THE IMPORTANCE OF PERSONAL AND COLLECTIVE RESOURCES IN COPING WITH STRESSORS RELATED TO INDUSTRIAL ACTION AT THE COLDSTREAM SAWMILL.

by

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CHAPTER 1

INTRODUCTION

Coldstream is a small hamlet in the Tsitsikamma surrounding a sawmill which has been in operation since 1902. Most of the people living in the area have been there for a number of generations, with many families intermarried and well known to each other. Work is scarce as the sawmill is one of the few industries in the area, employing approximately 250 people, some of whom live further away in other small villages in the Tsitsikamma.

The particular section of Coldstream used in this study, colloquially known as Coryhoek, was chosen because of the stability of the predominantly coloured population. Their home language is Afrikaans, although approximately one quarter are of Xhosa or Mfengu origin. The population, living in company housing, consists of approximately 414 people (counted in December, 1997), including 267 children below the age of 18. Of the 147 adults, 68 are employed at the sawmill as labourers, cutting and sorting timber, and manufacturing handles and building material out of pine and Karri-gum.

The company is a family-owned business started at the turn of the century by the Whitcher family, and still owned and managed by their descendents. Originally the company had a paternalistic style of management and labour relations. In 1993, after a couple of years of discussion and encouragement by a core group of the workers, some of the sawmill employees joined the pulp and paper union (PPAWU). Others gradually joined over the following months. The first wage negotiations involving the union began in March, 1994.

For the next three years one of the subjects of discussion between the union and the sawmill management was regarding members of the union joining the union provident fund instead of the existing pension fund. The concept was condoned by the company. However the issue of contributions to the fund became contentious during the 1997 wage negotiations. The union wanted the company to pay 10.5% and the member 6% of the daily wage, whereas the company wanted matching, or equal, contributions. The contribution terms of the provident fund were a total of 16.5% of the daily wage of the member.

In July 1997, after over 4 months of negotiations, the workers went on strike around the issue of the provident fund contributions. Intimidation, violence and threats of violence were experienced by many of those living in Coldstream. The strike lasted for six weeks, ending with union negotiators capitulating to the company position. This resulted in both the sawmill and workers each agreeing to contribute 8.25% of the daily wage.

Strikers had remained unpaid during the six weeks, and many incurred debts lasting many months after the strike. Management attitudes hardened towards the workers, and fewer extra perks such as assistance with transport, phone calls or help with personal problems were given. Whereas previously the company had provided loans in certain situations, this privelege was largely withdrawn. Employees received only three-quarters of their Christmas bonus, no meat packages as in previous years, and there was no pre-Christmas party for the supervisors.

The research was done during the week before the annual Christmas holiday commenced, three months after the strike ended. The after-effects were still being felt, with deterioration in management/employee relations since

pre-strike days, and financial worries. It was presumed, then, that the participants of the study were experiencing a higher level of stress than they had before the strike.

Research on the effects of stress and stressful life events has focused on the role of coping strategies and stress response moderators in reducing the negative impact of stressors (Lin & Ensel, 1989; Krause & Van Tran, 1989). Stress response moderators are variables which ease, or moderate, the effect of the stressor on the physiological or psychological well-being of the person experiencing stress. The moderator could be a personality variable or a collective resource, such as participation in group or social activities, or a combination of both. Three important stress response moderators repeatedly identified in the literature which were examined in this study are sense of coherence, or SOC, religious practice and social support.

Antonovsky (1987) defines sense of coherence, or SOC, as a global life orientation where someone with a high SOC has an ability to avoid stressors and choose appropriate coping strategies and resources. SOC is an index of strength and coping in spite of the ever-present stressors in life. Because it is a way of viewing the world and one's problems no matter what they might be, and a manner of utilising resources at one's disposal, a high SOC would be expected to be a good moderator for coping with the stress of the strike.

While SOC is viewed as a personal resource, religious practice as a collective resource would also be expected to have an impact on coping with stressors. Given that the Coldstream community has a number of churches and

a strong following in each of them, religious practice was chosen as a moderator which was particularly appropriate to include in this study. Religious belief and practice might be expected to enhance well-being, form a supportive network for a church member, and provide for pastoral counselling, usually from the minister.

Social support, the third stress response moderator examined in the study, is also looked at as a collective resource, providing a buffer against the effects of stress, and contributing to positive adjustment. Social support is the availability of others on whom we can rely, and who let us know that they care about, value or love us. The mutual bond has been found to assist soldiers at war, to reduce birth complications in women, and to have a health inducing effect on patients with caring physicians. Much research has been done in the area of social support, some indicating that the quality of the support is more important in moderating the effect of stress than the number of people involved in the supportive network.

The main purpose of the study is to investigate whether the stress response moderators served as effective variables in reducing the stress of the strike. For instance, if individuals differ in their ability to actualise resources, does someone with a high SOC utilise friendships or supportive relationships more than someone with a low SOC? Does someone who has a high score for religious practice become less depressed when faced with a significant stressor than someone less involved in church activities?

CHAPTER 2

CONCEPTUAL FOUNDATIONS OF STRESS RESEARCH

2 MODELS OF STRESS:

The word stress derives from the Latin word "stringere", to bind tight. The term was first used by Canon (1914) to describe emotional states that have physical consequences on organisms. The work of the Austrian-born physician, Hans Selye, in the 1930's and 1940's, played a particularly important role in advancing the study of stress. He defined stress as the "non-specific response of the body to any demand made on it" (Selye, 1956, p.15). His work is presented in more detail later in this chapter.

Two approaches to stress form the historical basis of stress research. The stimulus-based model of stress focuses on the stimulus, or stressor. The response-based model focuses on the physiological, psychological or behavioural reaction of the person to the stressor.

2.1 THE STIMULUS-BASED MODEL:

The stimulus-based model of stress has its roots in physics and engineering, the analogy being that stress can be defined as a force exerted, which results in a demand or load reaction which causes distortion. The rationale is that some external force, or stressor, impinges on an organism in a disruptive way (Sutherland & Cooper, 1990).

The stimulus-based approach states that people are exposed to certain events which place a demand on them. Up to a certain point, which varies with different people, they can cope with the demand. Once that point, or tolerance, has been exceeded, some temporary or permanent damage is done to

the person (Norton, 1997).

2.1.1 Historical background:

The approach which links health and disease to conditions in the external environment dates back to Hippocrates, the fifth century (BC) physician, who believed that the characteristics of health and disease are conditioned by external factors. Tension-inducing experiences resulting from external stimuli are called stressors. Stressors may have adverse consequences in terms of cost to the individual, an organization or society (Sutherland & Cooper, 1990).

A number of researchers, from a stimulus-based perspective, have suggested that stress results if the environment is too extreme, or the stressors too intense, negatively affecting a person's performance level. Yerkes and Dodson's (1908) theory states that the quality of a person's performance depends on the level of arousal of his/her nervous system; those performing unstimulating tasks do so inefficiently because they are not sufficiently aroused, while those who are overstimulated also perform inefficiently. Moderate levels of arousal, or optimal levels, produce the most efficiency in task performance. This has been called the inverted-U function, or the Yerkes-Dodson Law, and has been used as a principal for understanding stress. This is the principle behind overload, having too much to do (over-arousal), and underload, having too little to do (under-arousal).

2.1.2 Different current approaches:

A number of different categories for investigating stressors from a stimulus-based perspective have been identified by researchers in the field.

Holmes and Rahe (1967) have investigated the effects of stressful life events. They asked people to evaluate certain life events using marriage as a central score. Items included death of a spouse, moving house and the birth of a child. With the results they formed the Holmes and Rahe Social Adjustment Scale. The scale is a list of different acute events, that is, with a specific time onset and of short duration, in order of significance. The scale has been used in numerous studies to evaluate the effects of life stressors on health (Rahe, 1989; Pratt & Barling, 1988).

Although the evaluation of external stressors has been criticised for being too subjective, studies have shown that groups of individuals show remarkable agreement as to the meaning of certain life changes and the readjustment engendered by recent stressful life events. Cross-cultural studies confirm these findings (Rahe, 1989).

While stressful life events are significant, they are also more uncommon than what Lazarus (1981) calls "daily hassles". He developed the Hassles and Uplift Scale, which rates irritations, frustrations and distressing incidents over the past month of the type that anyone might experience in everyday life. Items include shopping, noise and job dissatisfaction. The uplift portion of the scale looks at moderators of stress. According to Lazarus, the impact of the hassles on a person's physical and mental health depends largely on their frequency, duration and intensity. These minor events are usually of short duration and of low-intensity (Pratt & Barling, 1988).

Work and industrial stressors have generated a large body of research. From a stimulus-based perspective, occupational stress measures focus on the situations which occur while on the job or in work-related settings. Environmental issues might include shift-work, risks and hazards in the

work-place, air pollution, underload or overload. These will be dealt with in relation to the Coldstream community in the following section (2.1.3).

In addition to these ongoing stressors in the workplace, a more acute stressor, such as a strike, would be expected to have a significant impact. According to Barling and Milligan (1987), involvement in labour disputes and/or strikes exerts a detrimental effect on subsequent psychological well-being. Given the conflict of interest between labour and management, the primary relationship in industrial relations (IR) is antagonistic (Bluen and Barling, 1987). Unions are often confronted by hostile managerial responses which include the use of court injunctions (Kochan, 1980). Power tactics, such as threats, and the break-down in labour-management relationships are a further source of IR stress (Segovis & Bhagat, 1981). All of these were experienced by labour and management to a greater or lesser extent during the Coldstream strike.

The rapid pace of change in South Africa has been a particular source of stress. Bluen and Barling (1987) suggest that involvement in IR in South Africa is especially stressful because violence and resistance have been so widespread. Unions and their leaders in the past used the opportunity to rally workers where they were politically limited in other spheres. Since 1987 when the paper was published, there have been significant changes in the political situation in the country. However, unions have remained forceful and focused on improvements in wages and conditions for their members, attempting to redress past inequalities.

Workers in Coldstream would have experienced stressful events, daily hassles, stressors specific to industrial relations and unionization, and stressors particularly related to a factory environment.

2.1.3 Particular work-related stressors at the sawmill

Workers at the Coldstream sawmill are exposed to specific stressors in regard to their daily work environment. Being a timber factory, most workers are part of a production line, packing, loading or sorting the raw or finished product. Repetitive jobs which are unstimulating in the factory (underload) are potentially stressful. According to research findings, work that is dull, repetetive and monotonous can be detrimental to physical and mental well-being (Kornhauser, 1965; Hurrell et al., 1988).

Most of the sawmill employees work shifts, especially the team who stokes the boilers in the power station, providing electricity to the factory and the community. Shift-work, alternating day- or night-shift week by week, is considered to be a major source of stress in the workplace. Most studies show that the disruption of the sleep pattern is a significant stressor in that the worker feels fatigue and constantly tired, and the impact of shift-work on eating habits causes gastrointestinal disorders (Monk & Tepas, 1985; Hurrel et al., 1988). Studies in the police have shown that those on shift-work have a higher incidence of domestic problems (Hurrel et al., 1988).

Although most of those who participated in the study work shifts, working women, particularly, experience additional problems related to their work and home environments. Overload as a result of domestic duties which fall predominantly in their domain, and working long hours in the factory, can cause extra stress (Hurrel et al., 1988). 55% of the participants in this study were working women, most of them also mothers and wives.

Baron (1989) has listed air pollution and high level of noise from trucks, machinery and factories as some of the significant stressors in the modern

environment. The sawmill is an extremely noisy evironment in which to work, particularly near the saws, lathes and dust extractors. Although the workers have ear protection available, most choose not to use it as it limits their ability to communicate with fellow-workers. Studies show that individuals in a noisy environment tend to exhibit higher levels of anxiety than those in quiet surroundings (Hurrell et al., 1988). Because of the sawing, the machinery and the trucks, there is also a significant amount of dust in the air.

Various studies have pointed to the stressful nature of working with risks and hazards. The poisonous chemicals used for treating the timber (tanalith) could be an added source of stress in this environment, although only a few work in this area. Workers need to remain alert to avoid accidents. Working with saws, moving machinery, heavy logs and conveyer belts demands constant vigilance.

Labourers experience a different type of stress to managers. Much research has been done on the types of stressors and their effects in highly responsible and tension-inducing positions. However, labourers experience stress because of the lack of control they have over their work environments. According to a study done by the National Institute for Occupational Safety and Health (NIOSH) in the USA, labourers are considered to have amongst the most stressful jobs, largely due to the small amount of control these workers have in their daily work activities and working conditions (Dipboye, Smith & Howell, 1994).

Given the consistent level of environmental stress in the lives of the participants in the study, the strike was considered over and above as an acute stressor. Additional problems continued after the strike ended, and

were still significant when the study was done. These included financial problems caused by the six weeks without wages, and further debts incurred because of this. Tension in the workplace after the workers returned to their jobs was due to loss of priveleges formally granted by management, such as loans, differing opinions about the strike action, and the loss of face at having lost the strike.

2.1.4 Conflict and the strike as the stressor in the Coryhoek community:

The process of unionisation began about three years before the strike. The union was formed in 1993 when workers joined PPAWU. Six shop stewards were elected, predominantly Xhosa speaking, and most of the initial members were from the Xhosa community. The union was initially lead by a black majority, while many of the coloured folk joined later. The first wage negotiations involving the union began in March, 1994. The union leaders, also Xhosa speaking, were not from Coldstream, but from Port Elizabeth.

The union negotiators were also from Port Elizabeth, with the Coldstream sawmill shop stewards in attendance at negotiations. Shop stewards had very limited understanding of English, the language used in the negotiation process, and could not altogether follow the process. Partly because of this, local workers were often ignorant of the full impact of what was taking place at these meetings. This lack of control probably added to the level of stress of workers before and during the strike.

Negotiations in 1997 began in March and centred around wages and union members joining the provident fund. All the issues were agreed upon except the percentage of management and workers' contributions to the provident fund. In May negotiations reached a deadlock and went into dispute, resulting in the union appealing to the Commission for Conciliation,

Mediation and Arbitration (CCMA). This was unsuccessful, and the union began a protected strike in the last week of July.

The company appealed to the CCMA for picketing rules, which were negotiated between the union and the company with the mediation of the CCMA. The striking workers were allowed to picket in designated areas, particularly around the sawmill offices and outside the factory.

There was mixed sentiment amongst the workers about returning to work, especially as the weeks added up. In the sixth week the union capitulated to management's terms, and it was agreed that both the company and each worker would make equal contributions to the provident fund. The effect of having to capitulate at the end of the six weeks was probably most distressing to union members.

