACHERS

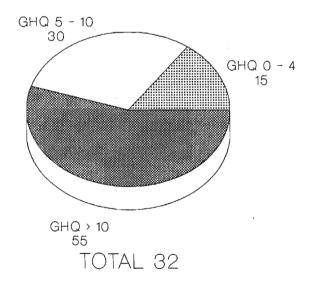


Fig. 2: Pie Diagram Illustrating the Breakdown of GHQ Scores (N = 75) in relation to Primary and Secondary Teachers.

Subjects with scores of this magnitude could be regarded as suffering severe psychological distress.

4.2 A COMPARISON OF EVENT STRESS SCORES OF THE SAMPLE

Event Stress scores were subjected to the following analyses:

Mean Scores of Groups A, B and C.

Pairwise t-test of Event Stress Scores of Groups A, B and C.

Mean Scores of Primary and Secondary Teachers.

Item Analysis of Event Stress Responses.

4.2.1 Mean Total Event Stress Scores of Groups A, B and C

The result of the comparison between the mean total Event Stress scores of Groups A, B and C on the 25 items of the Event Stress Inventory are presented in Table X and Fig. 3.

Group A	Group B	Group C	
22.56	26.76	26.28	

MEAN TOTAL EVENT STRESS SCORES OF GROUPS A, B AND C.

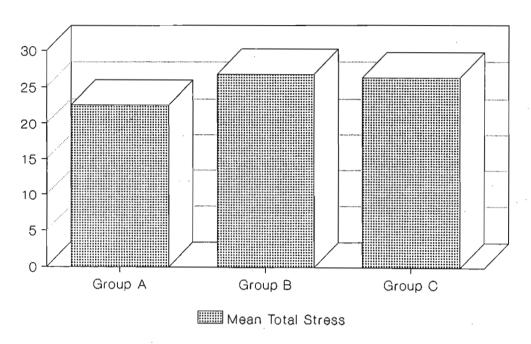


Fig. 3: Bar Diagram Illustrating the Differences
Between the Mean Total Event Stress
Scores of Groups A, B and C.

The mean total stress scores of all three groups are high (> 20; Total score = 50).

4.2.2 Pairwise t-test of Event Stress Scores of Groups A, B and C

The scores of the pairwise t-test of Event Stress (pooled variance) for Groups A, B and C on the 25 items of the Event Stress Inventory are presented in Table XI.

	POOLE	D V A	RIANCE
Group	t-value	DF	p-value
A VS B	-1.56	72	0.1232
A VS C	-1.38	72	0.1714

Pairwise comparison of Event Stress scores indicate that there were no significant differences between the groups.

4.2.3 Mean Total Event Stress Scores of Primary and Secondary Teachers

The result of the comparison between the Mean Total Event Stress scores of primary and secondary on the 25 items of the Event Stress Inventory are presented in Table XII.

TABLE XII

Mean Total Event Stress Scores of Primary & Secondary Teachers

PRIMARY TEACHERS	SECONDARY TEACHERS	t value	р
22.16	27.74	-2.50	0.02

A t-test (2 sample analysis) was used. The Mean Total Event Stress scores of both groups were high (> 20). The Mean Total Event Stress score of the secondary teachers was significantly higher than that of the primary teachers at the .05 level of confidence (p = 0.02).

4.2.4 Item Analysis of Event Stress Scores

The responses on the Event Stress Inventory of those subjects (N=60) who had GHQ scores > 4 (ie. psychological distress) were subjected to item analysis to ascertain which factors were associated with psychological distress. The results are presented in Table XIII. Only those items that were regarded as fairly stressful and very stressful by 50% or more of the teachers in the sample are tabled.

TABLE XIII Item Analysis of Event Stress Responses of Subjects with $$\operatorname{GHQ}$$ Scores > 4

No.	Item	Frequency
16.	There is a lack of time for recreational and social activities.	56
19.	There is a lack of positive feedback/ recognition of good teaching.	54
22.	I find it difficult to avoid debts with my present salary.	52
14.	There is insufficient time for preparation.	5 2
15.	I find it difficult to find time to relax between lessons.	5 1
18.	There is a lack of opportunities for personal growth and initiative.	50
3.	I find it difficult to do enough individual work with pupils.	49
9.	Pupils have difficulties in learning/understanding.	49
21.	There is a lack of proper school facilities and resources for teaching effectively.	48
5.	A child does not do as I tell him/her to.	45
1.	I have at least one problem child in my class.	44
4.	Pupils do not listen to what is said.	44
13.	The possibility of being transferred involuntarily makes me anxious.	44
2.	Some children do not obey instructions immediately.	4 3
23.	There is a lack of in-service training courses for teachers.	41

4.3 A COMPARISON OF SATISFACTION WITH TEACHING SCORES OF THE SAMPLE

Satisfaction with Teaching scores were subjected to the following analyses:

Mean Scores of Groups A, B and C.

Pairwise t-test of Satisfaction With Teaching Scores of Groups A, B and C.

Mean scores of Primary and Secondary Teachers.

Item Analysis of Satisfaction with Teaching Responses.

