WORKPLACE STRESS AND FEMALE EMPLOYEES' PERFORMANCE

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TO WHOM IT MAY CONCERN

RE: CONFIDENTIALITY CLAUSE

Due to the strategic importance of this research it would be appreciated if the contents remain confidential and not be circulated for a period of five years.

Sincerely

R A OLOO

DECLARATION

This research has not been previously accepted for any degree and is not being currently submitted in candidature for any degree

Signed.....

Date.....16/09/04.....096998

ACKNOWLEDGEMENTS

Sincere thanks are due to my family, both in Kenya and South Africa, for their unwavering support during this journey of enlightenment.

The long hours spent in study group meetings and burning the midnight oil will be indelibly imprinted in the tablet of my memory. Thanks to my family for their understanding in this regard.

Sincere thanks are also due to my supervisor, Dr. Dennis Laxton, for his guidance and support.

ABSTRACT

Stress is placed upon anything that is given special emphasis or significance, especially where this leads to, or involves, psychological, emotional and physical strain or tension. A part of it is therefore subjective, in that different reactions are produced in different individuals by the same set of circumstances. Stress is caused by a combined physical and psychological response to stimuli (stressors) that occur or are encountered during the course of living.

The study will look at causes of stress and workplace stress and its impact on female employees' performance. Stressors from a general perspective will be identified. Further, workplace stress will be dealt with in detail using the integrated stress framework. The study will also look at effects on employees of negative feedback on self, as for example when a hierarchical superior in the course of an appraisal interview states that performance is unsatisfactory. The study will orientate towards a few questions such as: to what extent are individual well-being and performance similarly affected by stressors of various kinds, and to what extent to their effects appear to be distinct? What are the social and organizational conditions which give rise to the immediate stressors, and what qualities of personality and interpersonal relations mitigate the effects of stress?

Creating workplaces that work for women and why the 'bottom-line' benefits workplaces that attract women are important components of this study. Further, organisations that target female consumers or clients is increasingly important as more women are entering the workforce and their spending power and disposable income continues to grow. To ensure a successful market focus on women, employers will want women employees to be a critical component of their organization. However, the mere presence of women in the workplace will not guarantee positive outcomes. What is required is a variety of best practice changes to ensure a work culture in which diversity is valued and effectively leveraged for better performance.

A self-administered questionnaire will then be sent out to respondents to get their views on the effects of stress that they have felt in the past 12 months and how they rate their workplaces. Their views will also be sought on performance management issues and how to improve their performance management systems.

A holistic approach which incorporates stress management into company health and safety policies is viewed as the optimal strategy of this study.

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CHAPTER ONE: INTRODUCTION

Stress management is set to become a primary strategic and operational concern for all organisations because of the direct relationship between decency and humanity, good employment practice, and successful business. Stress places a cost burden on organisations in all locations and sectors, and there is also a human price among those who work in stressful situations or suffer from stress-related injuries and illnesses (Pettinger: 2002:2).

Organisations need to take an active responsibility for the health and well-being of employees. Effective stress management brings direct obligations and responsibilities, and these also have a cost. Organisations and their managers are going to be increasingly required to invest time, financial resources, and expertise in creating a quality of working life and environment that acknowledges the potential for stress (Pettinger: 2002:2). This will require recognizing where the potential for physical and psychological stress lies, and taking active steps in workplace, occupation and work design so that it is eliminated as far as possible, or else kept to a minimum.

In an era of unprecedented change, organisations must be rebuilt. If they are to succeed, their new foundations will be their greatest resource: people. Utilising and fulfilling the potential of all their people, all of the time, is the organizational and managerial challenge of our times (Jones, Palmer et al: 1996:1).

Denise McLean (2003), in her article, "Creating a workplace that attracts, retains and promotes women", states that there are bottomline reasons for making sure that workplaces are attractive to women. Such workplaces are good for all employees and employers because they attract the best people in a time of skills shortages, compete effectively for financial resources, investment, customers and market share; improve decision-making by having more diverse opinion around the table; earn a higher return on investment in employees through lower turnover costs, less absenteeism and better results for training and incentive dollars.

1.1 Background of the study

Key contributions to understanding what stress is, and its effects on people at work have been made from different sources. It is apparent from social history studies that a great deal of life and occupational stress existed for centuries before it became acknowledged as such (Pettinger: 2002). For example:

- Under the feudal system, serfs lived or died at the whim of their landlords;
- The price of failure in military campaigns, for foot-soldiers at least, was normally death; and;
- The first factories of the Industrial Revolution offered a form of Hobson's choice – to work and live in the dreadful urban conditions of the eighteenth and nineteenth centuries, or not to work (and therefore live) at all.

Pettinger (2002:18) further states that the first indication of stress as an occupational factor and hazard arose during World War 1 (1914-1918). A direct relationship was identified between prolonged exposure to military engagement and the resulting loss of sight, hearing, orientation, and reason. This was defined as "shell shock". It was often accompanied by physical loss of strength and sickness, and compounded by revulsion at the conditions in the trenches.

Also at the beginning of the twentieth century, the first stress related problems with production line factory work were identified. F W Taylor and the Scientific Management School designed factory work so that it consisted of simple series of repetitive tasks in which individuals would soon become expert and proficient. They reasoned that so long as high levels of wages were paid, this form of work would be satisfactory and desirable. However, they failed to realize the levels of stress generated by excessive noise and dust, extremes of heat and cold, and the physical monotony of the work. Further, due to the lack of challenge or content to the work, production line staff began to suffer psychological as well as physical problems (Pettinger:2002:18).

In the 1970s and 1980s, key medical research was linking behaviour (including organizational behaviour and the behaviour of individuals at work) with stress. They identified heart disease as a major output of prolonged endurance of high levels of stress.

These studies identified two types of personalities – Type A and Type B. Type As were identified as being action and results oriented and in a hurry to complete work and move on to the next task. Type As tended to work faster and harder than Type Bs.

Type Bs were identified as being calm and unruffled. They rarely demonstrated high levels of emotion even when in a crisis or emergency.

Recent studies have tended to concentrate on different aspects of stress management. At both macro and micro levels they have looked at how to reduce stress levels in working environments and also at the human and economic costs incurred.

1.2 Motivation for the research

Women are joining the workforce in increasing numbers without relinquishing their family responsibilities. Women continue to be the majority of clients whom most human resources personnel serve, and more and more of those women clients are in the work place. Services to those women must be informed by a perspective which sees women whole (Lundy and Younger, 1994).

Life in the workplace has also become much more diversified as an increased number of women have made their presence felt in many industries and professions. Globally, the female task force has expanded with exponential strength, and thus has its dire importance in the professional world.

The nature of work has also undergone changes over the last century and it is still changing at whirlwind speed (www.lifepositive.com). Intense economic transformations and consequent pressures have put great demand on everyone from junior workers to executives. Job insecurity, high demand for performance, technology, workplace culture, personal or family problems are some of the issues that occur in the modern workplace.

Women may suffer more from mental and physical harassment at workplaces, apart from the common job stresses (www.lifepositive.com). Sexual harassment has become a major source of worry for women. Women may also suffer from tremendous stress such as

'hostile work environment harassment', which is defined in legal terms as "offensive or intimidating behaviour in the workplace". These can be a constant source of tension for women in job sectors and have to be managed in order that women may feel secure in their workplaces.

1.3 Value of the project

A healthy workforce is crucial to the bottom line of the organization. Policies that benefit the workers' health also benefit the bottom line. A healthy organization is defined as one that has low rates of illness, injury, and disability in its workforce and is also competitive in the marketplace. Characteristics of a healthy workplace include recognition of employees for good work performance, opportunities for career development, an organization culture that values the individual worker and management actions that are consistent with organizational values (www.cdc.gov).

Companies without employee assistance programmes will benefit from this study because they will be able to identify the nature and sources of workplace stress, the effects of stress on health, and personal skills to reduce stress. They will also be encouraged to put employee assistance programmes in place to manage stress thereby creating a healthy and motivated workforce.

Organizations will also benefit from this study because the study will suggest ways in which to prevent workplace stress. Some suggestions will include – ensuring that workload is in line with employees' capabilities and resources, designing jobs to provide meaning, stimulation and opportunities for employees to use their skills, improving communication and reducing uncertainty about career development, providing opportunities for social interactions among workers and establishing work schedules that are compatible with demands and responsibilities outside the job. This is especially relevant to the female employees.

This study will enable the organization evaluate corporate and workplace culture and change accordingly to minimize undue stress. The following factors will be considered in

evaluating corporate and workplace culture – communication style, hierarchy, teamwork, leadership, appearance, workspace and office friendships.

To help prevent workplace stress, the organization will be able to choose those areas in which adjustments will have to be made. Armed with the understanding of its workplace culture, the organization will be able to make informed choices about behaviours and work habits and will most likely prevent many stressful situations and conflicts.

1.4 Problem statement

The problem statement here is: Does workplace stress affect female employees' performance? What steps do we take to alleviate workplace stress?

Increasing demands placed on organisations to provide quality services, the need to face legislative challenges and the continuing restrictions on available resources are likely to increase the pressures that have to be faced by employees. Solutions must be sought to cater for the stressful situations and try to manage them adequately. Management in organisations need to take ownership of this problem and use this information to determine the steps necessary to create a healthy workplace along with healthy and motivated employees.

1.5 Objectives of the study

The objectives of this study are:

1. To establish that the workplace does indeed contribute to the stress that female employees experience;
2. To evaluate the impact of stress on female employees' performance; and
3. To recommend ways in which to deal with workplace stress and other individual stressors.

1.6 Structure of the study

Chapter 2 will deal with the literature review. In this chapter, the theoretical section of the study will be covered. A detailed account of the variable (stress) will be presented, supported by references from journals, books and the internet.

Chapter 3 will discuss the methodology to be followed. Sample selection, sample frame, development of the questionnaire, the statistical procedures to manipulate the data will be discussed in detail.

Chapter 4 will deal with the limitations of the study.

Chapter 5 will report and discuss the results of the study, expressed according to descriptive and inferential statistical procedures.

Chapter 6 will deal with recommendations and conclusion. The chapter will attempt to indicate what the findings mean and how one could actually use the findings.

CHAPTER 2: UNDERSTANDING STRESS

2.1 Introduction

Stress can be defined as a force or influence a person feels when he or she faces opportunities, constraints or demands that he or she perceives to be both uncertain and important (Robbins and Decenzo: 2001:240). Being a complex issue, stress can manifest itself in both a positive and negative way. It is said to be positive when the situation offers an opportunity for one to gain something e.g. the "psyching up" that an athlete goes through can be stressful but can lead to maximum performance. It is when constraints or demands are placed on us that stress becomes negative, and coupled with uncertainty about the outcome and importance of outcome, potential stress then becomes real stress (Robbins and Decenzo: 2001:240).

Taber's Cyclopedic Medical Dictionary defines stress as "the result produced when a structure, system or organism is acted upon by forces that disrupt equilibrium or produce strain" (www.ccohs.ca). In simpler terms, stress is the result of any emotional, physical, social, economic, or other factors that require a response or change.

Stress has also been defined in one of three ways: as an environmental stimulus often described as a force applied to the individual, as an individual's psychological or physical response to such an environmental force, or as the interaction between these two events (Ivancevich and Matteson, 1980; Mason, 1975a).

While there are numerous definitions for stress, Ivancevich and Ganster (1987:5), state that there is no specific definition that has been universally accepted as the final view of what stress entails. Ivancevich and Ganster (1987:5) further state that there is currently a great deal of disagreement about the meaning of job stress. This is probably due to the fact that the topic of stress has its roots in several diverse fields, including medicine, clinical psychology, engineering psychology and organizational psychology. The four approaches are summarized in the Table 2.1 below:

Approach	Typical stressor	Typical outcome	Typical primary target of treatment
Medical	Physical	Physical strain	Individual
Clinical/counseling psychology	Psychological	Psychological strain	individual
Engineering psychology	Physical	Job performance	Organization
Organizational psychology	Psychological	Psychological strain	organisation

Table 2.1: Four approaches to stress definition
Source: Ivancevich and Ganster Job stress: from theory to suggestion (1987:8)

2.2 Causes of stress

Stress is caused by a number of factors called stressors. Stressors can be grouped into two categories i.e. organizational and personal. Feldman (2001) identifies the organizational stressors as role ambiguity, role conflict, role overload, technological advancements, reengineering, downsizing and restructuring. It should be noted that there is no shortage of factors within the organization that cause stress. Personal stressors are identified as personality type (Type A and Type B), family matters, financial problems. Type A personality is characterized by a chronic sense of urgency, an excessive competitive drive and difficulty in accepting or enjoying leisure time. Type A behaviour pattern is a controversial risk factor linking work stress to heart disease. Ivancevich and Ganster (1987:29) indicate that Type A personalities have higher blood pressure and cholesterol levels, are more frequently smokers, more likely to be heavy drinkers, have less interest in exercise, and demonstrate other chemical and physiological alternatives related to the development of arteriosclerosis. Type B personality is characterized by relaxation, easygoing and an easy acceptance of change.

Gatto (1993:x) states that stress usually comes from the "fight or flight" syndrome in which mental and physical demands come into conflict. These demands grow geometrically through work, family and other relationships. Almost like a balloon filling with air, the stress continues to build until there is a feeling of being pushed to the limit. In dealing with stress, the question to ask is - what can we do to let air out of the balloon so that we do not feel so stretched?

2.3 Consequences of stress

Ivancevich and Ganster (1987:19) state that stress is the naturally occurring mind-body response to demanding and/or emergency situations, either of a chronic or episodic nature. Properly monitored and managed, the stress response contributes to a state of optimum health and well-being. When improperly managed, the stress response may lead to a variety of medical, psychological and behavioural health problems. These problems range from smoking, alcohol and drug abuse, insomnia, family conflict and violence, cardiovascular diseases, cancer and ulcers. On the other hand some stressful activities such as aerobics, weight training and flexibility training contribute to a number of health benefits.

2.3.1 Physiological outcomes of stress

Stress operates through the nervous and endocrine systems (Matteson and Ivancevich: 1987). These two systems are the two regulatory systems by which the body controls internal activity. This is the reason stress can be so damaging in terms of health consequences: it does not focus on individual organ systems; it alters the activity at the centers of the somatic control.

The authors further state that the nervous system is responsible for immediate short-term adjustments, such as papillary dilation in response to changes in light intensity or, a quick increase in cardiac output in response to physical exertion. The mind-body link is real and powerful. In terms of stress outcomes, all activities and connections begin with the hypothalamus (the brain center that regulates basic life functions, such as blood pressure, and internal temperature). One important physiological facet of the stress response involves the sympathetic nervous system, which is the pathway for the immediate effects of stress. Most sympathetic nerve endings release epinephrine and norepinephrine to effect change at the end organs when the hypothalamus becomes aroused. These two chemicals are called 'catecholamines'. Epinephrine exerts a greater influence on the heart muscle than norepinephrine does.

When the heart is pounding during a stressful situation, epinephrine is mainly responsible. Norepinephrine elevates heart rate and stroke volume as well, but is not as effective as

epinephrine. The effects of stress can be observed in as little as 2.5 seconds and can persist for weeks after exposure to a single stressful event (Matteson and Ivancevich, 1987).

The sympathetic and parasympathetic effects of stress are summarized in the table below

ORGAN	SYMPATHETIC EFFECT	PARASYMPATHETIC EFFECT
Heart muscle	Increased rate	Decreased rate
Arterial blood pressure	Increase	Decrease
Skeletal muscles	Increased strength	No effect
Pupil of eye	Dilated	Contracted
Blood coagulation	Increased	No effect
Blood vessels-heart	Vasodilation	Vasoconstriction

Table 2.2: Sympathetic and parasympathetic effects of stress.
Source: Matteson and Ivancevich, Controlling work stress. (1987)

2.3.2 Psychological outcomes of stress

Different stress conditions and factors lead to different outcomes for different individuals. These differences rest on "psychological parameters" e.g. personality, emotional factors, needs, goals, aspirations, and how a person can cope with stressors (Matteson and Ivancevich, 1987).

The psychological aspect of stress, and its potential outcomes and consequences can be summarized as follows (Appley and Trumbull, 1987 in Matteson and Ivancevich, 1987):

- Different individuals experience the same event differently; one may be immune to the event, while another may become confused and overwhelmed;
- An accurate understanding of the stress reaction – its intensity and related behaviours may not be possible;
- Stress is best understood as a state of the whole organism.

2.3.3 Motivation

Motivation is a key psychological element in organizations and it is the desire of the person to exert the effort that is necessary to accomplish meaningful goals. It is an internal process that can be affected by external factors such as stressors. An individual's needs have a significant impact on his or her motivation to perform job tasks. Needs create a drive or force to satisfy themselves; needs that are not adequately fulfilled create tension and pressure. Psychological outcomes such as dissatisfaction, lower morale, apathy, and an inability to satisfy needs adequately have a subjective character yet they are just as real and important to the well being of the individual.

Matteson and Ivancevich (1987), state that there is also a tendency to hide negative psychological outcomes, which leads to a discrepancy between subjective elements of how a person responds to stress and hormonal concomitants e.g. an employee may nod acceptance of her supervisor's request to work overtime but feel significantly anxious because of having to miss a dinner engagement. Or employees may feel obliged to exhibit an excitement about being promoted that is incongruous with their neuroendocrine state.

The inability to adapt to stress has also been associated with the onset of depression or anxiety. The repeated release of the stress hormone produces hyperactivity in the hypothalamus-pituitary-adrenal axis and disrupts normal levels of serotonin, the nerve chemical that is critical for feelings of well-being. It is obvious that stress diminishes the quality of life by reducing feelings of pleasure and accomplishment, and relationships are often threatened.

2.3.4 Behavioural outcomes of stress

Individuals experiencing stress at work may resort to many different kinds of behaviour. These behaviours can be classified as either active behaviours (decreasing one's work effort, going on strike, refusing to take a particular job assignment) or passive behaviour (not paying attention to a supervisor's request, letting faulty products pass through, or ignoring dangerous and unsafe work behaviours of colleagues)(Matteson and Ivancevich, 1987).

2.4.4 Health consequences of stress

Stress related outcomes can evolve into consequences in the areas of health/family and/r performance. These consequences range from coronary heart disease to reduced decision-making effectiveness. Matteson and Ivancevich (1987) distinguish between diseases influenced by the mind and other physical diseases. A psychosomatic disease in one in which the mind influences the body so that observable, measurable physical damage occurs. This influence can take several forms. First, the state of mind may simply weaken the body so that it becomes easier for a pathogen to invade the body's defenses and precipitate disease. Second, the state of mind can further weaken the body's resistance so that progress of an existing disease is accelerated. Third, the state of mind can actually cause a disease to begin. Matteson and Ivancevich (1987) state that it is their position that stressors –with varying degrees of importance- play a role as contributing agents in many chronic diseases.

By giving a short illustration between some negative health consequences and stress, it is hoped that individuals will realize what a high price they are paying for some of their current habits – namely, subjecting themselves to many stressors that are not being properly managed.

