

CHAPTER 5

ANXIETY, DEPRESSION, AND WORRY

5.1 Introduction

When some individuals experiences one or more stressors over a period of time, whether they occur at work or outside the work context, they are not able to cope with these stressful situations. This may have negative consequences on a behavioural, physical, and psychological level for them.

Behavioural consequences may include overeating, undernourishment, sleeplessness, smoking, drinking, and aggression. Physical consequences may refer to medical conditions such as headaches, migraine, hypertension, and heart disease. Psychological consequences are associated with feelings of helplessness, mood changes, anger, anxiety, and depression (Cartwright & Cooper, 1997: 2, 8; Luthans, 2002: 411; Quick *et al*, 1997: 71). The psychological consequences of stress, specifically anxiety, worry, and depression, are the focus of this chapter. Anxiety, worry, and depression will be discussed in general terms, together with a brief discussion of the most relevant theories applicable. The role of anxiety, worry, and depression due to stress found in the workplace will complete the discussion.

5.2 Anxiety

The term anxiety has a long history and is difficult to define and distinguish from fear. There has never been complete agreement as to whether these two words are indeed distinct from each other. Historically, fear has been distinguished from anxiety by whether there is a clear and obvious source of danger that would be regarded as real by most people (Butcher *et al*, 2004: 174). When anxiety is experienced, the danger frequently cannot be clearly specified. Butcher *et al* (2004: 174) state that ‘anxiety seems to be experienced as an unpleasant inner state in which we are anticipating some dreadful thing happening that is not predictable from our actual circumstances’.

Anxiety includes feelings of uneasiness or distress, often associated with apprehension of misfortune and danger (Edwards, 1999: 178). A more recent distinction between fear or panic, and anxiety views fear or panic as a basic emotion that involves the activation of the “fight or flight” response, allowing the individual to react quickly when faced with and immediate threat. Butcher *et al* (2004: 175) adhere to Barlow’s view that anxiety ‘is best thought of as a complex blend of emotions and cognitions that is much more diffuse than fear’. Further ‘at the cognitive/subjective level, anxiety involves negative mood, worry about possible future threat or danger, self-

preoccupation, and a sense of being unable to predict the future threat or to control it if it occurs'. Anxiety therefore involves preparing for the fight or flight response should it become necessary. Together with the cognitive/subjective component a physiological and a behavioural component of anxiety are found. The physiological component reflects a state of chronic excessive arousal, which may indicate a state of readiness for dealing with danger should it occur. The behavioural component according to Barlow (in Butcher *et al*, 2004: 175) refers to a 'strong tendency to avoid situations where the danger or threat might be encountered, but there is no immediate urge to flee associated with anxiety as there is with fear'. Butcher *et al* (2004: 175) find that 'the adaptive value of anxiety may derive from the fact that it helps us plan for and prepare for possible threat, and in mild to moderate degrees, anxiety actually enhances learning and performance'.

Anxiety may often be adaptive in mild or moderate degrees, but it can be maladaptive when it becomes chronic and severe. Mild or moderate anxiety and chronic and severe anxiety are also referred to as normal and pathological anxiety respectively (Kaplan *et al*, 1994: 573).

5.2.1 Normal anxiety

Anxiety is a sensation that is experienced by virtually all human beings. Kaplan *et al* (1994: 573) describe anxiety as characterized by a feeling of 'a diffuse, unpleasant, vague apprehension, often accompanied by autonomic symptoms, such as headache, perspiration, palpitations, tightness in the chest, and mild stomach discomfort'. Sometimes such an individual may feel restless, often reflected in his or her inability to sit or stand still for long periods. The exact way these symptoms present varies from person to person.

5.2.2 Pathological anxiety

When anxiety becomes chronic and severe it becomes pathological. Kaplan *et al* (1994: 573) describe it as 'an inappropriate response to a given stimulus by virtue of either its intensity or its duration'. On a practical level it is differentiated from normal anxiety by the feedback given by the person, his or her family, friends, and the assessment of the medical practitioner. The DSM-IV-TR recognizes seven primary types of anxiety disorder: specific and social phobias, panic disorder with or without agoraphobia, generalized anxiety disorder, obsessive-compulsive disorder, and post-traumatic stress disorder (Butcher *et al*, 2004: 173).

5.2.3 Theories of anxiety

One way to better understand anxiety is to look at the most relevant theories that have contributed to the understanding of the causes of anxiety. Each theory has a somewhat different conceptual approach and practical usefulness. The most relevant theories include the psychoanalytic, learning, existential, and biological theories.

5.2.3.1 Psychoanalytical theories

Freud (in Kaplan *et al*, 1994: 575; Edwards, 1999: 179) developed his theory of anxiety over a period of time. Initially he proposed that anxiety came from a blocked libido, which meant that when it was not possible to carry out a sexual urge, feelings of anxiety were experienced. Later he modified his theory and in 1926 he proposed that anxiety was a signal to the ego that an unacceptable drive was pressing for conscious representation and discharge. The ego then has to take defensive action including repression. If the defensive action was inadequate, the anxiety may emerge as a fully blown panic attack. Other defense mechanisms may result in symptom formation producing a classic neurotic disorder such as hysteria, phobia, and obsessive-compulsive neurosis.

Kaplan *et al* (1994: 575) state that within psychoanalytic theory anxiety is seen as falling into four major categories, depending on the nature of the feared consequences. The first being id or impulse anxiety, the second separation anxiety, the third castration anxiety, and the fourth superego anxiety. Generally these categories are hypothesized to develop at various stages of growth and development. Kaplan *et al* (1994: 576) explain:

Id or impulse anxiety is related to the primitive, diffuse discomforts of infants when they feel overwhelmed with needs and stimuli over which their helpless state provides no control. Separation anxiety occurs on somewhat older but still pre-oedipal children, who fear the loss of love or even abandonment by their parents if they fail to control and direct their impulses on conformity with their parents' standards and demands. The fantasies of castration that characterize the Oedipal child, particularly in relation to the child's developing sexual impulses, are reflected in the castration anxiety of the adult. Superego anxiety is the direct result of the final development of the superego that marks the passing of the Oedipus complex and the advent of the pre-pubertal period of latency.

5.2.3.2 Learning theories

Learning or behavioural theories view anxiety as a conditioned response brought about by the conjunction on one or more occasions of an initially neutral stimulus with a painful event (Edwards, 1999: 179; Kaplan *et al*, 1994: 576; Maddi, 1996: 448). Kaplan *et al* (1994: 576) give the example where a person who does not have food allergies may become sick after eating contaminated

shellfish. He or she may be exposed to shellfish again on numerous occasions and this may cause him or her to feel sick. This person may come to distrust all food prepared by others through the process of generalization. Others may learn to respond to certain situations with anxiety through vicarious learning often from their parents.

Cognitive approaches have proposed alternative theories to explain the causes of anxiety. Faulty, distorted, or counterproductive thinking patterns accompany or occur just before the experience of anxiety, which may lead to or be associated with any of the anxiety disorders (Edwards, 1999: 180; Kaplan *et al*, 1994: 576).

5.2.3.3 Existential theories

Søren Kierkegaard (in Edwards, 1999: 178) in the early part of the nineteenth century thought that anxiety was part of the human condition. Anxiety would be the result of having the freedom to choose, without knowing if the choice was correct. He saw choice as a burden.

Existential theorists define anxiety more broadly than other theorists (May & Yalom, 1989: 364). They see anxiety as arising from the personal need to survive, to preserve and to assert one's being (May & Yalom, 1989: 364). When persons become aware of a profound nothingness in their lives, they may experience feelings that may be even more profoundly discomforting than an acceptance of their inevitable death. Anxiety results from this vast void of existence and meaning (Kaplan *et al*, 1994: 576).