4.3.1 Mean Total Satisfaction With Teaching Scores of Groups A, B and C

The result of the comparison between the mean total Satisfaction With Teaching scores of Groups A, B and C on the 25 items of the Satisfaction With Teaching Questionnaire are presented in Table XIV and Fig. 4.

TABLE XIV

Mean Total Satisfaction With Teaching Scores of
Groups A, B and C

Group A	Group B	Group C
1.04	-10.04	-3.0

MEAN TOTAL SATISFACTION WITH TEACHING SCORES OF GROUPS A, B AND C.

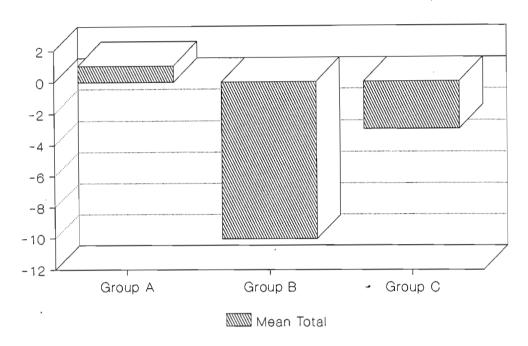


Fig. 4: Bar Diagram Illustrating the Differences between the Mean Total Satisfaction With Teaching Scores of Groups A, B and C.

While the mean total Satisfaction With Teaching score for Group A fell within the range of `satisfaction' (ie. > 0), those for groups B and C fell within the range of `dissatisfaction' (ie. < 0).

4.3.2 Pairwise t-test of Satisfaction With Teaching Scores of Groups A, B and C

The results of the pairwise t-test of Satisfaction with Teaching scores (separate variance) are presented in Table XV.

Group	S E P A R A t-value	TE VA	R I A N C E p-value
A VS B	3.31	39	0.0020
A VS C	1.10	37	0.2765
B VS C	-1.64	47	0.1073

Pairwise comparison of Satisfaction with Teaching scores indicated that Group A differed significantly from Group B at the .01 level of significance (p=0.002). There was no significant differences between Groups A and C or Groups B and C.

4.3.3 Mean Total Satisfaction With Teaching Scores of Primary and Secondary Teachers

The results of the comparison between the Satisfaction with Teaching scores of primary and secondary teachers on the 25 items of the Satisfaction With Teaching Questionnaire are presented in Table XVI.

TABLE XVI

Mean Total Satisfaction With Teaching Scores of

Primary and Secondary Teachers

Primary Teachers	Secondary Teachers	t value	ġ
1.0	-10.72	3.93	0.0001

A t-test (2 sample analysis) was used. While the Mean Total Satisfaction with Teaching score of primary teachers fell within the range of `satisfaction' (>0), those for secondary teachers fell within the range of `dissatisfaction' (<0). In addition, the Mean Total Satisfaction with Teaching score of Secondary Teachers differed significantly from that of primary teachers at the .001 level of significance (p = 0.0001).

4.3.4 Item Analysis of Satisfaction With Teaching Responses

The results of the item analysis of Satisfaction with Teaching responses of those subjects with GHQ scores > 4 (N = 60) are presented in Table XVII. Only those items that were identified as sources of dissatisfaction by 50% or more of the teachers in the sample are shown.

TABLE XVII

Item Analysis of Satisfaction With Teaching Responses of Subjects with GHQ Scores > 4

No.	Item	Frequency
17. 16.	The official system of evaluation which is being adopted presently. The present salary received by teachers.	55 54
21.	The present political situation in the country.	52
22.	The creation of `own affairs' governing authorities in South African education.	5 2
18.	The current educational and administrative policies and procedures.	51
19.	Criticism/assessment rating by supervisory/senior personnel.	46
25.	The amount of time available for leisure activities and/or hobbies.	45
7.	The number of hours of teaching each week.	38
13.	The opportunities for promotion.	38

4.4 A COMPARISON OF PSYCHOLOGICAL DISTRESS, EVENT
STRESS AND SATISFACTION SCORES IN RELATION TO YEARS
OF EXPERIENCE AND SEX OF SUBJECTS

In a two-way analysis of variance with main effects GROUP and SEX the observed variables GHQ, CGHQ, Event Stress total scores and Satisfaction with Teaching total scores were analysed making use of generalised least squares. In the case of all parameters except Event Stress, it was found that the groups (representing different years of teaching experience), were significantly different while sexes did not differ

significantly on any of the parameters (see Table XVIII).

TABLE XVIII

Psychological Stress, Event Stress and Satisfaction Scores in
Relation to Years of Experience and Sex of Subjects.

PARAMETER	MAIN EFFECT	p value
GHQ	Group	0.0016
	Sex	0.4850
CGHQ	Group	0.0005
	Sex	0.3640
EVENT STRESS	Group	0.2462
	Sex	0.6389
SATISFACTION	•	
WITH TEACHING	Group	0.0156
	Sex .	0.3113

To find specific differences between the groups pairwise comparisons were done employing generalised least squares. The specific differences are illustrated in Table XIX where groups falling on the same line are not significantly different.