Stress produces changes in almost every aspect of cardiovascular functioning, so it is directly involved in the etiology of most cardiovascular disease states (Matteson and Ivancevich, 1987).

The cardiovascular system is designed as a transportation system. It is a vehicle by which products that are needed by the cells and structure of the body can get from where they are ingested or formed to where they are going to be used. Because the cardiovascular system plays an important role of delivering crucial products throughout the body, it is important that the activities never be interrupted. Cardiovascular disease occurs when part of the flow of blood within the system is interrupted. (Matteson and Ivancevich, 1987).

Stress activates the sympathetic nervous system (the automatic part of the nervous system that affects many organs, including the heart). Such actions and others may negatively affect the heart in several ways, namely:

- Sudden stress increases the pumping action and rate of the heart and causes the arteries to constrict, thereby posing a risk for blocking blood flow to the heart;
- Stress causes blood to become stickier (possibly in preparation of potential injury), increasing the likelihood of an artery-clogging blood clot;
- Stress may signal the body to release fat into the bloodstream, raising blood-cholesterol levels, at least temporarily;
- In women, chronic stress may reduce oestrogen levels, which are important for cardiac health;
- stressful events may cause men and women who have relatively low levels of the neurotransmitter serotonin (and therefore a higher risk of depression or anger) to produce more of a certain immune system proteins (called cytokines) which in high amounts cause inflammation and damage to cells, including possibly heart cells.
- Stress seems to be one of the most important factors in the development of chronically high blood pressure. During any stress, blood pressure climbs. The important issue is whether it returns to normal after the stress experience.
- Stress may also lead to strokes. By chronically elevating the blood pressure, stress sets off conditions that can lead to strokes or heart attacks. Any sudden surge of blood occurring in a weakened artery can cause the artery to break. This breakage is called a stroke (Matteson and Ivancevich, 1987).
- Stress may also contribute to peripheral vascular diseases such as migraine headaches, which is experienced as an intense, throbbing headache which echoes the beating of the heart, indicating that this is a vascular problem.
- Stress appears to blunt the immune response and increase the risk of infections and may even impair a person's response to immunizations. People under chronic stress have been known to have low white blood cell counts and are vulnerable to colds. And once a person catches a cold or flu, stress can exacerbate symptoms. People who harbor herpes or HIV viruses may be more susceptible to viral activation following exposure to stress (Nidus Information Services, 2001).

The brain and intestine are strongly related and mediated by many of the same hormones and nervous system (indeed some research suggests that the gut itself has features of a primitive brain). It is therefore not surprising that prolonged stress can disrupt the digestive system, irritating the large intestine and causing diarrhoea, constipation, cramping and bloating. Excessive production of digestive acids in the stomach may cause a painful burning. Other health consequences on the digestive system include:

- irritable bowel syndrome where the large intestine becomes irritated, and its muscular contractions are spastic rather than smooth and wave like. The abdomen is bloated and the patient experiences cramping and alternating periods of constipation and diarrhoea. Sleep disturbances due to stress can further exacerbate the syndrome.
- Peptic ulcers – stress may predispose one to ulcers and sustain existing ulcers. It is estimated by some experts that social and psychological factors play some contributing role in 30% to 60% of peptic ulcer cases. The relationship between stress and peptic ulcers is so strong that attention to psychological factors is still warranted.

Stress can also have varying effects on eating problems and weight. Often stress is related to weight gain and obesity. Many people crave salt, fat and sugar to counteract tension and thus, gain weight. The release of cortisol, a major stress hormone, appears to promote abdominal fat and may be the primary connection between stress and weight gain. Some people on the other hand suffer weight loss due to stress. In rare cases stress may trigger hyperactivity of the thyroid gland, stimulating appetite but causing the body to burn up calories at a faster than normal rate(Nidus Information Services, 2001).

Anorexia nervosa and bulimia are eating disorders that are highly associated with adjustment problems in response to stress and emotional issues.

Stress has also been linked to the development of insulin-resistance, a condition in which the body is unable to use insulin effectively to regulate glucose (blood sugar). Insulin-

resistance is a primary factor in diabetes and stress can exacerbate the condition by impairing the patient's ability to manage the disease effectively.

Muscular and joint pains are also linked to stress e.g. some studies have linked job dissatisfaction and depression to back problems, although it is still unclear if stress is a direct cause of the back pain.

Tension type headaches episodes are highly associated with stress and stressful events. Among the wide range of possible migraine triggers is emotional stress (although the headaches often erupt after the stress has eased). One study suggests that women with migraines tend to have personalities that over-respond to stressful situations.

The tensions of unresolved stress frequently cause insomnia, generally keeping the stressed person awake or causing awakening in the middle of the night or early morning.

Stress has also been linked to sexual and reproductive dysfunction. According to Nidus Information Services, it can lead to diminished sexual desire and an inability to achieve orgasm in women. Stress response can also cause temporary impotence in men because part of the stress response involves the release of brain chemicals that constrict the smooth muscles of the penis and its arteries. This constriction reduces the blood flow into and increases the blood flow out of the penis, which can prevent erection.

The stress syndrome affects women who have premenstrual syndrome by making it more intense than in those without the syndrome.

Stress may also affect fertility because the stress hormones have an impact on the hypothalamus gland, which produces reproductive hormones. Severely elevated cortisol levels can even shut down menstruation((Nidus Information Services, 2001).

Pregnant mothers who suffer from stress have a 50% risk of miscarriage. Stress is also linked to low birth weight and incidences of premature births, both of which are risk factors for infant mortality. Pregnant mothers can influence the way in which the baby's brain and nervous system will react to stressful events. Stress may cause physiological

alterations such as increased adrenal hormone levels or resistance in the arteries, that may interfere with normal blood flow to the placenta.

Stress has significant effects on the brain, particularly on memory. The typical victim of stress suffers loss of concentration at work and at home and may become inefficient and accident-prone.

Other disorders associated with stress include allergies (sick-building syndrome, eczema, headaches, asthma and sinus problems) in office workers.

Skin disorders such as hives, psoriasis, acne, rosacea and unexplained itching may be caused by stress (Nidus Information Services, 2001). Unexplained hair loss (alopecia areata) whose cause is unknown is also linked to stress. Teeth and gum diseases have also been linked to stress.

People under chronic stress frequently seek relief through drug or alcohol abuse, tobacco use, abnormal eating patterns, or passive activities such as watching television. The damage these self-destructive habits cause under ordinary circumstances is compounded by the physiological effects of stress itself. Unfortunately, the cycle is self-perpetuating; a sedentary routine, an unhealthy diet, alcohol abuse which interfere with sleep patterns and lead to increased rather than reduced tension levels (Nidus Information Services, 2001).

2.5 Understanding workplace stress

Stress is on the increase everywhere and nowhere more so than in the workplace. Stress is a common feature of modern life. Feldman, 2001, points out in Japan, worker stress has been identified in more than 70% of the workers by a Fukoku Life Insurance Company study. *Karoshi* is a Japanese term meaning sudden death by overworking. The study revealed that most employees who worked more than 3000 hours per annum had *karoshi* listed as cause of death. Further, employees in Germany and Britain, too, have suffered the ill effects of stress costing their organizations more than DM 100 billion and £7 billion ($65 billion and $11.4 billion, respectively) (Arnold and Feldman, 2001:241).

According to an ILO Report released in 2002, the European Union estimates that work-related stress affects at least 40 million workers in its 15 member states and that it costs the European Union at least Euro 20 billion annually. It is therefore widely acknowledged that stress at work is a very common problem and that it has a very high cost in terms of workers' health, absenteeism and lower performance.

Workplace stress can be described as the harmful physical and emotional responses that can happen when there is a conflict between job demands on the employee and the amount of control and an employee has over meeting these demands. In general, the combination of high demands in a job and a low amount of control over the situation can lead to stress.

If the stress is intense and continuous and if pressures pile up, it can cause physical illness and psychological disorders (Mureau, 2000). Numerous surveys confirm that stress has progressively escalated everywhere – in developed but also developing countries. Stress has become a major health and safety issue across all occupations and sizes of companies, in the private and public sector (Mureau, 2000). Work related stress can no longer be ignored or merely tackled with remedial treatment. In spite of the fact that stress is an individual reaction, it is important to recognize that certain organizational, occupational, environmental and managerial conditions are more likely to produce adverse human reactions.

There are many factors within the work environment, which have been associated with stress, and there are many ways of categorizing these. Clearly jobs differ in terms of their characteristics so that occupation-specific stressors can be identified (Anshel et al, 1997 in Newell, 2002). Nevertheless, there are also connections across jobs and occupations which suggest that general models may also be useful. Newell (2002) mentions a model for general systems of categorization which was developed by Cooper and Marshall (1976) and is still used extensively today. They identified forty interacting factors which were grouped into seven major categories of managerial stressors. Although these categories focused on managerial employees, they have been found to be applicable to other groups as well (Newell, 2002). Five of the seven categories are tied directly to the person's job: factors intrinsic to the job, role in the organization, relationships at work,

career development, and organizational structure and climate. The sixth factor relates to factors outside the work environment i.e.extra-organisational sources of stress, including family, financial difficulties and conflict between work demands and outside commitments. The final factor relates to individual variability i.e. characteristics of the individual, focused mainly on personality differences and Type A behaviour.

Other causes of workplace stress are identified by Ivancevich and Ganster (1987:40) and include career transitions that require adaptation to important and uncertain outcomes. A career transition is a period in which a person changers career roles (interrole transition) or changes orientation to his or her current role (intrarole transition). Career transitions, such as job changes, are likely to be most stressful when they are undesirable, coerced, extensive, unexpected, accompanied by other life stresses, and experienced by people with inadequate psychological or social resources (Bhagat et al, 1985 in Ivancevich and Ganter, 1987:41).

The integrated organizational stress framework developed by Matteson and Ivancevich (1987) group stressors in the following categories: intrinsic job factors (role conflict, role ambiguity, work overload, insufficient control); organizational structure and control (red tape, politics, rigid policies); reward systems (faulty and infrequent feedback, inequitable rewards); human resource systems (inadequate career opportunities, lack of training); leadership (poor relationships, lack of respect). The integrated framework considers stress to be a part of a complex and dynamic system of transaction between the employee and his or her work and nonwork environment.

The model depicted in the diagram below shows feedback loops linking stressors and outcomes. It emphasizes that stress is an individual perceptual phenomenon.

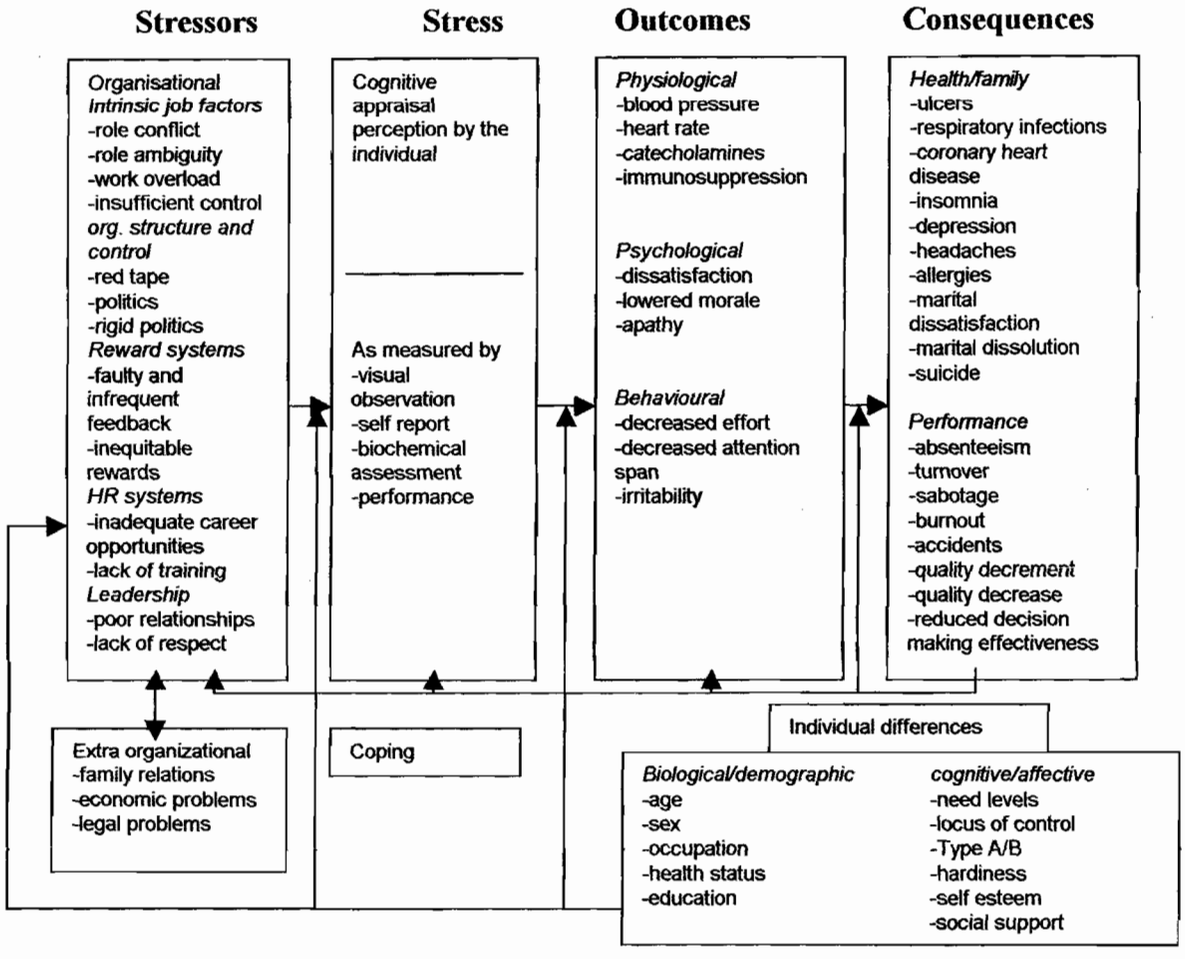


Figure 2.1: The integrated stress framework. Source: Matteson and Ivancevich Controlling work stress (1987).

Stress can be a positive, creative and motivating force or it can be a negative, debilitating and dangerous force (Girdano and Everly Jr, 1980:17). Positive stress is referred to a eustress and negative stress is referred to as distress. Eustress is an energizing or motivating force. However, when the stress arousal becomes too great, it will lead to a debilitating effect and performance will decline. This level of stress is called distress. This method of determining one's optimal stress level is depicted in Figure 2.2.

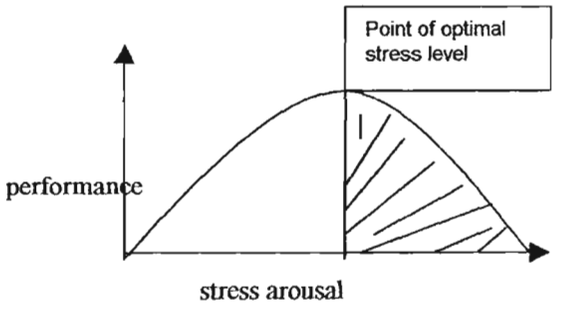


Figure 2.2: Determining optimal stress level (the shaded part refers to distress and the unshaded part is the eustress part) Source: (Everly Jr and Girdano, 1980:17)

Stress is, therefore, not necessarily a negative phenomenon and it would be a mistake to concentrate only on its pathological effects. A moderate level of stress can be an important motivational factor and can be instrumental in achieving a dynamic adaptation to new situations. The University of Manchester Institute of Science and Technology have come up with a list of occupations with high stress levels and have rated the occupations on a scale of 0-10. These occupations and ratings are indicated in Table 2.3.

OCCUPATION	RATING SCALE
Miner	8.3
Police Officer	7.7
Prison Officer	7.5
Construction worker	7.5
Airline Pilot	7.5
Journalist	7.5
Advertising executive	7.3
Dentist	7.3
Actor	7.2
Doctor	6.8
Broadcasting personnel	6.8

OCCUPATION	RATING SCALE
Nurse	6.5
Film production crew	6.5
Ambulance personnel	6.3
Musician	6.3
Firefighter	6.3
Teacher	6.2
Social worker	6.0
Personnel manager	6.0

Table 2.3: List of occupations and stress level rating scale
Source: Conditions of work digest: Preventing stress at work

2.6 ORGANISATIONAL STRESSORS

Some employers assume that stressful working conditions are a necessary evil – that companies must turn up the pressure on workers and set aside health concerns to remain productive and profitable in today's economy. Research findings show that stressful working conditions are actually associated with increased absenteeism, tardiness and intentions by workers to quit their jobs – all of which have a negative effect on the bottom line (www.cac.go).

There is no shortage of factors within the organization that can cause stress. Pressures to avoid errors or complete tasks in a limited time period, a demanding supervisor, and unpleasant co-workers are a few examples. Organisational stressors can be placed in the following categories – task demands, role demands (conflict, ambiguity, overload, underload), interpersonal demands (amount of contact with others, dealing with people in other departments), organization structure and organizational leadership, personal factors (career concerns, geographical mobility, rate of life change)

2.6.1 Task demands

Robbins and Decenzo (2001:241) state that task demands are related to an employee's job. They include the design of the person's job (autonomy, task variety, degree of automation, working conditions and the physical layout). Work quotas can put pressure on employees

when they are perceived as excessive. The more interdependence exists between an employee's task and the tasks others, the more potential stress there is.

Autonomy on the other hand tends to lessen stress. Jobs at which temperature, noise or other working conditions are dangerous or undesirable can increase anxiety. So, too, working in an overcrowded room or in an visible location at which interruptions are constant can cause stress.

2.6.2 Role demands

Role demands, according to Robbins and Decenzo (2001:242), are pressures placed on an employee as a function of the particular role he or she plays in the organization. Role conflicts occur when employees discover that different groups of people in an organization have widely varying expectations of them, and that they cannot meet all these expectations. This inconsistency of expectations associated with a role is called role conflict. There are two types of role conflicts in organizations namely intersender role conflict and intrasender role conflict (Arnold and Feldman, 1986:462).

2.6.2.1 Intersender role conflict

Intersender role conflict occurs when two different groups have expectations of an individual that are incompatible or inconsistent. Quick and Quick (1984:29), state that intersender role conflict is a very common situation in matrix forms of organization where an individual will have a functional manager as well as a project manager. It is not uncommon for the two managers to disagree somewhat in their expectations, leaving the individual caught in the middle.

2.6.2.2 Intrasender role conflict

Intrasender role conflict occurs when one group has incompatible or inconsistent expectations of another. This form of role conflict typically occurs in one's relationship with the supervisor or boss, though it is not limited to that relationship. Quick and Quick, (1984:29) give an example of a sales manager's job where the marketing vice president expects the sales manager to increase sales by 10% per year for the next five years. At the

same time, the vice president expects the salesman to keep advertising and entertainment expenses at approximately their current level so that the marketing unit can show improved profitability. The sales manager experiences these two expectations as conflicting since he thinks that he needs to spend money to increase sales.

