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**EXPLORING THE SENSE OF COHERENCE AND PSYCHOLOGICAL
SYMPTOMATOLOGY OF TEACHERS IN UNDER-RESOURCED SCHOOLS IN CAPE
TOWN**

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Supervisor: Professor Johann Louw

COMPULSORY DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature: _____ Date: 29/05/08

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Abstract

The purpose of this study was to explore and describe the psychological symptomatology, sense of coherence and the relationship between these two factors, of teachers from under-resourced schools in Cape Town. The sample consisted of 58 male and female teachers. Data was collected by means of three measures including a Biographical Questionnaire, Symptomatology Check List Revised (SCL-90-R) and the Sense of Coherence Scale (SOC-29) also known as the Orientation to Life Questionnaire. Descriptive statistics and the Spearman Rank Order Correlation was utilised to meet the aims of the study. Of the nine sub-dimensions of psychological symptomatology measured on the SCL-90-R, results revealed that the teachers scored high in the three dimensions of obsessive compulsive, paranoid ideation and depression. Scores on the Orientation to life Questionnaire (SOC-29) were consistent with other South African non-patient samples using the same measure. Finally, a negative relationship was established between the nine primary dimensions and sense of coherence, which implies that a stronger sense of coherence produced lower scores on the SCL-90-R (i.e., lower psychological symptomatology)

Chapter 1

Introduction

The political and social instability that existed in South Africa for a number of years prior to the new democratic dispensation, has led to a crisis in education (Lethoko, Heystek & Maree, 2001; Mashile & Mellet, 1996). Under the Apartheid government formal education was segregated and based on ethnicity. Prior to the 1994 democratic elections, nineteen education departments existed and catered for the different racial and ethnic groups (Harber, 2001a; Badenhorst & Lemmer, 1997). White education was controlled by the white House of Assembly, Indian education by the House of Delegates, Coloured education by the House of Representatives and African education in the urban areas by the Department of Education and Training (Badenhorst & Lemmer 1997). In addition, each African homeland also had its own education system. Post-1994 education policy and legislation changes, have aimed towards a non-racial and integrated system of education (Pretorious & Lemmer, 2004). Some of the changes that took place in education as a result of democratisation were the amalgamation of the nineteen departments of education into one national department and nine provincial departments. With this process came: the abolishment of corporal punishment, the conversion of mono-cultural schools into multicultural schools, rationalisation, retrenchment and redistribution of teachers, which placed a lot of pressure on them (Myburgh & Poggenpoel, 2006).

While education minister at the time, Kader Asmal (2002) expressed optimism about the rapid improvements in the area of education and training, teachers were experiencing confusion about their new identities and stress related problems that manifested through destructive behaviours such as alcohol abuse, absenteeism and tense relationships with learners, colleagues and their own families, as reported by Myburgh and Poggenpoel (2006). These problems leave teachers vulnerable to ill health, stress related illnesses, burnout and in the exodus of teachers from the profession (Steyn & van Wyk, 1999). Many teachers and learners from under-resourced schools are facing major challenges. It has been well documented that these schools are faced with violence, the lack of basic resources necessary for learning, poor sporting facilities, poor classroom attendance, overcrowded classrooms, drug and alcohol abuse (Zulu, Urbani, van der Merwe & van der Walt 2004), the

devastating effects of HIV/AIDS (Crewe 2002; Masondo, 2004) and poor class performance (Mashile & Mellet, 1996). In this learning environment many learners also lack discipline, motivation, respect for authority and proper role models both in the schools and communities (Lethoko et al., 2001). It is fair to say that the above-mentioned challenges have a major impact on effective teaching and learning.

The Importance and Relevance of the Research

The study was motivated by personal experience as a student teacher in an under-resourced school. During this time I was exposed to and became familiar with the many challenges to work satisfaction and psychological well-being that teachers in these learning environments were faced with. These teachers spoke of feeling overwhelmed and physically and emotionally exhausted by their work. They also expressed sentiments that were generally negative about the current state and future of education in the country. In a study conducted by Steyn and van Wyk (1999), concerning the perceptions of job satisfaction of principals and teachers in black urban schools in South Africa, they spoke of feeling despondent, dissatisfied and uncertain regarding their future in education. Those who experienced less job dissatisfaction tended to be less committed and suffered from various physical ailments such as headaches and heart complaints. This finding illustrates both the emotional and physical effect on teachers who are disillusioned by the multiplicity of challenges in their wake. Kallaway (2007) estimates that there is currently a shortage of 35 000 teachers in the country. According to Asmal and James (2001) the quality of education is largely dependant on the ability and commitment of the teachers.

As the aforementioned literature indicates, those in the teaching profession are experiencing high levels of stress which ultimately will have an impact on their ability to perform optimally and to cope with stressors. This is an issue of great concern, as a situation of teachers who are demotivated and unable to cope with teaching will have a detrimental effect on the state of education in the country. The present study takes place against the backdrop of social and political transition in the country and how teacher's psychological well-being and coping abilities are affected by the stressors they experience in the teaching context.

The Context of Teaching in South Africa

This section will provide a brief overview of the teaching context and the challenges facing education in South Africa. It is important to highlight some of the difficulties experienced by teachers in under-resourced learning environments as it provides reasons as to why teachers may be experiencing high levels of stress, negative psychological symptomatology and difficulties with coping.

Curriculum Changes

Apartheid education was driven by a political system that provided separate forms of education along race and ethnic lines (Robinson, 2003) and a situation of major educational inequalities between the racial groups (Harber, 2001a). This situation created disparities between schools in terms of access to resources. Whilst apartheid law has been abolished, the majority of the poor still do not have access to effective learning and to basic learning material (Asmal, 2002). According to Kallaway (2007) the experience of middle class schools in terms of quality of resources has remained unaffected; however working class children who attend public schools are still increasingly alienated. Education policy and legislation created after the election of the ANC government in 1994 was aimed at reconstructing a non-racial and integrated system of education and training (Pretorius & Lemmer, 2004). On 24 March 1997, S.M.E. Bengu, minister of education at the time, announced the new curriculum titled Curriculum 2005 (C2005), based on the principles of Outcomes Based Education (OBE) (Pretorius & Lemmer, 2004).

For many years the South African teaching system was based on the transmission of information from the teacher, a type of rote learning style that did not encourage critical thought and enquiry (Harber, 2001a; Robinson, 2003). The OBE approach intends to shift learning from “transmission mode” to a one that is “competency based” (Pretorius & Lemmer, 2004). The focus is more on what the learner is able to do at the end of a learning process and what they should know by the time they leave formal schooling. The ultimate aim of the learning process is to equip learners for the world beyond schooling so that they become citizens who are able to apply their knowledge in the global economic market (Harber, 2001a). Despite the noble

philosophies underlying this system of education, the literature indicates that there are many problems in its implementation on a number of levels.

Kallaway (2007) asserts that teachers are not adequately trained to teach in an OBE system and that the relationship of the teachers to new education policies is a complex one. In order to meet the challenges of a restructured education system, teachers need to be adequately trained (Steyn & van Wyk, 1999). Pretorius and Lemmer (2004) add that teachers had a very superficial understanding of the principles underlying OBE and therefore little transfer of learning was taking place in classrooms. Whilst the main concern for well-resourced schools was the increase in administrative duties, under-resourced schools had to deal with the added disadvantages of poor infrastructure, large classes and the lack of technology which posed as major barriers to effective implementation of this sophisticated learning system (Pretorius & Lemmer, 2004). Another criticism was that the language of OBE was considered complex. The language and the terminology were considered to be too confusing and inaccessible to teachers (Jansen, 1998; Pretorius & Lemmer, 2004). OBE was received with much resistance from educators and criticism from academics and the public (Pretorius & Lemmer, 2004).

Factors that complicated the effective implementation of OBE were assessed by a review committee in November 1999 and February 2000 (Pretorius & Lemmer, 2004). The committee concluded that the language of OBE was complex and confusing for teachers to understand. Furthermore the understanding of OBE varied among teachers within schools and between different schools and also amongst trainers and officials. This was a barrier that was especially difficult for teachers working in the township area, as their command of the English language was poor. Another finding was that the OBE was overloaded with eight learning areas which allowed for little time for teachers to assist learners in advancing their reading skills, the basics of mathematics and core concepts of science. In addition, the implementation of OBE placed more demands on teachers in terms of instruction, planning, increased administrative duties, assessment of learners and little emphasis was placed on whether learners passed or failed (Liebowitz, 2005). Jansen (1998) was of the opinion that successful implementation of OBE would require professional, highly qualified and committed teachers, which he felt was not yet the case in South Africa.

Shortage of Teachers

In a report by the UN Media (2007), it was stated by Nick Taylor, the author of the International Justice Report on education, that the lack of qualified and motivated teachers is the most urgent problem facing the education system. He also stated that up to 20 000 teachers leave the system each year and only 6000 new teachers enter the profession. Many teachers leave to teach in other countries as salaries and teaching conditions are much more attractive (Mbanjwa, 2007). Contributing factors towards teacher shortages can also be attributed to government initiatives of downsizing of teachers, voluntary severance packages, early retirement and retrenchment (Ngidi & Sibaya, 2002).

In a National Teacher Audit in December 2005 the issue of under-qualified teachers was a major problem (Pretorious & Lemmer, 2004). In 2003, it was estimated that of the 360 000 qualified teachers in the country, 35 000 were under-qualified and that this situation was largely present in disadvantaged township areas. In a study conducted by Steyn & van Wyk (1999) concerning perceptions of job satisfaction among principals and teachers in urban black schools, teachers reported that their training did not prepare them for their career in education.

The HIV/AIDS epidemic is increasing the number of children who have to abandon school to care for ill parents and younger siblings, and decreasing Africa's number of teachers who are affected by the disease (Peroshni & Farlam, 2004). Crewe (2002) expresses certainty that AIDS will have serious repercussions on education in South Africa. The effects will be loss of skilled teachers to the profession, high absenteeism and the disintegration of families.

Discipline and Violence

A child's attitude towards school is shaped by experiences of the child in the school and or by social and political factors in the community (Mashile & Mellet, 1996). Behaviours such as drug abuse and gang formation, burglary of schools which are already dilapidated, poor class attendance, poorly executed class work and homework in disadvantaged areas such as township schools are indicators that students have acquired a negative attitude towards school (Mashile & Mellet, 1996). Poor management from the side of the principal, lack of preparation for lessons by under

qualified teachers and a general lack of motivation from school staff add to a very negative learning context (Lethoko et al., 2001). The authors state that the behaviours described above are as a result of an absence of a “culture of learning and teaching” in South African schools, predominantly black disadvantaged schools.

“Culture of Learning” refers to the attitude of both the learners and teachers towards teaching and learning. Factors relating to the school environment which include a lack of respect for authority, poor infrastructure, overcrowded classrooms and high teacher-pupil ratios all contribute toward this lack of culture of learning. A culture of learning that is positive will therefore require dedication and motivation and discipline from all parties involved in the school environment. It is common knowledge that in South Africa discipline is a major challenge for teachers especially in disadvantaged schools where large classroom numbers are immensely difficult to manage. An article by Kassiem (2007) reported that students’ misconduct is one of the leading causes of resignations by teachers. Since the abolishment of corporal punishment in 1996 teachers reported that they have been finding it very difficult to maintain discipline in the classroom (Steyn & van Wyk, 1999). According to du Bois (2002), the South African Human rights Commission (SAHRC) reported that corporal punishment is still practiced at schools, as beating is an entrenched part of school culture. Morell (2001) conducted a survey among learners from Durban based schools in 1998, 18 months after the banning of corporal punishment. The findings indicated that the use of corporal punishment was not being practised in former white schools but was still common in disadvantaged township schools. Reasons for its continued use were reported to be the absence of alternative methods, a history of authoritarian practices and the belief that it was an effective way to maintain order. In addition it was found that parents at home practiced corporal punishment and that they supported its use in class. Home circumstances therefore play an important role in the ongoing implementation of corporal punishment.

Prevailing research also indicates that corporal punishment in schools may aggravate the risk of violence amongst students (Bogacki, Armstrong & Weiss, 2005). According to Harber (2001b) schools especially in disadvantaged areas are not safe as the continued use of corporal punishment, despite its illegality, perpetuates violence in the school and communities. Incidences such as murder, armed robbery, damage to

and destruction of property, brawling, stone throwing, name calling, knife attacks and stabbings, beating up of educators, hostage taking, sexual harassment, arson, physical assault, caching of weapons, drug trading and theft are all actual incidences of violence have taken place in Kwazulu Natal schools (Zulu et al., 2004). Violence has a noxious effect on both learners and teachers, as this is not the type of environment that is conducive to a culture of learning and teaching. Since a culture of learning is conducive to success and learning, a negative culture of learning will have a detrimental effect on students' performance and teacher morale.