5.2.3.4 Biological theories

Biological theories of anxiety have developed out of animal studies, studies of patients with known anxiety inducing biological factors, neuroscience, and the actions of psychotherapeutic drugs (Kaplan *et al*, 1994: 576). Two schools of thought exist regarding the role of biological factors in anxiety. One school proposes that measurable biological changes in individuals are psychologically induced, whereas the other school proposes that biological changes precede the occurrence of psychological problems.

The autonomic nervous system is thought to play a role in the manifestation of anxiety. Stimulation of the autonomic nervous system causes cardiovascular, muscular, gastrointestinal, and respiratory symptoms often associated with the subjective experience of anxiety. Neurotransmitters are associated with anxiety on the basis of animal studies and these include norepinephrine, serotonin, and γ -aminobutyric acid. Kaplan *et al* (1994: 576) explain the role of norepinephrine as follows:

The general theory regarding the role of norepinephrine in anxiety disorders is that affected patients may have a poorly regulated noradrenergic system that has occasional bursts of activity. The cell bodies of the noradrenergic system are primarily localized to the locus ceruleus in the rostral pons, and they project their axons to the cerebral cortex, the limbic system, the brainstem, and the spinal cord. Experiments in primates have demonstrated that stimulation of the locus ceruleus produces a fear response in the animals and that ablation of the same area inhibits or completely blocks the ability of the animals to form a fear response.

Interest in serotonin was initially due to observation that serotonergic antidepressants had therapeutic effects in some anxiety disorders, which stimulated the search for serotonin receptor types. Kaplan *et al* (1994: 577) explain:

The cell bodies of most of the serotonergic neurons are located in the raphe nuclei in the rostral brainstem and project to the cerebral cortex, the limbic system (especially the amygdala and the hippocampus), and the hypothalamus. Although the administration of serotonergic agents to animals results in behavior suggestive of anxiety, the data on similar effects in humans are less robust.

The role of γ -aminobutyric acid (GABA) in anxiety disorders is most strongly supported by the observation that benzodiazepines, which are known to enhance the activity of GABA, are effective in the treatment of some types of anxiety. Researchers hypothesize that some patients with anxiety disorders have abnormal functioning of their GABA_A receptors. However, this connection is difficult to prove (Kaplan *et al*, 1994: 577).

Brain-imaging studies have revealed that some patients had an increase in the size of cerebral ventricles, whereas others reported abnormal findings in the right hemisphere but not in the left hemisphere. These abnormal findings suggested that some type of cerebral asymmetry might be important in the development of anxiety in specific patients (Kaplan *et al*, 1994: 577).

Finally, genetic studies have shown that some genetic linkage, which plays a role in the development of anxiety disorders. Kaplan *et al* (1994: 477) reports that almost half of all patients diagnosed with panic disorder have at least one relative who also suffers from panic attacks. The figures for the other anxiety disorders are not as high, but also indicate a higher occurrence amongst first-degree relatives.

5.2.4 Stress and anxiety

The term stress is often used interchangeably with anxiety and Lazarus (in Cotton, 1990: 29) acknowledges a great deal of overlap between the two concepts. Anxiety may be seen as a sign of stress, or it could be part of the stress response. Cotton (1990: 29) views anxiety as a trait or individual personality characteristic, and stress as a function of a particular set of circumstances.

An individual may experience stress when exposed to a stressor, exhibiting a stress response. Anxiety may be part of the stress response. Edwards (1999: 189) sees anxiety as a mildly stressing part of life, which can come to dominate and interfere with one's functioning.

Stressful life events are often associated with both panic attacks and generalized anxiety disorder (Schell, 1997: 141). For both anxiety disorders, stressful life events that are perceived by the individual as a threat that involve a future crisis or danger often occur around the time of onset.

5.3 Depression

Depression is a term that is not only used to describe an individual's mood, but also a disorder. When used to describe a mood, depression is seen as part of the normal range of human experience, often a result of some frustration or disappointment. These include painful but common life events, such as significant personal, interpersonal, or economic losses (Butcher *et al*, 2004: 218; Schell, 1997: 150). Individuals may experience feelings of sadness, discouragement, pessimism, and hopelessness. Depression is unpleasant when one is caught up in it, but it does not last long. Butcher *et al* (2004: 218) calls this experience of depression normal, as it is brief and mild. Normal depressions are almost always triggered by recent stress such as the loss of a loved one, loss of a favoured status or position, separation or divorce, financial loss, the break-up of a romantic affair, retirement, separation from a friend, absence from home for the first time, or even the loss of a cherished pet (Butcher *et al*, 2004: 218).

At a certain point normal depression becomes a mood disorder, where depression is associated with significant functional impairment. However, there is a grey area where the mood disorder does not fulfil the criteria for normal depression and clinical depression. Two categories are included in the DSM-IV-TR and they are dysthymic disorder and adjustment disorder with depressed mood (Butcher *et al*, 2004: 219). Both are characterized by the presence of symptoms that are less severe than those of major depressive disorder. When an individual exhibits more symptoms than required for the diagnosis of dysthymia, and the symptoms are more persistent than a diagnosis of major depression can be made. Kaplan *et al* (1994: 516) describe individuals who have been diagnosed with major depression as having 'a loss of energy and interest, feelings of guilt, difficulty in concentrating, loss of appetite, and thoughts of death or suicide'. Other signs and symptoms of mood disorders mentioned include 'changes in activity level, cognitive abilities, speech, and vegetative functions (such as sleep, appetite, sexual activity, and other biological rhythms)'. Depressive illness occurs all over the world and does not differ from country or culture (Schell, 1997: 151; Kaplan *et al*, 1994: 517). Approximately twice as many women are diagnosed with

major depressive disorder than men. The possible reasons for this difference is thought to be found in hormonal differences, possible effects of childbirth, differing psychosocial stressors for women than men, and the role of learned helplessness (Kaplan *et al*, 1994: 517).

5.3.1 Causal factors of depression

The causes of depression can be divided into biological and genetic factors, as well as psychosocial factors (Butcher *et al*, 2004: 223; Kaplan *et al*, 1994: 518). Kaplan *et al* (1994: 518) feel that this division is artificial because of the probability that these different factors interact with one another. The example they give is that psychosocial and genetic factors can affect biological factors such as neurotransmitters, biological and psychosocial factors can again affect gene expression, and finally biological and genetic factors can affect an individual's response to psychosocial factors.

To further understand the causes of depression it is necessary to turn to those theories that have received much attention over the years, which include psychodynamic theories, cognitive theory, learned helplessness and interpersonal effects of mood disorders (Butcher *et al*, 2004: 237).

5.3.1.1 Biological and genetic factors

Researchers who have attempted to find the biological factors that cause depression have investigated genetic and constitutional factors, as well as neurophysiological, neuroendocrinological, and biochemical factors (Butcher *et al*, 2004: 224).

1) Genetic and constitutional factors

Research has shown that genetics does play an important role in the development of depression. Family studies have shown that the prevalence of mood disorders is higher amongst first-degree relatives. Butcher *et al* (2004: 224) caution that because of the difficulty of disentangling hereditary and environmental influences, a higher rate of disorder among family members can never in itself be taken a conclusive proof of genetic causation.

Twin studies have shown that there may be a moderate genetic contribution to unipolar depression. Monozygotic twins are about twice as likely to develop major depression, as are dizygotic twins of a depressed twin. The concordance rate varies from 33 to 90 percent depending on the particular study (Butcher *et al*, 2004: 224, Kaplan *et al*, 1994: 522).