TABLE XIX

Generalised Least Square Means of Psychological Stress,

Event Stress and Satisfaction Scores according to Years of

Experience

Parameter		G	Ř	0	U	P	
	А			С			В
GHQ	6.84	-	12	2.80			15.52
	А			С			В
CGHQ	12.12		1	3.16		,	19.48
	A			С			В
Event Stres	s <u>22.56</u>		2	6.28			26.76
	В			С			A
Satisfactio With Teachi			-	3.00			1.04

Group B, consisting of teachers with 5-10 years of teaching experience, had the highest Mean Scores for the GHQ, CGHQ and Event Stress (indicating that they experienced the highest degrees of psychological distress and exposure to stressors in the work environment). In addition, Group B subjects had the lowest Mean Satisfaction with Teaching Scores. In comparison, Group A, consisting of teachers with up to 5 years teaching experience, had the lowest GHQ, CGHQ and

Event Stress mean scores. Furthermore, Group A subjects had the highest mean Satisfaction with Teaching scores. The corresponding scores of Group C, consisting of teachers with greater than 10 years experience, fell in between those of Group A and Group B.

CHAPTER 5

DISCUSSION OF RESULTS

5.1 LEVELS OF PSYCHOLOGICAL DISTRESS

The following observations were made from the analyses of data in Chapter 4:

- A. Eighty percent of the teachers in the sample experienced psychological distress as measured by the General Health Questionnaire. Of these, forty percent experienced moderate psychological distress. More significantly, the remaining forty percent experienced severe psychological distress.
- B. Teachers with greater than five years of teaching experience had significantly greater psychological distress than the less experienced teachers.
- C. The type of school (ie. primary or secondary), did not have a significant effect on the mean levels of psychological distress. As regards the distribution, however, about twice the number of secondary teachers experienced severe psychological distress as compared to primary teachers.
 - D. The sex of subjects did not have a significant effect on the degree of psychological stress.

The incidence of psychological distress seemed higher in this study as compared to other studies. Louden (1987) found that forty percent of teachers experienced

moderate psychological distress, while eighteen percent experienced severe psychological distress. One possible reason for this higher incidence could be the result of the instrument used. The GHQ has not been standardized for the South African population. Studies in the general South African population need to be conducted so that comparisons with other studies can be made.

As regards the observation that more experienced teachers had greater psychological distress, contributory factors could include the fact that because of the greater number of years they had spent in teaching, they had no alternative but to continue with their present jobs. Failure to upgrade their qualifications, or to gain promotions, would be other possible contributory factors to consider.

Several factors could account for the fact that almost twice the number of secondary teachers were found to have severe psychological distress as compared to primary teachers viz.: the volume of work in secondary schools is greater; disciplinary problems are probably worse and more difficult to resolve in secondary school students; the additional responsibilities that accompany teaching of senior classes including matriculation, etc.

It was hypothesised in Chapter 1 that South African Indian teachers experienced a significant degree of emotional distress. The above findings support this hypothesis.

As regards the two methods of scoring the responses of the General Health Questionnaire (ie. the GHQ and the CGHQ), Finlay-Jones (1986) found that the mean CGHQ score was approximately five points more than the mean

GHQ score. In addition, he found that no CGHQ scores were associated with sex differences. The results in this study (Tables V and XVIII), support this finding.

5.2 THE RELATIONSHIP BETWEEN PSYCHOLOGICAL DISTRESS
AND FACTORS IN THE TEACHING ENVIRONMENT

All three groups of subjects (divided on the basis of years of teaching experience), had significantly high mean levels of work-related stress as measured by examining factors in the teaching environment (Table X). There were no significant differences between the groups indicating that the number of years of teaching experience did not influence the levels of work-related stress levels.

However, as regards the variable, nature of appointment, the results (Table XII), indicate that secondary teachers experienced higher levels of work-related stress than primary teachers. This difference was significant at the .05 level of confidence. Possible contributory factors that were considered above under psychological distress, could again be regarded as important determinants for this finding.

Several researchers have found that many teachers experience high levels of distress and that a significant part of this distress was related to factors in the teaching environment (Louden, 1987). It was hypothesised in Chapter 1 that there would be a significant relationship between the mental health of the subjects and work-related stress. The results in this study (Table XIX), indicate that subjects with high or low levels of psychological stress had high levels of work-related stress. There was no significant difference

in levels of work-related stress between the two groups. Hypothesis 2 was, therefore, rejected. The above finding was not in keeping with the general literature review. The overall high levels of work-related stress would, however, support the view that Indian teachers find teaching to be a stressful experience. It should be noted that the General Health Questionnaire was not designed for the specific purpose of measuring stress in the teaching situation because the items include out-of-school factors as well. This would partly account for the above finding.

In an Australian study by Galloway et al.(1984), children's behaviour and educational progress were found to be the most important sources of stress. Finlay-Jones (1986), found the following factors to be important source of teacher stress in his study: misbehaviour; poor classroom design; lack of school facilities; involuntary transfers; and invasion of spare time by work. These factors were also found to be important sources of stress in the present study. However, one notable difference was the factor related to classroom design. In the present study, `poor classroom design' did not rank as a very important source of stress. A probable reason for this could be that the majority of Indian schools have similarlydesigned classrooms and most teachers are either satisfied with the present design or have come to accept the fact that alterations to existing plans would not be practical in the near future.