Resources

Massive inequalities in terms of resource allocation to schools along racial lines are still evident in this new age of democracy (Harber, 2001a) and the majority of disadvantaged schools are still poorly resourced today (Harber & Muthukrishna, 2000). Statistics expose the grim reality of how the majority of schools in South Africa are severely under resourced (Harber & Muthukrishna, 2000). It was stated amongst other alarming findings, that the majority of schools in South Africa do not have access to electricity supply and as a consequence no access to media equipment. In addition there are also major shortages in supplies of textbooks and sports facilities. In a qualitative research study conducted by Steyn and van Wyk (1999) into the measuring perceptions of job satisfaction among teachers and principals at urban black schools in South Africa, it was found that among other factors, poor physical conditions were an obstacle to job satisfaction and motivation. None of the schools taking part in the research had access to a library or suitable play areas for the children. Basic infrastructure such as suitable toilet facilities was not in place and contributed towards poor hygiene amongst the students. No sick bay to take care of ill students or staff room for teachers to enjoy their intervals or hold meetings in were available in these schools.

According to Lethoko, Heystek & Maree (2001) individuals will appreciate infrastructure and property that is maintained and aesthetically appealing. This type of a learning environment will therefore play a role in motivating teachers to teach and learners to learn. In most cases schools become hopeless about the department not being able to meet their needs and as a result make use of efforts such as fundraising, and involving the community in a joint effort to help raise funds to improve the

school environment. Even though a lack of resources in a school environment is a major barrier to learning, success and high pass rates are not solely dependant on wealth or the availability of resources (Harber, 2001a). Leshata Primary in Orange Farm, an informal settlement in Johannesburg is a shining example of how a poorly resourced school has managed to attain success despite difficult conditions to contend with (Harber, 2001 a). The school has no library, computer, scientific equipment or musical instruments, and many of the fathers of the learners are unemployed, yet matriculants managed a 100% pass rate. The principal attributed the success to encouraging learners to work very hard even after school hours. Harber (2001a), reports on success stories of other schools that have risen above adversity. Some of the factors that contribute towards academic achievement were positive changes in work ethic, commitment and discipline of teachers, parents and pupils, attention to punctuality of pupils and tracking pupils progress to identify problem areas.

Salaries

Many African countries, including South Africa are unsuccessful in attracting graduates to enter into the teaching profession because it is one of the lowest paid professions on the continent (Peroshni & Farlam, 2004). In April 2007 civil servants resorted to mass action strikes days after the Public Service and Administration Department refused to meet their demands of a 12% wage increase and an increase in medical aid and home allowance (Samsodien, Mdewu & da Costa, 2007). At the time the government was only prepared to offer a 6% salary increase (Keating, 2007). Strikes were reported to have had a minimum impact on service delivery but a devastating effect on schools, as many teachers did not teach due to their participation in the strike. Many schools were forced to function on skeleton staff. Even though many teachers realised that pupils could not afford to miss out on work weeks before their mid-term exams, they felt that it was important for their voices to be heard and for the government to take their demands seriously (Keating, 2007). In a study conducted by Steyn & van Wyk (1999) on perceptions of job satisfaction among principals and teachers in urban lack schools in South Africa, it emerged that most teachers mentioned poor salaries to be a source of their job dissatisfaction. As one teacher stated: "...all those big people earning big salaries, you know, but teachers are lowly paid, that is another thing that will drive teachers out of the teaching fraternity..."(p.39). Another study conducted by the University of Pretoria found that

more than 10 400 South African teachers are leaving for the United Kingdom as a result of better working conditions and salaries. It is clear that teachers are disgruntled and are facing a situation where their remuneration is far below what is expected and that this situation is affecting their morale and level of job satisfaction.

Stress

There is no question that teachers in South Africa are experiencing high levels of stress for a myriad of reasons relating to the state of education in the country. In general South African teachers are struggling to deal with their new role and identity as educators as it has become more varied and challenging (Robinson, 2003). As a result of transition in the educational system teachers are faced with increased administrative duties, a changing curriculum, poor discipline of learners, rationalisation, retrenchments and redistribution, which in combination places an immense amount of pressure on teachers. The factors previously mentioned all contribute towards teacher stress. Teachers in under-resourced schools are still suffering the effects of an apartheid educational system that was based on racial segregation and the unequal distribution of resources. Specifically in contexts where schools are situated in disadvantaged areas, there are the added challenges of inadequate resources, over-crowded classrooms, the devastating effects of HIV/AIDS and violence in schools. The issue of teacher stress is an important one as clear links have been made between mental and physical health and occupational stress (Williams & Gersh 2004). According to Myburgh and Poggenpoel (2006), teachers stress related problems are manifesting itself in behaviours such as alcohol abuse, absenteeism, poor relations between teachers and learners, teachers and colleagues and teachers and their families.

Research Focus

The present study contributes to the body of health psychology as it will explore and describe the teachers' psychological stress symptomatology and their sense of coherence. Sense of coherence, which will be described at great length in the subsequent chapter, can briefly be described as an orientation to coping with stress that focuses on aspects of psychological strength as apposed to pathology (Strümpher, 1995). Sense of Coherence forms part of the "salutogenic" paradigm, which

emphasises the origins of health and wellness, and contrasts the prevalent pathogenic paradigm of health, which focuses on illness and distress (Antonovsky, 1987). Antonovsky (1996) conceptualised sense of coherence as a general orientation that perceives the world on a continuum as comprehensible, manageable and meaningful. Where a pathogenic paradigm asks, "How can we eradicate this or that stressor?" the salutogenic paradigm asks, "How can we live and live well with stressors and possibly even turn their existence to our advantage" (Antonovsky, 1984).

A study by Bester (2003) looked into exploring psychological stress symptomatology and sense of coherence (i.e. the ability to cope amidst stressful work circumstances) among nurses in a psychiatric hospital in the Cape Town area. Bester (2003) asserts that there is a lack of South African research in the area of general well-being and coping. It is also mentioned that the majority of research in this domain of health psychology concentrates on the promotion of health as apposed to focusing only on pathology per se. The results of the study indicated that there was a negative relationship between psychological stress symptomatology and sense of coherence, i.e. higher scores on sense of coherence was associated with less psychological stress symptomatology. It was concluded that a strong sense of coherence could prevent psychopathology. Sense of Coherence was said to be a buffering factor for handling and coping with stress.

Similarly in a study conducted by Le Roux (2000) who measured the sense of coherence of employees at a bank undergoing transformational change, it was found that those individuals with a strong sense of coherence perceived organisational change and their ability to cope with it in a positive manner and presented with lower psychological stress symptomatology. Conversely, those with a lower sense of coherence tended to perceive organisational change in a negative manner, presented with elevated psychological symptomatology and therefore were more at risk to developing health related difficulties in the line of physical illness and adjustment problems. Leon (2000) devoted attention to the concept of psychological hardiness and how this style of coping helps individuals to view their stressors as challenging instead of threatening. Sense of coherence and psychological hardiness both fall into the salutogenic paradigm, which concentrates on tracing the origins of health as apposed to the pathogenic paradigm that emphasise the origins of illness.

Wissing and van Eeden (1997) applied scales based on several models and constructs from a range of theoretical traditions to a large group of multicultural participants. The different manifestations of psychological well-being in different gender, cultural and age groups were compared. Psychological well-being was found to be multidimensional with regards to facets of the self (e.g. affect, cognition, behaviour) as well as domains in life (e.g. social and contextual, love and work). Sense of coherence, satisfaction with life and affect balance were all found to be strong indicators of general psychological well-being.

The literature indicates that the teaching profession has become increasingly challenging. A revised curriculum, shortage of teachers, the effects of HIV/AIDS, problems related to effective discipline, violence in schools, poor resources and unsatisfactory salaries are all conditions that create a work environment filled with stress and uncertainty. Stress at work has been linked to psychological disorders, loss of morale, lower job satisfaction, somatic consequences and burnout (Landy, Quick & Kasl, 1994; Levert, Lucas & Ortlepp, 2000; Rice, 1999; Williams, 1995). This study is concerned with investigating the psychological stress symptomatology, sense of coherence and the relationship between these two factors, of educators in under-resourced schools in Cape Town. A strong sense of coherence has been associated with decreased levels of physical illness, depression and related positively to psychological well-being (Antonovsky, 1996).

Conclusion

The aim of this chapter was fourfold. Firstly, it has orientated the reader to the topic of this dissertation with a brief introduction to the historical background and current state of education in South Africa. Secondly, motivation for the importance of the study was discussed. The third aim was to outline the primary foci of the study, followed lastly by a more detailed account of education in the South African context, including factors such as curriculum changes, shortage of teachers, discipline and violence, resources, salaries and stress. Attention was also dedicated to how these factors have affected under-resourced schools. The following chapter will focus on stress and psychological stress symptomatology.

Chapter 2

Stress and Psychological Stress Symptomatology

Introduction

Over the years biological and social scientists have paid considerable interest to the field of stress. The interest has been extended across diverse clinical practice to help amend distress, dysfunction, physical disease and social ills brought about by stress (Lazarus, 1999). Stress has become a part of daily discourse with many meanings and understandings of its prevention and management attached to it (Bartlett, 1998). One of the reasons why stress has gained so much popularity is because research has shown that it has an effect on our physical and psychological health (Bartlett, 1998; Baum & Singer, 1987; Lazarus 1999).

Bartlett (1998) outlines three reasons why it is important to study stress. Firstly, in understanding how stress causes illness, we will be able to ameliorate or prevent ill health and suffering associated with it. Secondly, if we are able to develop ways to prevent and reduce levels of stress then we will lessen the economic cost to society. Decreased productivity due to ill health and absenteeism will add to the burden of increased government spending in the region of health care. Lastly the study of stress is fundamentally important to the discipline of health psychology as it integrates a wide body of knowledge in the area of human functioning in general.

Definitions of Stress

It has become commonly accepted by researchers in the field of health psychology that definitions of stress are many and varied, and that it is a difficult concept to define (Bartlett, 1998; Cohen, Evans, Stikols & Krantz, 1986; Lazarus, 1977; Rice 1998). Selye (1980) captured the complexity of the concept of stress in the following statement, “ stress like relativity, is a scientific concept, which has suffered from the mixed blessing of being too well known and too little understood” (Selye, 1980, p.127, cited in Rice, 1998).

There has been a tendency to distinguish three basic types of stress: physiological, psychological and social (Lazarus, 1977). Physiological stress is concerned with biological systems, psychological stress with cognitive factors leading to the evaluation of stress and social stress with the disruption of a social unit or system. Lazarus's transactional model of stress is currently the most influential theory as it favours an integrative approach to stress by factoring in the physiological, psychological and social aspects (Rice, 1998; Cohen et al., 1986). Stress in this model is seen as a process, which involves the continuous interactions called-transactions between the person and the environment. The individual is seen as an active agent who can influence the impact of a stressor through behavioural, cognitive and emotional strategies. Stress is seen as a condition, which happens when the person/environmental transactions cause the individual to perceive a discrepancy between the demands of the situation, and the resources or ability to cope with the demands (Lazarus, 1966).

Although many theories of stress exist, the most prominent ones will be introduced in this chapter, namely the biological and psychological models. Specific reference will be made to Lazarus's transactional model as it embraces a holistic view on stress.

Biological Stress Theories

General Adaptation Syndrome (GAS)

Hans Selye (1956), Hungarian born endocrinologist, initially defined stress as a non-specific response of the body to any demand made to it, then later revised this definition of stress as the reaction of the organism to a given stimulus. He then referred to the stimulus as a "stressor" (Bartlett, 1998). He also distinguished between distress, which is negative and damaging to one's health, and eustress, which is positive and enhances health. During Selye's (1956) research on stress he developed the General Adaptation Syndrome (GAS), which includes the following three stages:

1. Alarm Phase

This occurs when the organism is exposed to a noxious agent (stressor) (Selye, 1952). The organism's physiological system activates the necessary response in order to meet the demands of the stressor. The anterior pituitary gland secretes adrenocorticotrophic hormone (ACTH), which then activates the cortex to secrete cortical steroids.

Hormonal output is rapid at this stage (Cohen et al., 1986). The physiological reaction is defensive and self-protective in nature, and if these reactions are successful the alarm phase decreases and the body returns to balance (Selye, 1952). The effectiveness of the organism's immune system at this stage is compromised, making it more susceptible to illnesses (Zuck, 2006).

2. Resistance

This stage involves adapting to the stressor either with improvement or disappearance of the symptoms. Changes at many levels take place in order to reduce the effect of the stressor. For example if a person is suffering with anorexia the desire for physical activity is decreased to conserve energy, and the absorption of nutrients from food might be maximised (Zuck, 2006)

3. Exhaustion

This stage occurs if the stressor is so severe and prolonged that it depletes the organism's defences and as a result is no longer able to adapt to the stressor (Cohen et al., 1986). Symptoms reappear, and if the stress continues there is a limited chance of survival. Vulnerability to essential organs may appear, which could result in illness or death (Cohen et al., 1986).