Adoption studies, although limited in number, have also provided evidence for the genetic basis of mood disorders. Two studies have found a strong genetic component for the inheritance of major depressive disorder (Butcher *et al*, 2004: 224; Kaplan *et al*, 1994: 522). One study estimated that genes contribute about 50 percent of the variance in the tendency to develop unipolar depression.

2) Neurophysiological and neuroendocrinological factors

Research on potential neurophysiological and neuroendocrine correlates of mood disorders has shown that the hypothalamus is central to the regulation of the neuroendocrine axes. The one axis focuses on the hypothalamic-pituitary-adrenal axis, and in particular the hormone cortisol, which is excreted by the outermost portion of the adrenal glands. Butcher *et al* (2004: 225) mention that blood plasma levels of cortisol are known to be elevated in from 50 to 60 percent of seriously depressed patients, indicative of a possible cause. The other axis focuses on the hypothalamic-pituitary-thyroid, as it is known that disturbances to this axis are linked to mood disorders. Individuals with low thyroid levels often tend to be depressed. About 30 percent of depressed patients who have normal thyroid levels, show deregulation of this axis upon the infusion of thyrotropin-releasing hormone (Butcher *et al*, 2004: 225; Kaplan *et al*, 1994: 520).

Other neurophysiological research has shown that lesions of the left anterior or prefrontal cortex, often lead to depression. Even when no lesions were present lowered levels of brain activity in this region was linked to depression (Butcher *et al*, 2004: 225).

Another interesting area of research focuses on the role sleep abnormalities and circadian rhythms play in the aetiology of depression (Butcher *et al*, 2004: 226; Kaplan *et al*, 1994: 520). Problems with sleeping such as early morning awakening, multiple awakenings during the night, and hypersomnia are typical symptoms of depression. Research using EEG recordings has found that many depressed patients show a shorter than expected latency to the first period of REM sleep as well as greater amounts REM sleep early in the night than non-depressed individuals. Thus a depressed person is subjected to a lower amount of deep sleep (Butcher *et al*, 2004: 226).

Sleep, body temperature, the secretion of cortisol and thyroid stimulating hormones, as well as melatonin, are all part of circadian cycles that humans have (Butcher *et al*, 2004: 227). Two related central “oscillators” (also described as internal biological clocks), one strong and the other one weak, control these circadian rhythms. The strong oscillator, which is relatively impervious to environmental influences, controls the regulation of body temperature, the secretion of hormones, and REM sleep rhythms. The weak oscillator, which responds readily to environmental influences,

controls the rest-activity and sleep-wake cycles (Goodwin & Jamison, in Butcher *et al*, 2004: 227). Some abnormalities have been found in all of these rhythms in depressed patients, although not all patients show abnormalities in all rhythms (Howland & Thase; Thase & Howland; in Butcher *et al*, 2004: 227).

3) Biochemical factors

Biogenic amines, specifically norepinephrine and serotonin, are neurotransmitters that are implicated in the cause of mood disorders (Butcher *et al*, 2004: 224; Kaplan *et al*, 1994: 518). Depression is thought to result from the disruptions in the delicate balance of these neurotransmitters that regulate the activity of the brain's nerve cells or neurons. When they are released by the activated presynaptic neuron, they mediate the transfer of message impulses across the synaptic cleft from one neuron to the next on a neuronal pathway. They may either stimulate or inhibit the firing of the next neuron in the chain (Carson *et al*, 2000: 214). A low concentration of these neurotransmitters at the synapse may precipitate depression.

5.3.1.2 Psychosocial factors

Psychosocial factors play an equally important role in the aetiology of depression as biological factors of which the most important factor is stress.

Research has demonstrated that stress has been implicated in the onset of depression and specifically unipolar depression (Butcher *et al*, 2004: 228; Kaplan *et al*, 1994: 522). Stressful life events most often serve as the precipitating factor for mood disorders. Beck (in Carson *et al*, 2000: 217) presented a broad classification of those factors that most frequently precede the onset of depression:

- Situations that tend to lower self-esteem;
- The thwarting of an important goal or the posing of an insoluble dilemma;
- A physical disease or abnormality that activates ideas of deterioration or death;
- Single stressors of overwhelming magnitude;
- Several stressors occurring in a series;
- Insidious stressors unrecognised as such by an affected person.

Paykel (in Carson *et al*, 2000: 217) added that in particular separations, whether through loss or other causes from people important in one's life are strongly associated with depression. Data suggests that when an individual loses a parent before the age of 11, the likelihood of depression

developing later in life is very good. The loss of a spouse is the life stressor most associated with the onset of depression (Kaplan *et al*, 1994: 523). Care giving to a spouse with a debilitating disease such as Alzheimer's is known to precede the onset of mood disorders for the caregiver (Russo *et al*, in Butcher *et al*, 2004: 228).

5.3.2 Theories of depression

A number of theories have been developed to try and explain why individuals become depressed. These include psychodynamic theories, cognitive theories, learned helplessness, and the role that interpersonal effects have on mood disorders.

5.3.2.1 Psychodynamic theories

Freud (in Butcher *et al*, 2004: 231) observed the similarity between the symptoms of clinical depression and the symptoms of someone in mourning. He postulated a relationship between the loss of someone or some object and melancholia. Butcher *et al*, (2004: 231) explain that 'upon the loss of a loved one, the mourner regresses to the oral stage of development (when the infant cannot distinguish self from other) and introjects or incorporates the lost person, feeling all the same feelings toward the self as toward the lost person'. These were believed to include both anger and hostility because the person unconsciously holds negative feelings toward the loved one partly due to their power over him or her. In the case of depression, which was due to imagined or symbolic losses, the person's anger and hostility would be directed towards the self. Also depressed people showed lower self-esteem and were more self-critical.

Melanie Klein (in Butcher *et al*, 2004: 231) later emphasized more than Freud did the importance of the quality of the mother-infant relationship. According to her, depressed individuals had failed to establish loving introjects during childhood (Kaplan *et al*, 1994: 523). Bowlby (in Butcher *et al*, 2004: 231) also found that there was a relationship between the child's need for a secure attachment to parental figures as to be resistant to depression.

5.3.2.2 Cognitive theory

One of the most prominent theories of depression for more than 35 years is Beck's cognitive theory of depression (Butcher *et al*, 2004: 232). This theory maintains that how one thinks largely determines how one feels and behaves. This thinking is often expressed as the individual's 'negative automatic thoughts' or appraisals of a specific situation (Wills & Sanders, 1997: 10). These appraisals are often dysfunctional and involve cognitive distortions such as all-or-nothing thinking, overgeneralizations, jumping to conclusions, 'should' statements, and mind reading to

mention a few. In the case of depression the negative thinking revolves around the theme of loss, whether it involves loss of a loved object or loss of a sense of self-esteem (Wills & Sanders, 1997: 12). Important to depression is the loss of a sense of hopefulness about the world and the future. Negative automatic thoughts are those cognitions closest to the surface of consciousness. However, there are also deeper cognitions, which predispose an individual to interpret events in a relatively specific way (Wills & Sanders, 1997: 12). These deeper cognitions are also known as dysfunctional beliefs. These beliefs are thought to originate during childhood and adolescence as a result of specific experiences with one's parents and significant others and may lie dormant for years before triggered by significant stressors (Butcher *et al*, 2004: 232).