The impact of the strike was felt not only at work but at home and after hours. Intimidation happened not only at work but also in Coryhoek. Because the community live so close to the workplace, the strike was not only about the job, but a community issue. People were threatened at home, families divided, and relationships sometimes negatively affected. Husbands and wives, and different family members, were not always in agreement, causing tensions at home.

Issues discussed by this particular union during negotiations have generally excluded housing conditions or other community issues. These issues have been discussed more by the coloured people in separate forums. This points to differences between groups in the Coldstream community. Many of the black workers come from other areas that they consider home and to which they return for holidays, while the coloured people were born in the Tsitsikamma, have grown up in the area, and consider Coldstream their home.

However, when people were in agreement, it resulted in unity and strength, and there was a strong core group of supporters of industrial action. Usually during the strike a core group of picketers were visible in all weathers. Other strikers came and went, and on sunny days or on days when the CCMA representatives were in Coldstream, picketing was vigorous. The sawmill was closed for the six weeks of the strike.

As the literature suggests, because both conflict and change are major sources of stress, involvement in IR in South Africa is potentially extremely stressful (Bluen & Barling, 1987; Dohrenwend & Dohrenwend, 1978). Because of these findings, the strike was considered in this research to be the major stressor.

Whereas the stimulus-based approach looks at things which act as stressors, the response based approach looks at the response to those stressors.

2.2 THE RESPONSE-BASED MODEL:

From a response-based perspective, outcomes or symptoms of distress as a response to stressors may be physical, psychological and/or behavioural. For example, the physical impact of stress on someone might result in immediate reactions such as shaking or sweating, and over extended periods of time, ulcers, headaches or fatigue; the psychological impact might include anxiety, panic attacks or depression; and behavioural responses to stress might be an increase in alcohol consumption or drug use, or conflict at home or in the work place. Many reactions to stress include the three areas simultaneously. For example, because of the prevalence of stress-induced symptoms, some researchers suggest that between 50 to 80% of

illness and accidents are stress related (Sutherland and Cooper, 1990).

Research in the area of stress and its effect on both animals and humans has been of interest to researchers for centuries, particularly initially the physiological reactions which might cause illness or death. Canon (1935) coined the phrase "flight or fight", a physiological response to danger resulting in the desire to avoid the stressor or resist it. Increased activity in the sympathetic nervous system prepares the body physiologically for action, providing energy for muscle action. In evolutionary terms the response was adaptive and vital for survival, but in contemporary society it has become a disadvantage. People are often denied the aggressive release and physical activity needed to restore the hormone and chemical balance, with a resultant increase in stress.

Selye's work in the 1930's and 1940's on stress responses and stress related illnesses played an important role in the development of the response-based approach. In his research on animals, he found that different stressors, such as extreme temperatures and threatening situations, resulted in predictable responses, namely, the animals first experienced physiological arousal, followed by deterioration and exhaustion. This sometimes took place over months or even years. His patients' had similar responses, the last stage of the response resulting in loss of appetite, weight and strength (Norton, 1998).

Selye (1956) concluded that the body responded to stress exposure over a prolonged period of time in three stages. He called this the General Adaptation Syndrome (GAS), which consists of the following:

Stage 1: The alarm stage, which has two phases; firstly the shock phase, during which the body cannot effectively cope with the stressor; and

secondly, the countershock phase, when the body's resources are mobilised, resulting in the flight or fight response. Physical symptoms might result, such as rapid heartbeat, sweating or shaking.

Stage 2: Resistance; This results in the adaptation response, which is a period when the body's performance peaks. This Selye called a positive form of stress, or eustress.

Stage 3: Exhaustion or collapse; The resistance stage lasts for a considerable length of time, but eventually the resources become depleted, and exhaustion or collapse results.

This approach, although it has had far-reaching impact on the understanding of stress, has been criticised and challenged as being too simplistic and inadequate for explaining psychosocial stress.

2.2.1 Physiological responses to stress:

If one accepts Selye's (1956) view that impairment of function and structural change are wholly or in part an adaptation to a source of stress, then a large proportion of illness and disease is at least partially linked to exposure to stress (Sutherland & Cooper, 1990). From early studies, particularly in the field of physiology, links were established between life experiences, emotions and the importance of hormone and chemical reactions. Even in the 1800's the link between heart disease and stress had been established.

Throughout the 19th and 20th century, links between negative life events and cancer have been referred to in the literature. The loss of a major emotional relationship has been cited as a possible predisposing factor.

The connection between cancer and emotional factors, an area of great interest and concern, has been the subject of many studies.

More of a focus on the study of psychosomatic medicine was initiated in the 1940's with the study of a patient, "Tom", by Wolf and Wolff, and the effects of stress on gastric secretions and ulcers (Sutherland & Cooper, 1990). Karasek (1979) found that people in jobs with little control or decision making had a much higher incidence of gastrointestinal disorders than those with more opportunity for decision-making, suggesting that an inability to control the work situation was more stressful and more likely to cause ulcers.

There is much evidence to support the theory that emotions have an important effect on the immune system. Allergies, asthma and skin disease may also be triggered or exacerbated by stressful events (Sutherland & Cooper, 1990). A number of explanations have been suggested as to why this happens. Adrenalin and noradrenalin, chemicals released during exposure to stress, influence the release of histomines which reduce allergy symptoms. Stressors might also depress the effects of antibodies, increasing the likelihood of becoming ill.

Stress-related hypertension, or high blood pressure, is very common in South Africa, particularly amongst urban blacks (Edwards, 1992). Other factors which contribute include dietry imbalance, obesity, work stress and bereavement. Given the stressful lives, the crime rate and the low income of so many South Africans, it is not surprising that hypertension and other stress-related ailments are so prevalent.

2.2.2 Psychological responses to stress:

There are a number of psychological theories as to why people react differently to stressful events or experiences. Theories focus on childhood development, genetic predisposition and personality differences. Psychodynamic perspectives concentrate predominantly on the past and the underlying issues which cause problems and dysfunctional patterns of behaviour. The cognitive approach focuses on thinking and current problems and solutions, with less focus on the history of the problem. The behavioural approach considers behaviour rather than emotion to be of prime importance.

Within object relations theory, which Melanie Klein first wrote about in the 1930's, the mind and the psychic structures that comprise it are thought to evolve out of human interactions rather than out of biologically derived tensions. Instead of being motivated by tension reduction, human beings are motivated by the need to establish and maintain relationships. The need for human contact is the primary motive from an object relations perspective. Damage, then, is caused when the primary relationships, with mother, father or care-giver, have deprived the person of the needed emotional relationship and nurturing.

Although the aetiology of stress-related illnesses might be considered to have numerous sources, and result in physiological, psychological and behavioural problems, psychoses and neuroses form a significant portion of those treated. The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) has a number of diagnostic categories involving stress-induced disorders, anxiety disorders and depression.

Many of these are chronic problems precipitated by an acute event. Panic

attacks, while being a discrete period of fear, also include the physical symptoms of shaking, sweating, heart palpitations or nausea. They are usually associated with a particular place or event which previously caused great stress or fear. Similarly, phobias result in avoidance of a situation because of intense fear. Post Traumatic Stress Disorder is the development of symptoms such as avoidance, nightmares or hypervigilance as a result of an intensely traumatic event.

Acute Stress Disorder is the development of anxiety and dissociative symptoms, such as detachment or an absence of emotional responsiveness, after the person has witnessed or been confronted with a threatening event. The response involves fear, helplessness and horror.

A Generalized Anxiety Disorder is excessive worry and anxiety over a period of at least six months. Symptoms might include restlessness, being easily fatigued, muscle tension and disturbed sleep. The focus of the worry might shift from one concern to another.

Another category in the DSM-IV is Somatoform Disorders, the presence of physical symptoms that suggest a medical condition but are not fully explained by a medical condition. These disorders are often the result of stress. Somatising is often associated with anxiety. Those who somatise might feel aches and pains in a physical way when the problem is emotional or psychological rather than physical.

Researchers have found that anxiety and depression frequently coexist (Clark, 1989; Watson & Kendal, 1989). Depression is characterised by depressed mood and loss of interest in things that previously interested the person. Sleep patterns are often disturbed, eating patterns change, and the person might feel fatigued, worthless, hopeless and sometimes suicidal.

Depression often begins with a series of events or a particular predisposing factor, or stressor.

Anti-depressants and anti-anxiolytics are commonly used in the treatment of anxiety and depression. In the USA, the sedative Vallium, in the late 1980's, was the fourth most prescribed drug (Sutherland & Cooper, 1990). This points to the fact that anxiety and stress are significant in health and mental illness.

2.2.3 Behavioural responses to stress:

As a consequence of ongoing stress or specific stressful events, certain behaviours have been used to cope with the stress, however maladaptive, such as alcohol or drug abuse. Anxiety and anger induced by an event is sometimes vented in a manner that has negative results, for instance family violence or conflict.

Many researchers have suggested that people turn to cigarettes, alcohol and illicit drugs as a means of coping with a variety of stressors. Given the mood altering effects of alcohol and drugs, these provide a means of avoiding unpleasant circumstances in a reasonably inexpensive way, particularly for the lower income groups. The resultant physical problems (for example, cirrhosis of the liver), mental problems (memory loss, dementia) and family problems (abuse, neglect) have been well documented over many years (Piercy & Nelson, 1989, Sutherland & Cooper, 1988).

Another maladaptive behavioural consequence of stress is family conflict and family violence (McCubbin & McCubbin, 1989). Depending on the stage of life at the time of the event or situation, certain stressors might affect the family in different ways, for instance, a family which has young or

adolescant children and perhaps one working parent might find a strike situation more stressful than a family who has less financial responsibilities at that time. Coping strategies might be limited. Alcohol and drug use might inhibit judgement. A family history of conflict and violence might have created a family norm where violence is accepted, particularly when there is a high level of stress.

There is a variety of ways that people cope with stress, and a variety of consequences as a result of stress. The stimulus-based approach to stress suggests that stress is caused by external factors, not taking into account individual differences and reactions to the external events. The response-based approach assumes that there is a pattern to how people react to stressors. However, given the same stressor, different people react in different ways. In order to look at what gives some people resilience while others struggle to cope, we will consider what moderates stress responses.

2.3 STRESS RESPONSE MODERATORS:

Some individuals in an environment become ill and adversely suffer the consequences of exposure to stress, while others survive and even do well under the same conditions (Sutherland & Cooper, 1990). When the same stressor is applied to a group of people, some are more resilient than others in coping with the effect of the stressor. This could be the result of stress response moderators, factors or variables which have an effect on the level of stress experienced by someone, given a significant stressful event or a period of tension which he/she interprets as a stressor.

Sutherland and Cooper's (1990) interactional model of stress describes the

way people process a stressful event. When a person experiences a stressor, a demand is made on him/her, given his/her particular situation and background. The stress response moderators, and demographic characteristics such as age, gender and education, allow for a cognitive appraisal, both primary and secondary, of the stressful situation. During the primary appraisal, the person considers how threatening the situation is. During the secondary appraisal he/she decides whether it is possible to deal with the situation.

Following this, the person considers what available resources he/she has at his/her disposal, or whether more are needed or available. If the person feels inadequate to cope, and unable to utilise resources, he/she might become ill or feel overwhelmed by the situation. If he/she can utilise resources or learn new coping skills, he/she will solve the problem.

Looking at people's reaction to stress from this perspective, the stress response moderator has an impact on how a person appraises the situation, whether he/she considers the situation stressful, and whether he/she considers that the resources are available to solve the problem.

The theory that stress response moderators impact on the ability to cope with stress has been used to explain different individual vulnerabilities to illness (Lin & Ensel, 1989). Effective moderators can lessen or eliminate the effects of stress. Personality variables, such as SOC, have been shown to be good stress response moderators. Collective variables available in the social systems to which we belong and that we make use of, such as religious practice or social supports, have also been shown in the research to be effective stress response moderators.

Interpretation of events, or primary and secondary appraisal, remains a

significant factor in the resulting stress level. There is good empirical evidence from the cognitive study of emotion that environmental experiences are not in themselves endowed with affective meaning, but acquire this only after a process of interpretation within the personal cognitive framework of the individual (Lazarus, 1966). As Shakespeare's Hamlet says, "there is nothing either good or bad but thinking makes it so".

While research on life stressors has identified many negative outcomes in terms of job demands, role-related stressors resulting in ill health, poor mental health and other cognitive, behavioural and affective outcomes, little is known about what keeps people healthy. The salutogenic approach considers why some people not only cope but apparently cope well in spite of significant stressors.

2.3.1 Sense of coherence (SOC):

Antonovsky's (1987) model of stress centres on the concept that stressors have as their major consequence the generation of a state of tension. He expresses regret that researchers view stress always as "unfortunate". Antonovsky's theory on how people manage stress and stay well, comes from a salutogenic perspective. The meaning of salutogenesis comes from a combination of salu, Latin for health, and genesis, Greek for origins. A salutogenic way of thinking focuses on health, with the assumption that disorder and pressure towards increasing entropy, or uncertainty, is the prototypical characteristic of the living organism. "Stressors come to be seen not as a dirty word, always to be reduced, but as omnipresent" (Antonovsky, 1989, p.12). Stressors are not inherently bad but may have salutory consequences.

This is in contrast to the pathogenic orientation, which invariably sees

stressors as risk factors, which can at best be reduced, inoculated against or buffered. The pathogenic perspective, according to Antonovsky, assumes that sometimes normally self-regulatory processes become disregulated, that change and chaos are not constant in life. From this view one focuses on what causes illness rather than what keeps people healthy.

Antonovsky replaces the dichotomy of disease and health with what he calls the "health-ease/dis-ease continuum" with everyone falling between terminal illness and wellness. The SOC, according to Antonovsky, is a major determinant of maintaining one's position on the health ease/dis ease scale. He defines the SOC 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 (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement (Antonovsky, 1989, p.19).

Antonovsky identified the components of the SOC in a qualitative study of 51 persons who had experienced major trauma, such as the loss of a child or encarceration in a concentration camp, with inescapable major consequences for their lives, but who were thought to be coping remarkably well (Strümpfer, 1990).

The three core components of the SOC are:

(1) comprehensibility, which refers to the extent to which one perceives

the stimuli that confront one, deriving from the internal and external environments, as making cognitive sense, as information that is ordered, consistent, structured, predictable and explicable;

(2) manageability, which is the extent to which one perceives that resources at one's disposal are adequate to meet the demands posed by stimuli that bombard one. These can be resources in one's control or in the control of trusted others (Antonovsky, 1987); and

(3) meaningfulness, which represents the motivational element in the SOC. It refers to the extent to which one feels that life makes emotional sense. Challenges are viewed as welcome, and some of the demands and problems

worth investing in emotionally, worthy of commitment and engagement (Antonovsky, 1987). Frankl's (1975) work on meaning influenced the choice of name for this component.