2.6.2.3 Person-role conflict

Quick and Quick (1984:29) add a third dimension to role conflict which is person-role conflict. This occurs when there is a perceived incompatibility between an individual's values or beliefs and the expectations held by various role senders. This form of conflict puts an individual in rather direct opposition to the behaviours that others expect e.g. actions that might impact on one's moral or ethical beliefs.

2.6.2.4 Interrole conflict

Interrole conflict occurs when the requirements of one role are incompatible with requirements of a second role occupied by the incumbent. This form of conflict might arise for example, when a director of nursing in a hospital is expected by the hospital administrator to play a 'managerial' role yet on the other hand, the nursing staff also expect the director to place primary emphasis on direct-care activities as part of the professional 'nurse' role.

2.6.2.5 Role overload

Role overload is the last form of role conflict and is analogous to work overload. The difference is that work overload is based upon actual tasks and activities, while role overload is based upon the behaviours which are expected of the individual. This form of role conflict would occur when too many behaviours are expected of the individual in a period of time or when the behaviour expected is too complicated or difficult for the individual to execute. Overload may be of two types: quantitative or qualitative (Matteson and Ivancevich, 1987). When employees perceive that they have too much work to do, too many different things to do, or insufficient time in which to complete assigned work, a condition of quantitative overload exists. On the other hand, qualitative overload exists when employees feel that they lack the ability to complete their jobs or that performance

standards are too high, regardless of how much time they have (Matteson and Ivancevich, 1987).

Job performance may be affected by overload conditions in a variety of ways. Overload is associated with lowered confidence, decreased work motivation, increased absenteeism, and sharply reduced number of suggestions contributed. It may also be indirectly linked to decreases in decision-making quality, deterioration of interpersonal relations, and even increases in accident rates. Further, there are nine unwanted outcomes have been associated with overload affecting both health and performance, namely, job dissatisfaction, excessive job tension, low self-esteem, threat, embarrassment, high cholesterol levels, increased heart rate and skin resistance, and increased cigarette consumption. Clearly, these are outcomes that neither individuals nor organizations need.

2.6.2.6 Role underload

Role underload on the other hand occurs due to a lack of intrinsic merit or value in particular tasks (Pettinger, 2002:62). Arnold and Feldman (1986:463), define role underload as the condition in which employees have too little work to do or too little variety in their work. Ironically, role underload can lead to many of the same problems as role overload i.e. low self-esteem, increased frequency of nervous symptoms and complaints, increased health problems. One of the most disturbing outcomes of role underload is passivity. Workers with role underload report they feel both physically and psychologically weary; even when they are not at work, they do not show much interest in social activity or physical exercise (Arnold and Feldman, 1986:463).

2.6.3 Role ambiguity

Role ambiguity results whenever there is:

1. inadequate information about what role behaviour is expected;
2. unclear or confusing information about expected role behaviours;
3. unclear or confusing information about what behaviours will enable the incumbent to fulfill the role expectations ; or
4. uncertainty about the consequences of certain role behaviours (Van Sell, Brief and Schuller, 1981 in Quick and Quick, 1984:30).

In the first case, the ambiguity arises because the role senders, especially the key ones such as the supervisor simply do not communicate adequate information to the role incumbent about what is expected. As a result, the incumbent does not understand his role in terms of specific behaviours.

In the second case, the ambiguity arises because the role sender(s) communicate information that is unclear or confusing. This is prone to occur in work environments where technical terms or jargon unfamiliar to the role incumbent are prevalent e.g. administrative staff in health care or hospital settings might initially experience role ambiguity because of the use of large amount of medical terminology.

In the third case, ambiguity is attributable to uncertainty about what behaviours will enable the incumbent to fulfill the role expectations, which are clear in and of themselves. Quick and Quick (1984:31) cite the example of an airline personnel manager who was tasked with improving personnel services for the maintenance, data processing and finance personnel at a given location. The assignment is to reduce the intraorganisational conflicts at that location, improve the performance appraisal processes, and reduce the number of union grievances. While the role expectations are relatively clear, it is not all clear immediately what behaviours and activities will enable the manager to fulfill these expectations.

Finally, ambiguity for the role incumbent may arise if the consequences of a specific role expectation are unclear. Quick and Quick (1984:31), cite an example of a sales representative who may be required to establish a sales goal for the territory as a result of a new corporate MBO programme. This task of eliminating and stating such a goal may not be difficult at all. However, ambiguity intrudes into the situation because what is not clear is the result of meeting the goal (a bonus?); exceeding the goal (a bigger bonus?); or no bonus because the goal was too low?; or failing to meet the goal (no consequence because it was a difficult goal?); or a commission penalty for failure to meet the goal?).

Matteson and Ivancevich (1987), point out that role ambiguity does not have to be a long-term condition to function as a stressor. Nonetheless, temporary conditions e.g. promotion

or transfer, a new boss, the first supervisory responsibility, a new company or a change in organizational structure can cause a dysfunctional stress response. Except for those few who are unable to cope with any lack of clarity, no matter how short the duration, it is the condition of chronic ambiguity that poses the greatest threat to individuals' adaptive mechanisms.

2.6.4 Interpersonal stressors

Interpersonal stressors at work are concerned with the demands placed upon us in the normal course of social, personal and working relationships in the organizations (Quick and Quick, 1984:34). Robbins and Decenzo(2001:242), state that interpersonal demands are pressures created by other employees. Lack of social support from colleagues and poor interpersonal relationships can cause considerable stress, especially among employees with a high social need. Individuals have various distinctive personalities and behaviour characteristics which are a source of stimulation for some people (positively stressful) and a source of aggravation and irritation for others (negatively stressful). Individuals with clear-cut, powerful personalities may be more stressful for us to deal with than bland, withdrawn individuals, although the reverse could also be the case. Selye (1974) in Quick and Quick (1984:35) points out that living with other people is one of the most stressful aspects of life. There are various individual characteristics which we possess as well as various aspects of informal group behaviour within organizations that make this so.

Quick and Quick (1984:35) list five interpersonal stressors namely status incongruence, social density, abrasive personalities, leadership styles and group pressures.

2.6.4.1 Status incongruence

Status incongruence - each individual occupies a unique social status within a group in an organization. This social status is based upon many factors, such as educational and family background, technical competence, professional accomplishment, membership in associations and clubs, income level as well as formal position and responsibilities. Individuals of higher social status within an organization receive privileges not enjoyed by individuals of lower status. Individuals of lower status also defer more frequently to those

in higher status positions. Stress is caused for the individual who does not perceive himself in a social status commensurate with the various social attributes which normally are used to determine such status.

Status incongruence may also occur if an individual is in a higher status position than that to which the individual feels entitled. This form of status congruence will cause less frustration and more insecurity. The insecurity is caused by not having all of the social attributes the individual views as necessary for the higher level status position. Quick and Quick (1984:36), cite the case of a nursing administrator who had to regularly deal with the hospital's board of directors. She did not feel secure in relating to the various board members on an equal level although she was accorded that position by the board members.

2.6.4.2 Social density

Each individual has varying needs for interpersonal space or distance. When this distance is violated and people are too close, they experience stress. The effects of crowding have been studied in a variety of settings by VC Cox and Associates (Quick and Quick, 1984:37). Their findings suggest that crowding leads to significant psychological stress which in turn contributes to increases in both contagious and noncontagious illnesses. On the other hand, when there is not an adequate proximity for social contact, that also is perceived as stressful. Evans (1969) in Quick and Quick (1984:37), points out that increasing social density may be overdone. Evans (1969) found that where social density was too high, individuals did not have an adequate amount of space to work in. In addition, he found that their performance suffered and their work satisfaction declined. Physiologically, individuals working in these crowded conditions also had increases in their blood pressure. This suggests that both too great or too little a social density will cause stress for individuals at work.

2.6.4.3 Abrasive personalities

This is another interpersonal stressor to which an individual may be subjected to. Such individuals may not intend to create stress and strain for others at work, but they do. Abrasive personalities cause stress for others by ignoring the interpersonal aspects of human interaction, the feelings and sensibilities of fellow employees and the depth and

richness of their own emotional lives. Abrasive personalities are often achievement-oriented, hard-driving, and intelligent (Quick and Quick, 1984:37). Thus, they may function very well at the conceptual level but not do nearly as well at the emotional level.

Quick and Quick (1984:37), identify several ways in which abrasive personalities cause stress and strain for others at work, namely,

- Their condescending and critical style places others in a constantly subordinate position in which they are also viewed as "unimportant";
- Their need for perfection in each task they undertake often causes others to feel inadequate or "outdone";
- their attention to self leaves little energy for thoughtful and sensitive attention to the needs of other individuals at work;
- They prefer to do all work themselves, leaving others out of their projects and activities. This leaves others feeling useless and inadequate;
- Their competitive nature fosters a conflicted and divisively competitive work environment as opposed to a cooperative and mutually achievement-oriented environment.

Abrasive individuals can be difficult enough to deal with as colleagues and coworkers, but in positions of management and leadership they may scatter stress and strain throughout the whole organization.

Arnold and Feldman (1986:463), identify the following three factors as additional interpersonal stressors:

- amount of contact with others. Jobs vary in terms of how much interpersonal contact is built into them. Some jobs, like security guards or research scientist, involve relatively little interaction with others. In contrast, jobs like administrative assistant or waitress require constant human interaction. While most of the interactions proceed smoothly, over time people become burned out and feel a need for privacy. Too much prolonged contact with other people may cause stress. This stress is exacerbated when the people we come into contact with are in distress themselves e.g. employees in health care services who report the highest

level of stress. It is ironic that doctors have the highest rate of alcoholism of any of the professions and that psychiatrists have the highest rate of suicide;

- amount of contact with people in other departments. Having contacts with people outside of one's own department creates a special kind of stress. People in other departments do not always have adequate understanding of jobs outside their own areas. As a result, they are more likely to make requests that cannot be honored or set deadlines that cannot be met;
- organizational climate. The overall psychological climate of the organization can create stress. When day to day life in an organization is marked by unfriendly, distant or hostile exchanges, employees are continually tense. They have little trust in each other and do not express their true concerns and desires. Further, they are unsupportive of each other and spend little time helping each other with problems. Some employees see the organization as a minefield, waiting to go off at the first misstep. Fear is always prevalent in the corporate structure – fear of bungling a job, insecurity, losing customers, not fitting into the company mold. There are situations where managers can neither confide in his subordinates nor in his superior for fear of appearing weak as opposed to being seen as a tower of strength, knowledge and wisdom. Some boards of directors in companies are only interested in profits and do not care how and at what cost those profits are achieved. A situation of infighting of man against man is therefore created for survival and clawing to the top. The stress such organizations cause for their employees is severe; the damage such stress creates is incalculable.

2.6.5 Leadership styles

Managers and supervisors are in a unique position to cause stress for their subordinates, either willingly or unwillingly. The interpersonal leadership style, as opposed to the technical aspects of supervision adopted by a manager has long been seen as a potential source of tension for subordinates (Lewin, Lippit and White, 1983, in Quick and Quick, 1984:38). Authoritarian behaviour on the part of a leader tends to cause pressure and tension for subordinates because of the high number of influence attempts undertaken by the leader. The underlying tension among subordinates tends to be expressed in two ways i.e. the subordinates may become very outwardly calm and passive, repressing much of the

tension and hostility which they experience. This repressed (as opposed to expressed) anger may lead to high blood pressure over extended periods of time. The second way is for the tension to be expressed in spontaneous outbursts of conflict and aggression in the workplace. While this may be healthier for the expression of anger and tension, the conflicts will generate some stress for others around them to cope with.

Bullying is another source of interpersonal stress. Bullying is a persistent, offensive, abusive, intimidating or insulting behaviour, abuse of power of unfair penal sanctions which make the recipient feel upset, threatened, humiliated or vulnerable. It undermines their self confidence (Schafer, 2002) and results in feelings of shame, fear, embarrassment and guilt. These feelings are normally encouraged by the bully, who is usually the superior of the person being bullied. Continuous bullying may lead to ill-health symptoms, reactive depression and to post traumatic stress disorder.

Further, victimisation from employers commonly involves assignment to menial tasks, criticism and denigration, rejection of input, demotion, isolation (physical and from communications), restrictions of training and other opportunities, threats of disciplinary action and intimidation of supportive fellow workers. Employees in these situations commonly become anxious, depressed and develop other somatic symptoms of stress (e.g. ulcers, hypertension, sleep disturbance). They also tend to take extended periods of sick leave after having been referred to doctors of the employer's choice, sometimes because of increasing time off work, but often as part of the victimization process (www.uow.edu.au).

2.6.6 Group pressures

Group pressures is another form of interpersonal stressors in the workplace. Many groups in an organization place pressures on their individual members which are a source of stress and tension. These groups are often part of an informal organization which evolves within any formal organization (Roethliberger and Dickson, 1939, in Quick and Quick, 1984:39). The informal organization has as its fundamental building block the informal group, which overlaps in varying degrees with work groups in the organization.. These informal groups have a dual impact upon the individual in that they may be either a cause of stress because of various pressures and group sanctions or a refuge and source of strength because of the

social support system they provide for the individual. The latter is the case in cohesive groups that enable individuals to meet certain emotional needs, such as interpersonal and physical safety. It is those situations in which these groups pressure their members and cause stress that are of concern.

Groups establish their behavioural norms which function as standards or conduct for members of the group. These norms are frequently unwritten and operate through a process of consensual understanding. A violation of these informal codes of behaviour typically results in group sanctions to realign the individual's behaviour with the norms (Quick and Quick, 1984:39). The stress caused by group pressures and behavioural norms results in part from the frustration of an individual's natural drives and urges (Freud, 1961 in Quick and Quick, 1984:39). When an individual is required to work or function in a group context, he must curb his aggressive urges. This frustration of natural drives and urges that occur as part of being able to get along with other people in the world (or group), is inevitably distressful for the individual because it inhibits the release of natural energies that arise within the individual.

2.6.7 Personal factors

Personal factors that affect individuals the work place include career concerns, geographical mobility and the rate of change in their personal lives (Arnold and Feldman, 1986:466). Quick and Quick (1984:40) further state that it is difficult to understand an individual's stress and strain without examining the whole experience at work as well as away from work. Stressful events of a personal nature also have an effect upon an individual's performance effectiveness and adjustment at work. Therefore, we cannot totally ignore the extraorganisational stressors to which an individual is subject.

2.6.7.1 Career concerns

One major concern that can cause stress is lack of job security. With the exception of some unionized employees, workers generally lack job security. When the economy worsens or the profits of the firm go flat, people become especially worried about how they could support themselves if they lost their jobs. A second career concern that can cause employees stress is status incongruity i.e. having jobs with less status (power,

prestige) than they think they deserve. People are likely to feel stress if they are in a job that they consider beneath them (Arnold and Feldman, 1986:464). Status incongruity makes an individual feel defensive at work and pose questions such as what am I doing wrong? What could I do to get ahead? Such career concerns also create self-induced pressure to perform at super-high standards and makes individuals overly sensitive to criticism and resentful of the success of others (Arnold and Feldman, 1986:466).

2.6.7.2 Geographical mobility

Geographical moves create stress because they disrupt the routines of daily life. Everything in employees' lives is in flux. Simple activities like shopping, driving to work take more effort. Workers have fewer friends to turn to for social support. When geographical moves are undertaken as part of a job transfer, the moves can be even more stressful. The transferred employees are likely to feel out of control at work, too, and experience their new work environment as unpredictable.

Arnold and Feldman (1986:466) further state that moving also creates problems for the spouses and children of employees. They, too, are uprooted from schools, jobs and friends. They are often lonely and need help in getting settled and adjusted. For employees who have just moved, it is not uncommon for the stress at work and the stress at home to start feeding off each other in a negative cycle. The more changes that occur in a person's social relationships, financial affairs, or family life, the greater the person's stress will be. The faster those changes occur, the more that stress is exacerbated.

A scale developed by T H Holmes and R H Rahe and their colleagues at the University of Washington (Table 2.4), provides a quantitative measure of how quickly people's lives have changed over a 12 month period. This scale has forty-three different events which are rated for the amount of stress it typically creates – the more stressful the event, the more points assigned. By totaling the number of points associated with all the changes that occurred over the past year, people can obtain a good measure of how much stress they have had to contend with (Arnold and Feldman, 1986:466).

Holmes and Rahe found they could predict stress-related diseases from scores on this rating scale. If a person experiences changes that add to more than 200 scale points in single year, he or she has a 50-50 chance off incurring a serious health problem the following year. The scale points out another phenomenon – as far as stress goes, there can be too much of a good thing. Several of the life events in the rating scale are positive (marriage, outstanding personal achievement, vacations). However, even these positive events require some adjustment. Marriage for instance requires many compromises and changes in daily routines. Even if the stress is associated with positive events, it still takes its toll.

2.6.7.3 Transitional factors

Transitional factors also play a role in the creating interpersonal stress. One particularly important transition period is that from active work life to retirement (Quick and Quick, 1984:41). How this transition is managed has important implications for individuals as well as for the organizations from which they retire. Retirement is a very stressful transition for a majority of individuals, but it need not be distressful. How individuals and their organizations manage this transition factor will influence not only the individual's stress with regard to experience, but also the stress of others in the individual's work environment. For these reasons, retirement and other transitions are of some concern in the management of workplace stress.

Table 2.4: Scale of stressful life events

Life event	Scale value
Death of spouse	100
Divorce	73
Marital separation	65
Jail term	63
Death of close family member	63
Major personal injury or illness	53
Marriage	50
Fired from work	47
Marital reconciliation	45
Retirement	45
Major change in health of family member	44
Pregnancy	40
Sex difficulties	39
Gain of a new family member	39
Business readjustment	39
Change in financial state	38
Death of a close friend	37
Change to a different line of work	36
Change in number of arguments with spouse	35
Mortgage over $10 000	31
Foreclosure of mortgage or loan	30
Change in responsibilities at work	29
Son or daughter leaving home	29
Trouble with in-laws	29
Outstanding personal achievement	28
Wife begins or stops work	26
Begin or end school	26
Change in living conditions	25
Revision of personal habits	24
Trouble with boss	23
Change in work hours or conditions	20
Change in residence	20
Change in schools	20
Change in recreation	19
Change in church activities	19
Change in social activities	18
Mortgage or loan less than $10 000	17
Change in sleeping habits	16
Change in number of family get-togethers	15
Change in eating habits	15
Vacation	13
Christmas	12
Minor violations of the law	11

Source: Ruch, L. O., & Holmes, T H (1971, June). Scaling of life: Comparison of direct and indirect methods. Journal of Psychosomatic Research, 11, 213. Cited in Arnold and Feldman, (1986: 467)

A healthy organization is crucial to the bottom line. A healthy organization is defined as one that has low rates of illness, injury and disability in its workforce and is also competitive in the marketplace. The healthy organization is characterized by recognition

of employees for good work performance, opportunities for career development, an organization culture that values the individual worker and management actions that are consistent with the organizational values (www.cdc.gov).