5.3.2.3 Learned helplessness

The learned helplessness theory was first proposed by Seligman (in Butcher *et al*, 2004: 234) and was based upon laboratory experiments in which dogs were repeatedly exposed to electric shocks from which they could not escape. The dogs, when placed in new situations made no attempt to escape even when they could, as they had given up. They learnt that they were helpless. When applied to depressed humans who were experiencing stressful life events over which they had no control, they showed the same reaction of helplessness as seen with the dogs (Butcher *et al*, 2004: 234; Kaplan *et al*, 1994: 523). A major revision of the learned helplessness theory by Abramson *et al* (in Butcher *et al*, 2004: 234) introduced the concept of a pessimistic attribution style, which in conjunction with one or more negative life events put a person at risk for depression. A further revision by Abramson *et al* (in Butcher *et al*, 2004: 235) known as hopelessness theory, proposed that 'having a pessimistic attributional style in conjunction with one or more negative life events was not sufficient to produce depression unless one first experienced a state of hopelessness'. An expectancy of hopelessness was defined as 'the perception that one had no control over what was going to happen and by absolute certainty that an important bad outcome was going to occur or that a highly desired good outcome was not going to occur'.

5.3.2.4 Interpersonal effects of mood disorders

A considerable amount of research has shown the importance of interpersonal factors in the aetiology of depression (Butcher *et al*, 2004: 235). One factor refers to people who lack social support and this is associated with vulnerability to depression. Interestingly, depressed individuals have smaller and less supportive social networks than non-depressed individuals (Hammen, in Butcher *et al*, 2004: 235). Another factor refers to the evidence that depressed persons have social skills deficits. They tend to speak slowly and monotonously; they maintain less eye contact and are poorer at interpersonal problem solving (Gotlib & Hammen, in Butcher *et al*, 2004: 235).

Marital distress may lead to depression because research shows that marital distress often occurs before a depressive episode (Gotlib & Hammen, in Butcher *et al*, 2004: 237). The opposite also holds true in that a depressed person may induce negative affect in their spouse, which leads to marital distress (Butcher *et al*, 2004: 237).

5.4 Worry

Worry was not well researched until in the second half of the twentieth century when Liebert and Morris (in Fresco *et al*, 2002: 313) discovered that responses in a test anxiety questionnaire consisted of two distinct factors, which they called Worry and Emotionality. Fresco *et al*, (2002: 314) explain that the Worry factor represented self-evaluative negative cognition about test performance, where as the Emotionality factor appeared to focus on awareness of feeling states and physiological activity. Worry was found to have a stronger relationship than Emotionality to actual test performance, task-generated interference of attention, and grade point average.

Borkovec (in Fresco *et al*, 2002: 314) was the first to research the experience of worry in its own right when he sought a treatment for insomnia. Borkovec found that many individuals who had difficulty in sleeping had engaged in excessive cognitive activity with a negative valence and he termed this state as worrying.

Worry is a universal phenomenon, which was defined by Borkovec, Robinson, Prusinsky, and DePree (in Borkovec, 1994: 7) as ‘a chain of thoughts and images, negatively affect-laden and relatively uncontrollable; it represents an attempt to engage in mental problem-solving on an issue whose outcome is uncertain but contains the possibility of one or more negative outcomes; consequently, worry relates closely to the fear process’.

Borkovec (1994: 7) later modified this definition by stating that worry predominantly involves thought activity rather than imagery, which can be described as a type of internal verbal-linguistic activity, for example thinking.

Borkovec, Alcaine, and Behar (in Fresco *et al*, 2002: 314) propose that the most important function of worry is its use as ‘an avoidance response as it allows individuals to process emotional topics at an abstract, conceptual level and thus to avoid aversive images, autonomic arousal, and intense negative emotions on the short-run’. Therefore worry most likely prevents full access to fear structures in memory and may inhibit emotional processing necessary for anxiety reduction.

Worry is associated with all the anxiety disorders (Barlow, in Fresco *et al*, 2002: 314) and is the main feature of generalized anxiety disorder (Butcher *et al*, 2004: 200). Butcher *et al* (2004: 197) describe people suffering from generalized anxiety disorder as living in a constant state of tension, worry, and diffuse uneasiness. The fundamental process is described as one of anxious apprehension, which is defined as a 'future-orientated mood state in which a person attempts to be constantly ready to deal with upcoming negative events' (Barlow *et al*, in Butcher *et al*, 2004: 197). It is a highly significant contributor to the maintenance of anxiety (Borkovec, 1994: 6). Worry also appears to be a common aspect of depression (Andrews & Borkovec in Molina *et al*, 1998: 110).

Davey (1994: 38) alludes to the fact that worry is also associated to problem solving and coping. Davey *et al*. (in Davey, 1994: 38) initially found no significant correlations between frequency of worrying and the frequency of problem-focused coping activities. When the effect of anxiety was partialled out, they found that worrying was significantly associated with problem-focused coping activities. These included active cognitive coping, active behavioural coping, information seeking and problem solving. This suggests that although anxiety and worry are correlated, they have separate effects. Davey (1994: 38) argues that worry is essentially made up of two components. The first component that is unique to worry is associated with constructive problem solving, whereas the second that is shared with anxiety is pathological. This does not deny the adaptive functions of anxiety.

Borkovec *et al* (in Borkovec, 1994: 9) report that worry correlates most highly with social evaluation and little with non-social items. Molina and Borkovec (1994: 265) found that individuals high in social anxiety report the highest levels of worry. Self-consciousness is also associated with worry and people who worry tend to score significantly higher on the self-conscious scale (Pruzinsky & Borkovec, in Borkovec, 1994: 9). Fenigstein (in Keogh, French, & Reidy, 1998: 68) asserts that self-consciousness is either private, focusing inwardly towards thoughts, or public, focusing on outside factors.

5.5 Work-related stress, anxiety, depression and worry

Work-related stress is found in all areas of work and both depression and health problems increase as the stress continues (Baron & Byrne, 1997: 527). In times of stress the individual may experience depression, worry, and anxiety (e.g, Campbell-Jamison *et al*, 2001: 45; Dormann & Zapf, 2002: 34; Terluin *et al*, 2004: 195), which in turn may not only interfere with health-related behaviours such as eating a balanced diet, exercising, and getting sufficient sleep (Wiebe &

McCallum, 1986: 436), but when high, may adversely affect the body's immune system resulting in stress-related illnesses (Quick *et al*, 1997: 42).

Campbell-Jamison *et al*, (2001: 45) examined the psychological affects of downsizing and redundancy on those remaining behind within the organization after large-scale redundancy programs. They felt amongst others, vulnerable and stressed expressing worry and anxiety about their future. With downsizing there is an increase in job insecurity that can result in an increase in general distress, anxiety, and depression. Roskies and Louis-Guerin (1990: 356) found that managers who were insecure about their jobs showed poorer health and their levels of distress rose proportionally with their level of insecurity. Worrall and Cooper (in Sparks *et al*, 2001: 490) for example, found that over 60% of a national sample of 5 000 British managers had experienced a major restructuring during the previous year involving downsizing and outsourcing. Nearly two out of three experienced increased job insecurity, lowered morale, and a loss in motivation and loyalty. Electronic monitoring, which is used to monitor employees by many organizations, invades the privacy of the employee and leads to increased worker stress (Ross in Alder & Tompkins, 1997: 262). Nussbaum and Du Rivage (in Alder & Tompkins, 1997: 262) found that highly monitored employees showed a higher degree of depression, anxiety, instability, fatigue, and anger than employees that were not monitored. The effect of affirmative action amongst a group of black employees in South Africa showed that amongst the symptoms of stress they experienced, both anxiety and depression were found (Van Zyl, 1998: 24). Schonfeld (2000: 366) in an update on depressive symptoms and job satisfaction in first-year women teachers found that depressive symptoms were the highest amongst those women who experienced the most adverse work environments.