Successful coping depends on the SOC as a whole, as these three core elements are interrelated. Empirically the intercorrelations among the components are very high. Antonovsky suggests that the motivational component of meaningfulness is the most crucial, for without it comprehensibility and manageability will probably be temporary. As he says, "for the committed and caring person, the way is open to gaining understanding and resources" (Antonovsky, 1987, p.22). However in determining a person's SOC, the three components are not separated as all three are important for coping effectively.

To facilitate "effective tension management", he introduced the concept of

generalised resistance resources (GRR's) which he defined as phenomena which provide one with sets of life experiences. GRR's are described as any characteristic of the person, the group, the subculture or society that facilitates avoiding or combating of a wide variety of stressors (Strümpfer, 1995). These include artefactual-material GRR's, like money, shelter or food; cognitive ones, like intelligence and knowledge; interpersonal-relational ones, like social embeddedness and social support; and macrosociocultural ones, like religion and rituals (Strümpfer, 1995). Resistance resources are only potentially available, and it is up to the individual to use these potentials to overcome stressors, for instance money needs to be spent in order to overcome a financial problem.

People with a strong SOC are more likely to show a readiness and willingness to exploit the resources that they have at their disposal (Antonovsky, 1984). The utilisation of GRR's creates life experiences which give rise to and reinforce a strong SOC (Antonovsky, 1987). In turn, someone with a strong SOC mobilizes the GRR's at their disposal.

Resistance deficits (RD's) are stressors or lack of resources. Together with GRR's, they lie on a continuum depending on what one has at one's disposal and what one utilizes. For example, if the continuum includes wealth, where one lies on the continuum between GRR's (having money) and RD's (lack of money) will determine the kind of life experience which would be conducive to a strong (high) SOC or weak (low) SOC. The lower one is on the continuum, the more likely it is that the life experiences one undergoes will be conducive to a weak SOC (Antonovsky, 1987).

Having a strong SOC does not mean that the person views his/her entire world as comprehensible, manageable and meaningful (Strümpfer, 1990). People might exclude things that do not interest them, such as politics or

religion. What happens outside the boundaries they set does not matter to them, and has no affect on their SOC. However, according to Antonovsky (1987), four spheres in life cannot be excluded if a strong SOC is to be maintained; His/her own feelings, immediate interpersonal relationships, the major sphere of activity, such as work, and the existential issues of death, inevitable failures, shortcomings, conflict and isolation. To maintain a strong SOC and a coherent view of the world it is necessary to include these aspects of life.

Someone with a strong SOC is more likely that someone with a weak SOC to:

1. comprehend the nature and dimensions of an acute or chronic stressor and define or redefine it as one that is manageable;
2. because the stressor is manageable, to select and mobilize resources;
3. and to view stressors as challenges worthy of engagement and investment of energy (Strümpfer, 1990).

2.3.1.1 Research using the SOC:

A study using similar constructs as moderators in Israel investigated coping with recent life events and the importance of personal and collective resources amongst Kibbutz members (Anson et al., 1993). The researchers used SOC as the measure of personal resource, membership in a religious or non-religious kibbutz as the measure of collective resources, and Holmes and Rahe's Recent Life Events Scale to measure stressors encountered within the past year.

Results showed that both religious involvement and SOC had a stress-reducing effect, but SOC appeared to be a better resource for avoiding the effects of recent life events and for moderating psychological distress and

functional limitation.

Three studies in South Africa have used the SOC scale to investigate stressors related to the work situations of black or coloured workers.

Danana (1989) studied a sample of black female nurses in Umtata and found that high SOC scores correlated negatively with intensity of stressful job events and positively with job satisfaction and quality of patient care as rated by the supervising sister, and also with general well being. The SOC moderated between the quality of the workload and psychological health, as well as between subjective job stress and job satisfaction, with relationships occurring only in the low SOC group.

A study by Strümpfer and Louw (1990) investigated aspects of occupational stress amongst coloured farm workers in the Western Cape. Using the short form of the SOC translated into Afrikaans, they found significant positive correlations between SOC scores, job satisfaction and health.

People with a low SOC were found to have a low sense of participation (a measure involving personal involvement with decision making), particularly among young people, among those who felt powerless, among those who were dissatisfied with their jobs, who felt depressed about their work and who had a strong inclination to leave the present employment. In a high SOC group, job satisfaction and powerlessness were not related to participation in decision making. SOC correlated significantly with a general health rating and a survey measure of psychological health. It also correlated positively with social support from a number of sources.

A study by Anstey (1989) on work stressors amongst blue collar workers in the chemical industry showed that SOC, along with job decision lattitude

(perceptions of job demands and control over decisions) and participation, was strongly related to health and affective outcomes, and to a lessor extent, behavioural outcomes.

Affective outcomes included job satisfaction and depression. Analysis of the data indicated that the higher the SOC, the lower the depression and the higher the job satisfaction. In terms of health outcomes, SOC was significantly associated with less pill consumption, fewer somatic complaints and more positive ratings of mental health. The behavioural outcomes included propensity to leave the present job, and alcohol consumption and tobacco smoking, correlating with a low SOC.

Doubts have been raised whether SOC is not just a measure of the absence of negative affectivity, which has also been called neuroticism. High negative correlations have been found in many studies between SOC and negative affectivity, which is considered to be a "broad, dominant personality trait, a consistent and pervasive way of experiencing, interpreting and reflecting negatively on oneself and the world around oneself" (Strümpfer, Gouws & Viviers, 1998, p.2). It is the type of disposition which experiences particularly emotions such as sadness, loneliness, anxiety and depression. The opposite disposition would be positive affectivity, which is characterized by pleasurable feelings, such as cheerfulness, joy, delight, excitement and enthusiasm, experienced across situations.

A study by Strümpfer et al. (1998) on a sample of nursing college students, managerial and administrative personnel and life insurance consultants, investigated the relationship between SOC. negative affectivity, and positive affectivity. One of the scales used emotional stability as the opposite pole to negative affectivity, with items such as "calm", and "steady" as measures of emotional stability.

Results showed that low SOC related to negative affectivity, and high SOC to positive affectivity. The emotional stability scale correlated positively with SOC. Stepwise regression analyses indicated that 25 to 47% of SOC variability remained unexplained after the predictions. According to Strümpfer et al. (1998), strong SOC/negative affectivity relationships do not necessarily imply that the SOC scale only measures the absence of neuroticism. They could also be interpreted as validation of the scale in salutogenic terms if the low end of the negative affectivity scale is conceived to represent emotional stability. Individuals low in neuroticism are not necessarily high in positive mental health, but are simply calm, relaxed and even-tempered. SOC, however, is more comprehensive, a disposition which engenders, sustains and enhances health. Someone with a high SOC, who although perhaps having an even tempered nature, will also have comprehensibility, manageability and meaningfulness.

2.3.1.2 Similar concepts:

The SOC appears to bear some similarities to certain other recent views focusing on salutogenesis, or health, stress and coping, both conceptually and empirically.

Kobasa proposed "personality hardiness" as a global personality construct which moderates stress-health relationships (Kobasa, 1979). It includes commitment, control and challenge (Strümpfer, 1990). Hardiness also has an other-directed component which is based in a sense of community. Both inner and other-directed aspects are hypothesised to ward off the illness-provoking effects of stress.

Rosenbaum provided a comparison between sense of coherence (SOC), hardiness and self-efficacy (Rosenbaum, 1988). Results show that "both high SOC and

high hardiness individuals would be likely to evaluate a stressor in a positive way" (Strümpfer, 1990).

Ben-Sira (1985) coined the construct, "potency", defined as " a person's enduring confidence in his own capacities as well as confidence in and commitment to his/her social environment, which is perceived as being characterised by a basically meaningful and predictable order and by a reliable and just distribution of rewards" (p.399). This coping mechanism of confidence, meaningfulness and predictability is similar to the SOC construct of comprehensibility, managability and meaningfulness.

Boyce, Schaefer and Uitti's (1985) construct of a "sense of permanance" is defined as "the belief or perception that certain central, valued elements of life experience are stable and enduring" (p.1281). This belief gives meaningfulness to life. Later it is noted that the "findings are consistent with recent studies on mastery and self-esteem" (p.1285). This is similar to the meaningfulness and the managability components of the SOC.

Another salutogenic-type model of coping is that of Rudolf Moos. He suggested that "most people shape acceptable resolutions to difficult circumstances while some manage not only to survive but also to mature in the face of overwhelming hardships" (Moos, 1984, p.7). Similar to the SOC, his model focuses on health and coping in spite of significant stressors.

Emmy Werner's (1982) study on "stress-resistant" children also considers the salutogenic question. Some of the children, although vulnerable, having experienced poverty, biological risks, family instability, and with uneducated parents, remained invincible, and developed into competent and autonomous young adults. Factors that facilitated coping included a more internal locus of control, a more positive self-concept, and a more

nurturant, responsible, and achievement-oriented attitude towards life, and a sense of coherence in their lives with an ability to draw on a number of informal sources of support. Antonovsky suggests that these children have comprehensibility, manageability and meaningfulness, and therefore a strong SOC (Antonovsky, 1987).

2.3.2 Religious Practice:

One neglected area of study, according to researchers Krause and Van Tran (1989), involves the potential stress-buffering properties of religious involvement. These researchers suggest that there are two significant reasons why one would expect religiosity to play a role in the stress buffering process;

(1) The fact that religion has been shown to exert significant direct effects on well-being suggests that it is reasonable to assume that it functions as a coping resource, and

(2) the rise of the pastoral counselling movement indicates that both clergy and parishioners believe that religion plays a significant role in managing life crises.

Durkheim (1912) viewed religion as an institution that bolsters social integration and exercises social regulation. He wrote that different religions varied in their level of social integration, with the more integrated ones being a better protection against suicide.

In defining religion as a concept, most researchers have concluded that religion cannot be perceived as a single, all-encompassing phenomenon. It consists rather of several dimensions (De Jong, Faulkner and Warland, 1976). These include a belief in God, or divinity, religious practice,

religious or divine experiences, and knowledge of the Bible. The church serves a significant role in the practice and teaching of religion in many people's lives.

2.3.2.1 Religion and stress, particularly amongst black and coloured communities:

The church appears to give structure and protection to certain historically marginalised groups. In the USA the church has historically played a significant role in the Black community, providing a haven from problems, such as racism and poverty (Nelson & Nelson, 1975). In research on older American Whites and Blacks, results have consistently shown that Blacks are more likely to read the Bible, pray on a regular basis and attend church (Hirsch, Kent & Silverman, 1972).

Further studies on the importance of church for older Blacks reveal that informal support from church members was second only to support provided by family members, particularly in times of illness (Taylor & Chatters, 1986). Neighbors, Jackson, Bowman and Gurin (1982) suggest that Blacks are especially likely to turn to religion in times of stress, and the use of prayer was the most frequently mentioned coping resource when faced with personal problems. In the USA, Black scholars refer to the Black church as a "mental health resource" (Krause & Van Tran, 1989; Ambrose, 1977).

A number of researchers have argued that the church was virtually the only institution within the Black community that was built, funded, and controlled by Blacks (Krause & Ven Tran, 1989; Nelson & Nelson, 1975). As in the USA, a similar argument could be applied to South African Blacks and Coloureds. Having little political control, the church gave them the opportunity to make decisions without interference from government

organisations and policies.

2.3.2.2 Further research findings regarding the stress-buffering effects of religion:

In order to discuss the role of church involvement or religion in buffering stress, one must first consider some of the effects of life events on those feeling stressed. Caplan (1981) argues that stressful events result in diminished self esteem and erode feelings of mastery or control. Krause and Van Tran (1989) found that while stress tends to erode self esteem and feelings of mastery, religious involvement counterbalances the negative effects of stressful life events. Pearlin, Menaghan, Lieberman and Mullan (1981) support these findings, suggesting that life stressors may be perceived as evidence of personal failure and proof of an inability to control life circumstances. In order, then, to restore self-worth and feelings of mastery, coping resources need to serve to bolster these.

Anson et al. (1993) suggest that it is belonging to a religious community or organization that serves as a "powerful resource in coping with life events" rather than individual religiosity, commitment or belief (p.160). Because the church occupies a central and highly regarded position in many Black and Coloured communities, individuals are likely to view themselves as important and worthwhile if they occupy roles that are perceived by others to be important. Therefore membership and participation in the church and affiliated groups is likely to be a source of self-esteem (Krause & Van Tran, 1989).

Peterson and Roy (1985) suggest that people with strong religious convictions may feel a sense of mastery because their beliefs provide

reassurance that problems can be overcome, and that God intervenes to ensure that difficulties will be resolved. People who feel that God will assist them in times of stress are less likely to feel discouraged and hopeless, and more likely to feel that the effects of the stressful life events can be controlled and overcome.

In the National Survey of Black Americans, conducted in 1979-1980 on 2107 individuals over the age of eighteen, Krause and Van Tran (1989) found that religiosity is not stress-responsive, that is, levels of religious involvement are not affected by the amount of stress experienced, and "religiosity can exert a beneficial effect on self-feelings even in the absence of stress" (p.S11). This is congruent with the literature suggesting that levels of religiosity remain fairly stable with aging (Markides, Levin & Ray, 1987). What the National Survey found was empirical support for the theory that religious involvement is a deterrent against stress. While stress tends to erode feelings of mastery and self-esteem, these negative effects are counter-balanced by religious involvement.

De Jong, Faulkner and Warland (1976), in their study of German and American students, identified six dimensions of religiosity; belief, experience, religious practice, religious knowledge, individual moral consequences, and social consequences. They suggest that most researchers have concluded that religion is composed of several subcomponants rather than a single phenomenon. Studies by numerous researchers report various dimensions, ranging in number from ten to three. However, the ritual and belief dimensions are most frequently operationalized.

According to Krause and Van Tran (1989), both the organizational aspects of religious involvement and personal religious beliefs may function in a manner similar to social support, to be considered in the following

section.

2.3.3 Social support:

Social support can be defined as the existence or availability of people on whom we can rely, people who let us know that they care about, value and love us (Sarason, Levine, Basham & Sarason, 1983). Intimate relations with others in whom we confide and from whom we receive feedback may significantly affect our physical and mental health.

Two particular links between social support and psychological adjustment have been hypothesised. Firstly, social support is proposed to have a direct effect on psychological adjustment. According to Schumaker and Brownell's (1984) hypothesis on health sustaining effects, the more effective the social support an individual receives, the better his or her mental and physical health. Secondly, it is suggested that social support moderates the effect of stressful life events (Anstey, 1989; Pretorius & Diedricks, 1994). These researchers also suggest that it has a buffering effect against stress associated with poor psychological well-being.