2.6.7.4 HIV/AIDS in the workplace

The prevalence of HIV/AIDS in recent times will directly affect the productivity of the workplace. Productivity and profitability are directly and negatively impacted by absenteeism, loss of skills, decrease in employee morale, industrial relations issues, increased medical costs. One person will be forced to do the job of at least three people.

The realities of HIV/AIDS in the workplace need to be addressed by employers, but handled appropriately (www.101.co.za). Employers must understand what obligations they have and know their employees' rights. Under the Employment Equity Act a company cannot compel its employees to submit to an HIV/AIDS test, unless such a test is determined to be justifiable by the Labour Court.

Employers are also prohibited from discriminating against employers on the basis of the HIV status, in terms of the Employment Equity Act of South Africa and the constitution.

Some problems that are apparent with South African employers include the fact that there are no HIV/AIDS workplace policies in most companies. Confidentiality of HIV positive workers is not maintained, stigma and discrimination is the order of the day, management is still ignorant and they are not supportive. Employees are also afraid to talk and do not have anyone to confide in. A statement made by former President Nelson Mandela states that "business has suffered or will suffer losses for personnel, productivity and profits; economic growth is being undermined and scarce development resources have to be directed to deal with the consequences of the pandemic".

It is only recently that large companies like Coca Cola South Africa, Old Mutual, BMW South Africa have intensified their workplace campaigns to deal with the HIV/AIDS pandemic. Says Ian Robinson, MD of BMW South Africa, "this remarkable milestone is the sign of a strong workplace programme based on our commitment to fight against HIV/AIDS, an effective testing programme and a culture of trust amongst employees.

Employees know that their right to the confidentiality of their results is guaranteed and that their job security is not dependent ton their HIV status".

Workplace stress must be managed for the benefit of the organisation. The ramifications of not properly managing stress can be far reaching. The decrease in productivity levels impact on profitability and this should be managed as best as possible. Learning to deal with stressors is no longer a luxury – it is a necessity (www.solvevourproblem.com).

Suggestions have been made which help in creating a healthy workplace and managing stress. These include increasing levels of participation in decision making, increasing levels of involvement so that employees can use their skills and abilities more fully (primary initiatives). Secondary initiatives include implementation of employee assistance programmes e.g. organizing crèches and day care centers for children of employees. Training and programmes aimed at improving the lifestyle of employees in terms of diet and exercise is also crucial. Tertiary initiatives include any programme that focuses on helping the individual cope with stress that has already developed e.g. relaxation training, changing cognitive reactions, counseling and changing behaviours (Newell, 2001).

While workplace stress is a necessity, it does not have to inevitably lead to the problems discussed above. Stress can markedly increase blood levels of endorphins, naturally occurring morphine-like hormones associated with pain relief and feelings of well-being (McCubbin, Surwit, & Williams 1985 in Ivancevich and Ganster, 1987:43). Eustress (positive stress) can compel one to do a good job and to work energetically. Likewise exercise can produce a temporary stress on some body functions but its health benefits are indisputable (http://stress.about.com).

2.7 The changing role of women

Until the 1960s, a woman's primary role was wife and mother: normality for these women was defined as adaptation to these roles. Competence and accomplishment were measured through the success of their husbands and children. However, some women – especially western women – did attend college and some even earned advanced degrees. Many of these women faced uncomfortable conflicts as they realized they were intelligent and capable, yet female; in essence, they were "smart for a girl". In reality, these women were trained companions for brilliant men: they knew their limitations in business and society at large. Hence, they too became proper wives and mothers albeit college educated (Madden, 2000).

Social acceptance of wider roles for women began to emerge in the 1960s, and women began to professionally integrate themselves into industry. Professional women were not encouraged to pursue nor coached into higher level positions in business, as it was stereotypically assumed women were too subjectively value laden and illogical to be effective leaders and trend setters (Toffler, 1980 in Madden, 2000). Hence, although women have made great stride in the workplace, women are still encountering gender stereotyping and prejudice (Madden, 2000).

The workforce is changing with more women now employed. Women bring a unique set of dynamics to the workplace because they have to deal with interrole conflicts – attend to families as well as their jobs. The challenges they face in the workplace range from lack of training, lack of support from male colleagues, sexual harassment, isolation from health and safety issues, job insecurity, discrimination, hostile work environment, reproductive hazards.

The tremendous influx of women into the workplace has led to the changes being experienced in the workplace today. The increase of women in the workplace will help pave the way for the worksite wellness movement and women will help maintain it (Kizer, 1987:36). This is because a majority of career women will continue having children and workplace wellness programmes will have to cater for dependents. Perceptions will also shift from the working mother to the working parent (Kizer, 1987:36). Though this has

been done reluctantly in the past, the workplace will have to make adjustments for the concerns of women and cater for interrole conflict. Interrole conflict occurs when two roles held by one person are in conflict e.g. the roles of mother and career woman have often been found to conflict and lead to stress (Newell, 2002). Adjustments that have had to be made to accommodate women include flexible working hours, job sharing, and childcare facilities.

Some facts compiled by AFL-CIO, an American organization that has a membership of 5,5 million working women in America and a powerful voice for working women, reveals following statistics:

- In the United States, 99 out of every 100 women will work for pay at some point in their lives and they are looking for solutions to the problems of juggling work and family, making ends meet and finding respect and opportunity on the job;
- One in two workers are women;
- Three in five workers at or below minimum wage are women;
- Four in five mothers of school-age children work for pay;
- One in five working women have administrative support jobs;
- One in two people who work more than one job are women;
- One in two working women provide half or more their household income;
- Seven in 10 married working mothers work more than 40 hours a week; and
- Two in five union members are women.

Since the 1970's the number of women in the paid labor force has increased by 112 per cent. The percentage of children and mothers in the paid workforce has increased 28 per cent. Combined work hours for dual-earner couples with children rose 10 hours a week. The gender wage gap decreased by 15 cents to 77 cents for every dollar a man earns.

The survey further gives the following projections for women entering the workforce:

- In 1950, only one-third of the US labour force was female; by 2003 that proportion was approaching one-half (46 per cent). By 2010, women are projected to account for 48 per cent of the total labour force;

- The number of working women has grown from 5,3 million in 1900 to 18,4 million in 1950 and to nearly 65 million in 2003 and is projected to 75,5 million by 2010;
- The paid labour force participation rate for women has grown from 34 per cent in 1950 to more than 60 per cent in 2003. By 2010, more than 62 per cent of women will be in the paid work force. In comparison, the labour force participation rate for men has steadily declined from nearly 80 per cent in 1970 to less than 76 per cent in 2003.

Although women workers are still more concentrated in certain industries and occupations than men, women have made progress by taking on new roles in the workplace and entering certain traditionally male occupations e.g. medicine, dentistry, law.

Women are faced with the following stressors at the workplace which include violence, sexual harassment, ceilings placed on their career advancement, insubordination from juniors, racial discrimination, work assignment disparity, organizational culture and sensitivity and organizational supports (Lundy and Younger, 1994).

2.7.1 Violence against women in the workplace

There are four types of workplace violence committed against women (AFL-CIO Survey, 2004):

1. Violence committed by clients or patients – this category includes customers, clients, patients, students and inmates. These incidents occur largely in the health care industry, such as nursing homes or psychiatric facilities, where the victims are often patient caregivers. Police officers, prison staff, flight attendants and teachers are also examples of workers who may be exposed to this type of violence.
2. Violence associated with robbery or other crimes – the perpetrator has no legitimate relationship to the business or its employees. Convenience store clerks, taxi drivers and security guards are exposed to this type of violence;
3. Violence among co-workers or managers – the perpetrator is an employee or former employee of the business who attacks or threatens another employee in the workplace. Although this type of violence accounts for 7 per cent of all workplace homicides, these incidents receive intense media coverage.

4. Domestic violence that spills into the workplace – the perpetrator usually does not have a relationship with the business but has a personal relationship with the intended victim.

2.7.2 Sexual harassment

Sexual harassment has become a major source of worry for women. Robbins and Decenzo (2001:204) state that sexual harassment is a serious issue in both public and private sector organizations. The authors indicate that data indicate that almost all Fortune 500 companies in the United States have had complaints lodged by employees, and about a third of them have been sued. Not only were the settlements in these cases very costly for the companies in terms of litigation, it was estimated that it costs a "typical Fortune 500 company $6,7 million per year in absenteeism, low productivity and turnover". Sexual harassment is a global issue.

Robbins and Decenzo (2001:204) define sexual harassment as any unwanted activity of a sexual nature that affects an individual's employment. It can occur between members of the opposite sex or same sex.

Much of the problem associated with sexual harassment is determining exactly what constitutes this illegal behaviour. There are three situations in which sexual harassment can occur. These are instances in which verbal or physical conduct toward an individual (1) creates an intimidating, offensive, or hostile environment; (2) unreasonably interferes with an individual's work; (3) adversely affects an employee's employment opportunities. Robbins and Decenzo (2001:205) state that for many organizations, it is the offensive or hostile environment that is problematic.

2.7.3 The Glass ceiling

The prevailing historical attitude of men towards women would have us believe that physiological differences limit women in their choice of career, their intellectual maturity, their credibility as well as their ability to be effective contributors to the advancement of human society. Further, these differences warrant that women be treated differently from men (Johanne Toussaint, 1993 available at http://eserver.org). Toussaint (1993) further

states that this attitude defines a view of women in which their "role" is that of keeper of hearth and home while that of the man is to provide for and protect this "weaker sex". This view continues to define the different social roles for men and women.

Not to take away from similar problems that men may face, the reality is that a woman is more directly affected by discriminatory policies than a man. Where the problem she faces are symptomatic of a disease which corrupts our social structure, the man's problems are aberrations within the norm. Toussaint (1993) states that a woman is more vulnerable in a professional situation because of perceived notions of her capabilities e.g. when a woman attains enviable positions in the workplace there may be doubts as to whether that position is warranted because of merit or to fulfill a quota requirement.

There is potential for women to achieve equal footing with men, but the social mores and male attitudes make an effective barrier to women rising above a certain point; this tendency brings to mind a glass ceiling. Because it is invisible until one reaches its border, women believe that equal rights can become a reality for them. However, until that ceiling caves in, women will continue to be second-class citizens despite changes in the law.

The changing male/female dynamics in the workplace also contributes to stress. Men and women have differing work motivations – often creating confusion and conflict in communications. Men are cultured to be "in control" and active, yet workplace changes are forcing them to deal with situations that seem to be out of their control. Little of their training has prepared them for this event (www.itstime.com).

2.7.4 Interrole conflict

Women have been found to experience stress more than men from conflicting work and family demands. They tend to put family demands before personal needs, feel guilty and stressed if they perceived that their role as provider takes away from their time as nurturer and tend to exhibit greater concern and stress if they feel that they are neglecting their partners (Lundy and Younger, 1994).

Women are joining the workforce in increasing numbers without relinquishing their family responsibilities. Women continue to be the majority of clients whom most human resources personnel serve, and more and more of those women clients are in the work place. Services to those women must be informed by a perspective which sees women whole (Lundy and Younger, 1994).

The nature of work has also undergone changes over the last century and it is still changing at whirlwind speed (www.lifepositive.com). Intense economic transformations and consequent pressures have put great demand on everyone from junior workers to executives. Job insecurity, high demand for performance, technology, workplace culture, personal or family problems are some of the issues that occur in the modern workplace. According to an AFL-CIO report of 2004, whether working in a factory in Thailand sewing athletic shoes for less than $4 a day or in a Mexican factory making parts for US cars at $10 a day, women are among the hardest hit by the global economy. According to a UN Development Fund for Women report of 2003, most women throughout the world work in semi-skilled, low-wage jobs. They are paid less than men in nearly every country in the world and they work longer hours.

The report further states that women account for 70 per cent of the world's population living in poverty – even though they make up 45 per cent of the world's workforce. Their work is dangerous and many women risk their lives each time they go to their jobs. In Juarez, Mexico, 370 young Mexican women have been killed in the past 10 years. Many of them were killed just outside their workplace in maquilas, foreign-owned plants that multiplied along the US-Mexico border after the North American Free Trade Agreement (NAFTA) was signed in 1994. Further, the women were subjected to physical abuse and pregnancy exams a condition of work.

Madden (2000) notes that it is ironic that just when women seem to be integrating into today's business world the concept of business is beginning to change. Successful businesses of the future will be consensual and participatory, as effective business leaders will promote guiding – not controlling – events and people. Effective businesses will create and maintain a supportive environment, including an atmosphere where employees are rewarded for coaching others to obtain goals, where diverse opinions are welcome and

appropriately displayed emotion is welcome. In essence, many of the considered hallmarks of future successful business e.g. listening, coaching, displaying emotion and values are all stereotypically female attributes (Toffler, 1980 in Madden 2000).

Interpersonal and emotional intelligence is another area that is gaining ground in organizations – trust and compassion are becoming important to the bottom line because men and women have differing work motivations – often creating confusion and conflict. Men are cultured to be "in control" and active, yet workplace changes are forcing them to deal with situations that seem to be out of their control. Little of their training has prepared them for this event (www.itstime.com).

Mistrust is financially costly both internally and externally to business. Both men and women are beginning to realize emotional intelligence should not be thought of as gender specific, and that business can be a blend of nurturing and task oriented behaviours (Cooper, 1997, Saarni, 1999).

An interesting point made by Madden (2000) is that future consumers will begin to refuse to purchase products produced by stressed, unhappy, mistreated, harassed, or held back employees.

Working women in South Africa are far from immune from workplace stress. According to Lee Senior, head of Independent Counselling and Advisory Services (ICAS), stress over worklife issues appears to be on the increase among South African women as they take more senior positions while carrying the bulk of responsibility at home (www.sundaytimes.co.za). The greater unpaid workload and "double exposure" (to home and job strain) interferes with women's ability to wind down.

One study found that women, particularly those with children at home, have higher levels of the stress hormone, norepinephrine, during and after work, placing them more at risk of health problems and depression. Men's "effort" decreases when they get home; so does the level of the hormone. Indeed, stress-related illness is nearly twice for women.

According to the ICAS report, many organizations give lip service to work-life balance and employment in a non-standard arrangement often means lower hourly wages, benefits and job security. Further, mothers pay a 'penalty' for each child: 6 per cent for one child; two children equal 13 per cent penalty in earning.

On the plus side, employed women tend to have fewer sick days, better psychological health and greater resilience to family role stress than unemployed women. This is especially the case for women in higher-status positions, and those in work environments that provide support and encouragement, challenging tasks, a balanced workload, clear expectations and little conflict (www.sundaytimes.co.za).

Wise organizations, understanding that their 'edge' lies in their people, recognize the importance of developing and retaining female talent. Studies carried out in the US and UK indicate that companies with women in top positions actually produce higher earnings and shareholder wealth (Bennet, 2003). Further, generous benefits such as flexitime, telecommuting, paid parenting leave, reduced hour careers and compressed workweeks allow high-achieving mothers to stay in their careers, which translates into lower turnover rates and hiring and training costs for companies.

Organisations need to acknowledge that as more women enter the workplace, conditions at work as well as training and wellness programmes will have to be revised from the traditional practices to cater for the needs of female employees. This should be done in order to provide safe, healthy and fair conditions for all.

2.8 The measurement of job performance

The measurement of job performance is a universal yet commonly problematic organizational activity (Bailey, 1984:viii). While there are many problems associated with performance appraisal and measurement, prior to any of those associated with appraisal are the problems of measurement itself.

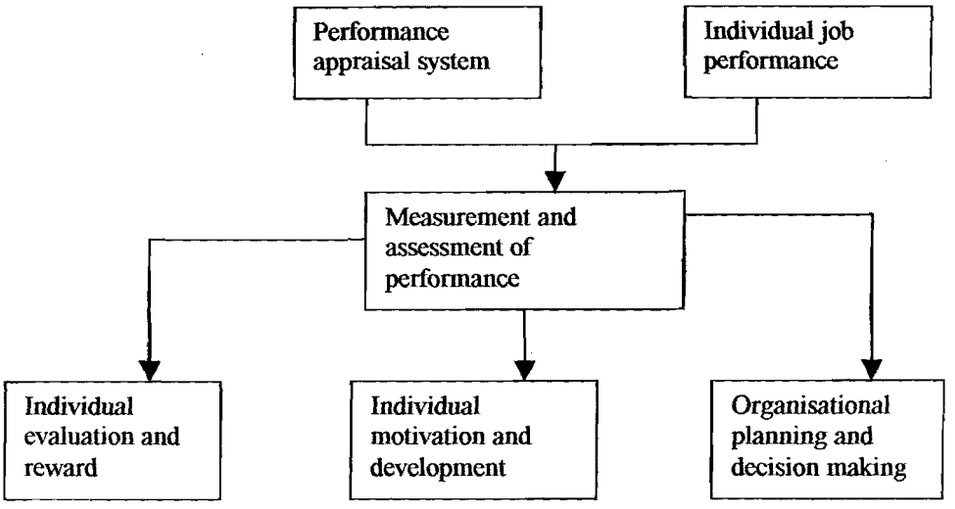
Bailey (1984:1) states that a common aim of industrial, occupational and organizational psychology is to provide an understanding of behaviour in the work environment, an ultimate goal being to inform the decisions that are made in managing human resources.

While the behaviour of people within work environments is an area of considerable interest and research, the traditional and enduring concern of managers and researchers alike is the performance of an individual in his specific work task. Specifically, concern centers on the extent to which these work behaviours are effective, productive, desirable, appropriate, successful in meeting objectives.

Bailey (1984:1) further states that the focus on job performance emanates from the fact that that performance is often a critical factor in decisions made about the employment, utilization and maintenance of human resources. As the quality of these everyday decisions depends, at least, on the quality of the information on which they are based then it is not surprising that organizations attempt to systematize and institutionalize the ways in which individual performance information is gathered – usually through a process of performance appraisal.

Performance management can be defined as the activity of tracking the performance of an organization or investment over a period of time against specific targets and looking for opportunities to improve. The purpose of performance management is to improve performance in critical areas by creating accountability to goals and objectives. Whether an individual is judged to be competent or incompetent, effective or ineffective, promotable or unpromotable is based upon the information generated by the performance appraisals (Arnold and Feldman, 1986:306). In addition, organisations use the information generated by performance appraisals to stimulate the personal development of organization members. Effective appraisals generate information regarding the personal strengths and weaknesses of the individual. If such information is fed back to the employees in a clear, unambiguous and non-threatening manner, the information can serve to increase feelings of self-esteem and personal competence. It can also serve to stimulate training and development in order to overcome the weaknesses identified. Arnold and Feldman (1986:307) state that future appraisals then provide a means of monitoring and assessing the improvements arising from attempts to deal with performance problems.