5.6 Conclusion

Anxiety, depression and worry all play a role in the stress process. Anxiety can be adaptive when mild, but when it becomes extreme and pervasive it may interfere with the individual's functioning. Stress and anxiety are sometimes used interchangeably Most individuals that may experience high levels of stress who exhibit symptoms of anxiety will not meet the formal criteria for a diagnosis of an anxiety state.

Depression is clearly associated with the stress response especially when the individual is confronted with loss of some kind, whether it is a loss of a relationship, status, or competence. Individuals who suffer from depression are often unable to work or are able to work at a reduced level of efficiency.

Worry is an area that has been associated with anxiety, more specifically generalized anxiety. It is a phenomenon that involves ‘a chain of thoughts and images, negatively affect-laden and relatively uncontrollable’ and is an attempt at problem solving. It also is associated with depression, social evaluation, and correlates significantly with coping.

Within the work context the relationship between stress, anxiety and depression is well documented. However research specifically correlating stress and worry within the workplace does not abound. The purpose of the present study is to determine consequences of stress experienced by employees in the workplace within the South African context in terms of anxiety, depression and worry. This information is important in the context of developing awareness within organizations of the extent of the health problems that exist as a result of stress and the costs that are associated with the resultant poor performance of their employees. This knowledge should be used in the development of stress management policies and programmes within the organization.

Not all individuals react negatively to stress. Some are able to deal effectively with the impact of the stressor and even thrive as a result of it. The next chapter considers the role that coping plays in dealing with stress.

CHAPTER 6

COPING

6.1 Introduction

Stress and coping are two interrelated and dependent processes (Butcher *et al*, 2004: 140). When one considers the different possible events or situations that might be viewed as stressful, it is not difficult to conclude that everything is potentially stressful. However this is not the case and is dependent not only on the amount of stress experienced by the individual, but also on the ability of the individual to cope with the stressor (Cotton, 1990: 39). The importance of coping has not only been supported by research in psychology but other disciplines such as epidemiology, sociology, and physiology (Parkes, 1994: 111). Coping will first be defined in this chapter, hereafter the focus will be on a number of specific coping strategies that individuals use to deal with stress within and outside of the work context as well as on organizational coping strategies designed by management to prevent or reduce work stress.

6.2 Coping defined

Individuals will often state that “they are coping”, implying that they are able to deal with a perceived situation successfully (Stone & Neale in Cox & Ferguson, 1991: 19). The Reader’s Digest Oxford Complete Wordfinder (1993) defines the word cope as: 1) to deal effectively or contend successfully with a person or a task; and to 2) manage successfully; deal with the situation or problem. However, for research purposes, definitions of coping need to be independent of outcome (Lazarus and Folkman, 1984: 142).

Lazarus and Folkman (1984: 141) define coping as ‘constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person’. This definition addresses certain limitations of traditional approaches, which according to Lazarus and Folkman (1984: 141) are as follows:

- It is process-oriented rather than trait-orientated, as indicated by the use of the words “constantly changing” and “specific” demands and conflicts.
- This definition implies that there is a distinction between coping and automatic adaptive behaviour by limiting coping to demands that are appraised as taxing or exceeding a person’s resources. Therefore coping is limited to conditions of psychological stress, which requires mobilization and excludes reflexive behaviour and thoughts that do not require any effort.

- Defining coping as efforts to manage, which permits the inclusion of all actions and thoughts without taking account how effective they are, bypasses the problem of confounding coping with outcome.
- The use of the term manage helps to avoid equating coping to mastery. Managing can include minimizing, avoiding, tolerating, and accepting the stressful conditions as well as attempts to master the environment.

Cox (in Cox & Ferguson, 1991: 19) offers a simple definition of coping in terms of ‘ the cognitions and behaviors adopted by the individual, following the recognition of a stressful transaction, that are in some way designed to deal with that transaction.’

6.3 Coping strategies

Lazarus and Folkman (in Forshaw, 2002: 62; Wainwright & Calnan, 2002: 59) developed a transactional model of stress, which highlighted the role of appraisals and coping in the experience of stress (see sec 3.2.3.1). To understand the individual’s interpretation of a specific stressor one must distinguish between primary and secondary appraisals. Primary appraisal requires the individual to decide whether an event poses a threat or not. Secondary appraisal refers to the individual person’s perception of his or her self-efficacy regarding his or her ability to deal with the perceived stressor. If the individual believes that he or she is not able to deal with the situation, it will be perceived as a threat and the individual will then likely experience high levels of stress. If however the individual believes he or she can deal with the situation then this person will not experience stress (Figure 6.1).

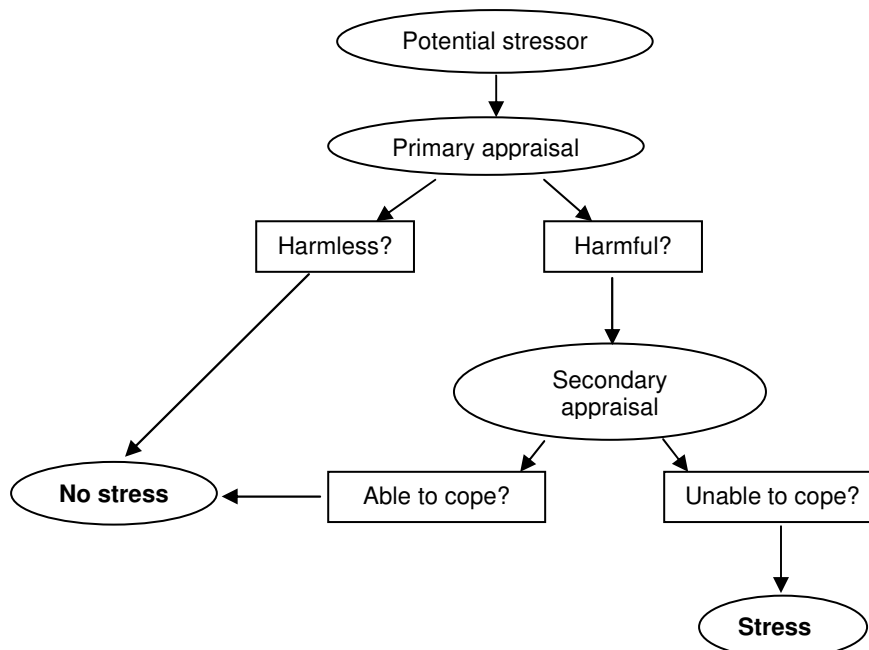


Figure 6.1: Appraisal model of stress and coping

Folkman *et al* (in Forshaw, 2002: 64) delineated eight types of coping strategies used by individuals exposed to perceived stressors.

- Confrontational coping: this type consists of aggressive efforts to alter the situation by standing one's ground and fighting for what one wants. It also involves a degree of hostility by expressing one's anger to the person who caused the problem and risk-taking by taking a chance and by doing something.
- Distancing: this type is characterised by efforts to detach oneself from the situation by not letting it get to one and by not thinking about it. It also refers to creating a positive outlook by making situation appear trivial and by trying to look at the bright side of things.
- Self-controlling: this type involves keeping one's feelings to oneself and not telling others about the situation. It also refers to actions involving restraint by not burning proverbial bridges or acting too hastily.
- Seeking social support: this type requires efforts to seek informed support by talking to someone to obtain more information. It also includes seeking tangible support by talking to someone who could do something about the situation and emotional support by obtaining sympathy and understanding from someone.
- Accepting responsibility: this approach acknowledges one's own role in the situation and attempts to put things right by deeds, for example by apologizing or trying to do something about the situation.
- Escape-avoidance: this type entails escapism by either wishful thinking or real efforts to escape or avoid the situation, by for example eating, smoking, drinking, sleeping, or avoiding people.
- Planned problem solving: this type refers to one's deliberate efforts to change a situation, linked to an analytic approach to solve the problem and by finding a workable solution.
- Positive reappraisal: this strategy centres on one's efforts to find positive meaning through personal growth, which may include a religious component.