Rice (1999) summarised the underlying principles of Selye's General Adaptation Syndrome (GAS) as follows:

- 1) All biological organisms have a fundamental drive to maintain a state of internal balance or equilibrium. This process is called homeostasis and it is a lifelong task.
- 2) Stressors disturb equilibrium. A person's body responds to a stressor with a non-specific physiological arousal. This reaction is defensive and self-protective.
- 3) Adjustment to stress takes place in stages. This time, course and progress through the stages depend on how successful the resistance is in relation to the intensity and duration of the stressor.
- 4) Each person has a specific reserve of adaptive energy. When this energy is depleted, the person lacks the ability to cope.

Despite mention of its usefulness as a stress theory, Rice (1999) is critical of Selye's theory of the General Adaptation Syndrome (GAS) as it does not take psychosocial factors into account when understanding the human reaction to stress. It also, according to the author, does not take into account the cognitive processes that influence human responses to a challenging situation as well as effective coping strategies. Nevertheless the General Adaptation Syndrome model (GAS) has been applied to research within the realm of health psychology.

Selye's theory has been researched extensively in the field of biomedicine (Hubert, Sadeghi & Senguin, 1986; Laforge, Moisan, Champagne & Senguin 1978) and more specific to health psychology, in the area of sports psychology (Ken, 2006).

The Diathesis-Stress Model

This model of stress integrates the biological, psychosocial and environmental factors that may function as predisposing or precipitating factors in the development of psychological or physical illness (Kaplan & Saddock, 1998). Predisposing factors are those that could lead one into developing an illness, whereas the precipitating factors maintain the illness. These two factors do not act in isolation but rather share a relationship where there is interplay between them. The model also suggests that each individual may have a particular organic weakness (predisposition), which makes him or her vulnerable to illness (Bartlett, 1998). Whether the weakness manifests depends on the precipitating force, that is, the stress factor that is experienced (Rice, 1999).

The Diathesis-Stress model has been applied to a number of studies in order to highlight the theory that individuals are vulnerable to illness as a result of predisposing factors and its relationship with environmental factors. They include research in the areas of hopelessness theory of depression in adults (Kwon & Laurenceau, 2002; Slavik & Croake, 2006) depression in children (Hilsman & Garber, 1995) cognitive theories of depression (Mann, Watermaux, Haas & Malone, 1999) bulimic symptoms (Joiner, Heatherton, Rudd & Schmidt, 1997), phobias (Kendler, Myers & Prescott, 2002), posttraumatic stress disorder (McKeever & Huff, 2003) and schizophrenia (Fowler, 1992).

Psychological Stress Theories

The psychological tradition of understanding stress is based on two categorisations, that is, the one concentrates on the stimulus (stressor) and the other on the response, that is, the mental or bodily reaction brought about by the stressor (Lazarus, 1999). Both according to Lazarus (1999) are inadequate as they fail to take into account individual differences of coping and appraisal. Lazarus proposes a cognitive transactional model where the central feature is the process of cognitive appraisal. Cognitive appraisal is defined as the mental process, which people use to assess whether a demand threatens their well-being, and appraise their resources for dealing with the demand (Rice, 1999). Lazarus (1966) defines stress as the psychological state that derives from people's appraisals of their adaptation, to the demands of which are made of them. In other words stress exists when the environmental demands exceed the individual's ability to cope. The transaction between the personal and the environment is based on three types of appraisals, that is, primary, secondary and reappraisal (Rice, 1998).

In the primary appraisal phase the individual judges the event to be irrelevant, benign or stressful (Quine & Pahl, 1991). Lazarus described three stressful appraisals: challenge, threat and harm-loss (Rice, 1998). When a situation places demand on the individual but he/she feels incapable of meeting these demands, challenge exists. Threat takes place when the situation demands more coping ability than is available. Harm or loss is experienced when the individual feels that the outcome of the stressful event might be harmful or that something might be lost (Rice 1999.) Furthermore factors within the individual such as strength of values, commitment and personality disposition influences the appraisal process (Cohen et al., 1986).

When the individual appraises an event to require a coping response in order to estimate whether he/she is able to cope, eliminate, or lessen the effects of the stressful event, secondary appraisal is taking place. Coping may involve responses that alter the condition that is threatening, for instance fight or flight, or thoughts or actions that relieve the emotional impact of the stress. Emotion focused coping may also be replaced with somatic forms such as using substances or intrapsychic processes such as denial (Cohen et al., 1986).

The final stage of appraisal is that of reappraisal (Rice, 1998). Reappraisal is based on the feedback from the environment that occurs in the previous stages of appraisal. The appraisal stage is now alerted as a result of new information from the environment. The process of reappraisal may lead to changes in the initial primary appraisal, which may have an influence on the individual's perception of resources and skills he/she may have to deal with the event (Rice, 1999).

Rice (1998) summarised three important implications of Lazarus's transactional model:

- 1) An event may be interpreted as stressful by one person but not another
- 2) The same person could interpret the same event as stressful at one time but not at another
- 3) Personal constructs of what is reality do not have to be consistent with the external reality

The usefulness of Lazarus's transactional model has been demonstrated in a range of psychological studies including attachment and development (Sroufe, 2005) job stress (Van Der Doef, Gelsema, Maes, Marloes, Akerboom & Verhoeven, 2006), peer rejection, aggression and psychological maladjustment from ages 5 to 12 (Ladd, 2006), the impact of behaviour problems on caregiver stress in young people with autism spectrum disorder, (Lecavalier, Leone & Wiltz, 2006), transactional relations between marital distress and adolescent emotional adjustment (VanderValk, De Goede, Martijn, Spruijt & Meeus, 2007). In the following section the focus will be on the symptoms of stress.

Symptoms of Stress

It has become widely accepted that stress has an influence on physical and psychological health (Bartlett, 1998; Baum & Singer, 1987; Davidsdottir, 2007; Kasl, 1987; Lin & Ensel, 1989; Pearlin, Lieberman, Menaghan & Mullan, 1981; Stroebe & Stroebe, 1995; Stevenson, 1969). However what is also emphasised is that individual differences and factors influence how the stress is experienced. In other words individuals may react differently to the same stress (Guthrie, Verstraete, Deines & Stern 1975; Mettlin & Woelfel, 1974).

The literature indicates that generally stress manifests itself through physical, psychological, behavioural and cognitive symptoms (Davidsdottir, 2007; Lin & Ensel, 1989; Guthrie, Verstraete, Deines & Stern 1975; Jordaan, Spangenberg, Watson & Fouche, 2007; Pearlin, Lieberman, Menaghan & Mullan, 1981; Powell & Enright, 1990, Schlebusch 2004; Stevenson, 1969; Stroebe & Stroebe, 1995). The four categories of symptoms are however interconnected and have a direct effect on each other (Powell & Enright, 1990)

Common physical symptoms include tension headaches, high blood pressure, back pain, muscular tension, heartburn, stomach problems, shortness of breath and palpitations (Duvall, 2001). Studies have also associated chronic stress with the impairment in the functioning of the immune system and coronary complications (Stroebe & Stroebe, 1995). Emotional arousal induced by stressors has been known to contribute towards coronary heart disease (Stroebe & Stroebe, 1995).

Behavioural patterns such as procrastination, avoidance, isolation from family and friends, loss of appetite and decreased energy have been linked to stress (Vlisides, Eddie & Mozie, 1994). Other behavioural symptoms entail maladaptive response mechanisms such as increase in smoking and alcohol, drug taking, poor exercise and poor eating habits (Armeli, Dehart, Tennen, Todd & Affleck, 2007; Stroebe & Stroebe, 1995). Avoidance of the anxiety provoking situation, difficulty sleeping, increased aggression, and loss of sexual interest have also been listed as behavioural symptoms caused by increased levels of stress (Powell & Enright, 1990).

Closely linked are the emotional and cognitive processes affiliated to the experience of stress. Individuals experiencing stress may present with symptoms of emotional distress that manifests itself through anger, irritability, helplessness, sadness, depression and anxiety (Vlisides et al., 1994; Jordaan, Spangenberg, Watson & Fouche, 2007). Essentially people are more negative when they are stressed (Baum & Singer, 1987). Included in this negativity is a negative emotional tone where the general mood suffers. Specific somatic consequences related to stress-related emotion entail complaints, tension and upset. Depersonalisation, intensiveness, rage and hypervigilance may also accompany the emotional distress. Difficulty concentrating and making decisions, forgetfulness, self-critical thoughts, distorted or irrational

thoughts and catastrophic thinking are all cognitive symptom of stress (Powell & Enright, 1990). Catastrophic thoughts, which involve the misinterpretation and significance of the event, create anxiety, which further generate the physical symptoms. This link is commonly presented in thoughts such as “My heart was beating so fast I thought I was going to get a heart attack” (Powell & Enright, 1990).

In the field of abnormal psychology it has been recognised that a person may have a specific vulnerability, that when acted on by a stressful situation, can allow for symptoms to develop. Stress has also been linked to the aetiology of mental illness such as schizophrenia, anxiety and mood disorders (Kaplan & Saddock, 1998).

Teacher Stress

The previous chapter was dedicated to a discussion on challenges specific to the South African teaching context. In this section a more general exploration of teacher stress by international researchers will take place. Research in this area has become an issue of increasing concern in the international arena (Borg & Riding, 1991; Chan, 2002; Kyriacou, 2001; Lazuras, 2006). Issues related to teacher morale, motivation, stress and health has been generally accepted to be an issue in Anglo-European democracies (Kelly & Coloquhoun, 2003).

The area of teacher stress is a notable one as the strain associated with teaching places risk on the emotional, physical and psychic health and well being of those in the profession. Teacher health and well-being are the central aspects to delivering effective schools (Kelly & Coloquhoun, 2003).

In the United Kingdom there are growing concerns about the difficulties of teacher recruitment and retention that is related to stress in the profession (Jepson & Forrest, 2006). It was estimated that one third of teachers would not enter the profession if given another chance and 30 % of new teachers exit the profession before their fifth year of teaching (Nagel & Brown, 2003). Compared to other professions teaching is highly stressful and as a result contributes to higher job turnover, higher job dissatisfaction, poor performance and health problems (Lazuras, 2006). In a survey conducted by the British Health and Safety Executive Report it was established that

teaching was one of the most stressful occupations, where 41% of teachers reported high levels of occupational stress, compared to 31% in nursing, 29% in managerial jobs and 27% in professional and support management (Jepson & Forrest, 2006).

“Teacher stress” has been defined as a concept on its own and various researchers emphasise different areas of significance. Many of the authors researching in the field have adopted the definition from Kyriacou and Sutcliffe (1978) who describe teacher stress as resulting from a condition of negative affects (e.g. anger or anxiety) resulting from aspects of the job which are perceived to be a threat to the teachers’ psychological or physical well being (Borg & Riding, 1991; Jepson & Forrest, 2006; Kyriacou, 2001; Manthei, Gilmore, Tucker & Adair, 1996). This model of understanding teacher stress takes into account how teachers own perceptions of the stressor play a major role in the experience of stress. Kyriacou and Sutcliffe (1978) adopted the theoretical concept of stress by Lazarus and applied it within the teaching context in order to understand teachers’ reactions to stress. Kyriacou (2001), lists some of the main sources of teacher stress to be:

- teaching pupils who lack motivation
- maintaining discipline
- time pressure and work overload
- coping with change
- being evaluated by others
- dealings with colleagues
- self esteem and status (of the profession)
- administering and mismanagement
- role conflict and ambiguity
- poor working conditions

Other sources of stress have also been reported on. Jarvis (2002) adds that poor pay and the fact that the profession is held in low esteem are contributing factors associated with the occupational stress of teaching. Another issue mentioned is that of school ethos which consists of aspects such as inadequate school discipline policies and lack of teacher contribution to school policy. Poor working conditions such as

of equipment, lack of friendly and supportive atmosphere among staff and principal, (Nagel & Brown, 2003) lack of direction with curriculum demands (Borg & Riding, 1991) and lack of support from parents and society (Manthei et al., 1996) are other factors contributing towards stress levels among teachers. In a pilot study that investigated teacher stress symptoms and their coping strategies it was revealed that work related stress was the most significant stressor (Austin, Shah & Muncer, 2005). Work related stress consists of excessive workload, administration, preparation, hours worked outside of work and too little time to manage these demands.

The experience of stress is not a unilateral process as individual contributory factors such as personality, values and skills play a role in mediating the perceived stress (Jepson & Forrest, 2006; Kyriacou, 2001) as well as cognitive appraisal and other social and personal resources (Chan, 2002). Research on personality traits and its connection to stress and illness have looked at Type A personality characteristics (Jepson & Forrest, 2006). Type A personality has been associated with impatience, hostility, irritability, competitiveness and achievement striving. In a teaching context that holds a great deal of challenges, individuals with these personality characteristics could experience more stress as they place a lot of pressure on themselves to achieve and succeed.