In terms of either buffering stress or psychological adjustment, having someone to talk to and confide in allows us to share opinions and view problems from a different perspective instead of only seeing our own point of view. It also often boosts our sense of importance and sense of self. Krause and Van Tran (1989) found that social support reduces the effects of life events by helping individuals under stress "avoid internalizing diminished views of themselves" (p. S5). Krause (1987) found that social support also bolsters a sense of self esteem.

There is some evidence that it is the satisfaction rather than the number of supports that causes the buffering effect. Sarason et al. (1983) made the distinction between the number of people perceived to be available at times of need, and the satisfaction derived from their support.

Pretorius and Diedricks (1994) also found that the expected moderating function which support fulfils operates only in the case of satisfaction with supports. They found that an increase in network size is related to an increase rather than a decrease in depression. They suggest that this might be explained by the concept of "diffusion of responsibility", when the providers of support may be less likely to offer support because the assistance is shared by others.

It is important to distinguish between social support and social network because the network, being all the people with whom we have contact, can be both potential supports or potentially demanding support themselves (McCubbin & McCubbin, 1989). This might also explain why an increase in network size can increase depression. If someone is feeling drained of strength and resources by others' demands, he/she might become depressed.

Winefield (1979) found evidence that depressives report a lack of availability of supportive others. Eaton's (1978) study showed that the occurrence of stressful life events is associated with more psychiatric disorder among those unmarried or living alone than for those who are married or living with others. This could point to the need for supportive others in order to improve self esteem and to gain a better perspective on problems. However this could also result from depressed people often not being very good company for others.

Different individuals or social groups fulfil different needs, and might be

more significant or useful at different times or for different problems. In a factory sample which had limited opportunities for interaction between workers, House (1981) found that supervisor's support was most effective in buffering the effects of stress. In contrast, House, McMichael, Wells, Kaplan and Landerman (1979) have found co-worker support to be more significant.

Loneliness, often the result of lack of social support, either from family or friends, has been found to increase physiological problems and illness. In a study by Nuckolls, Cassel and Kaplan (1972), of lower-middle class pregnant women living in an overseas military community, women high in life changes and low in psychosocial assets, or social support, had many more birth complications than any other group.

Antonovsky (1979) suggested that social support enhances the ability to obtain meaningful information, therefore enhancing the SOC. Social support is a generalised resistance resource (GRR), which particularly those with a stronger SOC would utilise as a coping resource. He does, however, point out that whether seen as a buffer or direct contributor to lessen the likelihood of illness, the research is largely from a pathogenic perspective rather than salutogenic, looking at the negative effects of lack of social supports rather than why social support is healthy.

This is shown in Lin and Ensel's (1989) study in which they suggest that social resources do not in and of themselves exert significant effects on physical symptoms. However, under the condition where either social or psychological stress is present, the absence of social resources will exacerbate its negative impact on physical symptoms.

In the case of physical symptoms, Cohen and Hoberman (1983) found that social support and positive events protect one from high levels of life stress. It is relatively unimportant, however, for those with low levels of stress. Whether from a salutogenic or pathogenic perspective there appears to be consistent evidence that social support buffers stress.

Given that the strike was considered a particularly stressful event, and the after-effects had further consequences for the workers at the Coldstream sawmill, the research focused on the extent to which the strike was considered a stressor, and the extent to which the stress response moderators helped to alleviate some of the stress responses.

2.4 Research aim:

The main aim of the study was to measure stress responses in members of the Coldstream community and to investigate the extent to which SOC, religious practice and social support served as moderators of the stressful impact associated with the strike action.
The following hypotheses were formulated for investigation:

1. People with a high SOC will handle the stress of the strike better than those with a low SOC.

2. People who are more religious, as judged by their religious practices, will handle the stress of the strike better than those who are less religious.

3. People who are more satisfied with their social support are more likely to handle the stress of the strike better than those who are less satisfied

with their social support.

4. Increased network size or number of social supports is related to an increase in depression.

CHAPTER 3

METHODOLOGY:

3.1 Participants:

Sixty-three male and female workers at the Coldstream sawmill completed the questionnaires during the week before their Christmas holiday. Most were coloured people, some of Xhosa and Mfengu origin, but all spoke Afrikaans at work and at home. They lived in company housing in Coryhoek, an area of approximately one and a half square kilometres, situated about one kilometre from the sawmill.

The following criteria were used for participants to be included:

(1) Afrikaans as a first language, as the questionnaires were translated into Afrikaans only. This necessarily excluded most of those shop stewards directly involved in union negotiations, most of whom were Xhosa-speaking; As the duties of a shop steward, including negotiating, are considered in the literature to induce a high level of stress, it was necessary to exclude these participants so that the stress level was considered relatively equitable amongst participants (Bluen & Barling, 1887; MacBride, Lancee & Freeman, 1981).

(2) No other significant stressors during the previous six months, such as the death or severe illness of an immediate family member. This was to ensure that all participants had a similar amount of stress over the six months.

(3) No exposure to extraordinary violence, such as attempted murder or arson induced by the strike action. Again this was to control for the degree of stress experienced by participants.

3.1.1 Participant/Researcher relationship:

Participants were familiar with the researcher in her personal capacity as a FAMSA counsellor, an aerobics instructor and as supervisor of the preschool. She had also started a number of other projects in the area, such as a women's sewing group, and was a committee member of the Tsitsikamma People's Forum. That familiarity presupposed easy access and trust.

To avoid researcher effects arising from her husband's relationship with the community, as financial manager at the sawmill and one of the negotiators during the strike, participants were consulted after working hours in their own homes with the assistance of four community members. The researcher was not present for the interviews in Coryhoek.

Participants were reassured of confidentiality by letter and verbally before the interviews. They were particularly reassured that the data would be seen only by the researcher and her supervisor at Rhodes University, and not by the sawmill management.

3.2 Letter of intent:

A letter explaining that the researcher would be asking people to participate in a research project on coping with stress, was sent to all households in Coryhoek the week prior to administering the questionnaires.

3.3 Translation of the questionnaires:

The questionnaires were presented in Afrikaans only, as the participants' first language. Questions were translated by a bilingual psychologist, and

back-translated into English by another biligual psychologist. Three psychologists were involved in the translation process. The questionnaires were later cross-checked by a social worker.

3.4 Research assistants:

Four research assistants, Afrikaans-speaking coloured women from the community, were trained to help with data collection. The youngest was 28 and the oldest 37 years old. One had a Std. 8, one a Std. 9, and two were studying for matric. The four women are active in the community, including the church and schools. Three are married and one unmarried, and they have seven children between them. The four women have known the researcher for approximately six years through numerous community activities.

Training consisted of 6 to 10 hours each, beginning with completing the questionnaires themselves so that they might recognise any problem areas, ask questions and understand fully the meaning of each question and the instructions for each questionnaire. The assistants' protocol was not used for research purposes.

Issues regarding confidentiality, helping participants to feel at ease and how much assistance to provide were discussed. For instance, it was stressed that the participants should not be helped to answer the questions or be guided in a certain direction. During the week it took to complete the research, the assistants were in contact with the researcher by telephone and in person, and data was collected from the assistants as it was completed, and safely stored. Any problems were immediately addressed.

When all the available participants had been questioned, the assistants were debriefed by asking about each participant on their list, checking

each questionnaire with the researcher, and discussing any problems or concerns. They were paid per hour for their assistance.

3.4.1 Problems:

Problems which arose, according to the research assistants, included:

1. The time taken to explain the instructions for each questionnaire,
2. The length of time taken to complete the questionnaires (approximately two hours each),
3. The assistance needed for illiterate participants and
4. distrust that the information would be confidential or for research purposes, rather than the company, in which case participation was refused by the potential participant (two), or the questionnaires completed after reassurance to the contrary. Participants were also reassured of confidentiality in the initial letter of request, and before receiving the questionnaires.

3.5 Data collection:

The questionnaires were administered individually, and most participants filled in the answers themselves, asking for assistance only when they wanted it. Eight illiterate participants were administered the questionnaires orally and these were filled in by the research assistants.

3.5.1 Order of presentation:

The questions and questionnaires were presented in the following order:

1. Biographical details
2. Beck Anxiety Inventory
3. Beck Depression Inventory
4. SOC Questionnaire
5. Religious Practice Scale
6. Social Support Scale
7. Industrial Relations Events Scale
8. Self-report measures

The above sequence of questionnaires was considered the most appropriate for the following reasons:

The personal details were not considered confronting, and these were therefore chosen as a good place to begin the process.

The questionnaires which followed, which looked at anxiety, depression and SOC, were considered interesting and thought provoking, and were therefore placed near the beginning. According to the feedback received afterwards from participants, they did find these questions thought provoking and non-threatening.

The religious questions consisted of straight forward information about activities, and the participants shared this willingly as for most of them church involvement is important.

The Social Support Scale, because of its length, was placed after a number of other scales so that participants were familiar with the process of

filling out questionnaires. Consisting of six pages, it was thought that if it was nearer the beginning some participants might have been discouraged to continue with other questionnaires.

The IRES was expected to be the most difficult and contained sensitive information about the strike situation. It was therefore placed near the end of the questionnaires so that the participants felt more at ease, and familiar with the process of completing questionnaires.

The last series of questions was regarding the use of alcohol and drugs, family conflict, the level of stress experienced during the strike, and aches and pains. These were Likert-type questions. A question asking if the participant had experienced any additional stressors over the six month period was also asked at the end. Because these questions were considered by the researcher to be information-type questions which could be considered personal and confidential, they were placed last so that participants were familiar with the process, and at ease with the research assistant.

3.5.2 The interviews:

All participants completed the questionnaires in their own homes, taking approximately 2 hours each, with the assistant present. A few chose to complete the process over two days, rather than in one sitting, citing tiredness or that they had other things to do at that time.

After a brief explanation to each participant by the research assistants regarding the confidential nature of the information, that it would be used by the researcher and Rhodes University, rather than the company, and that they would be informed of the results (regarding stress, depression and

anxiety in the community) on completion of the work, the participants were given the questionnaires to complete. The questions were read aloud if he/she was illiterate or wanted assistance to understand a question.

3.6 MEASUREMENTS USED:

3.6.1 Biographical details:

Participants were required to provide their names and gender, education level and marital status. Names were required to allow for further interviews for additional data, if required, and for follow-up for those participants who were clinically depressed or anxious.

3.6.2 Beck Anxiety Inventory (BAI):

The BAI measures the severity of anxiety, assessing symptoms in adults and adolescents. This 21-item scale was developed by Beck, Epstein, Brown and Steer in 1988 at the Centre for Cognitive Therapy, University of Pennsylvania School of Medicine. For this study the revised scoring guidelines were used, as described in the 1993 edition of the Beck Anxiety Inventory Manual. The BAI was constructed to measure symptoms which are "minimally shared with those of depression, such as those measured by the revised Beck Depression Inventory" (Beck & Steer, 1993b, p.1).

The anxiety symptoms are rated on a 4-point scale with the following correspondence:

0 points - "not at all";

1 point - "mildly; it did not bother me much";

2 points - "moderately; it was very unpleasant but I could stand it"

3 points - "severely; I could barely stand it".

The participant is instructed to read the list of symptoms carefully and place an X in the appropriate column to indicate which of the symptoms he/she has experienced during the past week, including today.

Beck and Steer (1993b) reported that the BAI had high internal consistency with a Cronbach coefficient alpha = .92. The BAI shows good concurrent validity, with correlation coefficients demonstrating that the BAI is substantially related to other accepted measures of both self-reported and clinically rated anxiety (Beck & Steer, 1993b).

Correlation coefficients of the BAI with selected other instruments demonstrate that the BAI is substantially related to other accepted measures of both self-reported and clinically rated anxiety. For instance, when the Hamilton Anxiety Rating Scale - Revised, was also administered, the correlation was .51 ($p<.001$).

3.6.3 Beck Depression Inventory (BDI):

The revised BDI is a 21-item instrument designed to measure the severity of depression. It was developed in 1961, and revised in 1971 by Beck, Rush, Shaw and Emery, and over the past 26 years has become one of the most widely accepted instruments for measuring the intensity of depression and detecting possible depression in both psychiatric and normal populations (Beck & Steer, 1993a).

Each of the 21 items consists of a group of 4 statements rated from 0-3. The maximum total score is 63. The participant is asked to circle the number next to the statement in each group which best describes the way they have been feeling over the past week, including today.

The revised BDI has high internal consistency in both clinical and non-clinical populations (Beck and Steer, 1993a). Mean coefficient alphas of .86 for psychiatric patients and .81 for nonpsychiatric samples were consistent with other studies (Edwards, Lambert, Moran, McCully, Smith & Ellington, 1984; Beck, Steer & Garbin, 1988).

The BDI shows good construct validity when compared with the construct hopelessness. Scores on the Beck Hopelessness Scale were positively related to the revised BDI scores in six normative samples (Beck & Steer, 1988). Meta-analyses between the revised BDI and selected concurrent measures of depression across a variety of studies found a mean correlation of .60 for non-psychiatric patients (Beck, Steer & Garbin, 1988).

3.6.4 SOC-S scale:

The short form of the SOC scale(SOC-S) is a self-report measure consisting of 13 items. Respondents are asked to respond on a 7-point Likert scale to questions about how they feel in certain situations. Responses range from 1 = very often, to 7 = very seldom or never.

The scale, devised by Antonovsky (1987) to operationalise the SOC contruct, measures the 3 componants: comprehensibility, manageability and meaningfulness, although these are not scored separately (Antonovsky, 1987).

Questions include : Has it happened to you that people you counted on disappointed you? or

Doing the things you do every day is (1) a source of deep pleasure and satisfaction or (7) a source of pain and boredom.

High scores indicate high SOC, and low scores indicate low SOC. The possible score range is from 13 (lowest) to 91 (highest).

Data supports the validity and reliability of the scale, with high internal consistency (Antonovsky, 1987, 1993; Frenz, Carey & Jorgensen, 1993, quoted in Randall, 1996). Cronbach alpha scores range from 0.82 to 0.95, indicating high reliability (Antonovsky, 1987; Dana, 1985). A number of South African studies have used the SOC-S, and found it to be a reliable measure of SOC (Danana, 1989; Anstey, 1989; Strümpfer et al., 1992). Table 2 in Chapter 4 presents information for comparison.

3.6.5 Religious practice scale:

This is a subscale of De Jong, Faulkner and Warland's (1976) Religiosity Scale. The full scale consists of 5 dimensions: belief, experience, practice, individual moral consequences and knowledge. For the purpose of this study, however, only the religious practice dimension was used to assess church group activity rather than individual religiosity.