Most coping behaviour falls into one or more of these eight categories. An individual may use one or more of these coping strategies even when these strategies may give rise to contradictory cognitions. An individual may for example employ contradictory coping strategies, sometimes being confronting and sometimes being escape-avoidant.

In addition to the above eight categories Lazarus and Folkman (1984: 150) divide coping strategies into two main categories which they call either emotion-focused or problem-focused. Emotion-focused coping is centred on the emotional reaction to the problem, whereas problem-focused

coping is concerned with directly addressing the problem. The above strategies of escape-avoidance, distancing, self-control, positive appraisal, and accepting responsibility are viewed as emotion-focused coping strategies, whereas planned problem solving and confrontational coping are problem-focused coping strategies (Scheck & Kinicki, 2000: ; Forshaw, 2002: 65). Seeking social support can be both emotional-focused (sharing of feelings) and problem-focused (getting advice to help dealing with the problem).

Nolen-Hoeksema *et al* (1997: 859) describe two other classifications of coping based on the personalities of the individuals themselves. Individuals can either be ruminators or non-ruminators. Ruminators are described as individuals who passively and repetitively focus on their symptoms of distress and the circumstances surrounding those symptoms. Individuals who use ruminative coping do not tend to use any structured problem solving approach to cope (Nolen-Hoeksema & Morrow, in Nolen-Hoeksema *et al*, 1997: 859). They tend to think about or talk about how unmotivated, sad, or lethargic they feel without any attempt to relieve their symptoms. Ruminators would spend much time pondering questions like “Will I ever feel better?” and “Why am I such a mess?” without trying to find ways out of their predicament. Non-ruminators on the other hand devise ways for dealing with their problems and work through to achieve their goals.

6.3.1 Key coping strategies

A number of coping strategies have been developed to help the individual to cope with and therefore eliminate or effectively manage stress. Organizations have developed organizational coping strategies to eliminate or control stressors that occur at the organizational level.

6.3.1.1 Individual coping strategies

A number of individual coping strategies have been researched and found to be effective, which includes exercise, relaxation, time management, behavioural self-control and social support as well as cognitive therapeutic techniques such as stress inoculation and problem solving.

1) Exercise

Exercise is one method put forward by researchers to relieve stress whether it is walking, jogging, swimming, bicycling, or playing ball sports such as tennis or squash. Exercise results in increased fitness, which is the maintenance of a good physical condition as indicated by one’s endurance and strength (Baron & Byrne, 2003: 545). Fitness, for example, lowers blood pressure (Brownell in Cotton, 1990: 170); reduces cardiovascular morbidity and mortality (Oberman in Brown, 1991: 556); assists with the metabolism of carbohydrates (Lennon *et al* in Brown, 1991: 556); and effects

plasma insulin levels as well as plasma lipid and lipoprotein levels (Brownell in Brown, 1991: 556). Fitness is also known to be associated with a number of psychological benefits such as improvements in self-concept (Hughes in Brown, 1991: 556), improved mood states (Folkins & Sime in Cotton, 1990: 171), as well as cognitive functioning (Tomprowski & Ellis in Brown, 1991: 556).

Brown (1991: 558) conducted research on the long-term effects of exercise. Altogether 37 female and 73 male undergraduate students took part in the study requiring riding of an exercise bike under standard conditions. Using the student's self-reports and measuring each student's heart rate before, during, and after riding the exercise bike, each participant's fitness was assessed. The frequency of illness was by obtained from self-reports and objective data highlighting the number of visits to the college health centre over a period of two semesters. The number and severity of negative events over the previous year determined stress levels for each individual student. The results showed that students who experienced low levels of stress throughout the year had very few illnesses, regardless of their physical fitness. However, when students experienced high levels of stress, it was found that high-fitness students made significantly less visits to the health centre than did the low-fitness students.

Sufficient evidence exists to the beneficial effects of exercise and taking steps to implementing an exercise program for an individual appears straightforward. The problem with exercise is not getting started, but rather adhering to the chosen exercise routine (Cotton, 1990: 172). Brownell (in Cotton, 1990: 172) estimates that attrition from exercise programmes averages at least 50% after six months. Smoking appears to be one of the most reliable predictors of exercise adherence and is associated with lower enrolment as well as higher dropout rates in exercise programmes (Martin & Dubbert, in Cotton, 1990: 173).

2) Relaxation

Relaxation is a related method individuals can use to manage stress. Relaxation can take many forms. An individual can use specific relaxation techniques such as biofeedback, progressive relaxation, or meditation with the purpose to effectively reduce the perceived stress and to manage a prolonged stressful situation (Cotton, 1990: 128; Forshaw, 2002: 73; Luthans, 2002: 416). The individual can therefore counter the undesirable physiological effects of stress thus decreasing muscle tension, and also learning to lower blood pressure or heart rate, and gastric activity (Cotton, 1990: 128; Forshaw, 2002: 73).

Another form that relaxation can take is to take regular vacations or just taking it easy. Lounsbury and Hoopes (1986: 137) found that the attitudes of individual's toward a variety of workplace characteristics improved significantly following a vacation. These included job satisfaction, job involvement, organizational commitment, turnover intention, and life satisfaction. Luthans (2002: 416) suggests that taking it easy may 'mean curling up with a good book in front of a fireplace or watching something "light" (not a violent program or a sports program) on television.'

3) Time management

Amongst others time pressures are of the major causes of stress among managers (Luthans, 2002: 415). Time management is a common technique used for reducing the stress by eliminating the sense of being under time pressure (Forshaw, 2002: 73). Many organizations train their staff in the use of these techniques. Luthans (2002: 415) lists some of the most helpful guidelines for effective time management:

- Make out a "to-do" list that identifies everything that must be done during the day. This helps keep track of work progress.
- Delegate as much minor work as possible to subordinates.
- Determine when you do the best work – morning or afternoon – and schedule the most difficult assignments for this time period.
- Set time aside during the day, preferably at least one hour, when visitors or other interruptions are not permitted.
- Have the secretary screen all incoming calls in order to turn away those that are minor or do not require your personal attention.
- Eat lunch in the office one or two days a week in order to save time and give yourself the opportunity to catch up on paperwork.
- Discourage drop-in visitors by turning your desk so that you do not have eye contact with the door or hallway.
- Read standing up. The average person reads faster and more accurately when in a slightly uncomfortable position.
- Make telephone calls between 4:30 and 5:00 p.m. People tend to keep these conversations brief so that they can go home.
- Do not feel guilty about those things that have not been accomplished today. Put them on the top of the "to-do" list for tomorrow.

4) Social support

A key factor in reducing stress is to seek social support in friendships and family, as well as from professional and other significant others (Forshaw, 2002: 66, Baron & Byrne, 2003: 548). Stroebe (in Forshaw, 2002: 66) has outlined the main categories of social support given below.

- Appraisal support: This refers to where a person is enabled or encouraged to evaluate his or her own state of health or problem-state, possibly by obtaining information and being empowered. They are therefore able to put their stressors into context.
- Emotional support: It refers to being loved, cared for, protected, listened to, empathized and sympathized with. It is what is often meant when someone says they have a 'shoulder to cry on'.
- Esteem support: This gives the individual a sense that he or she is valued, or held in esteem, by others. The feelings of self-worth and self-esteem depend how the individual perceives others' opinions of him or her. The more competent and skilful, worthwhile, and good a person feels, the more likely he or she is able to cope with stressful demands.
- Informational support: This is often provided in the form of advice, knowledge, and feedback, which can assist the individual in finding the most effective approach to deal with the stressful situation.
- Instrumental support: It refers to down-to-earth practical matters where the individual cannot attend an exercise class if he or she has no one to look after the children, or does not have the financial resources to go.