The multitude of stress factors associated with the teaching profession leave teachers vulnerable to physical and psychological strain. Teacher stress is essentially a negative affect with accompanying physical (e.g. high blood pressure), diverse psychological (e.g. job dissatisfaction) and behavioural symptoms (e.g. absenteeism) (van Dick & Wagner, 2001). It is important to reiterate that stress reactions are as a result of external occupational factors and the individual's disposition, which include features such as personality traits, cognitive appraisal of the stress, personal values and skills. Psychological demands of the occupation that the individual experiences may lead to anxiety and depression (Austin, Shah & Muncer, 2005), poor performance and personality changes which in turn may lead to illness and premature retirement (Schwarzer, Schmitz & Tang, 2000).

Circumstances of ongoing and extreme stress in the long run, can lead to burnout. Burnout has been described as a feeling of physical, emotional and mental exhaustion

Circumstances of ongoing and extreme stress in the long run, can lead to burnout. Burnout has been described as a feeling of physical, emotional and mental exhaustion that results from a chronic state of accumulated pressure and stress at work (Jepson & Forrest, 2006). The three basic traits exhibited in burnout are described to be a) emotional depletion, where teachers have a depressed morale and lack of enthusiasm for their work, b) dehumanisation, where teachers adopt an insensitive attitude towards learners and c) a low sense of individual achievement, whereby teachers place little value on their work and what it signifies (Yu, 2005). Disturbing trends in the research present burnout as a prevalent problem within the teaching profession (Jepson & Forrest, 2006; Shwarzer et al., 2000; Yu, 2005).

Conclusion

This chapter has provided a review on the concept of stress, the complexity with its definition, models that attempt to explain it and its symptoms, which manifest in the physical, psychological, behavioural and cognitive features of an individual. In addition attention was paid to the influence of stress in the development of severe psychopathology such as schizophrenia. The final section highlighted the general sources of stress for teachers and the negative impact it has on their physical and psychological well-being. The next chapter will explore sense of coherence as a construct within the salutogenic paradigm.

Chapter 3

Sense of Coherence

Introduction

In the 1970's the late Aaron Antonovsky, a professor of sociology, developed the salutogenic model of health and illness. Influential in the development of this model was his research on women survivors of the Nazi concentration camps (Strümpher, 1995). The data revealed that some camp survivors were poorly adjusted while some of them were well adjusted despite the traumatic experiences they encountered. Antonovsky was interested in what allowed these women to function well and experience some level of happiness (Strümpher, 1995). In 1979 he attained worldwide recognition in his book titled *Health, Stress and Coping* and its sequel *Unravelling the Mystery of Health* in 1987 where he presented his breakthrough research on the relationship between stress and illness (Antonovsky, 1994). The fundamental principle behind his paradigm was for a focus on health and the factors that help people continue to function in demanding or stressful situations (Karraker & Grochowski, 2005). This orientation towards health and well-being stands in direct contrast to the dominant pathogenic model which seeks to identify the mechanisms underlying illness (pathogenesis). The pathogenic paradigm asks, "How can we eradicate this or that stressor?" Whereas the salutogenic questions asks "How can we learn to live and, and live well with stressors and possibly even turn their existence to our advantage" (Antonovsky, 1984, p.116). Antonovsky's notion of sense of coherence is central to the salutogenic paradigm. The following sections will provide an overview of the differences between the salutogenic and pathogenic model of health, sense of coherence and aspects related to it.

The Pathogenic Paradigm

Strümpher (1990) states that psychology has been working mainly in a pathogenic paradigm of thinking where the focal points are understanding why people become sick, why they develop certain diseases and classifying them as healthy or diseased. In this paradigm stressors are essentially considered to be bad, which leads to the need to eradicate all stressors, as stress will eventually lead to disease (Antonovsky, 1984).

Battles are also fought against diseases with the idea that they will be conquered (Van Breda, 2001). Van Breda argues that the idea of eradicating the disease will lead to an illusion that the disease and its source will be annihilated. Antonovsky (1984) argued that the behavioural aspects implied in the prevention of the disease and the promotion of health is given little consideration. Another issue according to him that is rarely considered are the cases of individuals who cope successfully or resist disease (“deviant cases”) and as a consequence the hypotheses or methodologies that help understand the phenomena go by neglected. Antonovsky (1984) emphasised that he does not advocate for the abandonment of the pathogenic paradigm, rather he encouraged people to view the two orientations as complimentary. He set forth that the salutogenic paradigm acknowledges a more balanced allocation of intellectual and material resources.

The Salutogenic Paradigm

Derived from the salutogenic paradigm is salutogenesis, which is drawn from Latin, (salus=health) and Greek (geneses=origins), directly translated, the origins of health (Strümpher, 1995). The salutogenic model focuses on the effects of stress on the individual. Antonovsky spoke of stressors being omnipresent and defined the human condition to be stressful, however he was more interested in how people manage stress and stay well (Antonovsky, 1984). He outlined three implications of the paradigm.

Firstly, people are not categorised in dichotomous terms of either healthy or diseased, rather they fall on a continuum between the two poles of ease and dis-ease. What determines an individual’s movement toward either pole are generalised resistance resources, which is essentially the property of a person, collective or situation that facilitates successful coping with the stressor (Antonovsky, 1996). Secondly, the model does not accept the idea that all stressors are inherently bad and instead favours the possibility that stressors may have salutary consequences: “A stressor may be a challenge, giving rise to successful coping precisely because it makes unanticipated demands” (Antonovsky & Bernstein, 1986, p.64). The third implication is that of the “deviant cases”, that is, those individuals who make it against the odds that are posed by human existence (Antonovsky, 1984), for example, the smokers who do not get

lung cancer or the Type A persons who do not develop heart disease (Strümpher, 1990). It is clear that the key emphasis is on matters of strength and coping and constant questioning of how health is created (Kickbusch, 1996). Central to the salutogenic model is sense of coherence, which Antonovsky designed as a construct to explain successful coping with stress, which causes movement of the individual towards the health end of the ease/dis-sease continuum (Antonovsky, 1993a).

Sense of Coherence

A strong sense of coherence is a signifying factor in facilitating the movement towards the maintenance of health (Antonovsky, 1996; Wolff & Ratner, 1999). It is also described to be the core factor in the organisation of a complex human system for successful processing of information and energy that makes conflict resolution possible (Antonovsky, 1993a; Kivimaki, Kalimo & Toppinen, 1998). Antonovsky (1987) provided a more extensive definition of sense of coherence, which reads as follows:

The sense of coherence is a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that a) the stimuli deriving from ones internal and external environments in the course of living are structured, predictable and explicable; b) the resources are available to meet the demands posed by the stimuli; and c) these demands are challenges, worthy of investment and engagement (Antonovsky, 1987, p.19).

Furthermore, Antonovsky proposed three components of sense of coherence namely comprehensibility, manageability and meaningfulness (Antonovsky, 1987). These components were identified through a study of 51 people who survived major trauma but were coping remarkably well (Strümpher, 1990). The first component, comprehensibility, is defined as the “extent to which individuals perceive the stimuli that confront them as making cognitive sense, as information that is ordered, consistent, structured, clear- and hence regarding the future as predictable-rather than noisy, chaotic, disordered, random, accidental, and unpredictable” (Antonovsky, 1984, p.118). The process is primarily cognitive in nature and refers to how the individual perceives internal and external stimuli and events (Van Breda, 2001).

Stimuli from within and without are seen to be clear, ordered, consistent and structured (Strümpher, 1990). The person high in comprehensibility expects future stimuli to be predictable and when they do come as surprises they will be ordered and explicable (Antonovsky, 1987).

Manageability, the second component, is the extent to which the individual believes the problem has been understood and that the required resources to cope with the problem are available. The available resources may be in one's own control or in control of significant others e.g., spouse, relatives, God or physician. When the individual experiences hardship, he/she is expected to endure it and avoid becoming overwhelmed. One that has a high sense of manageability will not feel victimised by events or that life is treating them unfairly (Antonovsky, 1987).

The third and final component, meaningfulness, refers to the emotional sense the individual makes of life rather than cognitive sense. It depends on the level of motivation to engage with life's challenges and also the extent to which one feels that some challenges are worthy of emotional energy (Antonovsky, 1996). When an individual high in a sense of meaningfulness encounters an unhappy situation, he/she will take up the challenge, will be determined to seek meaning in it, and will do his/her best to overcome it in a dignified way (Antonovsky, 1987).

In summary, a person with a strong sense of coherence will wish to be motivated (meaningfulness), believe that the challenge is understood (comprehensibility) and believe that resources to cope are available (manageability) (Antonovsky, 1996).

Antonovsky (1987) stated that the three components are not separate but inextricably intertwined. Empirical research indicated that the inter-correlations between the components were high but not perfect. In addition, different life experiences will lead a person to be high in one component and low in another at different points in time.

Other important points to mention with regards to sense of coherence are its affinity to related constructs and its culture fairness. Sense of coherence is said to be associated theoretically to concepts such as learned helplessness, self-efficacy, hardiness and locus of control, as they all deal with how people are able to manage their stress to stay well, but what is unique to sense of coherence is its combination of cognitive,

behavioural and motivational aspects (Antonovsky, 1996; Smith & Meyers, 1997; Strümpher, 1990). According to Antonovsky (1996), sense of coherence is not culture bound. He contends that, what gives people a sense of meaningfulness, the choices they make with regards to resources, and how much information they need to comprehend may vary from culture to culture, but what matters is the life experiences that lead to sense of coherence.

Sense of Coherence and Boundaries

A number of detailed interviews over time revealed that some people who are considered to have a strong sense of coherence did not see their whole world as coherent and it became apparent that people set different boundaries according to what matters to them (Antonovsky, 1987). Antonovsky explains that one person does not necessarily have to see the entire world as very comprehensible, manageable and meaningful in order to have a strong sense of coherence. He also argued further that what is of importance is that there are spheres of life that are of subjective importance and that these spheres are seen to be comprehensible, manageable and meaningful. One of the effective ways for a person with a strong sense of coherence to maintain his or her worldview as coherent is to be flexible about the areas within the boundaries considered to be significant. Boundaries can also change temporarily or permanently if the demands in the area are perceived to be less comprehensible. The proviso is that the adjustment of the boundaries does not apply to the four crucial spheres.

According to Antonovsky (1987), one cannot maintain a strong sense of coherence and narrow the boundaries to an extent that it precludes four crucial spheres namely, 1) inner feelings, 2) immediate personal relations, 3) major activity, 4) existential issues (death, inevitable failures, shortcomings, conflict, isolation). He argued that ones energies are too attached to these spheres to deny its meaningfulness and if one does so, he /she has a low sense of meaningfulness. They cannot just be important to ones life they have to be meaningful, that is, they are perceived to be worthy challenges and worthy of ones investment. In terms of major activity in ones life, such as work, the question is not necessarily one of intrinsic satisfaction. For instance one can find little joy in work, but it can have meaning because it is how one supports ones family (Antonovsky, 1987).

Sense of Coherence and Generalised Resistance Resources

Generalised resistance resources are what explain the movement of an individual towards the health pole of the ease/dis-ease continuum (Antonovsky, 1996). Antonovsky described general resistance resources at a basic level to be any characteristic, of the person, the group or the environment that can effectively facilitate the management of tension. Antonovsky (1979) described a range of general resistance resources. General resistance resources consist of the physical (e.g. biochemical properties such as immuno suppressors), artefactual material (wealth that can buy clothing and food), cognitive (knowledge, intelligence, skills) emotional (ego strength), coping strategies (plan of action to overcome stressors), interpersonal (social support) and macrosociocultural (social structure, culture and religion). What all these resources have in common is that they serve to neutralise the stressor in life and help one to make sense of the world on a cognitive, emotional and instrumental level (Antonovsky, 1996; Wolff & Ratner, 1999). With regular experience of general resistance resources, a strong sense of coherence is developed which will in the future enable an individual to overcome stressors (Strümpher, 1995).

Sense of Coherence, Stress and Coping

According to Antonovsky (1979) stressors are omnipresent and therefore the organism responds with tension. The consequences of this state could be pathological, neutral or salutary depending on the how well the tension is managed. Stress results from poor management of the tension, which eventually leads one to the dis-ease pole of the health continuum. Individuals with a strong sense of coherence, when faced with a stressor will wish to be motivated to cope (meaningfulness), believe that the challenge is understood (comprehensibility) and will feel that they have the resources to cope. Conversely the person with a weak sense of coherence will not have this experience (Antonovsky, 1996).