Only this dimension was chosen for a number of reasons:

1. The ritual dimension is one of those most frequently operationalised (De Jong et al., 1976)
2. This dimension is concise and concrete, allowing for clear and unambiguous answers.
3. Researchers have found that collective attributes of religiosity rather than the individual's religious feelings, can be considered a coping resource (Anson, 1993). Church affiliation was considered to be a good collective resource in this community.

The practice dimension of the Religiosity scale consists of 5 questions regarding church membership and attendance, church group activities, Bible reading and financial contributions. Each of the 5 questions scores 1 or nil, with affiliation to a group scoring 1, half or nil. Maximum score is 5.

3.6.6 The Social Support Questionnaire (SSQ):

This scale developed by Sarason, Levine, Basham and Sarason (1983) yields scores for perceived number of social supports and satisfaction with these supports. It consists of 27 items to which participants respond by (a) listing the people to whom they can turn to or rely on in given sets of circumstances and (b) indicating how satisfied they are with these supports. The SSQ yield two score, one for the number of supports (SSQN), and one for satisfaction with these supports (SSQS).

Sarason et al. (1983) indicated that the SSQ was stable over a four-week period (test-retest correlations: SSN = 0.90, SSS = 0.83), and had high internal consistency (alpha coefficient: SSN = 0.97, SSS = 0.94). The reliability and factor structure of the SSQ as used with a sample of South African students compared favourably with those reported previously (Pretorius & Diedricks, 1994).

Number of social supports (SSN) was not included as a moderator as originally intended. It has been found in certain studies that rather than a moderator, network size has been related to increase in depression (Pretorius & Diedricks, 1994). Other studies suggest that an increase in network size can increase the demands placed on one (McCubbin & McCubbin, 1989). Because it was not expected to moderate against stress, it was used as a variable but not as a moderator.

3.6.7 The Industrial Relations Event Scale (IRES)

The IRES was developed by Bluen and Barling (1987) to assess stressful events associated with the practice of industrial relations. The format allows for the measurement of the occurrence, desirability and perceived

impact of each item.

The short form of the scale (IRES-S) was used in the present research for two reasons. Firstly, having 20, as opposed to 63 items, it reduced the time participants spent answering questions. Secondly, the short form showed similar psychometric properties to the 63-item IRES (Bluen & Barling, 1987). According to these researchers, 20 items of the IRES were identified that discriminated significantly and consistently with all contrasted group comparisons, and these items were used in the shortened version. This was psychometrically evaluated using the same sample, reliability and validity criteria as was used in the IRES analyses. The internal reliability was satisfactory (alpha = 0.92). Test-retest reliability (with a seven-week interval between testings) indicated temporal stability on all three IRES-S subscales (occurrence: r = 0.72, negative: r = 0.94, positive: r - 0.60)

Participants indicated which events they had experienced over the past 6 months, and rated these on a Likert scale ranging from extremely unfavourable (-3) to extremely favourable (+3). Three scores were obtained; the occurrence scale (OCC) indicating which events had occurred for the participant, the positive scale (POS), indicating which events were considered positive experiences, and the negative scale (NEG), indicating those experiences considered unfavourable. Scores for the occurrence scale, the negative scale with all minus scores, and the positive scale, were summed to give three separate scores.

3.6.8 Self-report measures:

These included 5 self-report measures with a Likert scale from 1 (no effect) - 5 (strong effect, but worded specifically for the question). The

following questions were asked:

1. During the strike, did the level of family conflict change?
2. How did you handle the stress of the strike?
3. Do you use alcohol to handle stress?
4. Do you use cannabis (dagga) to handle stress?

and

5. Is your body full of aches and pains?

Included in this section was a question about additional stressors that the person might have experienced over the past 6 months, for example, a death in the family. This was to exclude anyone with additional stressors from the protocol.

CHAPTER 4

RESULTS:

4.1 Demographic details of the sample:

Sixty-eight adults living in Coryhoek, Coldstream, were employed at the sawmill at the time of the data collection in December, 1997. Of this number, sixty-three were willing to participate in the research. Four of these acted as research assistants. Their data was excluded from the final analysis.

Of the five who did not participate, a couple were sceptical that the information was confidential, with some concern that the company would use their personal views against them. One was shopping in town, one inebriated and one felt that the research had nothing to do with him.

Participants were male (45%) and female (55%) factory workers who were involved in the strike action. Most were coloured people, with some blacks (approximately one quarter of Xhosa or Mfengu origin), but with Afrikaans spoken in their homes. Average age was 38.6 (sd = 10.4). Average education level was Std. 4.8 (sd = 2.6). Of the female participants, 14 were married (27% of all the participants), and 13 were single (25%). Of the male participants, 15 were married (29%) and 8 were single (15%), with one divorced man.

4.2 Participant exclusion:

Of the remaining 59 participants, 51 were used in the final analysis. The aim of the study was to include people who had been involved in strike action, and to exclude those who had experienced another significant

stressor during or since the strike. Four participants who were not working at the sawmill were excluded as they were not personally involved in the strike. Six participants who indicated that they had experienced serious stressors since the start of the strike were excluded. Those events mentioned were the death of a close family member, or severe illness of either themselves or a close family member.

Two shop stewards were also excluded due to the particularly stressful nature of their position. Some participants were excluded for more than one of these reasons mentioned, resulting in 51 used in the final analysis.

4.3 Missing values: the Satisfaction with Social Support Scale (SSS):

Not all respondents completed the Satisfaction section of the social support scale adequately. Forty-six people filled in the SSS scale fully, while the remaining participants (5) partially completed the questionnaire, leaving some questions in the last section unanswered. At this point in the interview, participants were tired and the SSS appeared repetitive. Some of them concluded that it was unnecessary to repeat answers. As a result only those questionnaires fully completed were used in the final analysis.

4.4 Missing values and readjustment of the IRES:

The IRES (short form) proved to be problematic for a number of reasons. Participants found the format of the questionnaire difficult to follow. The number of columns and the numbering of the responses, 0 through to 7, was confusing. In order to simplify the questionnaire, plus and minus signs on every column and line were eliminated in favour of 0 to 7, similar to the other questionnaires the participants were by now more familiar with. However it was still a confusing process. The words were written both

horizontally (the questions) and vertically (the effect). Each question needed to be carefully read and understood before answering.

Participants were tired at this stage of the interview, and lacking the concentration needed to fully understand the questions. The IRES was considered to be the most sensitive of the questionnaires because it related to issues about the strike and worker/management relations, and was therefore the second last questionnaire to be administered.

This scale would probably be more suitable for a more educated group of people who are familiar with written material of a sophisticated nature. It should have been modified to suit the participants.

The scoring of the scale involves three measures: the occurrence score (OCC), which is the number of items the participant experienced, for which positive or negative scores, or a "no effect" answer are tabulated; the positive (POS) score is the sum of all positive answers; and the negative (NEG) score the sum of all negative answers.

Because some of the 20 questions appeared to have been misunderstood, the intended scoring system was modified. IRES in which any of the questions were misunderstood were excluded from the final analysis; for example, if the questions on whether he/she was intimidated, made a victim or called abusive names, were answered as a very positive experience, the protocol was excluded.

Certain of the questions were understood clearly and resulted in either overwhelmingly positive or negative answers. Instead of using the scale as a whole, these particular questions (5) were used to create a NEG and POS scale. However only those participants who appeared to understand the scale

as a whole were included in the final analysis.

Two questions were used for the Negative scale: (1) Unfair labour practices and (2) Failure to use industrial relations procedures. These were answered in the negative by all the participants who answered this particular question.

Three questions were used for the Positive scale: (1) Joining a trade union (2) Shop steward elections and (3) anticipating or being approached by a union. These were answered overwhelmingly in the positive.

Of the 53 participants, 33 were used in the final analysis of this scale, using the readjusted POS and NEG scores. Given the problems with a large number of the items, it did not seem possible to derive a meaningful occurrence (OCC) score.

The result of the readjustment is that the POS score reflects the attitude of participants towards trade union activities, and the NEG score reflects the extent to which industrial relations and labour practices were perceived as unfair during the strike.

4.5 Alcohol(ALC) and cannabis (DAG):

There was a very limited range of responses to the questions regarding alcohol and cannabis use. Of the 53 participants used in the final analysis, one reported using cannabis. Ten people reported using alcohol, eight of those reporting very moderate use. Because of the limited variance in the data on alcohol and cannabis use, no analysis of this data was conducted.

Table 1 shows the number of participants, means, standard deviations and minimum and maximum scores of the relevant variables:

TABLE 1

Means and standard deviations and other descriptive data:

variable	number	mean	s.d.	min. score	max. score
BAI	51	12.64	12.81	0	60
BDI	51	7.66	8.78	0	36
SOC	51	61.53	12.01	34	86
REL	51	3.15	1.46	0	5
SSS	46	155.46	20.45	27	162
SSN	51	32.29	17.21	0	69
PHY	51	1.43	1.15	1	5
CON	51	1.72	1.42	1	5
STR	51	2.41	1.71	1	5

4.6 Acronyms/abbreviations used in the analysis:

BAI	Beck Anxiety Inventory	BDI	Beck Depression Inventory
CON	Conflict in the family	NEG	IRES Negative scores
PHY	Physical aches and pains	POS	IRES Positive scores
REL	Religious practice	SOC	Sense of Coherence
SSN	Number of social supports	SSS	Satisfaction with social supports
STR	Stress		

4.7 Comparative Means of the SOC

In order to see how the SOC mean from this study compared to the mean of Strümpfer et al.'s (1990) study of coloured farm workers in the Western Cape, a z-score was computed:

$z = 10.75$ ($p<.001$)

TABLE 2

SOC-13 means of various South African samples:

Source:	Sample:	n	Mean
Strümpfer (1990)	Coloured farm workers:	127	42.21
Anstey (1989)	White male industrial workers	111	46.60
Mavuya (1991)	Black management forum members	150	45.19
Schneier (1990)	White female nursing supervisors	130	48.00
Strümpfer et al.(1991)	Data processing personnel	219	44.69
Danana (1989)	Black female nurses	120	42.06
Strümpfer et al.(1992)	Black public servants	197	41.48

(cited in Strümpfer, 1992).

SOC-13 means of Israeli samples

Anson et al. (1993)	Religious kibbutz members	105	68.67
	nonreligious kibbutz members	125	66.43

4.8 Pearson product moment coefficients:

To provide a preliminary investigation of the relationship between variables, a matrix of Pearson product moment coefficients of correlation was computed.

TABLE 3

Pearson-product moment coefficients:

	BAI	BDI	SOC	REL	SSS	SSN
BDI	.49*** (51)					
SOC	-.40** (51)	-.58*** (51)				
REL	-.1390 (51)	-.47*** (51)	.38** (51)			
SSS	-.43** (46)	-.13 (46)	.05 (46)	-.25 (46		
SSN	-.08 (51)	.19 (51)	-.17 (51)	-.22 (51)	.37* (46)	
CON	.02 (51)	.35* (51)	-.21 (51)	-.23 (51)	.10 (46)	.37** (51)
STR	.21 (51)	.35* (51)	-.36** (51)	-.07 (51)	-.15 (46)	.51*** (51)
PHY	.51*** (51)	.18 (51)	-.20 (51)	.03 (51)	-.41** (46)	-.27 (51)
NEG	.39* (33)	.34 (33)	-.27 (33)	-.37* (33)	.28 (30)	.37* (33)
POS	.02 (33)	-.04 (33)	.31 (33)	.09 (33)	.38* (30)	.13 (33)

* is <.05

** is <.01

*** is <.001

(continued)

Table 3: Pearson-product moment coefficients (continued)

	CON	STR	PHY	NEG
STR	.44** (51)			
PHY	-.10 (51)	-.15 (51)		
NEG	.36* (33)	.54** (33)	-.10 (33)	
POS	.15 (33)	.20 (33)	-.29 (33)	.37* (33)

* is <.05
** is <.01
*** is <.001

4.9 Age and school standard:

Age and school standard were correlated ($p<.001$). This was expected given that the older people in the community consisted of a number of illiterate people. Coldstream had previously been a primary school, and has recently included Std. 7. The nearest high schools were boarding facilities in Knysna and Humansdorp.

Stress and age were negatively correlated ($p<.05$), suggesting that the younger the person, the more stress they felt. Perhaps the younger workers felt more pressure to be involved with strike action. The more involved they were, the more disappointed they would be with the result and capitulation at the end of the six weeks.

Physical aches and pains and age were correlated ($p<.05$). This would be expected given that older people have more physical illnesses and physiological problems.

4.10 Stepwise regression analyses:

Having established a relationship between certain of the variables through the correlation coefficients, a stepwise regression analysis was done. The analysis was done to investigate the variance in the different impact measures which could be predicted by the 3 stress response moderators, SOC, religious practice and satisfaction with social support.

For each stepwise regression analysis, the critical value of F was 4.0. If no F-values were higher than 4, then it was concluded that the stress response moderator failed to predict the impact variance. If one or more F-value was significant, then the one with the highest value was entered into the equation.

The partial correlation (p.corr.) measured the degree of relationship between two variables when the effects of other known variables were held constant.

4.10.1 Stepwise selection for anxiety (BAI):

Step 1: d.f. = 44

1. SOC:	P.corr. = .39	F-enter = 7.99
2. REL:	P.corr. = .25	F-enter = 2.82
3. SSS:	P.corr. = .43	F-enter = 10.29

Step 2: d.f. = 43

3. SSS is entered into the equation

r-sq = 1.9 Adj. *r*-sq = .17

1. SOC P.corr. = .40 F-enter = 7.89

2. REL P.corr. = .24 F-enter = 2.69

Step 3: d.f. = 43

1. SOC is entered into the equation

2. SSS is already entered

r-sq = .32 Adj. *r*-sq = .28

3. REL P.corr. = .12 F-enter = .61

Results:

When SSS is entered into the equation, 17% of the variance is accounted for. When SOC is added, an additional 11% of variance is accounted for.

4.10.2 Stepwise selection for depression (BDI):

Step 1: d.f. = 44

1. SOC: P.corr. = .56 F-enter = 19.51

2. REL: P.corr. = .47 F-enter = 12.44

3. SSS: P.corr. = .13 F-enter = .77

Step 2: d.f. = 43

1. SOC is entered into the equation

r-sq. = .31 Adj. *r*-sq. = .30

REL P.corr. = .37 F-enter = 6.66

SSS P.corr. = .12 F-enter = .65

Step 3: d.f. = 42

1. SOC is already entered

2. REL is entered into the equation

r-sq. = .41 Adj. *r*-sq. = .38

SSS P-corr. = .25 F-enter = 2.87

Results:

When SOC is entered into the equation, 30% of the variance is accounted for. When REL is added, an additional 8% of variance is accounted for.