Earlier studies, like those reviewed by Coates and Thoresen (1976), found concerns about salary to be an important source of teacher stress. More recent studies (Galloway et al., 1984; Finlay-Jones, 1986; Louden,

1987), did not support this. In the present study, eighty-six percent of the teachers with psychological distress regarded salary concerns to be a significant source of stress. A possible explanation could be that South African teachers are being granted salary increments which are not acceptable to them, or are not on par with their colleagues overseas.

5.3 THE RELATIONSHIP BETWEEN PSYCHOLOGICAL DISTRESS AND SATISFACTION WITH TEACHING

An interesting finding, reflected in Table XIV, was that younger teachers with up to five years of teaching experience had higher satisfaction scores than older teachers (ie. with five to ten years of teaching experience). The latter group had lower scores indicating job dissatisfaction. The difference was significant at the .01 level of significance.

Galloway et al.(1982), found that satisfaction was highest in older teachers and lowest in younger teachers. The probable reasons for this, according to these authors, were that older teachers were survivors and those among them who had derived little satisfaction from teaching may have left the profession. It is interesting to note that in the present study, satisfaction was highest in younger teachers and lowest in older teachers. A possible reason for this may be that older Indian teachers are more reluctant to resign, despite being dissatisfied with their jobs, because of the resultant loss of accrued benefits, and/or the difficulties they may experience in finding alternative jobs of similar status.

It was hypothesised in Chapter 1 that there would be a significant relationship between the levels of psychological stress experienced by teachers and their levels of job satisfaction. The results (Table XIX) indicate that those subjects who experienced the highest levels of psychological distress experienced the most dissatisfaction with teaching. Those subjects who experienced the lowest levels of psychological distress experienced the most satisfaction with teaching. These findings support hypothesis 3.

With regard to the nature of appointment, satisfaction was high in primary school teachers and low in secondary school teachers. This difference was significant at the .0001 level of confidence. This finding was similar to that of Galloway et al. (1982), which demonstrates that primary school teachers have greater satisfaction with teaching than secondary school teachers. The sex of subjects did not have a significant influence on job satisfaction. This finding was not surprising since there has been a significant bridging of the gap as regards salary for female teachers. In addition, female teachers are accorded equal responsibility and many senior posts in education are occupied by women.

Item analysis indicated that the most frequently occurring factors causing dissatisfaction in subjects with moderate and severe psychological distress, related to the following: current system of evaluation; salary earned; the amount of political and bureaucratic influence on education; assessment ratings by superiors; time constraints and opportunities for promotion. De Frank and Stroup (1989) identified intra-school conflict, student issues and salary concerns to be sources of dissatisfaction among teachers. Calloway et

al. (1982) found that issues relating to promotion, salary and time constraints rated highly as sources of dissatisfaction. The findings of the present study regarding sources of job dissatisfaction in Indian teachers are, therefore, in keeping with the literature in general.

Another interesting finding in the study by Galloway et al. (1982), was that a negative correlation was obtained between the levels of work related stress and levels of job satisfaction. They found that approximately twothirds of the teachers in their study found teaching stressful yet derived satisfaction from their jobs. In the present study sixty-eight percent of the subjects were found to have high levels of work related stress and of these fifty-six percent expressed dissatisfaction with their jobs. This finding does not support the above finding in the study by Galloway et al. (1982). Possible reasons for the dissatisfaction among Indian teachers could be the apathy and frustration that they experience due to the fact that there is no immediate redress to their grievances. There appears to be a lack of adequate consultation and agreement between the governing authority for Indian education and representative teacher organisations. Despite the efforts and recommendations of the latter, the current system of evaluation and other educational and administrative policies and procedures are largely influenced by the governing authority and its Education Department. Furthermore, teachers in this country cannot resort to union action like their counterparts in the United States, Canada and the United Kingdom.

CHAPTER 6

CONCLUSIONS

This study attempted to investigate the important issue of increasing concern to educators, physicians, psychiatrists, psychologists and the general community, namely, teacher stress and job satisfaction. Despite the small sample size (N=75), statistically significant results were obtained.

The following hypotheses were generated:

- South African Indian teachers experience a significant degree of emotional distress.
- There is a significant relationship between the mental health of teachers and workrelated stress.
- 3. There is a significant relationship between the degree of stress experienced by teachers and the degree of job satisfaction.

Hypotheses 1 and 3 were confirmed while hypothesis 2 was rejected. The prevalence of emotional distress was significantly higher in this study as compared to studies done overseas. In addition, stress proved to be a critical variable associated with job satisfaction.

The following trends emerged from the present research:

1. Psychological Distress

The number of years of teaching experience was an important variable in the incidence of stress, with more experienced teachers manifesting higher stress levels than less experienced teachers. The type of school did not have a significant influence on the overall degree of stress experienced, although more secondary teachers than primary teachers, were found to be severely distressed.

2. The Teaching Environment and Stress
Although the overall relationship between the mental health of the subjects and work-related stress did not prove to be significant, secondary teachers experienced higher levels of work-related stress than primary teachers. With regard to factors in the teaching environment which were associated with stress, the subjects reported similar stressors as teachers in studies overseas. Salary concerns rated higher as stressors in the present study. The sex of subjects did not have a significant influence on the degree of work-related stress.