Figure 2.3: A model of the performance appraisal process



Source: Arnold and Feldman Organisational Behaviour. (1986:306)

Besides providing the basis for evaluation, motivation and development of organization members, effective performance appraisals generate information that can be of significant value to the organization in planning its future human resource needs and policies.

A performance management system establishes performance standards and evaluates performance in order to arrive at objective human resource decisions – such as pay increases and training needs – as well as to provide documentation to support any personnel actions (Robbins and Decenzo, 2001:199). Undoubtedly, performance appraisals are important. But how does one evaluate an employee's performance? Robbins and Decenzo (2001:199) list the following methods for conducting performance appraisals as indicated in Table 2.5.

METHOD	ADVANTAGE	DISADVANTAGE
Written essay	Simple to use	More a measure of evaluator's writing ability than of employee's actual performance
Critical incidents	Rich examples behaviourally based	Time consuming; lack quantification
Graphic rating scales	Provide quantitative data; less time consuming than others	Do not provide depth of job behaviour assessed
Behaviourally anchored rating scale (BARS)	Focus on specific and measurable job behaviours	Time consuming; difficult to develop measures
Multiperson	Compares employees with one another	Unwieldy with large number of employees
Management by Objectives (MBO)	Focuses on end goals; results oriented	Time consuming
360° Appraisal	More thorough	Time consuming

Table 2.5: Methods of conducting performance appraisals
Source: Robbins and Decenzo. Fundamentals of Management. (2001:199)

There are other advantages and disadvantages relating to the BARS and MBO methods that have been identified by Arnold and Feldman (1986:319):

Advantages of BARS

- Rating errors can be reduced since relevant job dimensions are clearly defined;
- Performance appraisals can become more reliable, valid, meaningful and complete since the system is developed by employees who possess full knowledge of the demands and requirements of the job;
- Acceptance of and commitment to the appraisal system on the part of both employees and supervisors can be increased as a result of their having been actively and directly involved in the design of the system;
- The degree of defensiveness and conflict generated by appraisals can be reduced since individuals are evaluated on the basis of their specific job behaviour, not their personalities; and

- Employees can be provided with accurate and concrete feedback that can serve to clearly identify specific areas of performance deficiency and needs for training and development activities.

Disadvantages of BARS

- The time, effort and expense involved in their development, especially since separate BARS are needed for each job (or at least each family of related jobs) in an organization. The investment may only be justified only for jobs having a large number of incumbents;
- BARS are primarily applicable to jobs whose major components consist of physically observable behaviour. Jobs having a high component of mental activity e.g. researcher or creative writer, do not lend themselves as readily to evaluation using behaviourally anchored techniques;
- Raters sometimes experience difficulty in determining the degree of similarity between the behaviour of the employee that they have observed and the particular behavioural examples employed as anchors of the BARS

BARS do provide an effective approach to performance appraisal. They clearly outperform graphic rating scales made up on the spur of the moment by a manager in need of an appraisal device for immediate use.

Arnold and Feldman (1986:322) state that MBO is an example of a results-based method of performance appraisal. Under MBO, individuals are evaluated on the basis of what they accomplish, not how they get the job done. The two steps involved in the application of MBO are goal setting and performance review. In goal setting, each individual meets with his or her immediate supervisor to discuss plans for the coming performance period (usually one year) and to agree on performance goals for the year. In the performance review phase, the manager and subordinate meet to discuss the subordinate's progress in attaining his or her goals.

The major advantages of MBO are:

- MBO has the potential of increasing employee motivation and performance, in addition to serving as a basis for performance appraisal;
- Since companies are ultimately concerned with concrete results, evaluating employees on the basis of the results they have personally accomplished is consistent with the overall needs and objectives of the organization;
- Employees know precisely what is expected of them and exactly what they must achieve if they are to be evaluated positively;
- Systematic goal setting throughout the organization facilitates planning and coordination by clarifying exactly what is expected of each person on an ongoing basis.

Some disadvantages of MBO are:

- The heavy emphasis by MBO on results may lead to a lack of attention to how results are being accomplished. Individuals may be cutting corners or by engaging in illegal or unethical behaviour. Thus there is a risk that managers may not give enough attention to providing their subordinates with advice and assistance regarding how to achieve their goals effectively;
- MBO makes it difficult to compare the level of performance of different individuals. Since each person is evaluated with regard to his or her personal goals, valid comparisons of individuals require comparisons of both their levels of accomplishment and the difficulty of their goals. Such comparisons can only be based on the judgment of the manager making the comparisons. This shortcoming is particularly salient when personnel decisions regarding promotions, replacements, etc., must be made;
- MBO programmes are difficult to implement effectively. Managers conducting MBO goal-setting and performance appraisal meetings need special skills. The goal-setting process must be participative; the manager must be a skilled listener, taking into account the skills, needs, and aspirations of the individual involved. Similarly, in the appraisal phase of MBO, the manager requires skills in listening and coaching, so that the process serves not only to evaluate the past performance

of the individual but also try to help the subordinate to perform even more effectively in the future.

Robbins and Decenzo (2001:198) state that in today's dynamic organizations, traditional performance evaluation systems may be archaic. Downsizing has given supervisors greater responsibility and more employees who report directly to them. Accordingly, in some instances, it almost impossible for supervisors to have extensive job knowledge of each other of their employees.

The methods described above have one thing in common. They require us to evaluate employees on the basis of how well their performance matches established or absolute criteria. The question arises whether multiperson comparisons should be used. There are three forms of this comparison – group order ranking, individual ranking and paired comparison.

The group order ranking requires the evaluator to place employees into a particular classification such as "top fifth" or "second fifth". If a rater has 20 employees only 4 can be in the top fifth, and of course, 4 must be relegated to he bottom fifth.

The individual ranking approach requires the evaluator merely to list the employees in order from highest to lowest. Only one can be the "best". In the paired comparison approach, each employee is compared with every other employee in the comparison group and rated as either the superior or weaker member of the pair. After all paired comparisons are made, each employee is assigned a summary ranking based on the number of superior scores he or she has achieved. Although this approach ensures that each employee is compared against every other one, it can become unwieldy when large numbers of employees are being assessed.

The other method of performance appraisal that has been discussed by Arnold and Feldman (1986:320)) is the Behavioural Observation Scales (BOS). BOS were developed in an attempt to capitalize on some of the strengths of the BARS approach to performance appraisal while avoiding some of its weaknesses. For each dimension of job performance evaluated by a BOS, on the other hand, a number of specific examples of work behaviour

are listed, and the appraiser rates the extent to which he or she has actually observed the employee engaging in that behaviour on a five-point scale, ranging from "almost never" to "almost always".

BOS share the advantages of BARS of (1) being relatively reliable and valid as a result of based upon actual employee behaviour; (2) generating high levels of employee acceptance and understanding as a result of employee involvement in their development; and (3) providing employees with useful feedback on their job behaviour that can be employed for the design of plans for development and performance improvement.

Some disadvantages of BOS are that they can be relatively time-consuming and expensive to develop and are difficult to apply to jobs whose primary components may not be physically observable.

An evaluation done by Arnold and Feldman (1986:326)) on the performance appraisal techniques on a variety of key dimensions is summarized in Table 2.6.

	Graphic rating scales	BARS	BOS	MBO
Accuracy of evaluations	Low	High	High	High
Usefulness for personnel decisions	Moderate	Moderate	Moderate	Moderate
Usefulness for reward allocation	Low	High	High	High
Usefulness for identifying training and development needs	Very low	High	High	Moderate
Costs of development (time and money)	Low	High	High	Moderate
Costs of administration (time and money)	Low	Moderate	Moderate	Moderate
Potential to motivate ratees	Low	Moderate	Moderate	High
Acceptability to ratees	Low	High	High	High
Acceptability to raters	Low	High	High	High
Skills required of raters	Low	Moderate	Moderate	High

Table 2.6: Evaluation of performance appraisal techniques on a variety of key dimensions. Source: Arnold and Feldman. Organisational Behaviour. (1986:326)

2.9 What should performance appraisals measure?

Appropriate criteria or measures of effective performance must be identified for each job to which a performance appraisal system is applied. Since almost all jobs have many

dimensions and aspects, performance appraisals must employ multiple criteria or measures of effectiveness in order to accurately reflect the actual job performance of organization members.

A number of characteristics are used to judge whether a performance appraisal system is useful (Arnold and Feldman, 1986:308)):

1. A good criterion must be capable of being measured reliably. The concept of reliability of measurement has two components: stability and consistency. Stability implies the measures of the criterion taken at different times should yield approximately equal results. Consistency implies that measures of the criterion taken by different methods or by different people should be approximately equal to one another;
2. A good criterion should be capable of differentiating among individuals according to their performance;
3. A good criterion should be subject to influence by the actions of the job incumbent. Since the purpose of performance appraisal systems is to assess the effectiveness of individual organization members, the criteria of effectiveness in those systems must be primarily under the discretionary control of the person being assessed;
4. A good criterion should be acceptable to those individuals whose performance is being assessed. It is important that the people whose performance is being measured feel that the criteria being employed provide a fair and accurate indication of their performance.

2.9.1 Common rating errors

A variety of factors can introduce bias into the appraisal process.

2.9.1.1 Strictness

Some individuals, when filling out rating scales on their employees, have a tendency to rate everyone quite strictly or harshly. A person prone to such a bias would tend rate good employees as only average and average employees as poor.

Just the opposite problem is involved in a leniency bias. Superiors with a leniency bias would tend to rate all their subordinates more positively than the subordinates' performance actually warranted. Such a bias is undesirable since it results in subordinates appearing to be more competent than in fact they are (Arnold and Feldman, 1986:313).

2.9.1.2 Central tendency

Central tendency is another problem associated with appraisals. This occurs when ratees are all placed near the midpoint of the rating scale. The problem created by the central tendency bias is that it makes performance ratings almost useless for identifying either highly effective employees who are candidates for promotion or problem employees who require counseling and training.

2.6.1.3 Halo effect

The halo effect is said to be a problem when conducting performance appraisals. This is said to occur when a rater gives similar ratings of one subordinate on all performance dimensions. The problem created here is that it makes it impossible to identify the areas of strength of employees who are generally weak and, conversely, the areas of weakness that need development for employees who are generally strong.

2.9.1.4 Recency bias

Recency bias occurs when ratings are unduly influenced by recent performance of the subordinate. Unfortunately, it is often the case that a rater is strongly influenced by the most recent events and observations of the subordinate's performance. Things that happened recently tend to be remembered more clearly and to be most salient in the mind of the superior(Arnold and Feldman, 1986:315)).

2.9.1.5 Contrast effect

The contrast effect occurs when ratings are influenced by ratings given to previously evaluated subordinates. A subordinate whose true performance is only average, but who is

evaluated immediately after someone whose performance is extremely poor, may receive a fairly positive rating.

2.9.1.6 Attribution errors

Attribution errors occur when performance problems are unduly attributed to personal characteristics of subordinate rather than situational factors influencing performance. Internal attribution occurs when it is assumed that the person's behaviour is some characteristic of that person (e.g. his or her personality) e.g. "she performed effectively in that situation because she is an intelligent and persistent person". External attribution occurs when it is concluded that the primary cause of a person's behaviour resides not within the person, but somewhere in the external environment e.g. "she performed effectively in that situation because her boss instructed her in precisely what to do every step of the way".

Since rating errors can seriously undermine the value of an organisation's performance appraisal system, a good deal of effort must be focused upon the development of methods for reducing or eliminating them (Arnold and Feldman, 1986:). The following ways are suggested:

1. Superiors should be encouraged to observe the performance of their subordinates regularly and to keep a record of their observations;
2. Rating scales should be carefully constructed in the following manner; (i) each dimension on the rating scale should be designed to assess a single important work activity or skill; (ii) the dimensions included on the rating scale should all be important and meaningful and should be clearly stated; (iii) the words used to define various points along the rating scale ("excellent", "poor", etc.) should be clearly and unambiguously defined for the rater in terms of employee behaviour;
3. Raters should not be required to evaluate a large number of subordinates at any one time;
4. Raters should be made conscious of common rating errors such as strictness, leniency, central tendency, halo and attributional errors, and trained to avoid them;

5. Managers should be provided with training in the effective use of performance appraisal techniques. Errors in performance appraisal cannot be overcome purely by focusing upon the development and design of better rating instruments. Carefully developed training programs have also been found to minimize rating errors in the appraisal process.

2.10 Performance through people

If organisations are to enable people, managers must create a world in which the exceptional ingenuity and energy of people is channeled into their working lives (Jones, Palmer et al, 1996:1). Managers need to return to first principles to begin the process of recreating the organization. The organization has to be seen as a whole, as well as each part of it. Such change cannot occur overnight and managers have to expend all their time and energy keeping the business going today, as well as having to prepare for tomorrow.

A summary of leveraging the knowledge resource is illustrated in Figure 2.4.

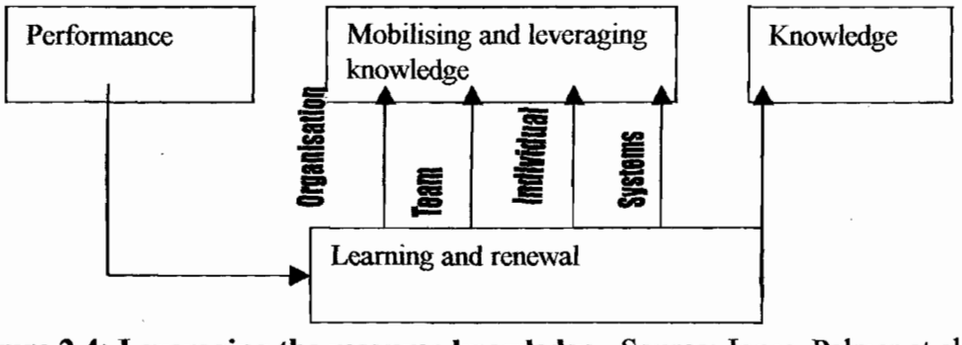


Figure 2.4: Leveraging the resource knowledge. Source: Jones, Palmer et al, Delivering exceptional performance (1996:11)

The need to maximize human resources is reshaping the world of work. Traditional paternalistic approaches – typified by security, certainty and a job for life – are giving way to a dynamic era of change, challenges and uncertainty, which focuses both on the individual and on new forms of teams. A new psychological contract is emerging to forge a very different relationship between employer and employee (Jones, Palmer et al, 1996:6).

2.11 The development of management ideas over time

Performance management has evolved and evolution now needs to give way to more revolution. This is depicted in Figure 2.5.

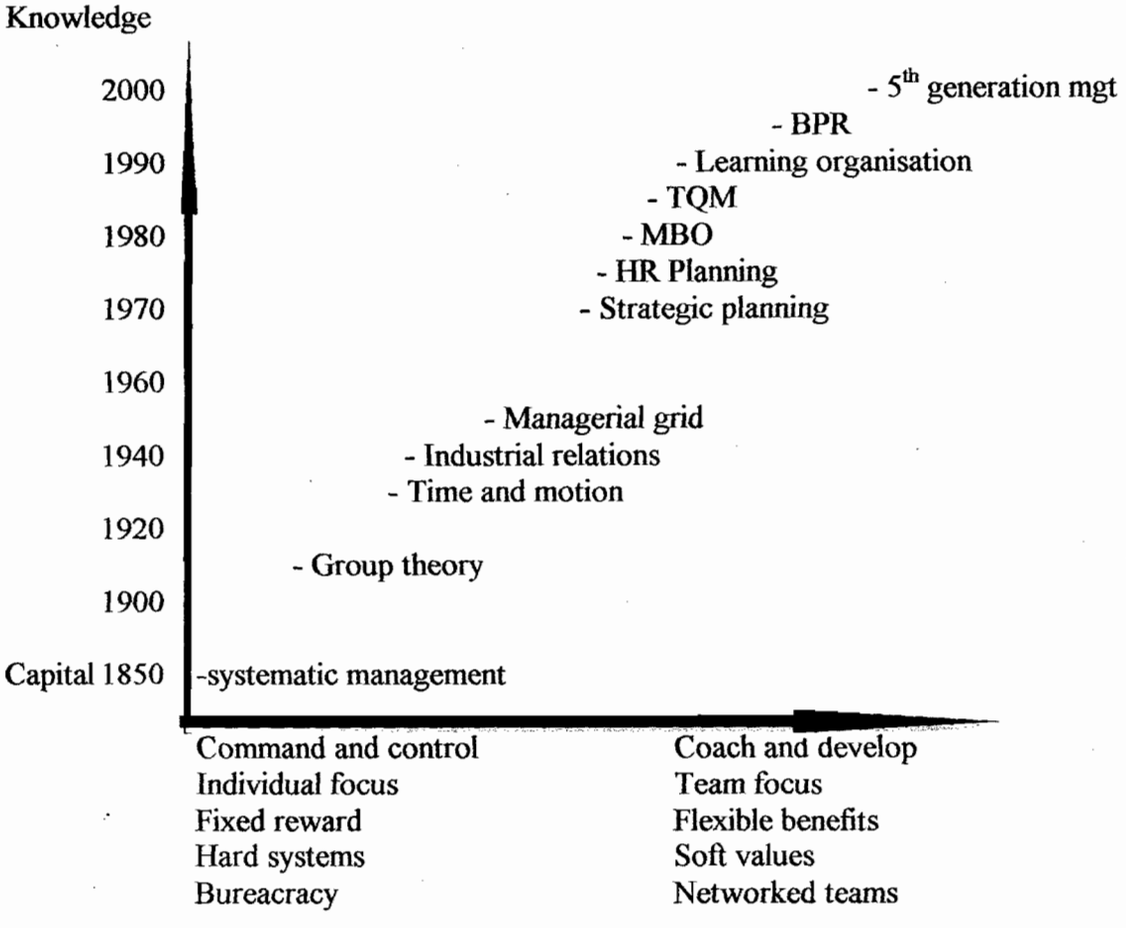


Figure 2.5: The development of ideas over time . Source: Jones, Palmer et al. Delivering exceptional performance. (1996:12)

To help managers with the complexities and uncertainties involved in managing performance through people, and to illustrate the key inter-relationships, Jones and Palmer et al (1996:12) have developed the image of a prism as illustrated in Figure 2.6. Light passed through a prism divides into the colors of the spectrum, but if the sides of the prism are not aligned, the light will not be split. In the use of this image, the base of the prism represents the organization, while the each side represents a different facet of managing performance. Like a prism, if one of these facets of people's management is not accurately aligned, the outcome or performance may not be optimal, but risks being faulty,

incorrect or stultified in some way. The four sides of the prism present a holistic, integrated approach to the challenge of delivering exceptional results through people.