Antonovsky makes use of Lazarus's definition of a stressor, which focuses on a stimulus that taxes or exceeds the resources of a system, as well as the cognitive concept of appraisal in order to explain an individual's perception of a stressor (Antonovsky, 1987). Similarly to Lazarus, he described the first stage of primary appraisal to be the point where the stimulus reaches the brain and is defined as either a

stressor or a non-stressor. The person with a strong sense of coherence is more likely to define the stimuli as a non-stressor and that he/she can adapt to the demand.

The second phase Antonovsky (1987) defines as the second stage of appraisal, where the stimulus is now perceived as a stressor and is evaluated to be endangering, positive, benign or irrelevant to one's well-being. The person with a strong sense of coherence has the confidence that, as in the past, things have worked out by and large, that the problem is reasonably solvable and that the tension will dissolve. The stressor is therefore more likely to be defined as a non-stressor that is irrelevant or benign. Antonovsky (1987) raised the issue that those with a strong sense of coherence are less likely than those with a weak sense of coherence to deceive him or herself about the nature of the stressor. The person with a strong sense of coherence, as a result of successful coping in the past, will be more realistic about the stressor. The person will be open to perceiving the stressor as one that might be a threat to one's well-being but that it can be coped with.

In order to mediate the process between stressors and tension, the following three processes are necessary (Antonovsky, 1987). They are concerned with 1) defining the stressor as positive or negative, 2) clarifying the emotional parameters of the problem and 3) clarifying its instrumental parameters. Regarding the definition of a stressor, the person with a strong sense of coherence is likely to appraise the situation as less conflictual or dangerous than the person with a weak sense of coherence. Confusion is converted to incomprehensibility about the potential tension the stressor might bring, and confidence in the availability of resources to cope is experienced by the individual with a strong sense of coherence. As far as clarifying the emotional parameters is concerned, where a strong sense of coherence provides a motivational basis for action (focus) and feelings of excitement are incited, an individual with a poor sense of coherence sees the stressor as paralyzing (diffuse) and feelings such as sadness, fear, rage, grief or guilt are felt. The focused emotions are more likely to lead to coping whilst the diffuse emotions will lead to unconscious defence mechanisms. The final issue relates to how the instrumental parameters are perceived when the stimulus is seen as a stressor. A strong sense of coherence allows the person to see the problem with clarity, specificity, comprehensibility, and manageability and as a challenge rather than a burden (Antonovsky, 1987).

The last two processes discussed, implicating the perception of emotional regulation and instrumental parameters posed by the stressor are termed the third stage of primary appraisal. This stage signifies the extent to which the person is able to order their perception both cognitively and emotionally with a willingness to confront it. The process described contributes towards successful coping.

Sense of coherence as a construct was proposed by Antonovsky (1993a) to explain successful coping with stressors that moves an individual closer to the healthy end of the ease/dis-ease continuum. A fundamental process that he outlined is that a strong sense of coherence is not a coping style. A coping strategy is defined as an overall plan of action for overcoming a stressor (Antonovsky, 1979). For successful coping to take place it is key to be flexible, that is, where what seems to be the most appropriate coping strategy from a variety of general resistance resources are chosen. Antonovsky (1979) proposed three major variables that enter into the coping strategy namely, 1) rationality, 2) flexibility and 3) farsightedness.

1) Rationality pertains to the accurate, objective assessment of the threat a stressor might pose. Important here is the perception of the situation. A rational definition of a situation is considered to have a strong influence in determining the outcome. An irrational coping strategy leads to an inaccurate assessment of the stimulus.

2) Flexibility relates to having a range of plans, a willingness to consider them and an ability to consider and be open to constant revision and evaluation. There must also be openness to new information that might be more successful than old strategies.

3) Farsightedness is linked to rationality and flexibility but goes a step further to anticipate the response of the environment to the active part of the strategy.

A person with a strong sense of coherence selects the particular coping strategy that is the most appropriate to use in order to deal with the stressor at hand. He/she will also be more likely to feel a sense of engagement, commitment and willingness to deal with the situation. Dealing with the situation is seen as a challenge that is worthwhile and welcomed rather than avoided (Antonovsky, 1987).

Although the previous discussion of coping dealt with cognitive and behavioural aspects, Antonovsky also includes the emotional impacts of stress and coping. Antonovsky (1987) claims that no demand or problem does not raise the issue of emotional regulation, as tension in itself is an emotional phenomenon. He states that even though emotions are seen as a secondary phenomenon in response to a stressor, it becomes a primary problem. Once a problem is perceived as a stressor, there are implications for our emotional states (Antonovsky, 1987). Those with a strong sense of coherence are most likely to experience feelings of excitement and hope as opposed to those with a weak sense of coherence who will experience mainly hopelessness and apathy. In addition a range of emotions will be experienced by someone with a strong sense of coherence that are more conducive to regulation. Further points about people with a strong sense of coherence are that they are more aware and less threatened by their emotions, will place blame where it belongs and will allow emotions to come to the fore in behaviour rather than repress them (Antonovsky, 1987). The points mentioned will ultimately lead to the management of emotional regulation as a way to deal with the emotional impact of a stressor.

Sense of Coherence and Work

According to Strümpher (1995) Antonovsky's work was mainly concerned with the relation between sense of coherence and health and references made to work were in the context of work experiences that strengthen sense of coherence. He stated that sense of coherence must also have a significant impact on how work is approached and performed. He also believed that work is a major source of external and internal stimulation and that a strong sense of coherence would impact a person at work in the following ways:

- 1) The person would make cognitive sense of the workplace and perceive its stimulation in an ordered, structured and predictable manner
- 2) Work will be perceived as bearable. The person will feel that he/she is able to cope and that challenges can be met with the personal resources or those under the control of legitimate others.
- 3) The person will make emotional and motivational sense of work demands and challenges. He/she will also feel that these challenges are worthy of engaging and investing energy in.

To indicate the relationship between health and work related variables, Strümpher (1990) makes references to four studies. The findings were as follows:

1) In a study of farm workers, it was established that only among men with low sense of coherence did a sense of participation in decisions at work correlate with measures of job satisfaction and reduced feelings of powerlessness. Sense of coherence correlated significantly with general health, psychological health, negatively with a feeling of powerlessness and positively with social support from various sources.

2) In a sample of black nurses in Umtata, the sense of coherence scale correlated negatively with intensity of stressful job events and psychological health, as well as positively with job satisfaction, quality of the nurse's patient care (as rated by the supervising sister) and with general well being.

3) With a sample of data processing personal in a financial organisation, one of the findings were that sense of coherence related negatively to two stressors, namely role ambiguity and role conflict. In addition, the work-related outcomes of job satisfaction and life satisfaction correlated positively with sense of coherence.

4) A study administered with industrial operatives in the chemical industry showed hardly any relationship between the sense of coherence scale and stressors nor with health or work related outcomes. Occasions where sense of coherence moderated relationships appeared to be by chance results.

Viviers and Cilliers (1999) undertook a study to measure the relationship between salutogenesis and work orientation as constructs of optimal coping. They indicated that sense of coherence represents three concepts with theoretical underpinnings in work conducted by Antonovsky (sense of coherence), Kobasa (hardiness) and Rosenbaum (learned resourcefulness). Work orientation was described as a manifestation of different psychological dimensions, organisational commitment, job involvement and job satisfaction. The authors also indicated that salutogenesis and work orientation should be regarded as independent, but related constructs. It was revealed in a study by Kalimo, Pahkin, Mutanen & Toppinen-Tanner (2003) which aimed to identify the work characteristics and personal resources that are associated with burnout symptoms in the long term, that having a strong sense of coherence enabled workers to evaluate potential stressors as benign or irrelevant, which in turn helped them to problem solve in stressful situations. Other research illustrating the salutary effects of sense of coherence will be presented in the next section.

Research on the Salutary Effects of Sense of Coherence

The sense of coherence construct has been paid considerable interest and has been applied widely in research (Frenz, Carey & Jorgenson, 1993). As early as 1993, Antonovsky stated that there were over 100 ongoing empirical studies in some 20 countries using the salutogenic model. A research review indicated that the figures are rising. Sense of coherence has also been found to be a relatively stable trait measure and can be seen as an independent measure of a person's worldview (Schnyder, Buchi, Sensky & Klaghofer, 2000).

Wolff and Ratner (1999) investigated the effects of stress, social support, and recent traumatic life events on sense of coherence. It was concluded in the findings that at least one third of the variability in sense of coherence can be accounted for by chronic stress, childhood stress, recent life events and social support. Unsuccessful development of sense of coherence may result in negative health effects in adulthood. However support in adulthood can buffer the effects of traumatic events in childhood as support may result in salutary health effects. Finally it was hypothesised that individuals learn how to deal effectively with stressors, which allow movement towards the health end of the continuum.

In a study conducted by Smith and Meyers (1997) their findings revealed that individuals with a stronger sense of coherence were more likely to be hardy, displayed less learned helplessness, had more self-efficacy and reported less stress. McSherry and Holm (1994) found in their study that subjects low in sense of coherence reported significantly more stress, anxiety and anger than those with a higher sense of coherence. Those with low sense of coherence were less likely than those with higher sense of coherence to believe that they possess the personal resources to deal with the stressful situation. Those with lower sense of coherence were less approach orientated than those with middle or high sense of coherence. Other significant findings were that those with higher sense of coherence generally did enjoy a more positive outlook on life and reported significantly higher levels of perceived coping resources than their counterparts with lower sense of coherence. The researchers concluded that those with lower sense of coherence were less likely to believe that they had the social resources (e.g. family, friends), the material resources (e.g. money) or the

psychological resources (e.g. beliefs, attitude, problem solving skills) to cope with the stressful situation.

Sense of coherence was found to be a salutary factor in the occupational stress process in a study by Kivimaki, Kalimo and Toppinen-Tanner (1998). Similarly it was revealed in a study by Flannery and Flannery (1990) that sense of coherence was negatively correlated with life stress and symptoms and appeared to mitigate the impact of stress. The research findings, according to the researchers, may suggest that an adequate sense of coherence may be associated with less impaired functioning. Research also denotes that a strong sense of coherence is associated with less depression (Frenz, Carey & Jorgenson, 1993; McSherry & Holm, 1994,) fewer physical health symptoms (Bishop, 1993; McSherry & Holm, 1994), absence due to sickness (Kivimaki, Vahtera, Thomson, Griffiths, Cox & Pentti, 1997) and physiological symptoms including back and neck pain (Petrie & Azariah, 1990). A research review yielded no studies in the area of sense of coherence and teaching, which is the particular focus of this study.

Conclusion

Antonovsky proposed the construct sense of coherence to explain successful coping with stressors in order to move towards the health end of the ease/dis-ease continuum. People with a strong sense of coherence see the world as comprehensible, manageable and meaningful and have confidence in the fact that they have the necessary generalised resistance resources to effectively manage stressors. Research has shown that a strong sense of coherence is associated with well-being and a low sense of coherence with psychological distress. The salutogenic orientation provides a basis for the research into the areas of health promotion of all people irrespective of their cultural background, class or gender. Sense of coherence has been paid considerable interest and has been applied widely to a range of aspects in psychology. The following chapter will be dedicated to issues regarding the research methods and methodology that will be employed in this study.

Chapter 4

Method

Primary Aims of the Research

The primary aims of this study are to:

- 1) To explore and describe symptoms of psychological stress experienced by teachers in under-resourced schools in Cape Town
- 2) To explore and describe the sense of coherence of these teachers
- 3) To investigate the relationship between the sense of coherence and psychological stress symptomatology of these teachers

Research Design

A quantitative, exploratory-descriptive research design was deemed most appropriate, as the main focus (as indicated in the primary aims) is to explore and describe phenomena and investigate the relationship between them. A quantitative approach allows for the researcher to convert abstract social phenomena into quantitative variables that can be measured, as in this research study. Exploratory designs are suitable for exploring a topic and providing a basic familiarity with it while descriptive studies aim to describe phenomena, and are accurate and precise in nature (Babbie & Mouton, 2001; Terre Blanche & Durrheim, 1999).

A survey method was considered most appropriate for this study as self-administered questionnaires were distributed to participants (Kalton, 1983) Self-administered questionnaires are reported to ensure a high response rate, accurate sampling, minimum interview bias and a degree of personal contact (Oppenheim, 1992). The goal of survey research is to provide the researcher with a methodology to learn about the ideas, knowledge, feelings, opinions, attitudes, and self-report behaviour of a defined population (Cozby, 2004; Graziano & Raulin, 2000). The survey method is one of the best methods for collecting original data for describing a population too large to observe (Cozby, 2004) Surveys are also an important way for researchers to study relationships between variables (Cozby, 2004; Graziano & Raulin, 2000). Some of the advantages of conducting surveys are that they are more cost effective

compared to other research methods, they allow for wider geographic coverage and larger samples of persons or groups, and in the case of sensitive topics, people are more likely to answer honestly as the process is not intrusive (Bourque & Fielder, 1995; Kerlinger & Lee, 2000). Furthermore the survey method allows for an array of efficient sampling methods that allow for samples to be drawn from a variety of practical settings (Kalton, 1983).