3. Job Satisfaction and Stress

Satisfaction was highest in younger teachers and lowest in older teachers. This finding was in contrast to results obtained in studies done overseas. In addition, psychological distress was positively associated with job dissatisfaction in the present study. Secondary school teachers reported significantly lower levels of satisfaction with teaching than primary school

teachers. The sex of subjects did not have a significant influence on job satisfaction.

The following research possibilities emanate from this study:

- Studies using similar research designs, conducted on larger samples and among teachers of other racial groups would help to make more conclusive statements and allow for local cross-cultural comparisons to be made.
- 2. Future research should also include the use of measurement instruments which are designed to examine the relationship between the observed actions of teachers and changes in the attitude and behaviour of pupils over a period of time.
- 3. Longitudinal studies designed to examine more detailed causal relationships between stressful factors and psychological distress would provide greater insight into the interrelationships among these variables.
- 4. The role of out-of-school factors needs to be taken cognizance of in future research because of the important compounding effect on school-related factors, with stress from one situation contributing to stress in the other.

The following therapeutic implications are indicated in this study:

 The findings suggest a need for early detection of distress among teachers. Therapeutic measures and programmes aimed at ameliorating teacher stress should take cognizance of the various sources of stress in the teaching environment. Stress management techniques should focus not only on the enhancement of the coping skills of teachers, but also on environmental sources of stress.

From this study it is apparent that teaching in Durban Indian schools is very stressful and this issue needs to be further investigated. More experienced teachers were found to have high levels of stress and low levels of job satisfaction. Less experienced teachers, on the other hand, had low levels of stress and more job satisfaction. Secondary teachers experienced higher levels of work-related stress than primary teachers. In addition, secondary teachers were less satisfied with teaching. The sex of the subjects did not significantly influence either the levels of stress or the levels of satisfaction. Important sources of stress and dissatisfaction included time constraints, current system of evaluation, salary concerns, difficulties with pupils, political and bureaucratic influence on education, administrative problems, lack of school facilities, and involuntary transfers.

REFERENCES

- Abramson LY. & Seligman MEP. Learned Helplessness in Humans: Critique and Reformulation. <u>Journal of Abnormal Psychology</u> 1978; <u>87</u>: 49-74.
- Baum A & Singer JE, eds. <u>Handbook of Psychology and Health</u>.

 <u>Vol.5 Stress</u>. New Jersey: Lawrence Erlbaum Associates,
 1987.
- Beehr TA & Newman JE. Job stress, employee health, and organizational effectiveness: A facet analysis, model and literature review. <u>Personnel Psychology</u> 1978; <u>31</u>: 655-699.
- Behr AL. <u>Education in South Africa</u>. <u>Origins</u>, <u>Issues and Trends</u> 1652 - 1988. Pretoria: Academica, 1988.
- Bernard J. The endaemonists. In Klausner SZ, ed. Why man takes chances: Studies in stress seeking. New York: Anchor, 1968.
- Bhagat RS. Effects of stressful life events upon individual performance effectiveness and work adjustment processes within organizational settings: A research model. Paper presented at the 88th Annual Convention of the American Psychological Association, Montreal, Canada, 1988.
- Cherniss C. <u>Professional</u> <u>burnout</u> <u>in the human service</u> <u>organizations</u>. New York: Praeger, 1980.
- Coates TJ & Thoresen CE. Teacher Anxiety: A Review with Recommendations. Review of Psychological Research 1976; 46: 159-184.
- Cooper CL & Marshall J. White <u>Collar and Professional Stress</u>. Chichester: John Wiley, 1980.
- Cooper C, Schindler J, Mc Caul C et al. <u>Race Relations Survey</u>
 <u>1988/89</u>. Johannesburg: SA Institute of Race Relations,
 1987.
- Cox T. Stress. London: Macmillan Press, 1978.
- De Frank RS & Stroup CA. Teacher Stress and Health: Examination of a Model. <u>Journal of Psychosomatic Research</u> 1989; <u>33</u>: 99 -109.
- Dunham J. Stress situations and responses in National Association of Schoolmasters and Union of Women Teachers. Stress in Schools 1976; 54: 19-47.

- Erikson EH. Identity: Youth & crisis. New York: Norton, 1968.
- Farber BA (Ed.). Stress and Burnout in the human services professions. Oxford: Pergamon Press, 1985.
- Finlay J 7. Factors in the teaching environment associated with severe psychological distress among school teachers. Australian and New Zealand Journal of Psychiatry 1986; 20: 304-313.
- Fisher F. <u>Stress & Strategy</u>. London: Lawrence Erlbaum Associates Ltd., 1986.
- French JRP, Jr. Person role fit. Occupational Mental Health 1973; 3: 15-20.
- Galloway D, Boswell K, Panckhurst F, Boswell C, Green K.
 Satisfaction with Teaching. <u>National Education</u> 1982; <u>64</u>: 206-213.
- Galloway D, Panckhurst F, Boswell K, Boswell C, Green K. Mental health, absences from work, stress and satisfaction in a sample of New Zealand primary school teachers.