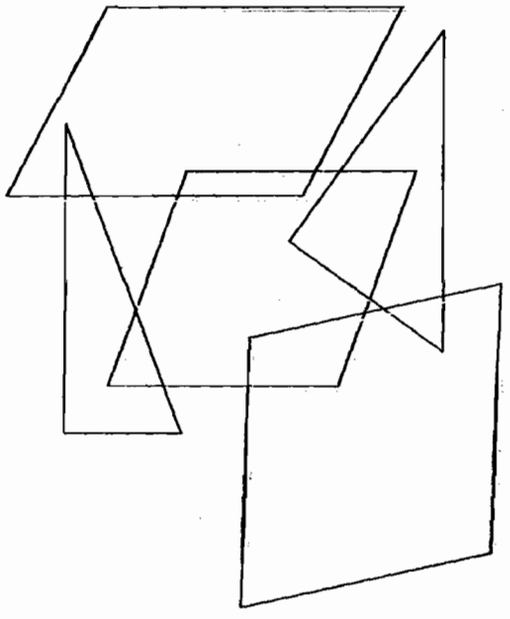


Figure 2.6: The performance prism image. Source: Jones, Palmer et al: Delivering exceptional performance. (1996:12)

As a prism is capable of splitting light into the colors of the spectrum, it provides a powerful image of the potential of harnessing people's performance for delivering exceptional results.

Jones and Palmer et al (1996:13), further state that some organisations have achieved more alignment than others. Some are still struggling to ensure that all the facets work together to support the purpose, or intent, of the organization. This is depicted in Figure 2.7.

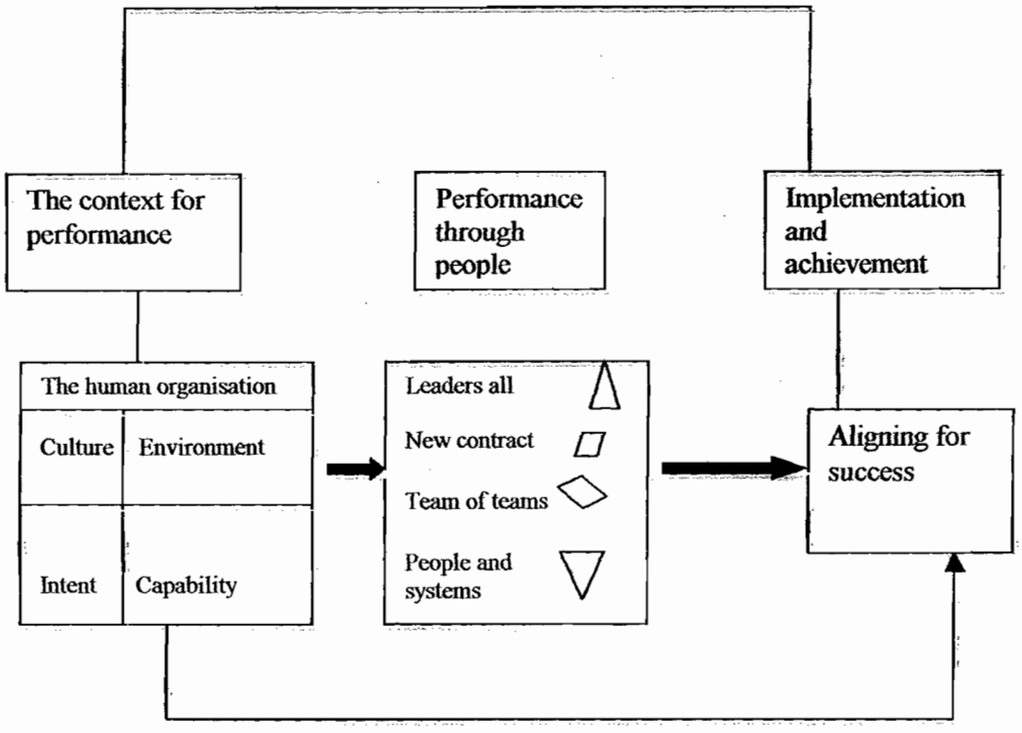


Figure 2.7: The performance prism
Source: Jones, Palmer et al: Delivering exceptional performance. (1996:13)

Working through the performance prism framework, with its various dimensions and elements, can help explore the full impact of any new initiative to ensure that one is operating in alignment with stated purposes and goals. It also provides a useful way to testing the alignment of existing performance management initiatives with other dimensions in the organization, and it may cast light on why they are not producing the desired results within the expected time scale. Jones, Palmer et al (1996:14) state that the prism is an image of a solid structure, each side has one thing in common: people.

2.12 Skill, task structure and performance acquisition

Peterson and Bownas (1982) state that a complete, universally applicable information system for human resources allocation requires three components: information about work tasks, information about task environments, and information about desirable or required human characteristics (knowledge, skills, abilities and orientations). Task and human characteristics are two of the taxonomies dealt with here (their content, methodologies for developing them, and their role in determining and evaluating job requirements, performance and productivity.

A job requirements matrix can be represented in two dimensions. The matrix contains rows defined by types or classes or tasks and columns defined by classes of human abilities. Each cell matrix indicates the level of contribution to performance in a class of tasks made by a particular class of abilities, or alternatively, the degree to which the ability class is required for performing the task class. This matrix is useful for personnel managers as well as productivity enhancement.

2.12.1 Validation of the job requirements matrix

Dunnette and Fleishman (1982:51) point out that to be useful in human resource planning and programming, the validity of job-requirements matrix need to be demonstrated. Validation entails (1) a series of decisions that combine specific abilities and tasks into relatively independent classes or constructs that are presumed to "summarise" performance or proficiency covariance across the individual tasks and abilities; (2) evaluating the construct validity of a job-requirements matrix to obtain valid operational measures of proficiency in each task or ability class. This initially entails a representative sampling of the tasks or abilities constituting each class; and (3) comparing and linking taxonomies. The taxonomy of abilities must be linked empirically with the taxonomy of tasks. Here, what is sought is to determine the "rules" governing ability-task class relationships and carrying out empirical tests of these hypotheses.

Other contextual factors such as the nature and extent of training provided, the closeness of supervision, or the quality of physical surroundings, could similarly affect how particular patterns of abilities may or may not be utilized in performing tasks.

2.12.2 Task and ability taxonomies

Task taxonomies impinge directly on patterns of job performance and skill acquisition. Two of the major existing task taxonomic systems are described by Dunnette and Fleishman (1982:54):

1. Functional job analysis (FJA) which classifies job according to levels of complexity required by the job incumbent in dealing with data, people and things. The FJA model classes jobs as a whole, rather than investigating task structures

within jobs. Although some within-job differentiation is considered (e.g. level of involvement with people, with data, and with objects), it seems unlikely that these broad constructs will offer much value in determining specific job or task requirement.

2. The McCormick's Position Analysis Questionnaire (PAQ) was aimed at developing a task taxonomy and identify the abilities related to its elements. The PAQ evolved from an initial attempt to determine rationally all activities engaged in by workers. The resulting instrument focuses most heavily on work behaviour in blue-collar skilled and semi-skilled manual jobs. The PAQ comprises 183 items or elements with standard scale responses, and an additional 11 open-ended or nonstandard elements. Each standard element describes a "general work activity, work condition, or job characteristic". Raters use standard scales (usually 5-point scales) to indicate the extent of use, amount of time spent, importance, possibility of occurrence, or applicability of each element. The PAQ is divided into six conceptual sections; the section titles, subsection titles, and illustrative items.

   One of McCormick's primary hopes in designing the PAQ was to develop a standardized job analysis procedure that would identify the critical attributes required for performing any job being analysed.

Job dimensions based on principal components analyses of PAQ data are shown in the table below:

DIVISION	DIMENSION TITLE
Information input	- visual input from devices/materials - perceptual interpretation - information from people - visual input from distal sources - evaluation of information from physical sources - environmental awareness - awareness of body movement/posture
Mental processes	- decision making - information processing
Work output	- machine/process control - manual control/coordination activities - control/equipment operation - general body activity - handling/manipulating activities - use of finger-controlled devices versus physical work - skilled technical activities
Relationships with other persons	- communication of decisions/judgments - job-related information exchange - staff/related activities - supervisor-subordinate relationships - public/related contact
Job content	- unpleasant/hazardous environment - personally demanding situations
Other job characteristics	- businesslike work situations - attentive/discriminating work demands - unstructured vs. structured work - variable vs. regular work schedule
Overall (all PAQ items factored together	- decision/communication/social responsibilities - skilled activities - physical activities/related environmental conditions - equipment/vehicle operation - information processing services

Table 2.7: Job dimensions on principal components analyses of PAQ.

Source: Dunnette and Fleishman, Human Performance and Productivity (1982: 61-62)

2.13 Conclusion

A healthy workforce is crucial to the bottom line of the organization. Policies that benefit the workers' health also benefit the bottom line. A healthy organization is defined as one that has low rates of illness, injury, and disability in its workforce and is also competitive in the marketplace. Characteristics of a healthy workplace include recognition of employees for good work performance, opportunities for career development, an organization culture that values the individual worker and management actions that are consistent with organizational values (www.cdc.gov).

The organization will also benefit from this study because the study will suggest ways in which to prevent workplace stress. Some suggestions will include – ensuring that workload is in line with employees' capabilities and resources, designing jobs to provide meaning, stimulation and opportunities for employees to use their skills, improving communication and reducing uncertainty about career development, providing opportunities for social interactions among workers and establishing work schedules that are compatible with demands and responsibilities outside the job. This is especially relevant to the female employees.

This study will enable the organization evaluate corporate and workplace culture and change accordingly to minimize undue stress. The following factors will be considered in evaluating corporate and workplace culture – communication style, hierarchy, teamwork, leadership, appearance, workspace and office friendships.

To help prevent workplace stress, the organization will be able to choose those areas in which adjustments will have to be made. Armed with the understanding of its workplace culture, the organization will be able to make informed choices about behaviours and work habits and will most likely prevent many stressful situations and conflicts.

A closer look into the world of workplace stress reveals that no job is so inherently stressful that much of the stress cannot be exorcised, and no individual is so out of control that he or she cannot reduce personal stress (Everly Jr. and Girdano, 1980). Knowledge of one's abilities, oneself and motivation is important in implementing techniques on how to reduce stress. Putting them into practice and adopting them as components of one's lifestyle is also important because if this is not done then the recommendations of this study will just be interesting bits of information taking up brain storage space.

Stress management should be a vital part of wellness, especially to women who also have families to look after. Many of the concerns of wellness programmes are at least partially stress related – stress may a factor in their outset e.g. smoking, alcohol dependency or hypertension). The concerns may also be related to effective stress management (physical fitness and exercise, diet and nutrition). Another major reasons that organizations should be interested in wellness programmes is to create healthier, more productive and more effective employees (Matteson and Ivancevich, 1987).

Organisations should take cognizance that an unhealthy workforce is expensive (increased medical bills, sick offs impacting on profitability) and that it is impossible to divorce the topics of stress from health. The work environment can be a particularly attractive location for health promotion activities e.g. more people (particularly women) are in the workforce today; thus reaching the majority of the population is a practical possibility; the periodic acquisition of health information can be accomplished relatively easily making possible evaluation of individual programs. In general, individuals are willing to participate in programs offered at work.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

Research is a systematic investigation to find answers to a problem. It can also be seen as an act with an objective. The act necessitates that the researcher seeking for, enquiring about, investigating, exploring, repetitively, carefully some specific topic or subject of the research. In order to employ suitable remedies for a problem, researchers are expected to employ suitable methodologies (Cooper and Schindler: 2003:5).

3.2 Sampling design

The basic idea of sampling is that by selecting some of the elements in a population, we may draw conclusions about the entire population. A population element is the subject on which the measurement is being taken. There are several compelling reasons for sampling, including lower costs, greater accuracy of results, a greater speed of data collection and availability of population elements.

Sampling is based on two premises. One that there is enough similarity between the elements in a population that a few of these elements will adequately represent the characteristics of the total population (Cooper and Schindler, 2003:210). The second premise is that while some elements in a sample underestimate a population value, others overestimate this value. Cooper and Schindler (2003:210) further state that a good sample has both accuracy and precision.

The study will use the simple random technique, which is the simplest form of probability sampling. In simple random sampling, each population element has an equal chance of being selected into the sample. The sample can be drawn using random number table/generator. The advantages of the simple random technique include the fact that it is easy to implement.

On the downside, simple random sampling requires a listing of population elements, takes more time to implement, uses larger sample sizes and produces large errors. It is also expensive to implement (Cooper and Schindler: 2003:199).

Several decisions will need to be made in the sampling design as listed below:

3.2.1 What is the relevant population?

The relevant population will include individual female employees, teachers and office based workers, who are employed either full time, part time or have temporary contracts. Their marital status will be categorized into single, married, divorced, widowed or separated.

3.2.2 What are the parameters of interest?

Since the study aims to understand the impact of workplace stress on female employees performance, we will attempt to understand if female employees have experienced personal as well as workplace stress. Another parameter of interest will be female employees who are interested in stress management in their lives as well as workplace stress management. The study will look at female employees who are interested in participating in an employment assistance programme, at work or outside work. This will apply to those who do not yet have an employment assistance programme at work. The study will also look at employees who have performance appraisal at work and try and gauge their responses on issues on performance management e.g. if it a fair assessment of their work, taking into account their personal circumstances.

3.2.3 Sampling frame

The sampling frame is closely related to the population. It is the list of elements from which the sample is actually drawn. Ideally, it is a complete and correct list of population members only. From this study, colleagues and friends would be the logical first choice of a sampling frame.

3.2.4 Sample type

The study will use a simple random sampling technique targeting female employees, regardless of profession. With a probability sample, one can make probability based

confidence estimates of various parameters that cannot be made with nonprobability samples. Choosing a probability sampling technique has several consequences. One must follow appropriate procedures so that:

- Interviewers or others cannot modify the selections made;
- Only those selected from the original sampling frame are included;
- Substitutions are excluded except as clearly specified and controlled according to predetermined decision rules.

Despite all due care, the actual sample achieved will not match perfectly the sample that is originally drawn (Cooper and Schindler, 2003:190). Some people will refuse to participate and others will be difficult, if not impossible, to find. The latter represent the well-known "not-at-home" problem and require that enough callbacks be made to ensure that they are adequately represented in the sample.

3.2.5 What sample size is needed?

According to Cooper and Schindler (2003:190) much folklore surrounds this question. The pervasive myths are summarized as follows:

- A sample must be large or it is not representative;
- A sample should bear some proportional relationship to the size of the population from which it is drawn;

In reality, how large a sample should be is a function of the variation in the population parameters under study and the estimating precision needed by the researcher (Cooper and Schindler, 2003:190).

Cooper and Schindler (2003:190) list the following principles that influence sample size. These include:

- The greater the dispersion of variance within the population, the larger the sample must be to provide estimation precision;

- The greater the desired precision of the estimate, the larger the sample must be;
- The narrower the interval range, the larger the sample must be;
- The high the confidence level in the estimate, the larger the sample must be;
- The greater the number of subgroups of interest within a sample, the greater the sample size must be, as each subgroup must meet minimum sample size requirements;
- If the calculated sample size exceeds 5 per cent of the population, sample size may be reduced without sacrificing precision.

Precision in the sample size may be measured by the interval range in which one would expect to find the parameter estimate and the degree of confidence one wishes to have in that estimate.

In this study, the sample size required is 70. However, 80 questionnaires will be sent out in order cater for nonrespondents. This is one consideration in deciding the sample size because by making the total sample large enough, we will ensure that we meet the minimum size criterion.

3.3 Research design

According to Cooper and Schindler (2003:146), the research design constitutes the blueprint for the collection, measurement, and analysis of data. It aids the scientist in the allocation of his limited resources by posing crucial choices: is the blueprint to include experiments, interviews, observations, the analysis of records, simulation or some combination of these? Are the methods of data collection and the research situation to be highly structured? Is an intensive study of a small sample more effective than a less intensive study of a large sample? Should the analysis be primarily quantitative or qualitative?

3.3.1 Secondary data sources

Using secondary data sources will enable the researcher accomplish the following objectives:

- Expand our understanding of the management dilemma;
- Look for ways others have addressed and/or solved problems similar the management dilemma;
- Gather background information on the topic to refine the research question;
- Identify information that should be gathered to formulate investigative questions;
- Identify sources for and actual questions that might be used as measurement questions; and
- Identify sources for and actual sample frame that might be used in sample design.

Field researchers will be used to distribute the questionnaires. There will be three contact persons, each delivering a designated number of questionnaires to colleagues and friends. Questionnaires will also be sent via email to other respondents. The field researchers will be briefed on how to distribute the questionnaires, in this case, using a simple random sampling technique. A time frame of three weeks will be set by which time all questionnaires should have been handed in.

A two stage design is envisaged for this study. A pilot study will be done initially to

- Expand our understanding of the management dilemma and establish the major dimensions of the research task;
- Define a set of subsidiary investigative questions that can be used as guides to a detailed research design;
- Develop several hypothesis about possible causes of the management dilemma;

The pilot study questionnaire will consist of twenty questions and 30 respondents will be sought to complete the questionnaires.

The aim of pilot study (pretesting) will be to discover errors as well as train the researcher. Pretesting will enable the researcher discover participants' reactions to the questions. It will also help discover where repetitiveness or redundancy is bothersome or what topics were not covered that the participant expected. Pretesting will enable the researcher look for questions or even sections that the participant perceives to be sensitive or threatening or topics about which the participant knows nothing.

Pretesting will enable the researcher gauge whether the questions are still timely, whether the language is relevant. It will enable the researcher determine whether the questions evoke the same meaning as that intended by the researcher. The researcher will be able to determine her frame of reference and how different it is to the participant.

In terms of question transformation, it is important to note that participants do not necessarily process every word in the question. They may also not share the same definitions for the terms they hear. When this happens, participants modify the question to make it fit their own frame of reference or simply change it so that it makes sense to them. Probing is necessary to discover how participants have transformed the question when this is suspected (Cooper and Schindler, 2003:389).

Since this study will use a self-administered questionnaire, pretesting will be useful to ensure that there is continuity and flow from one section to another. Question sequences will also be such that stimulating questions will be placed first and sensitive questions at the end. This is to ensure that even if the participants do not complete the entire questionnaire, at least some demographic information will have been salvaged.

In terms of length and timing, the questionnaire will be timed so as to make decisions about modifying or cutting material.

This study will be a causal study – to determine the impact of workplace stress on female employees. Three things will be done to measure the causal hypotheses (1) the covariation among variables will be measured; (2) the time order between variables will be determined; and (3) we will ensure that other factors do not confound the explanatory relationships. An attempt will be made to measure relationships as accurately and objectively as possible.

The study will explore the asymmetrical causal relationship based on disposition-behaviour i.e. an attempt will be made to understand the relationship between workplace stress and female employees' performance.

The method of data collection will be of an interrogation/communication nature with self-administered surveys being the data collection instrument. Advantages and disadvantages of self-administered surveys will be discussed later in this chapter.

The researcher will have no control of variables in the sense of being able to manipulate them. The findings will only report what will have happened. This is referred to as an ex post facto design. In order to reduce bias, the researcher will not influence the variables. The researcher will be limited to holding factors constant by judicious selection of subjects according to strict sampling procedures and by statistical manipulating of findings.