4.10.3 Stepwise selection for stress (STR):

Step 1: d.f = 44

1. SOC: P.corr. = .34 F-enter = 5.66

2. REL: P.corr. = .06 F-enter = .17

3. SSS: P.corr. = .15 F-enter = 1.01

Step 2: d.f. = 43

1. SOC is entered into the equation

r-sq. = .12 Adj. *r*-sq. = .10

REL: P.corr. = .05 F-enter = .13

SSS: P.corr. = .14 F-enter = .86

Results:

When SOC is entered into the equation, 10% of variance is accounted for.

4.10.4 Stepwise selection for family conflict (CON):

Step 1: d.f. = 44

1. SOC: P.corr. = .1497 F-enter = .9852
2. REL: P.corr. = .2254 F-enter = 2.3011
3. SSS: P.corr. = .1029 F-enter = .4603

Results:

As there is no F-value higher than 4, it was concluded that the stress response moderators failed to predict family conflict.

4.10.5 Stepwise selection for physical aches and pains (PHY):

Step 1: d.f. = 43

1. SOC: P.corr. = .18 F-enter = 1.46
2. REL: P.corr. = .05 F-enter = .12
3. SSS: P.corr. = .41 F-enter = 8.58

Step 2: d.f. = 43

3. SSS is entered into the equation

   r-sq. = .17 Adj. *r*-sq. = .15

   SOC: P.corr. = .17 F-enter = 1.32

   REL: P.corr. = .05 F-enter = .12

Results:

When SSS is entered into the equation, 15% of variance is accounted for.

4.10.6 Stepwise selection for Positive IRES-S scores (POS):

Step 1: d.f. = 29

1. SOC:	P.corr. = .24	F-enter = 1.76
2. REL:	P.corr. = .01	F-enter = .00
3. SSS:	P.corr. = .38	F-enter = 4.80

Step 2: d.f. = 28

3. SSS is entered into the equation

r-sq. = .15 Adj. *r*-sq. = .12

SOC:	P.corr. = .28	F-enter = 2.37
REL:	P.corr. = .10	F-enter = .28

Results:

When SSS is entered into the equation, 12% of variance is accounted for.

4.10.7 Stepwise selection for Negative IRES-S scores (NEG):

Step 1: d.f. = 29

1. SOC:	P.corr. = .21	F-enter = 1.35
2. REL:	P.corr. = .33	F-enter = 3.48
3. SSS:	P.corr. = .28	F-enter = 2.44

Results:

As no F-values were higher than 4, it was concluded that the stress response moderators failed to predict NEG.

DISCUSSION OF RESULTS:

4.11 SOC as a moderator:

4.11.1 Hypothesis 1:

It was predicted that people with a high SOC would have coped better with the stress of the strike than those with a low SOC.

This hypothesis was tested using the scores of Antonovsky's SOC-13, and Beck's Anxiety Inventory and Beck's Depression Inventory scores, POS and NEG scores, as well as the following Likert-type question scores as variables: stress, family conflict, and physical aches and pains.

The relationship between SOC and impact measures:

SOC showed significant negative correlations with depression ($p<.001$). In the stepwise regression analysis, SOC accounted for 30% of the variance. SOC was entered first into the equation.

SOC was significantly correlated with anxiety ($p<.01$). The stepwise regression analysis showed that SOC is a predictor of anxiety. When SOC was added to the equation after SSS (which accounted for 17% of the variance), an additional 11% variance was added.

SOC and stress had a negative correlation ($p<.01$). When SOC was entered into the regression analysis, SOC accounted for 10% of variance.

No significant correlations were shown between SOC and the following impact measures: family conflict, physical aches and pains, Negative IRES score,

and Positive IRES scores.

The stepwise regression analyses did not show SOC to be a predictor of any of the following impact variables: family conflict, physical aches and pains, Positive or Negative IRES scores.

The significant correlations and regression analyses between SOC and anxiety, self-reported stress, and depression, support the hypothesis that SOC serves as a stress response moderator. However, not all the impact variables used had significant correlations with SOC, although they were in the expected direction.

This is consistent with Anson et al.'s (1993) finding on a religious kibbutz in Israel, that SOC was shown to be a good resource for avoiding the effects of recent life events, and for moderating psychological distress. Measures used in the study were The Scale of Psychological Distress, a 6-item self report measure. The SOC-13 was used, and Holmes and Rahe's Life Events Scale. SOC was found to be more valuable for coping with stress, as measured by psychophysiological symptoms, such as heart palpitations.

These findings are also consistent with Strümpfer et al.'s (1990) study of farm labourers. In their study, SOC correlated significantly with a general health rating and a survey measure of psychological health. Scales used measured 13 variables, including work-related depression. This scale was an adaptation of Karasek's Depression Scale.

This study also supports Anstey's (1989) findings on a study of blue collar workers in the chemical industry. He found the SOC strongly related to health and affective outcomes, and depression.

The SOC mean in the present study (61.53) is significantly higher than the means of other South African studies (41.48 - 48). It is more similar to the mean of Anson et al.'s (1993) study of Kibbutz members in Israel (66.43; 68.67). This will be discussed further in Chapter 5.

High negative correlations between SOC scales, and measures of negative affectivity (negativity), anxiety and neuroticism have been reported repeatedly in the literature (Strümpfer et al., 1998). This present study supports these findings. However there is some debate as to whether SOC is a stress response moderator, or whether SOC is only the absence of neuroticism. From the findings in this present study one cannot conclusively determine whether SOC is a stress response moderator or a measure of neuroticism. This will be discussed further in Chapter 5.

4.11.3 Relationship between SOC and Religious practice:

SOC showed a positive correlation with religious practice ($p<.01$). The correlation between SOC and religious practice could lend support to two possible theories:

(1) In terms of Antonovsky's (1989) theory, those with a high SOC could be more likely to use resources, or GRR's, at their disposal. In a community like Coldstream, one of the main available resources is the church.

(2) The church plays a significant role in providing structure and support, and as a haven in times of trouble (Nelson & Nelson, 1975). It also provides meaning in its teachings, hope for the future and an explanation of what life is about. These are similar qualities to comprehensibility, manageability and meaningfulness. Being involved in the church could enhance people's SOC by providing the kind of life experiences which would

be conducive to a strong SOC.

It is not possible from the data to establish whether one is more probable than the other. It is quite possible that they compliment each other.

4.11.4 SOC and SSS:

Although SOC and SSS were not significantly correlated, they showed a positive relationship. However, given Antonovsky's view that those with a strong SOC would probably use social support as a GRR, it is surprising that there was no significant relationship.

4.12 Religious practice as a moderator:

Hypothesis 2:

It was predicted that people who were more religious, as judged from their religious practices, would have coped better with the stress of the strike.

This hypothesis was tested using the scores from the Religious Practice section of the Religiosity Scale, the scores from the Beck Anxiety Inventory and the Beck Depression Inventory, and the scores from the self-report measures, the Likert-type questions about stress, family conflict, and bodily aches and pains. Negative and positive scores on the adapted IRES-S were also variables.

4.12.2 Relationship between REL and impact measures:

Religious practice was negatively correlated with depression ($p<.001$). Stepwise regression analyses showed that religious practice was a predictor of depression, accounting for 7% of the common variance. SOC was entered first and accounted for 30% of variance.

NEG scores of the adapted IRES ($p<.05$) showed a negative correlation with REL. Although there was a correlation, regression analysis failed to predict NEG. These findings should therefore be viewed with caution.

No significant correlations were found between religious practice and the impact scores: anxiety, family conflict, stress, physical aches and pains, and Positive IRES scores.

The present study supports Durkheim's (1912) theory that the regulation and integration that a church provides is a protection against depression. As Durkheim (1912) found, religion as an institution bolsters social integration and social regulation. The more integrated churches are a better protection against suicide.

These finding support other research findings that religious involvement has stress-buffering properties. For example, Krause and Van Tran (1989) suggest religious involvement has direct effects on well-being and serves as a coping resource. In their study of adult black Americans, they measured self-esteem with a 3-item scale, mastery with a 4-item scale, stressful life events and religious involvement. According to their analyses, while stress tends to erode self-esteem and feelings of mastery, religious involvement counterbalances the negative effects of stressful life events.

This is consistent with Anson et al.'s (1993) findings, measured in a religious or non-religious kibbutz, and using the scale of psychological stress, that belonging to a religious community serves as a powerful resource for coping with stressful events.

Although one could speculate that people in this study became more religious during the strike, Krause and Van Tran (1989) found that religion was not stress responsive; the level of religious involvement was not affected by the amount of stress experienced. The literature supports these findings. Religious practice was found to be fairly stable with aging, suggesting that there are minimal fluctuations no matter what the level of stress is (Markides et al., 1987).

The negative correlation between Negative IRES scores and religious practice reflects the extent to which industrial relations and labour practices were perceived as unfair. Those participants more involved with religious practice did not express as negative a view towards unfair IR and labour practices as those less involved in religious practice. There might be a number of reasons for this:

(1) More religious people might have felt less judgemental of the process and management, and more forgiving, according to their Christian belief system.

(2) They might have been less involved in the strike as their lives were more active in other areas, for example church activities.

(3) They might have distanced themselves from a process which appeared to be quite militant at times, and which was causing rifts in the community and between workers and management.

(4) Those who were more involved in religion could have found the industrial relations and labour practices less negative perhaps because they felt a sense of control or guidance in their lives. Religion has been

found to improve self-esteem and a sense of mastery (Krause & Van Tran, 1989; Peterson & Roy, 1985). Feelings of being in control of the important aspects of one's life might lesson the likelihood of a negative view on life events.

Religious practice is shown to be a buffer against depression and NEG as the only impact variables. It did not serve to moderate against anxiety and the stress of the strike. This could be partly due to religion being a blueprint of hope and possibilities, whereas depression is about losing hope. It is therefore more a buffer against hopelessness than against stress.

4.13 Satisfaction with social support as a moderator:

4.13.1 Hypothesis 3:

It was predicted that people who were satisfied with their social support would be more likely to cope effectively with the stress of the strike.

This hypothesis was tested using the Satisfaction scores of the Social Support Questionnaire. The Beck Anxiety Inventory and the Beck Depression Inventory scores were used, as well as the self-report questions on a Likert scale asking about the stress of the strike, and physical aches and pains. Positive and negative scores of the adjusted IRES-S were also variables.

4.13.2 SSS and impact measures:

Satisfaction with social support was negatively correlated with anxiety ($p<.01$). The stepwise regression analysis showed Satisfaction as a predictor of anxiety, with 17% of the varience accounted for.

SSS and physical aches and pains were also significant ($p<.01$). SSS was also shown to be a predictor of aches and pains in the regression analysis, accounting for 15% of the variance.

SSS was signicantly correlated with Positive scores on the adapted IRES ($p<.05$). However SSS failed to predict POS on the regression analysis, and this finding must be viewed with caution.

Satisfaction did not show significant correlations with other impact variables: depression, family conflict, stress, or Negative scores on the IRES.

The finding that a rise in satisfaction with social supports is correlated with a low anxiety level was expected, given the current research on the effectiveness of satisfaction with supports as a moderator against stressful events. This supports the theory that satisfaction has a direct effect on psychological adjustment, and a buffering effect against stessors (Shumaker & Brownell, 1984; Pretorius & Diedricks, 1994). Pretorius, in his study of university students at the University of the Western Cape, used the Social Support Questionnaire used in this study, and the PSI, to assess perceptions of problem-solving capabilities, and Radloff's CES-Depression Scale. Life experiences were measured using the Life Experiences Survey developed by Sarason, Johnson and Siegel (1978).

The correlation between Satisfaction and anxiety supports Krause and Van Tran's (1989) theory that having friends to talk to and understand, reduces the internalizing of "diminished views" of oneself. Satisfying relationships boost self-esteem and help one to view problems in perspective. This in turn might reduce anxiety. However, this appears to point more to a relationship between SSS and depression, which was not found in this study.

It could be said that when one is extremely anxious one might feel dissatisfied with relationships. Anxiety often results in self-absorbtion and sometimes is not conducive to intimacy, given the frantic efforts to feel better. This might reduce the quality of relationships. It could be that the relationship between SSS and anxiety, rather than indicating that Satisfaction is a moderator, shows that anxiety has a negative effect on friendships and relationships.

Satisfaction was also shown to be related to physical ailments in this study, and predicted 15% of variance in the regression analysis. The correlation supports Schumaker and Brownell's (1984) hypothesis that the more effective the social support one receives, the better one's mental and physical health. It also replicates Nuckolls et al.'s (1972) findings that loneliness and lack of support has been found to increase physiological problems and illness.

These findings also confirm Lin and Ensel's (1989) findings that the absence of social resources will exacerbate the negative impact on physical symptoms. They used the Cornell Medical Index of physical symptoms.

The Beck Anxiety Inventory uses physical symptoms as measures of anxiety. These physical anxiety symptoms and PHY symptoms might be measuring largely

the same problems. It is therefore unsurprising that SSS is correlated to both BAI and PHY.

SSS was shown to be a buffer against anxiety but not depression. This does not indicate therefore that SSS is a good stress response moderator against the effects of the stress of the strike.

4.13.3 SSS and SSN

The correlation between Satisfaction and number of social supports ($p<.05$), is similar to Sarason et al.'s (1983) findings. They also found that there is a modest correlation between the SSS and SSN (.34)

4.14 Relationship between network size and other variables:

The fourth hypothesis stated that increased network size or number of supports is related to an increase in depression.

No significant correlation was found between network size and depression, suggesting that this study has not found support for Pretorius and Diedrick's (1994) finding that number of social supports increases the likelihood of depression. However, network size was strongly correlated to family conflict ($p<.01$) and the stress of the strike ($p<.001$).

This supports research findings that the greater the number of social contacts, the more negative affect is experienced (McCubbin & McCubbin, 1989). Perhaps potential supports are potentially demanding support themselves. Particularly during a strike, perhaps the more demands placed on someone by others, the more overloaded they felt. As a result, family conflict, often related to stress, rose with the network size.

The findings do appear to confirm that as network size increases, the stress level increases.

4.15 Other significant relationships between variables:

A significant correlation was found between anxiety and depression ($p<.001$). This supports other research which has found that depression and anxiety often coexist (Clark, 1989; Watson & Kendal, 1989). Dent and Salkovskis (1986) reported significant correlations between the BAI and the BDI (.61, $p<.001$).

Anxiety was also significantly correlated with physical aches and pains. This supports research findings that illness and disease are caused or linked at least partially to stressors and anxiety (Sutherland & Cooper, 1990). One could speculate that the stressor and related anxiety predated the symptoms, although one cannot rule out physical problems being the reason for the anxiety. Again it must be kept in mind that the BAI measures physical symptoms of anxiety.