The study can be considered correlative in nature as it investigates the association between variables (Sommer & Sommer, 1986). Research is considered to be correlational when two or more variables or conditions are measured, and the degree of the relationship to each other is estimated (Rosnow & Rosenthal, 2008).

Participants and Sampling

A non-probability sampling method was applied to select the sample, specifically purposeful sampling (De Vos, 1998). This type of sampling does not make use of random selection, but that does not necessarily mean that the samples are not representative (Trochim, 2006). With purposeful non-probability sampling, the researcher uses his/her judgement about which respondents to select and chooses only those who best meet the purpose of the study (Babbie & Mouton, 2001; Bailey, 1978; Terre Blanche & Durrheim, 1999; Trochim, 2001). Non-probability sampling is widely used and has the advantages of being inexpensive, less complex, less time consuming and convenient (Bailey, 1978; Kalton, 1983).

Biographical Description of the Sample

The sample for the study consisted of 58 male and female professional teachers from three under-resourced schools in the Cape Town. Out of 60 questionnaires sent out, 58 were returned fully completed.

The details discussed here refer to the information obtained from the biographical questionnaires completed by the participants. The variables included gender, age, language, marital status, number of dependants, qualifications, length of employment and emotional state. These biographical details are only descriptive in nature and serve to provide a context for the results.

Gender Distribution of the Sample

The majority of the participants were female (46) (79%), with only 12 (21%) of them being male.

Age Distribution of the Sample

The ages of the participants ranged between 18 to 55 years. The minority of the participants were in the 18-25 years (3) (5%) category whilst the majority were aged between 36 and 45 years (25) (43%). Those between the ages of 26-35 (14) consisted of 24% of the sample. Finally those between 46-55 (16) comprised of 28% of the sample.

Language Distribution of the Sample

English was the home language of the majority of participants (47)(81%), followed by Afrikaans (6) (10%), Xhosa (4) (7%) and lastly, the minority spoke other languages not listed (1) (2%).

Distribution of Marital Status of the Sample

The marital status of the participants varied between married, single, divorced and widowed. Most of the participants were married (45) (78%), (7) 12% were single, (3) 5% were divorced and (3) 5% widowed.

Distribution of Number of Dependant Children

The number of dependant children ranged from 0 to 5. Most of the participants had 2 children (23) (40%) and the minority had 5 children (2) (5%), (10) 17% had no children, (17) 17% had 1 child, followed by (9) 16% with 3 children and (4) (7%) had 4 children.

Distribution of Qualifications

Just over half of the participants indicated that their highest academic qualification was a diploma (31) (53%), followed by 41% (24) with degrees and 5% (3) with grade 10-12.

Distribution of Length of Employment

The majority of the participants (25) (43%) were employed at their school for more than 10 years. The least amount of participants taught at their school between six and ten years (8) (14%), (12) 21% of the population taught at the school between two and five years and (13) 22% taught at the school for less than two years.

Distribution of Emotional State

Most of the participants indicated that they viewed their own emotional state as average (28) (48%), followed closely by those who rated their emotional state as good (22) (38%). Very few of the participants assessed their emotional state to be excellent (6) (10%), just one (2%) participant viewed his or her emotional state as poor and another one (2%) participant rated his or her emotional state as below average.

Procedure

Once the study was approved by the Western Cape Education Department, meetings with each of the principals of the relevant schools were arranged, where issues such as the nature of the study, the aims, issues surrounding confidentiality and final feedback to the schools were discussed. Once the principals agreed to take part in the research and briefed the teachers about the study, the researchers met with the teachers to hand out a pack consisting of a covering letter, consent form and three questionnaires namely, the Biographical Questionnaire, Symptomatology Check List Revised (SCL-R) and Sense of Coherence Scale (SOC) also known as the Orientation to Life Questionnaire (see Appendix A, B, C, D, E) to those who volunteered to take part. The researcher collected the completed questionnaires on the agreed upon date and time, as time was too limited for the teachers to complete them on the day.

Ethical Considerations

Terre Blanche and Durrheim (1999) stated that the purpose of ethical research is to protect the welfare and the rights of the research participants. To assist in this process, certain ethical guidelines are useful in identifying major ethical problems in research (Graziano & Raulin, 2000; Rosnow & Rosenthal, 2008). They include three broad principles of autonomy, nonmaleficence and beneficence (Terre Blanche & Durrheim,

1999). Autonomy addresses issues such as voluntary participation, informed consent and the freedom of participants to withdraw from the research at any time and rights to anonymity in any publication arising from the research. The second principle, nonmaleficence, means that the research should at no point do any harm to the participants so as to maximise the benefits of the research and finally, beneficence requires the researcher to devise a research design that will be of benefit to society at large. In the following section issues pertaining to ethical research will be discussed.

Informed Consent

Informed consent implies that adequate information on the aims of the research, the procedures to be used in the course of the research, the probable disadvantages, advantages and dangers to the respondents will be highlighted (Bailey, 1978; De Vos, 1998). This principle allows for the participants to make an informed decision about whether to take part in the research or not. In addition, communication between the researcher and the participants is an important factor in this procedure. In this study the researcher was available to answer any questions from the respondents prior to the research. Letters of consent requiring signatures from the respondents were also provided so as to ensure complete autonomy and voluntary participation. The signed consent form was also an indication to the researcher that the respondents had an understanding of what was expected from them as participants in the research.

Confidentiality

This issue includes protecting the participant's interests and well being as their identities are not revealed to the public (Babbie, 1999; Kerlinger & Lee 2000). It is the primary responsibility of the researcher to respect the confidentiality of the information obtained from respondents and only with their permission is the researcher allowed to reveal their identity (Sommer & Sommer, 1986). This study adhered to confidentiality as no detail regarding the respondents identities were revealed during the course of the research.

Measures

Three measures were utilised for this study, namely a Biographical Questionnaire, the Symptomatology Check List 90-Revised (SCL-90-R), Orientation to Life Questionnaire (Sense of Coherence Scale; SOC-29). A description of each questionnaire will be discussed in the following section.

Biographical Questionnaire

This questionnaire served to obtain contextual demographic information about the respondents. Detail such age, gender, home language, marital status, number of dependants, highest level of qualification, length of employment and own assessment of emotional state in the past six months were inquired about.

Symptomatology Check List-Revised (SCL-90-R)

The SCL-90-R is a 90 item self report inventory developed by the Clinical Psychometrics Research Unit at the Johns Hopkins University School of Medicine, originally designed to reflect the psychological symptom patterns of psychiatric and medical patients. It consists of nine dimensions and measures the current point-in-time psychological symptom status of an individual (Derogatis, 1977; Derogatis, Lipman & Covi, 1973). Each item on the scale is rated on a 5-point scale of distress (0-4), ranging from “not-at-all” at one pole to “extremely” at the other, with the higher scores indicating maladjustment. Each item is scored and interpreted in terms of nine primary symptom dimensions. They comprise of: somatisation, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism (Derogatis, 1977).

1. Somatisation

This sub-scale reflects distress arising from the perception of bodily dysfunction. Complaints are focused on cardiovascular, gastrointestinal, respiratory and other systems with strong autonomic mediation included. Headache, pain and discomfort of the gross musculature and additional somatic equivalents of anxiety are components of this definition. Symptoms and signs have all been demonstrated to have high prevalence in disorders demonstrated to have high functional etiology, although all may be reflections of a true physical disease.

2. Obsessive-compulsive

This dimension reflects symptoms that are highly identified with the standard clinical syndrome of the same name. This measure focuses on thoughts, impulses and actions that are experienced as unremitting and irresistible by the individual, but are ego-alien. Behaviours and experience of a more general cognitive performance attenuation are also included in this measure.

3. Interpersonal sensitivity

The focus here is on feelings of personal inadequacy and inferiority, particularly in comparison with others. Self-déprecation, feelings of uneasiness, and marked discomfort during interpersonal interactions are characteristic manifestations of this syndrome. In addition, individuals with high scores on it report acute self-consciousness and negative expectancies concerning communication and interpersonal behaviours with others.

4. Depression

The symptoms reflect a broad range of manifestations of clinical depression. Symptoms of dysphoric mood and affect are represented, as are the signs of withdrawal of life interests, lack of motivation and loss of vital energy. In addition, feelings of hopelessness, thoughts of suicide and other cognitive and somatic correlations of depression are included.

5. Anxiety

This dimension is composed of a set of symptoms and signs that are associated clinically with high levels of manifest anxiety. General signs are nervousness, tension and trembling, panic attacks and feelings of terror. Cognitive components involve feelings of apprehension, dread and some somatic correlates of anxiety are included in the dimensional components

6. Hostility

This dimension includes thoughts, feelings or actions that are characteristic of the negative affect state of anger. The selection of items includes all three modes of manifestation and reflects qualities such as aggression, irritability, rage and resentment.

7. Phobic Anxiety

Is defined as the persistent fear response to a specific person, place, object, or situation which is characterised as being irrational and disproportionate to the stimulus, and which leads to avoidance or escape behaviour. The items of the present dimension focus on the more pathognomic and disruptive manifestations of the phobic behaviour. The actual structure of the dimension is in close agreement with the definition of “agoraphobia”.

8. Paranoid ideation

This dimension represents paranoid behaviour, fundamentally as a disordered mode of thinking. The cardinal characteristics of projective thought, hostility, suspiciousness, grandiosity, centrality, fear of loss of autonomy, and delusions are viewed as primary reflections of this disorder, and item selection was orientated toward representing this conceptualisation.

9. Psychoticism

This subscale was developed in a way that represents the construct as a continuous dimension of human experience. Items indicative of withdrawn, isolated, schizoid life styles were included, as were first rank symptoms of schizophrenia, such as hallucinations and thought broadcasting. This sub-scale provides a graduated continuum from mild interpersonal alienation to dramatic evidence of psychosis.

Reliability of the SCL-90-R

The reliability of the nine primary dimensions consists of two types: internal consistency and test-retest (Derogatis, 1977). The internal consistencies for the nine dimensions were calculated from the data of 219 symptomatic volunteers. Coefficient alpha was used to measure the internal consistency. All of the coefficients were satisfactory, ranging between a low 0.77 to a high 0.90. Test-retest reliability coefficients were obtained from a sample of heterogeneous psychiatric patients. The coefficients were between .80 and .90, which is considered an appropriate level. Excellent levels of invariance for all nine symptoms across the symptom dimensions were also indicated.

Validity of the SCL-90-R

Derogatis, Rickels and Rock (1976) contrasted the dimension scores of the 90 items with scores from the MMPI. According to Derogatis (1977) several other studies have contrasted the SCL-90-R with other established dimensions of psychopathology in an effort to determine the degree of equivalence between measures of like constructs. Other important points mentioned with regards to the validity of the SCL-90-R are that studies have indicated high clinical sensitivity (which is indicative of the measure's criterion related validity), the empirical-theoretical match seems to be excellent (which is an indication of a strong construct validity) and finally that the SCL-90-R correlates well with established and accepted external criterion measures (Derogatis, 1977).

Orientation to Life Questionnaire (Sense of Coherence Scale; SOC-29)

The Sense of Coherence Scale, a 29 item self-report questionnaire was developed by Antonovsky (1993b). The Scale serves to operationalise the construct sense of coherence as a global orientation to life. Sense of coherence is hypothesised to be a determinant of an individual's location and movement on the health ease/dis-ease continuum (Antonovsky, 1993a). Respondents select a response from a seven point semantic differential scale, with two anchoring phrases, i.e., "never have this feeling" to "always have this feeling" (Antonovsky, 1993b). The scale yields a total score ranging from 29 to 203, with higher scores reflecting a stronger sense of coherence. Eleven items contribute towards "comprehensibility", 10 to "manageability" and 8 to "meaningfulness".

Reliability and Validity of the SOC-29

The Cronbach Alpha has been used in 26 studies to evaluate the internal consistency of the SOC-29. Consistently high alphas ranging from 0.83 to 0.95 were found across a range of populations (Antonovsky, 1993a). Antonovsky (1993b) was of the opinion that the SOC-29 surpasses the divisions of gender, class and culture and holds universal meaning. He also reported that the reliability and validity has been found in a number of international studies. The scale has also been reported to be used in 20 different countries and translated into at least 13 different languages (Frenz, Carey & Jorgensen, 1993).