The purpose of the study will be a causal study and will try to explain how the effects of workplace stress affect female employees' performance.

The time dimension will be cross sectional since the study will be carried out only once and will represent a snapshot of one point in time.

The topical scope of the study will be statistical (quantitative approach). Statistical studies are designed for breadth rather than depth. They attempt to capture a population's characteristics by making inferences from a sample's characteristics. In this study, we will try to establish the level of stress felt by female employees with different demographics (age, level of education, level of employment (administration or management), marital status etc.).

The main strength of the quantitative approach lies in precision and control. Precision is reached through quantitative and reliable measurement and control is achieved by the sampling and design. Furthermore, hypotheses are tested via a deductive method and the use of quantitative data to allow statistical analysis.

The key limitation of statistical studies is that the results provide less detail on human behaviour, attitudes and motivation. Although response of opinions and perceptions can be converted into digitized results, it mainly leaves no meaning to the researcher. Accordingly, many researchers are concerned that the quantitative approach denigrates human individuality and ability to think (Burns, 1997).

The results will also be supported by a qualitative approach. Respondents will be asked some open-ended questions to gauge their opinions on certain topics and this is one advantage of qualitative research. One disadvantage, however, is that unlike quantitative research, the findings are not statistically projectable to the population under study. This limitation is created by two facts: responses are rarely completely representative and the very nature of qualitative research necessitates small sample sizes.

The research will be done in the actual environmental conditions (offices) and the respondents will be allowed to take away the questionnaires and answer them at a venue that suits them. A time limit of three weeks will be given for callbacks. Respondents will be followed by phone calls.

3.3.4 Data collection technique

In selecting the survey instrument, there are several factors to consider e.g.

- Technical adequacy (reliability, validity, freedom from bias etc.);
- Practicality (cost, political consequences, duration, personnel needs, etc); and
- Ethics (protection of human rights, privacy, legality).

Surveys represent one of the most common types of quantitative research. In this study, a sample of respondents will have a self-administered questionnaire to complete.

3.3.4.1 Reliability and validity

It is generally agreed that "good" measures must be reliable and valid. Reliability is usually concerned with stability over time. Validity is concerned with whether or not the item actually elicits the intended information.

A reliable questionnaire item consistently conveys the same meaning. Will a person reading the question interpret it the same way each time he or she reads it? If the question does not convey a single meaning to a given person, we cannot be sure which meaning the respondent had in mind when answering the question. A simple and expedient way to test the reliability of items is to ask others (colleagues, some of the respondents) to tell in their

own words what specific terms mean. The distinction of time and condition is the basis for frequently used perspectives on reliability – stability, equivalence and internal consistency. In stability, the study will measure the reliability of a test or instrument inferred from examinee scores. Equivalence will measure the degree to which alternative forms of the same measure produce the same or similar results. Internal consistency will measure the degree to which instrument items are homogenous and reflect the same underlying construct. Examples of this type of measurement include Split half, KR20 and Cronbach's alpha.

Questions are valid if they are successful in eliciting true responses relevant to the information desired. If the response is to be valid, it is essential that the respondent understand the question as it is understood by those conducting the survey. The respondent must be able to respond; he or she must have the information. If the respondent does not have the information, a "don't know" category could still make the question valid. Validity estimates measure the following:

1) Content – this measures the degree to which the content of the items adequately represents the universe of all relevant items under study;
2) Criterion-related – this measures the degree to which the predictor is adequate in capturing the relevant aspects of the criterion. The method used here is correlation;
3) Concurrent – this is a description of the present; criterion data are available at the same time as predictor scores;
4) Predictive – this is a prediction of the future; criterion data are measured after the passage of time; and
5) Construct – this answers the question "what accounts for the variance in measure?" It attempts to identify the underlying constructs being measured and determines how well the test represents them. The methods used here include correlation of proposed test with established one, convergent-discriminant techniques, factor analysis and multitrait-multimethod analysis.

To check validity, the researcher will ask colleagues, friends and relatives to explain what the question is asking. Through this process one can identify questions that do not seem to elicit the kind of information required.

3.3.5 Developing the instrument design

The management-research question hierarchy is the foundation of successful instrument development. The first phase involves the preliminary analysis plan. This involves selecting the data type (whether nominal, ordinal, interval or ratio). It also involves selecting the communication approach (whether personal, phone, electronic or email). This phase involves selecting the process structure (structured vs. unstructured vs. combination, disguised vs. undisguised).

The second phase is the pretesting of individual questions. This is the phase where the researcher must tackle the fact-based translation of the question to be answered which will contribute to the solution of the management question.

The third phase involves the investigative questions i.e. specific questions that the researcher must answer to provide sufficient detail and coverage of the research question. Within this level, there may be several questions as the researcher moves from the general to the specific.

The measurement questions phase involves questions that participants must answer if the researcher is to gather the needed information and resolve the management question.

The survey instrument (a self-administered questionnaire) will be used to generate, to a greater extent, quantitative data, as well as qualitative data.

The order, type and wording of the measurement questions, the introduction, the instructions etc., will aim to accomplish the following:

- Encourage participants to provide accurate responses;
- Encourage each participant to provide an adequate amount of information;
- Discourage each participant from refusing to answer specific questions;
- Discourage each participant from early discontinuation of participation; and
- Leave the participant with a positive attitude about survey participation.

When selecting the survey instrument, a few questions will be borne in mind as indicated below:

- Can the population be enumerated e.g. for some populations, one has a complete listing of the units to be sampled. For others, such a list is difficult or impossible to compile e.g. when doing a survey on homeless people. The researcher in this study will have a list of the respondents with their corresponding contact numbers.
- Is the population literate? The questionnaire will use simple language with no technical vocabulary and will target literate respondents.
- Are there language issues? Since we live in a multilingual world where every society has members who speak other languages, it will be important to be aware of cultural connotations among the different respondents.
- Will the population cooperate? Ethical issues will be taken into consideration when formulating the questions. The responses will be anonymous and will not seek to embarrass or offend any respondent.
- Can respondents be found? Some people lead busy lives and travel a lot. The researcher will endeavour to keep in constant touch with all respondents in order to get back the questionnaires in good time.
- Are response rates likely to be a problem? Some members of the sample may refuse to respond. Others have the best of intentions, but cannot seem to find the time to send back the questionnaire by the due date. Still others misplace the instrument. The researcher will have to watch out for low responses which can ruin an otherwise well-designed survey effort.

3.3.5.1 Question issues

Question construction will involve three critical decision areas namely (1) question content; (2) question wording and (3) response strategy.

- **Question content**

Four questions covering numerous issues, will guide the instrument design in selecting appropriate question content:

1) should this question be asked? Each question's function should be challenged to gauge whether it contributes significant information towards answering the research question? The researcher will also question whether the omission of the question will limit or prevent a thorough analysis of other data. Inference of the answer from another question will also be looked into.
2) Is the question of proper scope and coverage? Can the participant adequately answer this question, as asked? Does the question request so much content that it needs to be broken down into two or more questions? Does the question ask precisely what we want and need to know? The researcher will also need to know whether to offer operational definitions of concepts or constructs used in the question;
3) Can the participant willingly answer this question, as asked? To frame a response takes time and thought and that is why a self administered survey will be used in this study. However, filter questions will be used to qualify a participant's knowledge. This is because some participants typically want to cooperate in interviews thus they assume that giving any answer is more helpful than denying knowledge of the topic.
4) Will the participant willingly answer this question, as asked? The researcher will bear in mind issues surrounding ethics in research. This is because even if the participants have the information, they may be unwilling to give it freely due to its sensitive nature. They may also be unwilling to give correct answers for ego reasons e.g. they may try to exaggerate their social status, income.

- **Question wording**

In terms of question wording the following factors will be borne in mind:

1) is the question stated in terms of a shared vocabulary? The researcher will test this according to this checklist - will the words be simple enough to be allow adequate communication with persons of limited education? Will the word chosen mean what we intend? Does the word have multiple meanings? If so, does the content make the intended meaning clear? Is a simpler word or phrase suggested or possible? The researcher will endeavour to use simple rather than

complex words, interviewers with content knowledge, commonly known unambiguous words and precise words.

2) Does the question contain vocabulary with a single meaning?
3) Does the question contain unsupported or misleading assumptions?
4) Does the question contain biased wording?
5) Is the question correctly personalized?
6) Are adequate alternatives presented within the question?

- **Response strategy**

The response strategy will be closed questions because each strategy will generate a specific level of data, with available statistical procedures for each data type. Participant factors in this case will include level of information about the topic, degree to which topic has been thought through, ease of communication and motivation to share information.

- **Question sequence**

The question sequence can drastically affect participant willingness to cooperate and the quality of responses. The questions in the study will begin with efforts to awaken the participants' interest in continuing the interview. Early questions will be simple, easy, nonthreatening and in line with the announced objective of the study. Questions will be sequenced so that early questions do not distort replies to later ones.

3.3.6 The questionnaire

The first part of the questionnaire will consist of four screening questions covering the respondents' age, level at work, highest level of education, the nature of employment contract and marital status.

The second part of the questionnaire will ask the respondents to tick from a list of 19 items, any effects of stress that they have felt in the past 12 months.

Respondents will further be asked to rank in order of importance potential stressors that have been identified as emanating from the workplace.

The stressors will be further broken down into parts and participants will be asked, using a numerical scale, to indicate their responses concerning the workplace stressors identified in the previous question.

Respondents will also be asked to indicate, using a simple category scale (dichotomous), whether they have had any experiences with bullying or violence at work. The questionnaire will seek to know to whom they have reported the violence or bullying.

The questionnaire will also seek to gauge participants' interests in participating in an employee assistance programme. Respondents will be asked to indicate whether they would be interested in a health promotion programme, what time they would be willing to attend the programme. A list with health promotion activities will be provided and using a multiple rating scale, respondents will be asked to indicate their level of priority for the activities (1 will be lowest level of priority; 5 will be the highest level of priority).

The last part of the questionnaire will seek to understand performance management within the organisations that the respondents work in. Respondents will be asked to indicate, using a simple dichotomous category scale, whether they have a performance management system in place, how often they are appraised and who is in charge of performance appraisal.

Finally the respondents will be asked to indicate whether their organisations have a stress management policy at work and whether their job descriptions identify potential stressful pressures. Using an open-ended question, respondents will be given an opportunity to suggest ways in which to improve their performance appraisal system.

3.3.7 Advantages of self administerd questionnaires

According to Cooper and Schindler (2003:324), some of the advantages of self-administered surveys include the fact that they allow contact with otherwise inaccessible

people e.g. CEOs. Incentives may be used to increase response rate and they are often the lowest-cost option. They offer the opportunity for an expanded geographic coverage without increase in costs and require minimal staff. Self-administered questionnaires are perceived as anonymous and allow respondents time to think about the questions. They offer a fast access to the computer literate and offer a rapid data collection technique. Respondents who cannot be reached by phone can be reached by email. Further, anonymity can cause honest responses.

Self-administered questionnaires are easy to score and analyse, if properly constructed. They are cost-effective and easy to analyse. Nearly everyone has had some experience completing questionnaires and they generally do not make people apprehensive and they reduce bias since there is uniform question presentation and no middle-man bias. They are also less intrusive than telephone or face-to-face surveys.

3.3.8 Disadvantages of self administered questionnaires

Some disadvantages of self-administered surveys include the fact that there is low response rate in some modes. There is no interviewer intervention available for probing or explanation – the researcher does not have any assurance that the intended respondent understands the questions.

Self-administered questionnaires cannot be long or complex. Further an accurate mailing list needed. Often respondents returning surveys represent extremes of the population – skewed responses and there can be anxiety among some respondents. Directions are needed for progression through the instrument. There is need for low-distraction environment for survey completion and there is no assurance that the intended respondent actually completed the form.

Self-administered questionnaires depend on subjects' motivation, honesty, memory and ability to respond. Subjects may not be aware of their reasons for any given action. They may have forgotten their reasons. They may not be motivated to give accurate answers, in fact, they may be motivated to give answers that present themselves in a favorable light.

Finally, structured surveys, particularly those that deal with close ended questions, may have low validity when researching affective variables.

Self-administered questionnaires require careful attention to layout and working of questions because there is no interaction between the respondents and the interviewer. As there is very little control over the way in which the questionnaire is answered, there will be very clear instructions and layout design to guide the respondent.

3.4 Data analysis

The first step in data preparation for analysis will be to edit the collected raw data to detect errors and omissions that would compromise quality standards. The researcher will ensure that the data is accurate, consistent with other data, uniformly entered and ready for coding.

The data will be coded so as to classify the responses into categories. Coding involves assigning numbers or other symbols to answers so that responses can be grouped into a limited number of classes or categories. The classifying of data into limited categories sacrifices some data detail but it is necessary for efficient analysis. The coding method to be used in this study will be numeric. Coding also helps the researcher to reduce several thousand replies to a few categories containing the critical information needed for analysis. In coding, categories are the portioning of a set; and categorization is the process of using rules to partition a body of data (Cooper and Schindler, 2003:456).

Cooper and Schindler (2003:457) mention four rules that should guide coding of data, namely that the categories:

- should be appropriate to the research problem and purpose;
- exhaustive;
- mutually exclusive; and
- derived from one classification principle.

Variables being studied in research may be classified as objects or as properties. In a literal sense researchers do not measure either objects or properties (Cooper and Schindler, 2003:457). They measure indicants of the properties or indicants of the properties of an object. In this study, it will not be easy to measure properties like "the ability to stand stress", however inferences will be made by observing some indicant or pointer of measurement e.g. working hours, relationship with manager, volume of work inter alia.

The study will attempt to find a relationship between workplace stress and work performance. The Pearson (product moment) correlation coefficient varies over a range of +1 through 0 to –1. The designation *r* symbolizes the coefficient's estimate of linear association based on sampling data. This measure will be used to generate interval and ratio data as well as find the correlation between workplace stress and work performance. Correlation coefficients reveal the magnitude and direction of relationships. The magnitude is the degree to which variables move in unison or opposition. The distribution of data is expected to be normal.

3.5. Computer programs used for data analysis

Data entry will be accomplished by key board entry from precoded instruments and a statistical package will be used to analyse the data.

3.6 Brief commentary on assumptions and appropriateness of use of measurement scales

The ideal study should be designed and controlled for precise and unambiguous measurement of variables (Cooper and Schindler, 2003:229). Since 100 per cent control is unattainable, error does occur. Much potential error is systematic (results from a bias) while the remainder is random (occurs erratically). Cooper and Schindler (2003:229) identify the following measurement differences:

1) The respondent. Opinion differences that affect measurement come from relatively stable characteristics of the respondent. Typical of these are employee status, ethnic group membership, social class etc. The researcher will have to anticipate many of these dimensions, adjusting the design to eliminate, neutralize or

otherwise deal with them. Respondents may be reluctant to express strong feelings, express opinions which they perceive to be different from others or may have little knowledge of the subject that is being studied. They may also be reluctant to admit ignorance which might lead to 'guesses". Respondents may also suffer from temporary factors such as fatigue, boredom, anxiety or other distractions; these limit the ability to respond accurately and fully. Hunger, impatience, or general variations in mood may also have an impact (Cooper and Schindler, 2003:229).

2) Situational factors – these potential problem areas are legion. Any condition that places a strain on the interview or measurement session can have serious effects on the interviewer-respondent rapport. If respondents believe that anonymity is not ensured, they may be reluctant to express certain feelings.
3) The measurer – the researcher may distort responses by rewording, paraphrasing or reordering questions. Stereotypes in appearance and action may introduce bias. Careless mechanical processing – checking of the wrong response or failure to record full replies – will obviously distort findings. In the data analysis stage, incorrect coding, careless tabulation, and faulty statistical evaluation may introduce further errors.
4) The instrument – a defective instrument can cause distortion in two major ways. First it can be too confusing and ambiguous. The use of complex words and syntax beyond respondent comprehension is typical. Leading questions, ambiguous meanings, mechanical defects (inadequate space for replies, response choice omissions, and poor printing) and multiple questions suggest the range of problems. A more elusive type of instrument deficiency is poor selection from the universe of content items. Seldom does the instrument explore all the potentially important issues. The questions asked may not cover enough aspects of each area of concern.

3.7 Summary

Identifying the appropriate research methodology is crucial to conduct any research. The main research methodology chosen for this study is the quantitative approach using a self-

administered questionnaire for data collection. The supporting research methodology is the qualitative approach using open ended questions.

3.8 Limitations of the study

The research approach that was used in this study was a self-administered questionnaire based on a sample of 70 female employees.

3.9 Choice of survey instrument

The study used a self administered questionnaire to collect data from respondents. Some of the limitations of this choice are:

- The method is not flexible;
- One cannot judge the quality of response;
- It does not give access to dispersed samples;
- A long survey is not feasible;
- There is no quick turnaround – the response rate tends to be low;
- Responses depend on subjects' motivation, honesty, memory and ability to respond. Subjects may not be aware of their reasons for any given action. They may have forgotten their reasons. They may not be motivated to give accurate answers. In fact, they may be motivated to give answers that present themselves in a favorable light;
- The researcher in this study was not able to interact with the respondents for purposes of elaboration on questions that were not understood;
- Many follow-ups were needed to increase the response rate;
- There was a likelihood of each respondent interpreting questions on the survey differently from others, generating data that is skewed due to user perception;
- An attempt may have been made to eliminate ambiguous questions but it is also important to realize that this factor can never be completely eliminated;
- They are perceived to be impersonal providing more anonymity that the other communication modes.

3.10 Choice of data analysis method

The data in this study generated quantitative data in the main, supported by qualitative data.

The limitations of quantitative analysis method are:

- Quantitative analysis is an idealization of the data in some cases i.e. for statistical purposes, classifications have to be of the hard-and fast (so called "Aristotelian" type). An item either belongs to class *x* or it doesn't;
- Quantitative analysis tends to sideline rare occurrences. To ensure that certain statistical tests (such as chi-squared) provide reliable results, it is essential that minimum frequencies are obtained, meaning that categories may have to be collapsed into one another resulting in a loss of data richness;
- Quantitative data is limited for exploration. The standardization of questionnaires tends to limit testing to predetermined hypotheses. Questionnaires have respondents react to specific questions and answer lists created by the researcher. Therefore some potentially interesting spontaneous or tangential responses may be missed or excluded;
- Quantitative data may be an abstraction and as such can be difficult for some decision makers to relate to. In this study, hearing people express their feelings and opinions on workplace issues and how it affects their work performance would have created a more personal experience than presenting information using charts, tables and personal characteristics;
- Quantitative data may be misleading because results from poorly conducted studies may be perceived as the irrefutable truth by individuals with limited experience. Charts, graphs and tables have empirical implications, and it is only natural to accept them as fact. But in some cases, information confidently offered up as 'truth' may be completely unreliable. Questionnaires can contain leading questions; data collection methods may introduce bias; margins of error due to small sample sizes may render findings insignificant or an analyst may present only those findings that support an unseen agenda;
- Statistical correlation cannot by itself, establish causal mechanisms;

- The scope of generalization is limited by the quality of the sample, the population from which it was drawn and the time.