Anxiety was correlated with negative scores on the adapted IRES (.05). Anyone finding the effects of industrial relations stressful and unpleasant, would be expected to be anxious, given that his/her job might be in jeopardy, harmonious relationships at work could be harmed, and there was an air of uncertainty about the future. Anyone particularly anxious could have found the strike more threatening and been sensitised to threat.

Depression showed a correlation with family conflict ($p<.05$), and stress of the strike ($p<.05$). Although there was no significant relationship between anxiety and family conflict, it was very close to significant and in the expected direction. A sense of helplessness and lack of control over the

issues presented by the strike could increase depression, and family conflict. Someone feeling helpless might project their anger onto more vulnerable family members, or in their helpless state, give up hope. Research has shown that stress exacerbates family tension and conflict (McCubbin & McCubbin, 1989).

Stress was also correlated with negative scores on the adapted IRES ((.01). Those who found labour practices and industrial relations particularly unfair, found the strike stressful. The unfairness would be expected to be a negative experience and increase the negative view of the strike.

Negative and positive scores for the adapted IRES were correlated ($p<.05$). This suggests a response set. Some people used extremes of the scale to answer all the questions. People who were very involved with the union knew more about it, and were very aware of industrial relations. They were therefore more likely to answer these questions fully.

CHAPTER 5

CONCLUSIONS AND IMPLICATIONS OF FINDINGS AND RECOMMENDATION FOR FUTURE RESEARCH

In the present study, three measures as stress response moderators were used, namely, sense of coherence, religious practice and satisfaction with social support. Impact measures to quantify the effect of the stressor, the strike, were assessed in relation to these measures.

More specifically, this study investigated the interrelationship between sense of coherence, religious practice and satisfaction with social support, and anxiety, depression, family conflict, self-reported stress, and physical aches and pains. Additional measures used were age, gender and standard of education, and number of social supports.

5.1 The effectiveness of the stress response moderators:

It was predicted that people with a high SOC would have coped better with the stress of the strike. The research supported the relationship between SOC and anxiety, depression and stress. It was therefore shown to be a good moderator for the impact of stress on these variables.

SOC's correlation with anxiety and depression also support Strümpfer and Louw's (1990) findings in their study of farm workers in the Koue Bokkeveld, Elgin-Grabouw and Stellenbosch areas of the Western Cape. The researchers found that SOC showed significant correlations with two health related outcome variables, the General Health rating and the Health Opinion

Survey, which represents "psychophysiological complaints assumed to be indicative of anxiety and depressive moods" (p.8). The higher the SOC score, the lower the depression and anxiety.

There is a significant difference in the SOC-13 means of the farm worker's participating in that study, and the Coldstream factory workers. Their mean score was 42.21 (SD = 8.10), as opposed to the present study's, which was 61.53 (SD = 12.01). The Z-score was highly significant ($p<.001$). Other South African studies (see Table 2) also show significantly lower means when compared to this study. This raises some interesting questions.

Strümpfer and Louw's (1990) study was done on a rural community, with an average wage of R244.17 (SD = 111.07). The average wage when this study was done was closer to at least four times that of the farm workers. Considering Antonovsky's concept of GRR's, money is a significant resource which assists in building a strong SOC.

The facilities in a small community like Coldstream might also provide more than a farm community has available, with more amenities, such as churches, halls, rugby fields and a larger choice of friends and partners. Perhaps living in Coldstream provides more opportunities and resources than those available on a farm.

One might speculate on the differences between a rural lifestyle, probably with no electricity or easily available transport, and the opportunities the availablity of these assets bring to the people of Coldstream. Electricity (free to the Coryhoek residents) allows for television, light for reading after dark, and easier domestic duties. Transport creates the opportunity to see new places and do more with free time. Coldstream probably has a less paternalistic social system and offers more opportunity

for choices than a farming community, particularly when the labourer is dependent on the farmer for lifestyle and livelihood.
All of these, given Antonovsky's theory on the development of the SOC through experiences and resources (GRR's), would motivate for a stronger SOC in the Coryhoek community.

However this does not account for the other South African studies and their differences, with means ranging from 41.48 to 48. One significant difference between the sample groups appears to be that the other South African samples contain participants who have similar jobs, or who work together in an organisation. This applies to the Coldstream sample as well. However, the Coldstream community are much more interrelated in their lives, and are not only working together. They live together in a small and relatively isolated community. The families are intermarried and most people have known each other all their lives, gone to school together, attended the weddings and funerals of each others' families, and have little which is unknown to the other members of the community. In this way the Coldstream community is more similar to a kibbutz than it is to a working environment only. This might explain the similarities between the mean of the present study and those of the two kibbutzim in Israel used in Anson et al.'s (1993) study, which were 66.43 and 68.67. The qualities of a kibbutz are not dissimilar to those of the Coldstream community, particularly Coryhoek residents sampled in this study.

The findings that SOC moderates against depression and anxiety are in accord with Antonovsky's theory that SOC plays a role in helping people manage stress and stay well. Someone with a low SOC would be expected to be less able to use resources, or GRR's, at his/her disposal. If someone with a low SOC did not view a stressor as worthy of engagement and as a challenge, he/she is more likely to feel hopeless and helpless. Being low

on meaningfulness, the motivational element in the SOC, would indicate that stressors do not make emotional sense.

There has been speculation as to whether SOC is a reversal of neuroticism. From a salutogenic perspective, this is probably not so. Strümpfer et al. (1998) presents a valid argument for SOC being more than this. As he says, individuals low on neuroticism are not necessarily high in positive mental health. They could simply be relaxed and calm. People with a strong SOC could also be even-tempered, but this will not necessarily motivate them, give their lives meaning or help them to make sense of their lives. Depression, or neurotism, appears to be more of a temporary mood, changing more readily than the pervasive qualities of comprehensibility, manageability and meaningfulness. If one considers Antonovsky's original subjects who had been through very difficult traumatic events and were still considered to be managing well, it begs the original question, why do some cope while others do not. Perhaps further studies are needed to clarify this issue. Unfortunately because this study is a correlation study, it does not provide support for one or other of these perspectives.

Religious practice has not been shown to be a moderator of the stress of the strike, but a specific moderator of depression. Given that depressed people often lack self esteem and feel helpless, the belief that God is there to help them, and intervenes on their behalf, appears to be an effective buffer against hopelessness, the enemy of depression. Religion in Coldstream, where it is an important part of organised activities, moral code and where most church goers drink little or no alcohol, gives the community structure, meaning and helps people to manage their lives in an effective way.

Satisfaction with social support was found to be related to anxiety, but

not necessarily a moderator, given that anxious people might have a problem establishing good supports. The relationship shown between a positive view of the union and satisfaction with supports might point to participants who are social, enjoy group activities, including voting and other union activities, and are influenced by friends.

This study has demonstrated the moderating effects of SOC for depression, anxiety and stress, and of religious practice for depression. Satisfaction with social support has not been shown as an effective moderator, although a relationship with anxiety has been shown.

5.2 Limitations of this study:

Although the impact measures used were not ideal, there were no existing impact measures that could be easily adapted. The single question Likert-type scales were useful, but there is some concern about their validity. The IRES scale was quite unsatisfactory, but with the adaptations served some purpose.

Although these correlation studies have some value, a much better design would have been to give measures before the occurrence of the strike, and repeat these while the strike was in process, or afterwards. However, methodologically this could be a difficult procedure.

In terms of some of the theoretical questions, a correlation fails to come up with definitive answers. Although there are some interesting findings, the answers are limited.

Some of the findings may not be related to the specifically stressful time and the strike. There is the possibility that a study done at another time

would have similar results. Further studies in similar communities might clarify whether these results were specific to the after-strike situation, or to the community itself.

Although the Coldstream community is unique in some respects, there are many similarities with other small semi-rural villages, probably particularly in the Western Cape and the Tsitsikamma. There are many rather isolated places in South Africa where families have lived for generations and intermarried, where opportunities are limited but growing with political changes in the country, and where the community work together in local industry. These findings cannot be generalised to other communities, but similarities can probably be found between Coldstream and these other semi-isolated hamlets.

Suggestions for further research:

Further studies to establish more clearly the connection between SOC and neuroticism would be beneficial.

Another area of research that appears to be limited is the effect of religion as a stress response moderator, particularly in black and coloured South African communities.

As suggested, a similar study to assess whether the findings were due largely to the effects of the strike, or unrelated to the specific stressor, would be helpful.

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The following appendix is in order of presentation, as translated into Afrikaans for the study:

Desember 5, 1997.

Geagte Coldstream inwoner,

INSAKE: Navorsing oor stres

Ter voltooiing van ´n navorsingprojek oor mense se hantering van stres, wil ek graag ´n aantal inwoners van Coldstream vra hoe hulle stres hanteer. Die vrae word in geskrewe vraelyste gestel.

U word gevra om u naam, ouderdom, en geslag aan te dui. Alle antwoorde word vertroulik hanteer.

Dankie.

Liz Besseling

(Geregistreerde Intern Kliniese Sielkundige)

Vrae

Naam:

Ouderdom:

Man of Vrou?

Opvoeding:

Is jy getroud?

BAI

AANGEHEG IS ´N LYS WAT ALGEMENE SIMPTOME VAN ANGS BESKRYF. LEES ELKE ITEM SORGVULDIG DEUR. DUI AAN DEUR ´N "X" TE MAAK IN DIE KOLOM LANGS ELKE SIMPTOOM, in watter mate jy elke simptoom die afgelope week, insluitend vandag, ERVAAR HET.

	GEENSINS	EFFENS (dit pla my nie veel nie)	GEMIDDELD dit was ongemaklik, maar ek kon dit hanteer)	ERNSTIG (Ek kon dit baie moeilik hanteer)
1. ´n Dooie gevoel of tintelende gevoel				
2. Ervaar hitte				
3. ´n lam gevoel in die bene				
4. Onvermoe om te ontspan				
5. Vrees dat die ergste sal gebeur				
6. Duiseligheid of lighoofdigheid				
7. Hartkloppings of ´n hartklop wat jaag				
8. Onstabiliteit onvas				
9. Vrees/beangst				
10. Gespanne				
11. Voel benoud of beklem				
12. Hande wat bewe				
13. Beweerigheid				
14. Vrees vir verlies van beheer				
15. Moeilike asemhaling				
16. Vrees van die dood				
17. Bang				

	GEENSINS	EFFENS	GEMIDDELD	ERNSTIG
18. Verteringsprobleme of ongemak in die buik				
19. Floute				
20. Gesig wat bloos				
21. Sweet (nie a.g.v. hitte nie)				

BDI

LEES DIE SINNE SORGVULDIG, EN TREK 'N KRING OM DIE NOMMER WAT JOU GEVOELENS, GEDURENDE DIE AFGELOPE WEEK, INSLUITEND VANDAG, WEERSPIEEL.

(1)
0 Ek voel nie hartseer nie
1 Ek voel hartseer
2 Ek is gedurig hartseer en ek kan dit nie verander nie
3 Ek is so hartseer en ongelukkig dat ek dit nie meer langer kan verduur nie

(2)
0 Ek is nie spesifiek ontmoedig deur die toekoms
1 Ek voel ontmoedig deur die toekoms
2 Ek voel ek het niks om na uit te sien nie
3 Ek voel dat die toekoms hopeloos is en dat dinge nie sal verbeter nie

(3)
0 Ek voel nie soos 'n mislukking nie
1 Ek voel ek het meer misluk as die gemiddelde persoon
2 Wanneer ek terugkyk op my lewe, sien ek net 'n klomp mislukkings
3 Ek voel as persoon is ek 'n volslae mislukking

(4)
0 Ek kry soveel bevrediging uit dinge soos gewoonlik
1 Ek geniet nie dinge soos voorheen nie
2 Ek kry nie meer beduidende bevrediging uit enigiets nie
3 Ek is ontevrede of verveeld met alles

(5)
0 Ek voel nie besonder skuldig nie
1 Ek voel soms skuldig
2 Ek voel dikwels skuldig
3 Ek voel altyd skuldig

(6)
0 Ek voel nie ek word gestraf nie
1 Ek voel ek word dalk gestraf
2 Ek verwag om gestraf te word
3 Ek voel ek word gestraf

(7)
0 Ek voel nie terleurgesteld in myself nie
1 Ek is teleurgesteld in myself
2 Ek walg myself
3 Ek haat myself

(8)
0 Ek voel nie ek is slegter as enige ander nie
1 Ek is krities teenoor my eie swakhede en foute
2 Ek blameer myself gedurig vit my foute
3 Ek blameer myself vir alle gebeure wat sleg is

(9)
0 Ek dink geensins daaraan om myself dood te maak nie
1 Ek dink daaraan om myself dood te maak, maar ek sal dit nooit doen nie
2 Ek wil myself graag doodmaak
3 Ek sal myself doodmaak wanneer ek die geleentheid kry

(10)
0 Ek huil nie meer as gewoonlik nie
1 Ek huil nou meer as gewoonlik
2 Ek huil gedurig
3 Ek kon gewoonlik huil, maar nou kan ek nie huil nie, selfs al wil ek

(11)
0 Ek is nie tans meer ge-irriteerd as gewoonlik nie
1 Ek vervies my gouer en is meer ge-irriteerd as voorheen
2 Ek voel gedurig ge-irriteerd
3 Ek word nie ge-irriteer deur die dinge wat my voorheen geiiriteer het nie

(12)
0 Ek het nie belangstelling in mense verloor nie
1 Ek stel minder belang in mense as voorheen
2 Ek het grootliks belangstelling in mense verloor
3 Ek het geheel en al belangstelling in mense verloor

(13)
0 Ek neem maklik besluite
1 Ek stel besluitnemeing uit, meer as voorheen
2 Ek sukkel met besluitneming, meer as ooit tevore
3 Ek kan geensins besluite neem nie

(14)
0 Ek dink nie ek lyk enigsens slegter as voorheen nie
1 Ek is bekkomerd dat ek oud en onaantreklik lyk
2 Ek voel dat daar permanente veranderinge in my voorkoms is wat my onaantreklik laat lyk
3 Ek glo ek lyk lelik

(15)
0 Ek werk net so effektief soos altyd
1 Ek moet myself meer motiveer om iets te begin doen
2 Ek moet baie hard probeer om enige iets te doen
3 Ek kan nie meer werk nie

(16)
0 Ek slaap net so goed soos gewoonlik
1 Ek slaap slegter as gewoonlik
2 Ek word 1-2 ure vroeer as gewoonlik wakker en vind dit moeilik om weer te slaap
3 Ek word 'n hele paar ure vroeer as gewoonlik wakker en kan dan glad nie weer slaap nie

(17)
0 Ek raak nie moeer as gewoonlik nie
1 Ek raak makliker moeg as gewoonlik
2 Ek raak moeg van die geringste takie
3 Ek is te moeg om enige iets te doen

(18)
0 My eetlus is nie swakker as gewoonlik nie
1 My eetlus is nie so goed soos gewoonlik nie
2 My eetlus is heelwat swakker as gewoonlik
3 Ek het geen eetlus meer nie

(19)
0 Ek het nie baie gewig, indien enige, onlangs verloor nie
1 Ek het meer as 2kg verloor
2 Ek het meer as 5kg verloor
3 Ek het meer as 7kg verloor

(20)
0 Ek is nie meer bekommerd oor my gesondheid as gewoonlik nie
1 Ek is bekommerd oor my gesondheid, veral probleme met pyne en sere of omgekrapte maag en hardlywigheid
2 Ek is baie bekommerd oor my gesondheid en dis moeilik om aan iets anders te dink
3 Ek is so bekommerd oor my gesondheid dat ek aan niks anders kan dink nie

(21)
0 Ek merk nie tans 'n verandering in my seksdrang nie
1 Ek stel tans minder belang in seks as voorheen
2 Ek stel baie minder belang in seks tans
3 Ek het geheel en al belangstelling in seks verloor

SOC QUESTIONNAIRE

TREK 'N KRING OM DIE GEPASTE NOMMER.