 <u>Australian and New Zealand Journal of Psychiatry</u> 1984; 18: 359-363.
- Glass D. <u>Behaviour patterns</u>, <u>stress and coronary disease</u>. Hillsdale N.J.: Lawrence Erlbaum Associates Inc., 1977.
- Goldberg DP. The <u>Detection of Psychiatric Illness by Questionnaire</u>. London: Oxford University Press, 1972.
- Goldberg DP. The Manual of the General Health Questionnaire. Windsor: NFER Publishing Co., 1978.
- Goodchild ME & Duncan-Jones P. Chronicity and the GHQ. <u>British</u> Journal of Psychiatry 1985; 146: 55-61.
- Hammen CR & de Mayo R. Cognitive correlates of teacher stress and depressive symptoms: Implications for attributional models of depression. <u>Journal of Abnormal Psychology</u> 1982; 91: 96-101.
- Henderson S, Duncan-Jones P, Byrne DG, Scott R, Adcock S.
 Psychiatric Disorder in Canberra. Acta Psychiat Scand 1979;
 60: 355-374.
- Holmes TH & Rahe RH. The social readjustment scale.

 <u>Journal of Psychosomatic Research</u> 1967; <u>11</u>: 213-218.
- Kahn RL. <u>Organizational stress</u>: <u>Studies in role conflict and ambiguity</u>. New York: John Wiley, 1964.

- Kyriacou C & Sutcliffe J. Teacher Stress: a review. Educational <u>Review</u> 1977; <u>29</u>: 299-306.
- Kyriacou C Sutcliffe J. A Model of Teacher Stress. Educational Studies 1978; 4: 1-6.
- Lefcourt HM. Locus of Control. Current Trends in theory and research. Hillsdale NJ: Lawrence Erlbaum Associates Inc., 1976.
- Levinson D. The seasons of a man's life. New York: Knopf, 1978.
- Lortie DC. <u>Schoolteacher</u>: <u>A Sociological Study</u>. Chicago: University of Chicago Press, 1975.
- Louden LW. Teacher stress. Summary Report of the Joint Committee of Inquiry into Teacher Stress appointed by the Minister for Education and Planning in Western Australia. Perth, 1987.
- Mc Ewan JM, ed. <u>Social Science</u> and <u>Medicine</u> 1988; 26: 277-278.
- Mc Laughlin JW & Shea JT. California teachers' job dissatisfactions. California Journal of Psychological Research 1960; 11: 216-224.
- Naidoo M. Education. In Arkin A, Magyar KP, Pillay GJ, eds.

 The Indian South Africans. A Contemporary Profile.
 Pinetown: Owen Burgess, 1989.
- Perris H. Life events and depression. <u>Journal of Affective Disorders</u> 1984; 7: 11-25.
- Pines AM. Changing Organisations: Is a Work Environment Without Burnout an Impossible Goal? In Paine WS, ed.

 Job Stress and Burnout: Research, Theory, and Intervention Perspectives. Beverly Hills: Sage Publications, 1982.
- Pollock K. On the Nature of Social Stress: Production of a Modern Mythology. <u>Social Science and Medicine</u> 1988; <u>26</u>: 381-392.
- Sakharov M & Farber BA. A Critical Study of Burnout in Teachers. In Farber BA, ed. <u>Stress and Burnout in the Human Service Professions</u>. New York: Pergamon Press, 1983.
- Sarason SB. The <u>culture of the school and the problem of change.</u>
 Boston: Allyn & Bacon, 1971.
- Seligman MEP. <u>Helplessness</u>. San Francisco: WH Freeman, 1975.

- Selye H. The Stress of life. New York: McGraw-Hill, 1956.
- Selye H. <u>Stress Without Distress</u>. New York: Harper & Row Inc., 1974.
- Selye H. The Stress of life. Rev. ed. New York: McGraw-Hill, 1976.
- Sharp JJ & Forman SG. A Comparison of Two Approaches to Anxiety Management for Teachers. <u>Behaviour Therapy</u> 1985; <u>16</u>: 370-383.
- Strain JJ. <u>Psychological interventions in medical practice</u>. New York: Appleton-Century-Crofts, 1978.
- Teachers Association of South Africa: The TASA Research Bureau Probe Into Certain Areas of Work Conditions of Teachers $1980:\ 11-16.$
- Teachers Association of South Africa: TASA News Special Edition. 1988; Vol. XVIV: No.2.
- Tennant C. The General Health Questionnaire: A valid index of psychological impairment in Australian populations. Medical Journal of Australia 1977; 2: 392-394.
- Vingerhoets AJJM & Marcelissen FHG. <u>Social Science and Medicine</u> 1988; 26: 279-291.