Social support is hypothesized to moderate stress in three main ways (House in Lim, 1996: 172):

- Social support may have a main effect on outcomes such as that individuals who experienced higher levels of support are expected to experience better health, less dissatisfaction with their jobs (Fisher in Lims: 1996: 172) and generally protecting them against powerful stressors (Forshaw, 2002: 69).
- Social support may have a direct or main effect on perceived stress such that when social support is present, the level of perceived stress is reduced or alleviated.
- The third effect is a buffering, moderating, or interactive one, where social support can alter the relationship between stress and its outcomes.

Social support interacts with stress such that the relationship between stress and its outcomes becomes more pronounced for individuals with low levels of support than for individuals with high levels of support (Lim, 1996: 190; Forshaw, 2002: 69).

Baron and Byrne (1997: 533) conclude that 'people who interact closely with others are better able to avoid illness than those who remain isolated from interpersonal contact.' When illness does occur, those that receive social support recover more quickly than those who do not receive support. Within a work setting forming close associations with trusted empathetic co-workers and colleagues as well as the organization who provide support helps to lessen the effects of stressors (Quick *et al*, 1997: 199). The effect of social support has been researched in relation to work-related stressors such as role overload, and role conflict (Ganster, Fusilier, & Mayes in Lim, 1996: 172), role ambiguity (Erera in Lim, 1996: 172) and job insecurity (Lim, 1996: 190). Work-based support such as support from supervisor and colleagues at work has been found to be more important than support that are not based on work, such as support from family and friends in moderating the effects of stress specific to the work setting except in the case of job insecurity where both contributed significantly (Lim, 1996: 190).

5) Cognitive therapy techniques

Beck (in Cotton, 1990: 189) has proposed a cognitive model of stress, which relates the role of cognitions in the formulation of stress, and the role of stress in the formulation of cognitions. Cotton (1990: 189) quotes Beck's first principle in his model: "The construction of a situation (cognitive set) is an active, continuing process that includes successive appraisals of the external situation and the risks, costs, and gains of a particular response. "When the individual's vital interests appear to be at stake, the cognitive process provides a highly selective conceptualization" (p.258). At the present there is no single set of techniques that define cognitive therapy approaches (Carson *et al*, 2004: 581). The various approaches are characterized by the conviction that cognitive processes influence emotion, motivation, and behaviour, and the techniques that bring about change are pragmatic in nature. Cognitive approaches can be used as either problem-focused or emotion-focused strategies in dealing with stress. As a problem-focused tool it can be used to change the individual's perception of stress and as an emotion-focused tool it can be used to modify the subjective response to stress or change coping behaviour (Cotton, 1991: 189).

When Beck's conceptualisation of the stress process is applied to Lazarus and Folkman's transactional model of stress (see section 3.2.4.1) cognitive techniques can be applied to

maladaptive thought patterns to attempt to change primary appraisal, secondary appraisal, or reappraisal (Cotton, 1990: 190).

The three leading cognitive therapists, Albert Ellis, Aaron Beck, and Donald Meichenbaum differ in some respects in their general approaches to therapy, and in the specific techniques employed in therapy. The approach of both Beck and Ellis emphasize the reduction of idiosyncratic thought patterns whereas Meichenbaum focuses on the reinforcement of adaptive functioning (Butcher *et al*, 2004: 582; Cotton, 1990: 191).

a) Stress inoculation

Meichenbaum (Butcher *et al*, 2004: 582; Cotton, 1990: 196) has developed a primarily cognitive strategy consisting of three phases for dealing with stress, which he calls Stress Inoculation Training (SIT). The purpose of SIT is to modify the individual's response to stress and to maximize cognitive coping, which emphasizes the use of self-instruction in bringing about the desired behaviour.

The first phase of SIT aims to educate the client with the purpose of understanding the stress response and creating a connection between the individual's self-statements and the resultant stress reaction. The second phase focuses on the teaching of a number of coping skills for dealing with the stressors with the main emphasis on cognitive coping. Self-instruction plays an important role during this phase. The purpose of self-instruction is to encourage individuals to analyse the problem in a systematic way. They learn to:

- Assess the reality of the situation.
- Control negative thoughts.
- Acknowledge, use, and relabel arousal.
- Prepare to confront a stressor.
- Cope with the reaction to a stressor.
- Evaluate performance and self-reinforcement.

The third stage involves exposure to the stress-inducing situation and the application of the coping skills, which had been learned. Initially the stressors that are chosen are less demanding. When they are mastered more demanding situations are selected. In this way the individual is inoculated as in medicine where the individual is inoculated against disease. The focus is on developing and

applying specific problem solving and coping skills. Standard behavioural procedures such as modelling, rehearsal, reinforcement, shaping, and self-monitoring are used to learn these skills.

b) Problem solving

Another technique utilized to effect change used by cognitive orientated therapists is that of problem solving. Many stressed clients may need to be taught the process of problem solving (Cotton, 1990: 199). The application of problem solving as it occurs in everyday living has become known as social problem solving (D’Zurilla & Nezu in Kant *et al*, 1997: 74). Research in social problem solving has been increasing in recent years and empirical support has accumulated showing that problem solving is an important coping strategy having a significant influence on psychological wellbeing and adjustment (Nezu & D’Zurilla in Maydeu-Olivares & D’Zurilla, 1996: 130). Most of the research in social problem solving has been based on a model of problem solving originally developed by D’Zurilla and Goldfried (in Kant *et al*, 1997: 74) that later was expanded and refined by D’Zurilla and Nezu (in Maydeu-Olivares & D’Zurilla, 1996: 116). The problem solving outcomes are largely determined by two major, partially independent processes, problem orientation and problem solving proper, for example application of problem solving skills described below (Kant *et al*, 1997: 77).

- Problem orientation is the motivational component of the problem solving-process, involving the operation of a set of relatively stable cognitive schemas (constructive as well as dysfunctional) that reflect a person’s general awareness and perceptions of everyday problems, as well as his or her own problem solving ability (for example, challenge or threat appraisals, self-efficacy expectancies in problem solving, outcome expectancies of problem solving). Together with the emotions and behavioral approach-avoidance tendencies that are assumed to accompany them, these cognitive schemas can facilitate or inhibit problem solving performance in specific situations, but they do not include the specific problem solving techniques that enable individuals to maximize their problem solving effectiveness.
- Problem solving per se, on the other hand, refers to the rational search for a solution through the application of specific problem solving skills and techniques that are designed to increase the probability of finding the “best” or most adaptive solution for a particular problem.

The overall process of problem solving can be conceived as consisting of the general motivational component, problem orientation, and a set of four specific problem solving skills, which include problem definition and formulation, generation of alternative solutions, decision making, and

solution implementation and verification (D'Zurilla and Nezu, 1990: 159). A stressed client may have a poor understanding of what exactly the problem actually is and may only see one possible solution. Applying these steps requires the following application (Perri *et al*, 1992: 117):

- Establishing a problem orientation where the client must recognize the problem, realize that problems are part of normal life, and be prepared to work on them.
- Problem definition and formulation requires the client to identify the specific aspects of the situation that makes it a problem in a way that separates relevant from irrelevant information and to set realistic goals or objectives.
- Generation of alternative solutions requires the generation of a variety of possible solutions by brainstorming as many ideas as possible without judging them. In addition Perri *et al* (1992: 118) also advocate the use of the strategies-tactics approach, which requires that clients initially conceptualise general means or strategies for solving a problem and then subsequently produce various tactics or specific ways in which the strategy may be implemented.
- Decision-making involves the evaluation of each alternative and to select the most effective alternative for the client.
- Implementation and verification of solution involve taking the selected solution to the client's problem and implementing it. The effectiveness of the solution can now be monitored and evaluated and if deemed necessary modified appropriately.