Data Analysis

The data was analysed bearing in mind the aims of the study, that is, to explore and describe the psychological stress symptomatology, the sense of coherence and the relationship between the two constructs of the respondents. This analysis included the computation of the means, standard deviations and medians for each of the measures administered. In addition frequency distributions were used to provide a description of the data (Barker, Pistrang & Elliot, 1994). The relationship between the total scores on the sense of coherence scale and the nine primary dimensions of the SCL-90 questionnaires were established with the use of the Spearman Rank Order Correlation (Spearman r) (Howell, 1995). According to Rosnow and Rosenthal (2008) the Spearman r provides information on the strength and the direction of the two variables. The value of the r may be -1 , 0 or $+1$. The Value of 0 indicates that there is no relationship between the correlated variables. A value of $+1$ means that there is a perfect correlation between the variables and -1 denotes that a negative relationship exists between the variables. With a positive relationship as the scores on the one variable increases so does the scores on the other variable. In a negative relationship the converse occurs, that is, as the scores on the one variable increase the scores on the other variable decrease (Howell, 1999). In order to assess the significance of the correlation co-efficient, a p-value of .05 is used (Coolican, 2004).

Conclusion

In the present chapter the research design and methodology employed in this study were discussed. An exploratory descriptive research design was used as it was considered most appropriate for the purpose of this research. Data was collected by means of a Biographical Questionnaire, Orientation to Life Questionnaire (Sense of Coherence Scale; SOC-29) and the Symptomatology Check List Revised (SCL-90-R) Questionnaire. A non-probability sample of teachers from three under-resourced schools in Cape Town completed the questionnaires. With regards to statistical analyses, descriptive statistics were utilised in order to describe the mean, median and standard deviation of the respondents' sense of coherence and stress symptomatology. Biographical data was also analysed using descriptive statistics. Correlation statistics were used in order to determine the relationship between the total score on the SOC-

29 and the nine sub dimensions of the SCL-9-R. Finally the Spearman r correlation was applied to examine the relationship of the correlation co-efficients. The following chapter will report on the results obtained thorough statistical analysis.

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Chapter 5
Results and Discussion of the Measures

The following sections will concentrate on the results pertaining to the measures completed by the respondents. The measures include the Symptomatology Check List Revised (SCL-90-R) and the Orientation to Life Questionnaire (Sense of Coherence Questionnaire; SOC-29).

Symptomatology Check List Revised (SCL-90-R)

The scores obtained on the SCL-90-R indicate the psychological symptom levels of the respondents. High scores indicate maladjustment whereas low scores point towards adjustment. Table 9 represents the descriptive statistics in terms of the means, medians, minimum and maximum scores and standard deviations for the nine symptom dimensions on the SCL-90-R. The Cronbach alpha, which is a numerical coefficient of reliability, is included in the table as it serves to indicate the reliability of the scores (Nunally, 1999). A numerical co-efficient of 0.7 is considered to be acceptable.

Means, Medians, Minimum and Maximum Scores, Standard Deviations and Cronbach Alpha Scores of the 9 Symptom Dimensions of the SCL-90-R

Table 1

Variable	N	Mean	Median	Min.	Max.	SD	CA
1. Somatisation	58	1.03	0.88	0.00	3.33	0.82	0.91
2. Obsessive compulsive	58	1.36	1.3	0.00	3	0.88	0.90
3. Interpersonal sensitivity	58	1.0	0.67	0.00	3.44	0.92	0.92
4. Hostility	58	1.03	0.91	0.00	3.33	0.84	0.86
5. Anxiety	58	0.80	0.7	0.00	3	0.75	0.89
6. Depression	58	1.14	0.92	0.00	3.38	0.87	0.92
7. Psychoticism	58	0.58	0.3	0.00	3	0.67	0.88
8. Phobic anxiety	58	0.55	0.29	0.00	3.71	0.77	0.89
9. Paranoid ideation	58	1.28	1.0	0.00	4	0.93	0.85

The highest mean scores were obtained in the obsessive-compulsive dimension (1) followed by paranoid ideation (2) depression (3), somatisation (4), hostility (5), interpersonal sensitivity (6) and anxiety (7). The lowest scores were obtained for psychoticism (8) and paranoid anxiety (9). As is evident in the table, Cronbach Alpha scores are acceptable.

South African norms of non-patient samples with which to compare the results of this study could not be located. The results of Derogatis's (1977) non-patient sample was therefore used for comparative purposes. The confidence intervals for the means of this study and that of Derogatis (1977) are displayed below in table 2. The confidence intervals applicable to this study are in bold.

Means, Standard Deviations and Confidence Intervals for the 9 Symptom Dimensions of the SCL-90 R (Derogatis, 1977)

Table 2

Variable	Mean	SD	95% confidence interval for the mean			
			lower		upper	
1. Somatisation	0.36	0.42	0.33	(0.81)	0.39	(1.25)
2. Obsessive Compulsive	0.39	0.45	0.36	(1.22)	0.42	(1.59)
3. Interpersonal Sensitivity	0.29	0.39	0.27	(0.75)	0.31	(1.25)
4. Hostility	0.30	0.40	0.27	(0.80)	0.33	(1.25)
5. Anxiety	0.30	0.37	0.28	(0.60)	0.32	(1.01)
6. Depression	0.36	0.44	0.33	(0.91)	0.39	(1.38)
7. Psychoticism	0.14	0.25	0.12	(0.41)	0.16	(0.76)
8. Phobic anxiety	0.13	0.31	0.11	(0.35)	0.15	(0.76)
9. Paranoid ideation	0.34	0.44	0.31	(1.04)	0.37	(1.53)

From Table 2 it is evident that all the scores for this study are elevated compared to the study by Derogatis (1977). There is also no overlapping between the confidence intervals for the means of the two studies, which indicate that the two groups compared are significantly different.

It is possible that individuals present with the above mentioned psychological symptoms or psychopathology as a result of exposure to stress experienced on a daily basis. According to Kaplan and Saddock (1998), stress is an etiological explanation for the onset of psychopathology or its re-occurrence. The authors have also stated that stress has been associated with anxiety disorders, schizophrenia, substance abuse and depression. The dimensions with the highest scores in this sample namely obsessive compulsive, paranoid ideation and depression could be viewed as areas of concern, as they could be manifestations of the stress experienced by individuals in the sample. The elevated dimensions of obsessive compulsive, paranoid ideation and depression are thus in accordance with the literature that stress is associated with anxiety and mood disorders. The variations in scores on this measure support the premise of the salutogenic approach that individuals differ on their location of the health/dis-ease continuum (Antonovsky, 1987). In the following section the results pertaining to the Orientation to Life Questionnaire are discussed.

Orientation to Life Questionnaire (Sense of Coherence Scale; SOC-29)

The Table 3 presents the descriptive statistics for the means, median and standard deviations acquired on the SOC-29.

Mean, Median, Standard Deviation, Minimum and Maximum Scores and Confidence Intervals for the SOC-29

Table 3

Variable	N	Mean	Median	Min.	Max.	SD	95% confidence interval for the mean	
							lower	upper
SOC	58	134.16	137.00	52.00	180.00	21.98	128.38	139.93

The mean and standard deviation of this study compare well to another South African study by Wissing and Van Eeden (1998) with a large group of multicultural participants. They found a mean of 141.5, a standard deviation of 22.25 and 95% confidence intervals of 137.89 (lower) and 145.12 (upper) for middle adulthood. For this study the results indicated a mean of 134.16, standard deviation of 21.98 and 95% confidence intervals of 128.38 (lower) and 139.93 (upper). The 95% confidence intervals between the two studies indicate an overlap. If the confidence intervals for the mean overlap, the two groups that are being compared are not significantly different (Payton, Greenstone & Schenker, 2003). It can therefore be concluded that for both studies SOC-29 scores are consistent for people in middle adulthood. The mean for this study (128.81) and standard deviation (21.98), are also relatively consistent with a study by Le Roux (2000) involving a group of bank employees, where the mean was 142.93 and the standard deviation 24.84. An overlap between the 95% confidence intervals of this study and that of Le Roux (2000) also exists. Confidence intervals at 95% for the study by Le Roux (2000) were calculated to be 137.14 (lower) and 148.72 (upper). It is thus apparent that the scores of the SOC-29 for this study are consistent with other South African non-patient samples.

The Relationship between the SOC-29 and the SCL-90-R

The Spearman Rank Order Correlation was utilised to examine the relationship between the two measures. The Pearson r is used to obtain a correlation co-efficient for data that is normally distributed. However, this method for correlation was chosen as a result of the non-normal nature of the data and because the correlation was calculated between two ordinals. The total score of the SOC-29 was correlated with the nine primary dimensions of the SCL-90-R. The results are presented in Table 12 on the following page.

Spearman Rank Order Correlation

Table 4

Variable	Spearman R	p-level
SOC and somatisation	-0.61	<0.01
SOC and obsessive compulsive	-0.73	<0.01
SOC and interpersonal sensitivity	-0.75	<0.01
SOC and hostility	-0.62	<0.01
SOC and anxiety	-0.70	<0.01
SOC and depression	-0.73	<0.01
SOC and psychoticism	-0.74	<0.01
SOC and phobic anxiety	-0.58	<0.01
SOC and paranoid ideation	-0.73	<0.01

The results indicate that there is a negative correlation between the total sense of coherence and the nine primary dimensions. All are significant as the *p* values were less than 0.05. A negative correlation implies that when the sense of coherence scores are high, the scores for the nine primary dimensions on the SCL-90-R will be low. Those with a strong sense of coherence have the ability to view the world as comprehensible, meaningful and manageable (Antonovsky 1993a). They also possess the motivational and cognitive base to engage and confront stressors, thereby promoting health (Antonovsky & Sourani, 1988). One can therefore deduce that the higher the sense of coherence the individual possesses, the lower their psychological stress symptomatology. Research has shown that subjects high in sense of coherence experience less anxiety, depression, stress and anger (Mcsherry & Holm, 1994), thus supporting the results of this study, that is, that a high sense of coherence is related to low psychological stress symptoms.

Conclusion

The scores of the nine dimensions on the SCL-90, point to the following areas, which could be of possible concern in this sample as they scored the highest: obsessive compulsive, paranoid ideation, depression and somatisation. On the SOC-29, the study yielded scores relatively consistent with that of other South African populations of non-patient groups. The relationship between psychological symptomatology and sense of coherence was also found to be a negative one, making it possible to deduce that the higher the sense of coherence an individual possesses, the lower their psychological symptomatology will be.

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Chapter 6

Conclusion, Limitations and Recommendations

The purpose of the research was to explore and describe the psychological stress symptomatology and the sense of coherence of teachers at under resourced-schools in Cape Town. In the literature review issues pertaining to the context of teaching in South Africa and its associated stressors were highlighted as well as the constructs applied in this study. The previous chapter dealt with the results that emerged. In this chapter the final conclusions, limitations, contributions of this study and recommendations for future research are presented.

Conclusions of the Present Study

Description of the Psychological Stress Symptomatology of the Sample

The SCL-90-R was used to explore and describe the psychological stress symptomatology of the present sample. It was established at 95% confidence intervals, that the means of the nine dimensions in this study, were significantly elevated as compared to Derogatis's (1977) sample. Three of the nine primary dimensions that obtained the highest scores in this sample were obsessive compulsive, paranoid ideation and depression.

Description of the Sense of Coherence of the Sample

The SOC-29 was applied to this study in order to explore and describe the sense of coherence of the present sample. Descriptive analysis of the data produced a wide range of scores between 52.00 and 180.00, with a mean of 134.16, a median of 137.00 and a standard deviation of 21.98. The present study's mean sample of the teachers' scores was consistent with other South African samples of non-patients using the same measure (Le Roux, 2000; Wissing & Van Eeden, 1997).

The Interrelationship between the Psychological Stress Symptomatology and Sense of Coherence of the Sample

The Spearman Rank Order Correlation was administered to measure the interrelationship between the two measures. A negative relationship was established between the nine primary dimensions and sense of coherence, which implies that a

stronger sense of coherence produced lower scores on the SCL-90-R (i.e., lower psychological symptomatology).

The Value of the Research

The present study provides insights into a growing body of research, which focuses on the promotion of health and well-being by exploring the relationship between stress and coping. It also acknowledges the impact that a stressful work environment can have on one's psychological well-being and its relation to sense of coherence. Hence the conclusions of this study, although preliminary provides insights into these issues and hopefully contribute towards its understanding. The decision for selecting teachers as a target group to study was motivated by personal contact with educators at under-resourced schools who indicated that they were experiencing a great deal of stress caused by issues mentioned in the literature review. Given the previously mentioned factors the researcher was interested in which psychological symptoms were most prominent in this particular sample. In addition sense of coherence as a coping strategy and a buffer against stress was also an area of concern. Finally as stress and coping strategy work in relation to each other, the researcher wanted to explore the relationship between these two factors.

The results indicated a significant relationship between psychological stress symptomatology and sense of coherence. It is thus fair to conclude that a strong sense of coherence could serve as primary in preventing psychological stress and psychopathology among teachers in under-resourced schools. The next stage of enquiry should be to explore ways to strengthen the sense of coherence of this particular sample in order to allow them to view their teaching experience as meaningful, manageable and comprehensive. A literature review revealed that there is a shortage of South African studies making use of the Symptomatology Checklist Revised (SCL-90-R) and the Orientation to Life Questionnaire (SOC-29) as a tool to measure psychological stress symptoms and sense of coherence in a particular sample, especially that of teachers.