CONSENT

declare that I give my consent to enter a study stress among Indian South African teachers.	hereby into teacher
I am fully informed by Dr. H.N. GARBHARRAN in renature and confidentiality of the study mentioned understand and accept that the information collector research purposes and publication in scientific teaching purposes. The nature of the investigation:	d below. I cted will be used
To assess the degree of stress amongst Indian Societachers by means of 30 Items of the General Head and potential stress factors in the teacher's womeans of a Teacher Stress Questionnaire.	lth Questionnaire
My permission is granted of my own free will and I can revoke such permission at any time.	I am aware that
SIGNED:	DATE:
SUBJECT	
WITNESSES:	
 (Person who informed patient and administered questionnaires). 	 ed the
2	

APPENDIX B

The 30 item General Health Questionnaire

In this section , we would like to know if you have had any medical complaints, and how your health has been in general, over the past few weeks. Please answer ALL the following questions simply by circling the number of the answer which you think most nearly applies to you. Remember that the aim is to record present and recent complaints, not those that you have had in the past.

It is important that you try to answer ALL questions.

HAVE YOU RECENTLY:

1.	BEEN ABLE TO CONCENTRATE ON WHATEVER YOU'RE DOING?	usual	usual	usual	
2.	LOST MUCH SLEEP OVER WORRY?		than usual	Rather more than usual	than
3.	BEEN HAVING RESTLESS DISTURBED NIGHTS?	Not at all 1	than		
4.	BEEN MANAGING TO KEEP YOUR- SELF BUSY AND OCCUPIED?	More so than usual 1	usual	Rather less than usual 3	than
5.	BEEN GETTING OUT OF THE HOUSE AS MUCH AS USUAL?	than	Same as usual	Rather less than usual 3	Much less than usual 4
6.	BEEN MANAGING AS WELL AS MOST PEOPLE WOULD IN YOUR SITUATION?	Better than most	the same	less well	Much less well
	SITUATION:	1	2	3	4
7.	WHOLE YOU WERE DOING	Better than most	About the same	Less well than usual	Much less well
	THINGS WELL?	1	2	3	4

8.	BEEN SATISFIED WITH THE WAY YOU ARE LIVING YOUR LIFE?	More satisfied	About the same 2	Less satisfied	Much less satisfied 4
9.	BEEN ABLE TO FEEL WARMTH AND AFFECTION FOR THOSE NEAR TO YOU?	Better than usual	About the same as usual 2	Less well than usual 3	Much less than usual
10.	BEEN FINDING IT EASY TO GET ON WITH PEOPLE?	Better than usual	About the same as usual 2		Much less than usual 4
11.	SPENT MUCH TIME CHATTING WITH PEOPLE?	More time than usual 1	About the same as usual 2	Less than usual	
12.	FELT THAT YOU ARE PLAYING A USEFUL PART IN THINGS?	More so than usual	Same as usual	Less useful than usual 3	Much less than usual
13.	FELT CAPABLE OF MAKING DECISIONS ABOUT THINGS?	More so than usual	Same as usual	Less so than usual 3	Much less capable
14.	FELT CONSTANTLY UNDER STRAIN?	Not at all	No more than usual 2	Rather more than usual 3	Much more than usual 4
15.	FELT THAT YOU COULDN'T OVER-COME YOUR DIFFICULTIES?		No more than usual 2	more than	Much more than usual 4
16.	BEEN FINDING LIFE A STRUGGLE ALL THE TIME?	Not at all	No more than usual 2	Rather more than usual 3	Much more than usual 4

	BEEN ABLE TO ENJOY YOUR DAY - TO- DAY ACTIVITIES			than	Much less than usual 4
18.	BEEN TAKING THINGS HARD?	Not at all	No more than usual	Rather more than usual	Much more than usual
19.	BEEN GETTING SCARED OR PANICKY FOR NO GOOD REASON?	Not at all			Much more than usual
20.	BEEN ABLE TO FACE UP TO YOUR PROBLEMS?	usual	Same as usual	Less able than usual	Much less able
		1	2	3	4
21.	FOUND EVERYTHING GETTING ON TOP OF YOU?	Not at all	No more than usual	Rather more than usual	Much more than usual
		1	2	3	4
22.	BEEN FEELING UNHAPPY AND DEPRESSED?	Not at all	No more than usual	Rather more than usual	Much more than usual
		1	2	3	4
23.	BEEN LOSING CONFIDENCE IN YOURSELF?	Not at all	No more than usual	Rather more than	Much more than usual
		1	2	usual 3	4
24.	BEEN THINKING OF YOURSELF AS A WORTHLESS PERSON?	Not at all	No more than usual	Rather more than usual	Much more than usual
		1	2	3	4

25.	FELT THAT LIFE IS ENTIRELY HOPELESS?	Not at all	No more than usual 2	Rather more than usual 3	Much more than usual 4
26.		More so than usual	About the same as usual 2	Less so than usual 3	Much less than usual 4
27.	BEEN FEELING REASONABLY HAPPY, ALL THINGS CONSIDERED?	More so than usual		Less so than usual	Much less than usual
28.	BEEN FEELING NERVOUS AND STRUNG-UP ALL THE TIME?	Not at all .		Rather more than usual 3	Much more than usual
29.	FELT THAT LIFE ISN'T WORTH LIVINC?	Not at all	No more than usual	Rather more than usual 3	Much more than usual
30.	FOUND AT TIMES YOU COULD NOT DO ANYTHING BECAUSE YOUR NERVES WERE TOO BAD?	Not at all	No more than usual	Rather more than usual	Much more than usual

APPENDIX C

TEACHER STRESS QUESTIONNAIRE

1. BIOGRAPHICAL INVENTORY

NAME :

AGE :

SEX

MARITAL STATUS

NUMBER OF YEARS TEACHING

EXPERIENCE

NATURE OF APPOINTMENT (Permanent/Temporary)

TYPE OF SCHOOL (i.e. Primary/ Secondary/Primary & Secondary/ Special School)

NAME OF SCHOOL

LEVEL

QUALIFICATIONS :

POST :

ARE YOU DOING PART-TIME

STUDIES/CORRESPONDENCE

COURSES? : YES/NO

PREVIOUS PSYCHIATRIC/MEDICAL

TREATMENT : YES/NO

IF YES, WHAT TYPE OF TREATMENT?