(1) **Is jy onder die indruk dat jy nie regtig omgee wat om jou aangaan nie?**

1 2 3 4 5 6 7
baie selde of nooit — baie dikwels

(2) **Het dit in die verlede gebeur dat die gedrag van mense wie jy gedink het jy ken goed, jou verras?**

1 2 3 4 5 6 7
nooit gebeur — gebeur altyd

(3) **Het dit al gebeur dat mense op wie jy vertrou, jou teleurstel?**

1 2 3 4 5 6 7
gebeur nooit — gebeur altyd

(4) **Tot nou toe het jou lewe ...**

1 2 3 4 5 6 7
geen duidelike doel of rigting nie — 'n baie duidelike doel en rigting

(5) **Het jy die gevoel dat jy onregverdig behandel geword?**

1 2 3 4 5 6 7
baie dikwels — baie selde of nooit

(6) **Het jy die gevoel dat jy in 'n onbekende situasie is en nie weet wat om te doen nie?**

1 2 3 4 5 6 7
baie dikwels — baie selde of nooit

(7) **Die dinge wat jy daagliks doen is ...**

1 2 3 4 5 6 7
'n bron van groot plesier en bevrediging — 'n bron van pyn en verveling

(8) **Is jou gevoelens en gedagtes baie deurmekaar?**

1 2 3 4 5 6 7
baie dikwels — baie selde of nooit

(9) **Gebeur dit dat jy gevoelens het wat jy liewer nie sou wou voel nie?**

1 2 3 4 5 6 7
baie dikwels — baie selde of nooit

(10) **Baie mense - selfs die met 'n sterk karakter - voel soms soos verloorders in sekere situasies. Hoe dikwels in die verlede het jy so gevoel?**

1 2 3 4 5 6 7
nooit — baie dikwels

(11) **As iets gebeur het, voel jy gewoonlik ...**

1 2 3 4 5 6 7
jy het die belangrikheid daarvan onderskat of oorskat — jy het dinge in die regte verhouding gesien

(12) **Hoe dikwels het jy die gevoel dat daar maar min betekenis is in die dinge wat jy daagliks doen?**

1 2 3 4 5 6 7
gebeur baie — gebeur selde of nooit

13. **Hoe dikwels voel jy onseker of jy beheer sal kan behou?**

1 2 3 4 5 6 7
baie dikwels — baie selde of nooit

RELIGIOSITY SCALE

Dui asseblief langs elke vraag met 'n regmerkie of sirkel, dit wat jou manier van dink pas.

(1) **Hoe dikwels gaan jy na Sondagdienste?**

1. weekliks
2. omgeveer twee keer 'n maand
3. omgeveer een keer per maand
4. nooit

(2) **Behoort jy tans aan 'n kerk?**

1. ja
2. nee

(3) **Dra jy tot die kerk fonds by?**

1. nooit
2. Dra tot die kollektes tydens die diens by
3. soms
4. gereeld

(4) **Hoe sou jy jou gebruik van die Bybel beskryf?**

1. ek lees die Bybel gereeld uit toewyding daaraan
2. ek lees die Bybel af en toe, meestal ter wille van toewyding
3. soms lees ek die Bybel ter wille van etiese en morele leringe
4. soms lees ek die Bybel omdat dit historiese en letterkundige waarde het
5. daar is verskeie redes waarom ek die Bybel lees
6. ek lees die Bybel selde
7. Ek lees nooit die Bybel nie

(5) **Aan hoeveel godsdienstig geaffillieerde organisasies, groepe of aktiwiteite (b.v. koor, jeuggroepe, studie groepe) neem jy deel?**

0. geen
1. een
2. twee
3. drie
4. vier
5. vyf of meer

SOSIALE ONDERSTEUNINGSVRAELYS

Hulp en ondersteuning van ander:

Die volgende vrae verneem na mense in jou omgewing wat jou met hulp en ondersteuning bystaan.

Elke vraag het 2 dele.

In die eerste deel, noem al die mense wat jy ken, uitsluitend jouself, op wie jy kan staatmaak vir hulp en ondersteuning soos beskryf. Gee die persoon se voorletters en hulle verwantskap tot jou (sien voorbeeld). Moenie meer as een persoon neerskryf langs elk van die letters onder die vrae nie.

In die tweede deel, omkring hoe tevrede jy is met die algemene ondersteuning wat jy kry.

Indien jy geen ondersteuning by 'n sekere vraag ondervind nie, sirkel die woord "geeneen", maar evalueer steeds jou vlak van bevrediging. Moenie meer as 9 persone per vraag neerskryf nie.

Antwoord al die vrae na die beste van jou vermoee.

Alle antwoorde sal vertroulik hanteer word.

Voorbeeld:

Wie ken jy vir wie jy kan vertrou met inligting wat jou in die moeilikheid kan laat beland?

geeneen	1) TM (broer)	4) LT (vader)	7)
	2) IM (vriend)	5) KG (Werkgewer)	8)
	3) RS (vriend)	6)	9)

Hoe tevrede?

6 5 4 3 2 1

6-baie tevrede, 5-redelike tevrede, 4-'n bietjie tevrede
3-'n bietjie ontevrede, 2-redelike ontevrede, 1-baie ontevrede

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(1) **Op wie kan jy staatmaak om te luister wanneer jy werklik nodig het om te praat**?

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

6 5 4 3 2 1

baie tevrede baie ontevrede

(2) **Wie kan jy werklik vertrou om jou te help as 'n persoon wie jy as 'n goeie vriend beskou het, jou beledig het en aan jou gese het dat hy/sy jou nie weer wil sien nie?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?

6 5 4 3 2 1
baie tevrede baie ontevrede

(3) **Van wie se lewe, voel jy, is jy 'n belangrike deel van?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?

6 5 4 3 2 1
baie tevrede baie ontevrede

(4) **Wie, voel jy, sal jou help indien jy getroud was en pas 'n egskeiding ondergaan het?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?

6 5 4 3 2 1
baie tevrede baie ontevrede

(5) **Op wie kan jy regtig staatmaak om jou te help in 'n krisis situasie, selfs al moet hulle uit hul pad gaan om dit te kan doen?**

geeneen 1) 4) 7)
2) 5) 8)
3) 4) 9)

Hoe tevrede?

6 5 4 3 2 1
baie tevrede baie ontevrede

(6) **Met wie kan jy openlik gesels, sonder om versigtig te wees wat jy se?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?

6 5 4 3 2 1
baie tevrede baie ontevrede

(7) **Wie help jou om te voel dat jy waarlik iets positief het om by te dra tot andere?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?

6 5 4 3 2 1
baie tevrede baie ontevrede

(8) **Op wie kan jy regtig staatmaak om jou te laat vergeet van jou probleme wanneer jy baie gespanne voel?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?

6 5 4 3 2 1
baie tevrede baie ontevrede

(9) **Op wie kan jy werklik staatmaak wanneer jy hulp nodig het?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?

6 5 4 3 2 1
baie tevrede baie ontevrede

(10) **Op wie kan jy werklik staatmaak om jou te help wanneer jy pas uit jou werk ontslaan is?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?

6 5 4 3 2 1
baie tevrede baie ontevrede

(11) **Met wie kan jy volkome jouself wees?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?

6 5 4 3 2 1
baie tevrede baie ontevrede

(12) **Wie voel jy waardeer jou waarlik as 'n persoon?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?
6 5 4 3 2 1
baie tevrede baie ontevrede

(13) **Op wie kan jy staatmaak om jou waardevolle raad te gee, wat sal help om te voorkom dat jy foute maak?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?
6 5 4 3 2 1
baie tevrede baie ontevrede

(14) **Op wie kan jy staatmaak om openlik en onkrities te luister na jou intiemste gevoelens?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?
6 5 4 3 2 1
baie tevrede baie ontevrede

(15) **Wie sal jou troos wanneer jy dit nodig het, deur jou in hul arms te omhels?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?
6 5 4 3 2 1
baie tevrede baie ontevrede

(16) **Wie, voel jy, sal help as 'n goeie vriend van jou in 'n motorongeluk was en in 'n ernstige toestand in die hospitaal opgeneem is?**

geeneen 1) 4) 7)
2) 5) 8)
3) 6) 9)

Hoe tevrede?
6 5 4 3 2 1
baie tevrede baie ontevrede

(17) **Op wie kan jy regtig staatmaak om jou te help om meer ontspanne te voel wanneer jy onder druk verkeer of gespanne is?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

	6	5	4	3	2	1
baie tevrede						baie ontevrede

(18) **Wie, voel jy, sal help as 'n familielid baie naby aan jou skielik doodgaan?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

	6	5	4	3	2	1
baie tevrede						baie ontevrede

(19) **Wie aanvaar jou heeltemal, insluitende jou beste en slegste eienskappe?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

	6	5	4	3	2	1
baie tevrede						baie ontevrede

(20) **Op wie kan jy waarlik staatmaak om vir jou om te gee, niesteenstaand wat ookal met jou gebeur?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

	6	5	4	3	2	1
baie tevrede						baie ontevrede

(21) **Op wie kan jy regtig staatmaak om na jou te luister wanneer jy baie kwaad is vir iemand anders?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

	6	5	4	3	2	1
baie tevrede						baie ontevrede

(22) **Op wie kan jy regtig staatmaak om jou taktvol te vertel dat jy nodig het om te verbeter op 'n gebied?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

6	5	4	3	2	1
baie tevrede					baie ontevrede

(23) **Op wie kan jy staatmaak om jou beter te laat voel wanneer jy algemeen depressief voel?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

6	5	4	3	2	1
baie tevrede					baie ontevrede

(24) **Wie voel jy het jy waarlik en innig lief?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

6	5	4	3	2	1
baie tevrede					baie ontevrede

(25) **Op wie kan jy staatmaak om jou te troos bemoedig wanneer jy baie ontstoke voel?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

6	5	4	3	2	1
baie tevrede					baie ontevrede

(26) **Op wie kan jy staatmaak om jou te ondersteun waarmeer jy belangrike besluite het om te neem?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

6	5	4	3	2	1
baie tevrede					baie ontevrede

(27) **Op wie kan jy staatmaak om jou beter te laat voel wanneer jy baie ge-irriteerd voel en gereed is om kwaad te word vir dir geringste ding?**

geeneen	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

Hoe tevrede?

	6	5	4	3	2	1
baie tevrede						baie ontevrede

IRES SHORT FORM

Hieronder volg ´n lys van voorvalle wat soms by die werk gebeur. Hierdie voorvalle veroorsaak veranderinge in die werksituasie wat ´n uitwerking op jou kan he.

DUI ASSEBLIEF AAN WATTER VAN HIERDIE VOORVALLE JY GEDURENDE DIE AFGELOPE 6 MAANDE ONDERVIND HET DEUR ´N REGMERKIE TE MAAK BY DIE KOLOM GEMERK "VOORGEKOM". MERK SLEGS DIE "VOORGEKOM" KOLOM INDIEN JY DAARDIE VOORVAL GEDURENDE DIE AFGELOPE 6 MAANDE ONDERVIND HET. Indien nie, los die kolom oop, en gaan verder na die volgende item.

Dui ook aan by die voorvalle wat jy wel ondervind het tot watter mate jy voel die voorval ´n gunstige of ongunstige uitwerking op jou gehad het tydens die tyd wat dit voorgekom het.

LYS VAN VOORVALLE:

	voorgekom 0	uitersongunstig 1	gemiddeld ongunstig 2	effens ongunstig 3	GEEN EFFEK 4	effens gunstig 5	gemiddeld gunstig 6	uiters gunstig 7
1. Onregverdige werkspraktyke								
2. ´n slagoffer gemaak te word								
3. teen gediskrimineer te word								
4. versuim om industriele verhoudings prosedures te volg								
5. by ´n vakbond aan te sluit								
6. om geintimideer te word								
7. om gedisiplineer te word								
8. shop steward verkiesings								
9. ander verteenwoordig								
10. onregverdigheid en ongelykheid								
11. verwagting of toenadering deur ´n vakbond								
12. magteloos om op te tree tenoor bedrog								
13. weerstand teen swart/ gekleurde vooruitgang								

	voorgekom 0	uitersongunstig 1	gemiddeld ongunstig 2	effens ongunstig 3	GEEN EFFEK 4	effens gunstig 5	gemiddeld gunstig 6	uiters gunstig 7
14. beledigende name genoem								
15. nie weet nie om te nader nie								
16. plobleme met vervoer								
17. nie met voldoende menswaardigheid behandel te word nie								
18. werksekuriteit								
19. verandering in werksomstandighede								
20. nie voldoende verteenwoordig te word nie								

Indien jy enige ander voorvalle in werksverband het wat 'n effek op jou lewe gehad het gedurende die afgelope 6 maande, lys en evalueer hulle asseblief.

21								
22								
23								

24

1. Het jy enige ander ondervinding van stres gehad behalwe die staak, by voorbeeld, 'n dood in die gesin?

Wat het gebeur?

2. Gedurende of na die wegblyaksie, het die stryery in die gesin verander?

1 2 3 4 5
geen effek baie meer stryery

3. Hoe het jy die stres gedurende die wegblyaksie gehanteer?

1 2 3 4 5
geen probleem dit was vreeslik

4. Gebruik jy alkohol om stres te hanteer?

1 2 3 4 5
byna nooit redelik byna altyd

5. Gebruik jy dagga om stres te hanteer?

1 2 3 4 5
byna nooit redelik byna altyd

6. Is jou lyf vol "aches and pains"?

1 2 3 4 5
byna nooit redelik byna altyd