Limitations of the Research

The sample for this study is certainly not representative of all teachers in under-resourced schools in Cape Town as it was only conducted at three schools, which were also of close proximity to each other. Participation in this study was also voluntary in nature and participants were not randomly selected. It is likely that there were possible differences in response from those who volunteered and those that did not. This factor could have influenced the results in some way. The sampling procedure was also non-probabilistic in nature and therefore the results cannot be generalised to the general population of teachers in under resourced schools. For the reasons stated above the results should be interpreted with caution and should not be seen as conclusive.

The sample size from the various biographical groups (i.e., gender, age, language, marital status, number of dependants, qualification, length of employment, self-assessed emotional state) was small and therefore it would have been difficult to identify any relationships between these variables and the measures used in the study.

In relation to the Symptomatology Checklist Revised (SCL-90-R), it was developed by Derogatis in 1977 and the norms were based on an American sample. These norms may not be applicable to a current South African sample in the interpretation of scores.

As this study was purely descriptive and explorative in nature and aimed to identify a relationship between variables, no causal relationships can be deduced. Despite evidence for a relationship being revealed, it is not possible to report on the reasons for the existence of this relationship and the direction of it.

Recommendations

It is recommended that a replication of the study be conducted with a sample that is larger and more representative. The results of this study will serve as an important contribution to South African data on the measures used for this study as well as norms for the South African population. A great deal of international research was

referenced, as very little local research in the area of psychological stress symptomatology and sense of coherence is available. Studies at various other schools will allow for the identification of similarities and differences across a variety of schooling contexts. Further exploration would provide more insights into future intervention plans unique to a specific school with a focus on health promotion.

Longitudinal research would provide useful information on the consistency of psychological stress symptomatology and sense of coherence over time.

Qualitative research on the subjective experiences of teachers regarding their work experiences and its potential impact on their general well-being would be valuable as it will provide useful information on personal experiences. This type of research will contribute to an understanding of stress symptomatology and sense of coherence among teachers in under-resourced schools

A transforming and stressful teaching environment poses as a tremendous challenge for teachers in under resourced-schools. For this reason the present study aimed to explore psychological symptomatology and the level of sense of coherence that was most prevalent in this sample, as well as the relationship between the two factors. This study aims to pave the way for an understanding of these dynamics, motivation for further investigations and hopefully interventions that will pro-actively address pertinent issues.

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APPENDIX A: COVER LETTER

University of Cape Town

COVER LETTER TO TEACHERS

My name is Widaad Tape and I am a masters student in clinical psychology at the University of Cape Town and I am completing research towards my degree. The aim of the study I wish to conduct is to investigate the psychological stress symptoms and sense of coherence among teachers in under-resourced schools in Cape Town. Psychological symptoms refer to the current psychological state of the person whereas the sense of coherence refers to the individual's ability to cope amidst stressful circumstances. I will be assessing the above-mentioned concepts with the use of questionnaires. Each participant will complete **three questionnaires**. They include the following:

- 1) A Biographical Questionnaire
- 2) The Symptomatology Check List Revised (SCL-90-R), which measures psychological symptoms
- 3) The Orientation to Life Questionnaire (SOC-29), which measures coping style

Participation is voluntary and all answers will remain confidential and anonymous. The name of the school will not be mentioned in the study nor will it be identifiable in any way.

Thank you for your co-operation.

Yours sincerely
Widaad Tape (researcher)

Contact: 071 255 0111

APPENDIX B: CONSENT FORM

University of Cape Town

CONSENT FORM

I acknowledge that my participation in this research project is voluntary, confidential and anonymous. I grant the University of Cape Town permission to use the results for research purposes.

Signed on this.....day of.....2008

Signature

University of Cape Town

APPENDIX C: BIOGRAPHICAL QUESTIONNAIRE

University of Cape Town

BIOGRAPHICAL QUESTIONNAIRE

Please read the following statements carefully. Please circle the letter of the answer (i.e. a, b, c, d, e or f) applicable to you.

1. Gender

- a) Male
- b) Female

2. Age

- a) 18-25
- b) 26-35
- c) 36-45
- d) 46-55

3. Home language

- a) English
- b) Afrikaans
- c) Xhosa
- d) Other

4. Marital Status

- a) Married
- b) Single
- c) Divorced
- d) Separated
- e) Widowed

5. Number of dependants

- a) 0
- b) 1
- c) 2
- d) 3
- e) 4
- f) More than 5

6. Highest level of qualification

- a) Grade 10-12
- b) Diploma
- c) Degree

7. Length of employment at the school

- a) Less than 2 years
- b) Between 2 and 5 years
- c) Between 6 and 10 years
- d) More than 10 years

8. How would you describe your emotional state in the past 6 months?

- a) Excellent
- b) Good
- c) Average
- d) Below average
- e) Poor

**APPENDIX D: SYMPTOMATOLOGY CHECK LIST REVISED
(SCL-90-R)**

University of Cape Town

SCL - 90 (R)

INSTRUCTIONS

Below is a list of problems and complaints that people sometimes have. Read each one carefully, and select one of the numbered descriptors that best describes HOW MUCH DISCOMFORT THAT PROBLEM HAS CAUSED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. Place that number in the open block to the right of the problem. Do not skip any items, and print your number clearly.

EXAMPLE

Descriptors

- 0 Not at all
- 1 A little bit
- 2 Moderately
- 3 Quite a bit
- 4 Extremely

Ex. HOW MUCH WERE YOU DISTRESSED BY:
Body Aches..... 4

- 01. Headaches..... _____
- 02. Nervousness or shakiness inside..... _____
- 03. Repeated unpleasant thoughts that won't leave your mind..... _____
- 04. Faintness or dizziness..... _____
- 05. Loss of sexual interest or pleasure..... _____
- 06. Feeling critical of others..... _____
- 07. The idea that someone else can control your thoughts..... _____
- 08. Feeling others are to blame for most of your troubles..... _____
- 09. Trouble remembering things..... _____
- 10. Worried about sloppiness or carelessness..... _____
- 11. Feeling easily annoyed or irritated..... _____
- 12. Pains in heart or chest..... _____
- 13. Feeling afraid in open spaces or in the streets..... _____
- 14. Feeling low in energy or slowed down..... _____

Descriptors:

- 0 Not at all
- 1 A little bit
- 2 Moderately
- 3 Quite a bit
- 4 Extremely

- 15. Thoughts of ending your life _____
- 16. Hearing voices that other people do not hear..... _____
- 17. Trembling _____
- 18. Feeling that most people cannot be trusted _____
- 19. Poor appetite _____
- 20. Crying easily..... _____
- 21. Feeling shy or uneasy with the opposite sex..... _____
- 22. Feelings of being trapped or caught..... _____
- 23. Suddenly scared for no reason..... _____
- 24. Temper outbursts that you could not control..... _____
- 25. Feeling afraid to go out of your house alone..... _____
- 26. Blaming yourself for things..... _____
- 27. Pains in lower back..... _____
- 28. Feeling blocked in getting things done..... _____
- 29. Feeling lonely..... _____
- 30. Feeling blue..... _____
- 31. Worrying too much about things..... _____
- 32. Feeling no interest in things..... _____
- 33. Feeling fearful..... _____
- 34. Your feeling being easily hurt..... _____
- 35. Other people being aware of your private thoughts..... _____
- 36. Feeling others do not understand you or are unsympathetic..... _____
- 37. Feeling that people are unfriendly or dislike you..... _____
- 38. Having to do things very slowly to insure correctness..... _____
- 39. Heart pounding or racing..... _____
- 40. Nausea or upset stomach..... _____
- 41. Feeling inferior to others..... _____

Descriptors:

- 0 Not at all
- 1 A little bit
- 2 Moderately
- 3 Quite a bit
- 4 Extremely

- 42. Soreness of your muscles..... _____
- 43. Feeling that you are watched or talked about by others..... _____
- 44. Trouble falling asleep..... _____
- 45. Having to check and double-check what you do..... _____
- 46. Difficulty making decisions..... _____
- 47. Feeling afraid to travel on buses, subways, or trains..... _____
- 48. Trouble getting your breath..... _____
- 49. Hot or cold spells..... _____
- 50. Having to avoid certain things, places or activities because
they frighten you _____
- 51. Your mind going blank..... _____
- 52. Numbness or tingling in parts of your body..... _____
- 53. A lump in your throat..... _____
- 54. Feeling hopeless about the future..... _____
- 55. Trouble concentrating..... _____
- 56. Feeling weak in parts of your body _____
- 57. Feeling tense or keyed up..... _____
- 58. Heavy feelings in your arms or legs..... _____
- 59. Thoughts of death or dying..... _____
- 60. Overeating..... _____
- 61. Feeling uneasy when people are watching or talking about you _____
- 62. Having thoughts that are not your own..... _____
- 63. Having urges to beat, injure, or harm someone..... _____
- 64. Awakening in the early morning _____
- 65. Having to repeat the same action such as touching, counting, washing..... _____
- 66. Sleep that is restless or disturbed..... _____
- 67. Having urges to break or smash things..... _____

Descriptors:

- 0 Not at all
- 1 A little bit
- 2 Moderately
- 3 Quite a bit
- 4 Extremely

- 68. Having ideas or beliefs that others do not share..... _____
- 59. Feeling very self-conscious with others..... _____
- 70. Feeling uneasy in crowds, such as shopping or at a movie _____
- 71. Feeling everything is an effort..... _____
- 72. Spells of terror or panic..... _____
- 73. Feeling uncomfortable about eating or drinking in public _____
- 74. Getting into frequent arguments..... _____
- 75. Feeling nervous when you are left alone _____
- 76. Others not giving you proper credit for your achievements..... _____
- 77. Feeling lonely even when you are with people..... _____
- 78. Feeling so restless you couldn't sit still..... _____
- 79. Feelings of worthlessness..... _____
- 30. The feeling that something bad is going to happen to you..... _____
- 81. Shouting or throwing things..... _____
- 32. Feeling afraid you will faint in public _____
- 83. Feeling that people will take advantage of you if you let them..... _____
- 34. Having thoughts about sex that bother you a lot _____
- 85. The idea that you should be punished for your sins..... _____
- 36. Thoughts and images of a frightening nature..... _____
- 87. The idea that something serious is wrong with your body _____
- 38. Never feeling close to another person _____
- 89. Feelings of guilt..... _____
- 90. The idea that something is wrong with your mind _____

APPENDIX E: ORIENTATION TO LIFE QUESTIONNAIRE

(SENSE OF COHERENCE SCALE: SOC-29)

University of Cape Town

16. Doing the things you do every day is:
 1 2 3 4 5 6 7
 a source of deep pleasure and satisfaction a source of pain and boredom
17. Your life in the future will probably be:
 1 2 3 4 5 6 7
 full of changes without your knowing what will happen next completely consistent and clear
18. When something unpleasant happened in the past your tendency was:
 1 2 3 4 5 6 7
 "to eat yourself up" about it to say "ok, that's that, I have to live with it" and go on
19. Do you have very mixed-up feelings and ideas?
 1 2 3 4 5 6 7
 very often very seldom or never
20. When you do something that gives you a good feeling:
 1 2 3 4 5 6 7
 it's certain that you'll go on feeling good it's certain that something will happen to spoil the feeling
21. Does it happen that you have feelings inside you would rather not feel?
 1 2 3 4 5 6 7
 very often very seldom or never
22. You anticipate that your personal life in the future will be:
 1 2 3 4 5 6 7
 totally without meaning or purpose full of meaning and purpose
23. Do you think that there will always be people whom you'll be able to count on in the future?
 1 2 3 4 5 6 7
 you're certain there will be you doubt there will be

24. Does it happen that you have the feeling that you don't know exactly what's about to happen next?
- | | | | | | | |
|------------|---|---|---|---|---|-------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| very often | | | | | | very seldom
or never |
25. Many people - even those with a strong character - sometimes feel like sad sacks (losers) in certain situations. How often have you felt this way in the past?
- | | | | | | | |
|------------|---|---|---|---|---|-------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| very often | | | | | | very seldom
or never |
26. When something happened, have you generally found that:
- | | | | | | | |
|--|---|---|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| you overestimated
or underestimated
its importance | | | | | | you saw things
in the right
proportion |
27. When you think of difficulties you are likely to face in important aspects of your life, do you have the feeling that:
- | | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| you will always
succeed in over-
coming the
difficulties | | | | | | you won't
succeed in over-
coming the
difficulties |
28. How often do you have the feeling that there's little meaning in the things you do in your daily life?
- | | | | | | | |
|------------|---|---|---|---|---|-------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| very often | | | | | | very seldom
or never |
29. How often do you have feelings that you're not sure you can keep under control?
- | | | | | | | |
|------------|---|---|---|---|---|-------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| very often | | | | | | very seldom
or never |