PRESENT PSYCHIATRIC/MEDICAL

TREATMENT : YES/NO

IF YES, WHAT TYPE OF TREATMENT?

2 EVENT STRESS INVENTORY

The following items/statements are concerned with sources of stress which you may have experienced in your work situation. Please indicate the extent to which you are affected by each of the following situations (not stressful, slightly stressful, very stressful) by making a tick () in the appropriate space.

- I have at least one problem child in my class.
- 2. Some children do not obey instructions immediately.
- 3. I find it difficult to do enough individual work with pupils.
- 4. Pupils do not listen to what is said.
- 5. A child does not do as I tell him/her to.
- 6. Children are very noisy during the lesson/activity.
- 7. Some pupils display hostile and aggressive behaviour.
- I am interrupted by other people/ events.
- Pupils have difficulties in learning/understanding.
- 10. I am unable to make parents more interested in their children's school work/activities.
- 11. I find it difficult to be up-todate with reports and /or records.
- 12. I find it difficult to improve my qualifications.

NOT STRESSFUL	SLIGHTLY STRESSFUL	VERY STRESSFUL
		 -
		,

13.	The possibility of being trans- ferred involuntarily makes me anxious.		
14.	There is insufficient time for preparation.	 	
15.	I find it difficult to find time to relax between lessons.	 	
16.	There is a lack of time for recreational and social activities.	 	
17.	The threat of victimization (in relation to promotions) affect my teaching performance.		
18.	There is a lack of opportunities for personal growth and initiative.	 	
19.	There is a lack of positive feed- back/recognition of good teaching.	 	
20.	I find that participation in decision making is not encouraged during school meetings.	 	
21.	There is a lack of proper school facilities and resources for teaching effectively.		
22.	I find it difficult to avoid debts with my present salary.		
23.	There is a lack of in-service training courses for teachers.		

The school is too large.

There is a lack of opportunities for part-time work (in addition to my present full-time job).

24.

25.

3 SATISFACTION WITH TEACHING

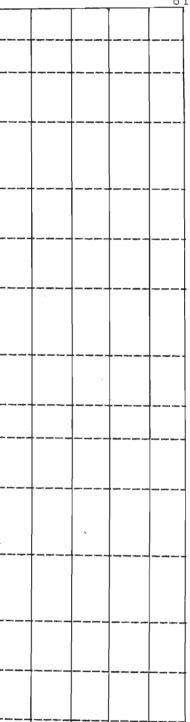
The following statements are concerned with satisfaction in your work situation. Please indicate the extent to which you agree with each statement (very dissatisfied, fairly dissatisfied, neither satisfied nor dissatisfied, fairly satisfied, very satisfied,) by making a tick () in the appropriate space.

1. My relationship with pupils	1.	My	relati	ionship	with	pupils
--------------------------------	----	----	--------	---------	------	--------

- 2. My relationship with other teachers.
- My relationship with senior supervisory staff members.
- 4. My relationship with visiting inspectors/inspectoresses.
- The freedom to select teaching methods/aids.
- 6. The freedom to select subject matter for my class(es).
- 7. The number of hours of teaching each week.
- 8. The level of pupil achievement in my class(es).
- My allocation to teaching a particular class/unit.
- 10. The general behaviour of pupils in my class(es).
- 11. The number of hours spent in extracurricular activities.

VERY DISSATISFIED	FAIRLY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	FAIRLY SATISFIED	VERY SATISFIED
		<u> </u>		

- 12. The opportunities for promotion.
- 13. The opportunities for research.
- 14. Being accepted as a professional by others.
- 15. The opportunities for participation in decision making at school meetings.
- 16. The present salary received by teachers.
- 17. The official system of evaluation which is being adopted presently.
- 18. The current educational and administrative policies and procedures.
- 19. Criticism/assessment rating by supervisory/senior personnel.
- 20. The design of my classroom/s.
- 21. The present political situation in the country.
- 22. The creation of "own affairs" governing authorities in South African education.
- 23. The present opportunities for communication and interaction amongst teachers.
- 24. The enjoyment that I derive from my job.
- 25. The amount of time available for leisure activities and/or hobbies.



4 REMARKS

In this section you are requested to make further comments which you may feel are relevant to this study, for example:-

- (1) other stress factors in the teaching environment.
- (2) other sources of satisfaction or dissatisfaction in the teaching environment.

Please make a note of the degree/extent of associated stress or satisfaction/dissatisfaction in relation to the above.

If you wish the Teacher do so.				