Problem solving is a logical, systematic, and reasonably easily learned approach, which can be used to help individuals and is based on principles of common sense (Hawton & Kirk, 1989: 425).

6.3.1.2 Organizational strategies

Many organizations have realized that high levels of stress in the workplace can often lead to sharp losses in productivity, increased absenteeism, bigger health care spending as well as increased disability and workers compensation claims (Murphy, 1995: 41). There are two ways to deal effectively with this phenomenon (Moorhead & Griffin, 1989: 211). Organizations are inherently responsible for creating some of the experienced stress and therefore should also aid in relieving it by introducing institutional and collateral programmes.

1) Institutional programmes

Institutional programmes are undertaken through established organizational mechanisms (Randall & Jackson, in Moorhead & Griffin, 1989: 213). For example the work-environment fit as a result of effective job design and work schedules may decrease the level of stress. The reorganization of

working time schedules has occurred over the last decade as a result of economic restructuring (Bosch, in Sparks, Faragher, & Cooper, 2001: 492). This includes greater flexibility in work schedules to cover extended operating or opening hours. Flexible work-time systems, based on weekly, monthly or yearly work hours, are used by many organizations across Europe (Brewster, Mayne, Tregaskis, Parsons, & Atterbury, in Sparks, Faragher, & Cooper, 2001: 493). Flexible work hours have resulted in lower stress levels, increased job enrichment, morale and autonomy, reduced absenteeism and tardiness, and improved job satisfaction and productivity (Pierce *et al* in Sutherland & Cooper, 2000: 178) especially when the employees could choose their work time schedules (CARNET and Work Family Directions, in Sparks, Faragher, and Cooper, 2001: 494).

Organizational culture, which expects the employee for example not to take time off or go on leave, may contribute to high levels of stress (Moorhead & Griffin, 1989: 214). When workers feel that they do not belong and that they lack opportunities to participate and be involved in decision-making, they may feel unduly restricted, which is associated with high levels of stress (Sauter, Hurrell, & Cooper, in Cartwright & Cooper, 1997: 20).

Supervision can play an important role in managing stress (Moorhead & Griffin, 1989:214; Sparks, Faragher, Cooper, 2001: 501). Managers and supervisors intentionally or unintentionally can be a source of stress for their subordinates. A more democratic management style was associated with lower levels of perceived stress (Beehr & Gupta, in Sparks, Faragher, & Cooper, 2001: 501) whereas a bullying management style has been linked with ill health of employees, including stress, anxiety, and depression (Höel, Rayner, & Cooper, in Sparks, Faragher, Cooper, 2001: 501). Managerial support plays an important role in employee wellbeing. When supervisory support was viewed as poor, it was linked with increased levels of stress (Greller *et al* in Quick *et al*, 1997: 200). Existing research has identified two leadership styles that can improve work performance and benefit employee wellbeing, for example transformational and transactional leadership (Burns, in Luthans, 2002:591; Sparks, Faragher, & Cooper, 2001: 502). Transactional leadership is based of and exchange relationship that involves goal-setting, feedback, and reinforcement strategies to help employees work more effectively. Transformational leadership is based more on leader's encouragement of their employees to find meaning in their work, inspiring them, effecting intellectual stimulation, giving individual consideration, involving them in participative decision-making and elective delegation (Bass, in Luthans, 2002: 591; Sparks, Faragher, & Cooper, 2001: 502).

2) Collateral programmes

Many organizations have also introduced collateral programmes to aid in the reduction of stress (Moorhead & Griffin, 1989: 215). Collateral programmes refer to programmes that the organization has specifically introduced to help employees deal with stress and they include stress management programmes, work-family initiatives, and employee assistance programmes (EAP) (Moorhead & Griffin, 1989: 214; Luthans, 2002: 417).

Stress management refers to specific interventions that are designed to aid the employee in the identification and analysis of stressful situations, and the application of a variety of techniques to either change the cause of stress, to modify the employee's appraisal of stressful situations or to deal more effectively with the symptoms of stress (Cotton, 1990: 4; Murphy, 1996: 112). The approach to stress management is determined largely by the employee's needs (Cotton, 1990: 13). They can choose either individual therapy or group therapy, which some organizations offer through their EAP programmes. Stress management workshops are often the most popular. Murphy (1996: 112) reviewed a variety of stress management programmes, which used a variety of techniques including muscle relaxation, meditation, biofeedback, cognitive-behavioural skills and a combination of two or more of these techniques. He found that the most effective approach with regards to health outcomes, i.e. psychological (e.g., anxiety) or physiological (e.g., blood pressure), were obtained when two or more techniques were combined such as muscle relaxation and cognitive-behavioural skills. However, none of the stress interventions was consistently effective on producing effects on job/organization-relevant outcomes such as absenteeism or job satisfaction. Stress management programmes often combine the above mentioned techniques with aspects such as the role of physical exercise and diet, assertiveness training, time management, and communication skills.

Bunce and West (1996: 228) found in a follow-up study one year later that the improvements they measured in psychological strain associated with the traditional and organizationally orientated stress management programme had dropped back to the initial levels. This is indicative of the need to introduce methods to maintain the impact of the intervention.

Organizations are effecting the reduction of stress through work-family initiatives (Sutherland & Cooper, 2000: 177; Overman in Luthans, 2002: 417). These include restructuring of jobs and job duties, telecommuting, part-time work and job sharing, and flexible scheduling. Many organizations provide on-site child-care facilities and in some organizations even elder care, paid family and

medical leave, release time for personal and or family events, and limits on the frequency and distance of business travel.

Employee assistance programmes (EAP) have become a very valuable aid to organizations in helping employees deal with stress (Cooper *et al*, 2002: 290; Luthans, 2002: 417; Murphy, 1995: 43). EAP's provide employees with specific services such as counselling for personal or work-related issues, alcohol and drug rehabilitation, and financial and legal advice. They offer workshops and consultations on topics such as marriage, single parenting, working parents, stress management, and personal support. EAP's have been found to effectively reduce absenteeism, health care costs, and disciplinary action in many cases.

6.4 Conclusion

Stress in the workplace is here to stay and those employees who cope with perceived stressors tend to use a problem solving approach and not an emotional-focused approach to managing their stress. When they cannot deal with their perceived stress it is possible for them learn ways to deal more effectively with it by either changing the cause of the stress within the environment, or by learning new ways to appraise the stressor and to deal more effectively with the symptoms. It is clear that as the organization contributes to the individual's experience of stress it has a responsibility to aid in the reduction of the experienced stress. Employee assistance programmes and work-family interventions have been found to be effective over the long run in reducing absenteeism, increasing job satisfaction, and decreasing health care costs. Stress management workshops however initially appear to be effective and generally report positive outcomes, but over the long-term benefits are not maintained and therefore a way to maintain the initial benefits needs to be found.

The present research seeks to determine the role problem solving plays in the effective coping or lack thereof in dealing with perceived stress. This information is important in developing stress management programmes that focus on the necessary skills that will teach employees how to deal more effectively with work stress thus reducing the negative health outcomes and costs to the organization.