CHAPTER 4: REPORTING AND DISCUSSION OF RESULTS

4.1. Introduction

The sample consisted of 80 career women, comprising teachers, nurses and office workers at different career levels (from administration to management). A response rate of 78.75% (63 out of 80 questionnaires) was achievec. A mix of respondents was selected based on age (20-50+), family status, socio-economic status (low to high status at work) and nature of employment contract.

It was decided to divide the group into those who complained of three or less effects (3-) of stress over the last year and those who had experienced more than three (3+) effects of stress over the last year.

The group was divided because there were inconsistencies on the descriptive stats on the whole group on various items. It was felt that a better analysis could be achieved with this division.

On division, the group that reported less than 3 effects of stress **(3-)** numbered 38 (60%) and the group that reported more than 3 effects of stress **(3+)** numbered 25 (40%).

QUESTION	DESCRIPTIVE STATISTICS ON ALL RESPONDENTS, GROUP (3+) AND GROUP (3-)	FINDINGS
Question 1 – age	All – mean 1,7; median 2; mode 1 (3-) - mean 1,6; median 1; mode 1 3+ - mean 1.8; median 2; mode 2	(3+) group slightly older.
Question 2 – job level	All – mean 1,9; median 2; mode 2 (3-) - mean 1,9; median 2; mode 1 (3+) - mean 1,9; median 2; mode 2	no difference. Respondents mostly in admin/management positions
Question 3 - education	All – mean 2,67; median 3; mode 3 (3-) - mean 2,78; median 3; mode 3 (3+) - mean 2,48; median 2; mode 2	3- group slightly better educated, not significant
Question 4- marital status	(All) - mean 1,78; median 2; mode 2	3- group more likely to be single (24 out of 38), 3+ more likely to

	(3-) - mean 1,53; median 1,5; mode 1 (3+) - mean 2,16; median 2, mode 2	be married (5 out of 25) significant p = 0,00077.
Question 5 – employment contract	(All) - mean 1,95; median 2; mode 2 (3-) - mean 1,97; median 2; mode 2 (3+) - mean 1,92; median 2; mode 2	no difference

Question 6	see table below	for all most common effect is low energy/tiredness
		
		for (3-) felt keyed up and on edge
		
		for (3+) low energy tiredness; irritable; headaches/neck-aches; worried about health
		
		for (3+) internal/physical expressions of anxiety

Question 7	see table below	
Question 8	see table below	
Question 9	see table below	
Question 10	see table below	
Question 11	see table below	
Question 12	see table below	
Question 13	see table below	
Question 14	see table below	
Question 15 (a) bullied	(All) - mean 1,6; median 2; mode 2 (3-) mean 1.07; median 1; mode 1 (3+) - mean 1,6; median 2; mode 2	difference in perception between (3-) and (3+) groups; (3-) perhaps take offense quicker or state boundaries more clearly. Note they are also more likely to be single so maybe they are more likely to be preyed upon. statistically significant difference p = 0,027.
Question 15 (b)		Pattern of bullying different 3- group – 6 cases of bullying by colleagues, 2 cases of bullying by managers, 2 by customers 3+ group – 5 cases of bullying by managers, 1 by colleague 3+ group may act out/encourage abuse of power. 3- group seen as

		desirable/competent therefore jealousy from older colleagues
Question 16 violence		3+ group - 2 instances of violence; 3- group - 3 instances of violence. not significant
Question 17 stress	(All) - mean 1,4; median 1; mode 1 (3-) - mean 1,8; median 2; mode 2 (3+) - mean 1.44; median 2; mode 1	3+ group 10/25; 3- group 16/38, not significantly different
Question 18 response to stress	(All) mean 0,9; median 1; mode 1 (3-) mean 0,89; median 1; mode 1 (3+) mean 0,94; median 1; mode 1	no difference between the two groups
Question 19	(All) - mean 1,6; median 1; mode 1 (3-) - mean 1,6; median 1; mode 1 (3+) - mean 1,6; median 1; mode 1	no difference between the two groups
Question 20 participate	(All) - mean 1,3; median 1; mode 1	All respondents are keen to participate in employment assistance programmes
Question 21		
Question 22		41 (65%) yes, 9 (14%), no, 8 (13%) other, 5 (8%) no response
Question 23	see table below	
Question 24 performance	(All) - mean 1,2; median 1; mode 1	no difference
Question 25	(All) - mean 1,2; median 1; mode 1	no difference
Question26	(All) - mean 0,78; median 1; mode 1	no difference
Question 27	(All) - mean 1,08; median 2; mode 2	no difference
Question 28	(All) - mean 1,36; median 1; mode 1	no difference
Question 29	(All) - mean 1,27; median 1; mode 1	no difference
Question 30	(All) - mean 1,0; median 1; mode 1	no difference

Table 4.1. Descriptives on questions

Q6 Effects of stress over two groups

Respondents were asked to indicate, from a list of 19 stressors, whether they had felt any effects of stress during the last 12 months. The results from the two groups is indicated in Table 4.2. Respondents from both groups reported low energy and tiredness as being the

najor effect of stress on them. Worrying and sleeping poorly were listed among the major effects of stress on the respondents. Since the 3+ reported more complaints, it can be assumed that they have more stressors to deal with e.g. family, age related problems, career issues, inter alia. These effects of stress could be attributed also to the different roles that the respondents have to play in their lives i.e. that of mother, employee, individual, parent, child, aunt. Each role has expectations, pressures, rewards and consequences. There are overlaps between each and measures of honesty, discord and conflict. Stress could become apparent in these instances when there is role overload (e.g. single parent with dependants), role overlap (between work and non-work), role incompatibility and role underload.

STRESS EFFECT	3- GROUP	3+ GROUP	TOTAL
Felt keyed up or on edge	7	8	
Low energy/tiredness	13	18	
Difficulty relaxing	3	10	
Sleeping poorly	7	15	
Headaches/neck aches	1	9	
Worrying	16	14	
Worried about health	7	11	
Lost interest	4	13	
Difficulty in concentrating	5	9	
Waking early	8	11	
Hopeless/depressed	3	12	
Feel worse in mornings	0	6	
Lost confidence in self	3	6	
Consumed more alcohol	1	2	
Trembling dizzy spells	2	3	
Medication	0	5	
Smoked more	2	2	
Lost weight	1	4	
Total complaints	83	158	
	mean 2,15, std deviation 0,879, n = 38	mean 6,79, std dev 2,55 n= 25	statistically significant $p = 4,59^{-15}$

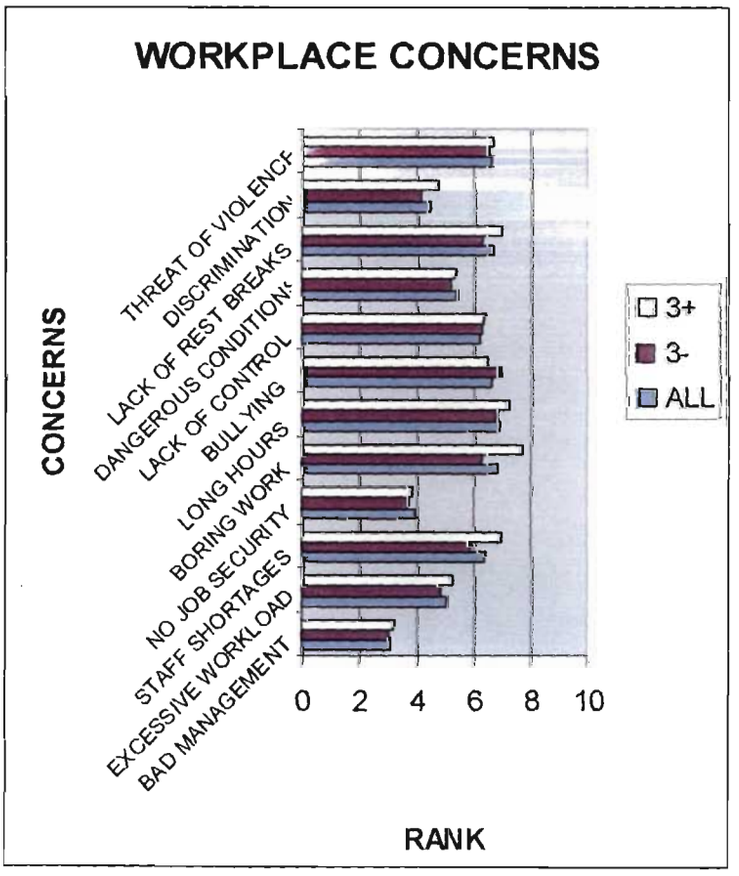
Table 4.2. Effects of stress over two groups

Q7 Workplace concerns

Respondents were asked to rank the potential causes of stress (ranking scale of 1 = most important; 12 = least important). It is evident that the 3+ Group expressed more concern overall over the potential workplace stressors. Both groups felt that long hours, boring work, bullying and staff shortages were among the most pressing issues at their

workplaces. These concerns could be interpreted to mean that the respondents were dealing with issues surrounding policies and procedures, inappropriate or poor working relationships, repetitive or physically demanding work. They could also be dealing with unrealistic expectations, their personal needs not being met, lack of recognition, lack of self-respect and indecisiveness. Hence the results of this being boredom, apathy and a negative attitude toward management, coworkers, the organization and self.

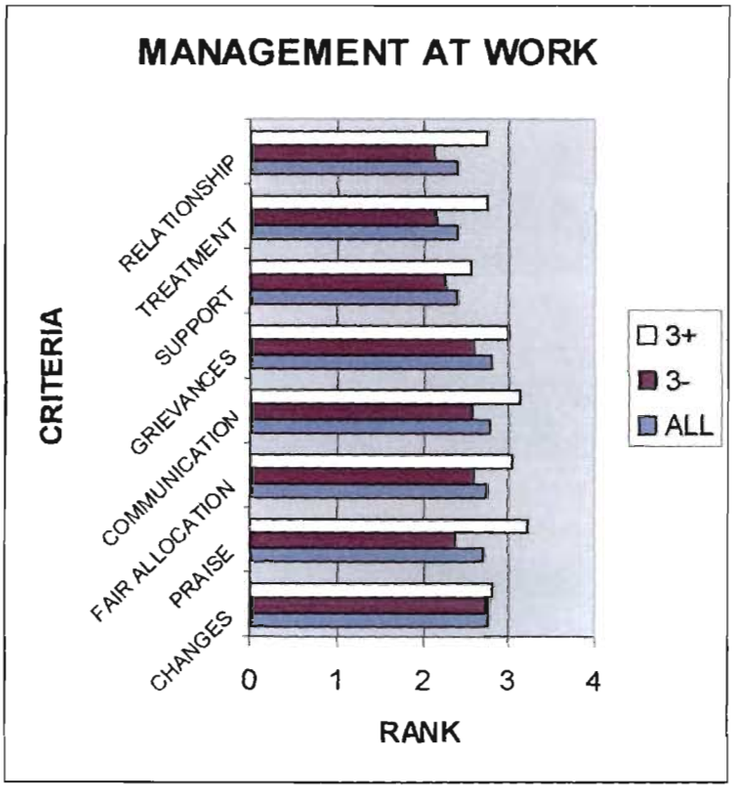
	All	3-	3+
Bad management	3.05	3	3.15
Excessive workload	5	4.85	5.15
Staff shortages	6.37	5.89	6.88
No job security	3.9	3.63	3.82
Boring work	6.74	6.27	7.68
Long hours	6.86	6.78	7.17
Bullying	6.64	6.88	6.41
Lack of control	6.23	6.26	6.33
Dangerous conditions	5.39	5.19	5.29
Lack of rest breaks	6.6	6.26	6.87
Discrimination	4.41	4.11	4.68
Threat of violence	6.6	6.5	6.62



)8 Management at work

Respondents were asked to indicate, on a ranking scale of Very good (5) to Very bad (1), how they felt about the management at their workplace. The respondents felt that praise for a job well done, changes at work, fair allocation of work, and the manner in which grievances were dealt with, were addressed satisfactorily.

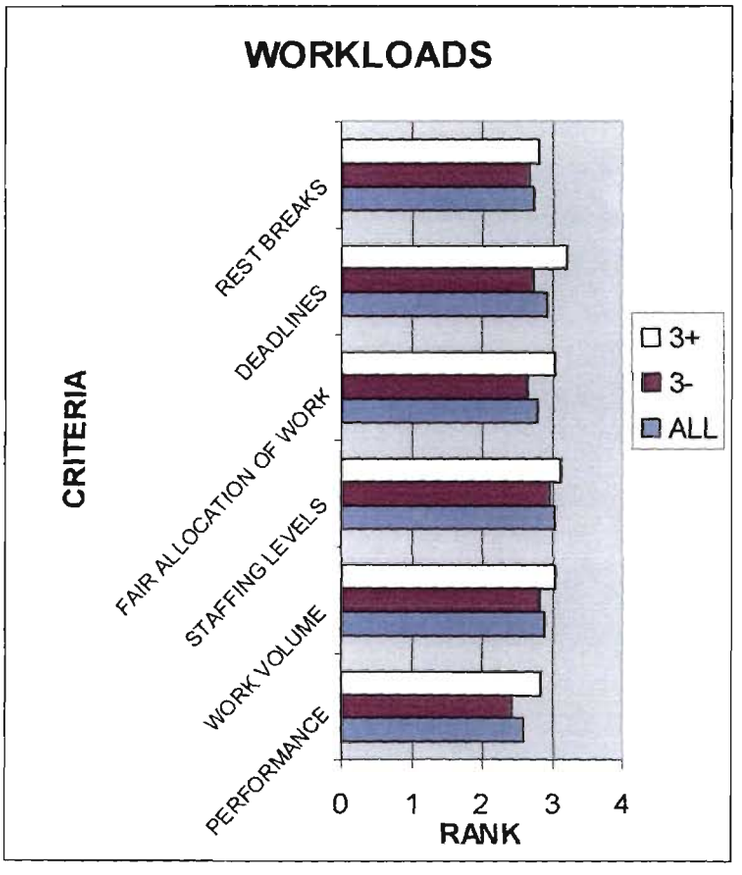
	All	3-	3+
Changes at work	2.76	2.76	2.82
Praise for a job well done	2.7	2.38	3.22
Fair allocation of work	2.74	2.58	3.04
Communication and consultation	2.77	2.56	3.13
How grievances are dealt with	2.8	2.58	3
Support from manager	2.4	2.26	2.57
Treatment from manager	2.39	2.14	2.74



)9 Workloads

Respondents were asked to indicate on a scale of Very good (5) to Very bad (1) how they anked their workloads. Respondents ranked staffing levels and meeting of deadlines as)eing adequate.

	All	3-	3+
Performance	2.6	2.43	2.84
Work volume	2.9	2.82	3.04
Staffing levels	3.03	2.97	3.12
Fair allocation of work	2.8	2.65	3.04
Deadlines	2.92	2.73	3.2
Rest breaks	2.73	2.67	2.83

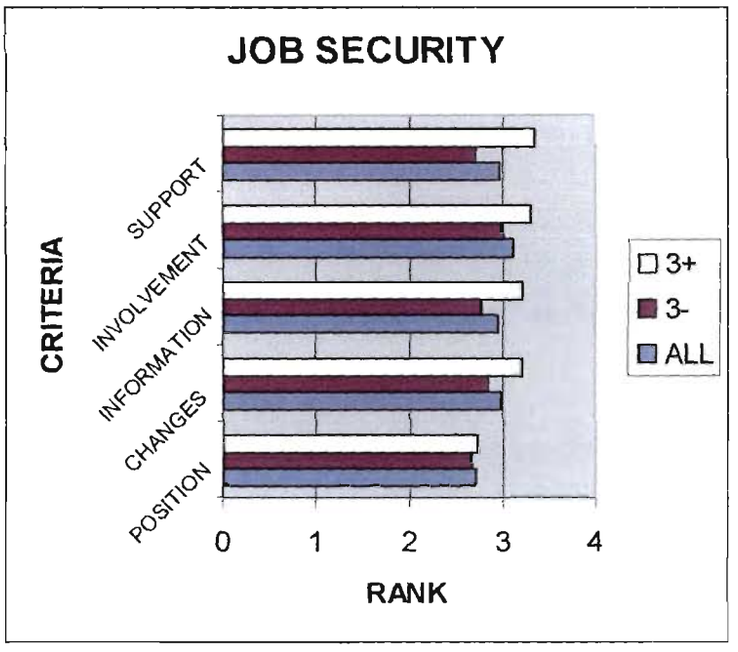


Q10 Job Security

Respondents were asked to rank on a scale of very good (5) to very bad (1), how they felt about job security at their workplaces. Respondents felt that they were secure in their

ositions, felt comfortable about changes in work and felt that they were being involved in naking changes at work.

	ALL	3-	3+
Job security in own position	2.7	2.67	2.74
Changes at work	2.98	2.83	3.22
Information given about changes	2.95	2.78	3.22
Involvement in making changes	3.12	3	3.3
Support given during changes	2.97	2.71	3.35



Q11 Job Satisfaction

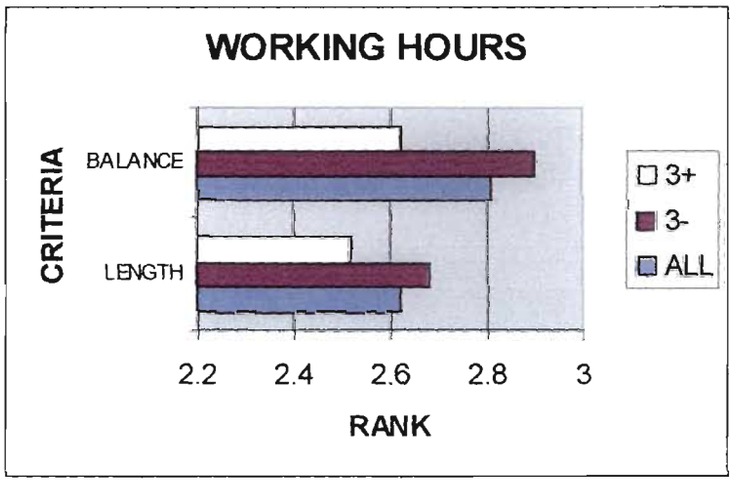
Respondents were asked to rank their job satisfaction (Very Good – 5; Very bad – 1). Respondents indicated that on average they were satisfied with their jobs in terms of training, skills, variety, objectives and freedom to do their jobs.

	ALL	3-	3+
Job satisfaction	2.68	2.58	2.83
Training	2.75	2.63	2.92
Skills	2.6	2.47	2.80
Variety	2.79	2.72	2.88
Objectives	2.74	2.51	3.08
Freedom	2.77	2.69	2.88

Q12 Working hours

Respondents were asked to rank on a scale of Very Good (5) to Very bad (1), how they felt about their working hours. Respondents from the 3- group felt that they had an adequate balance between work and home life.

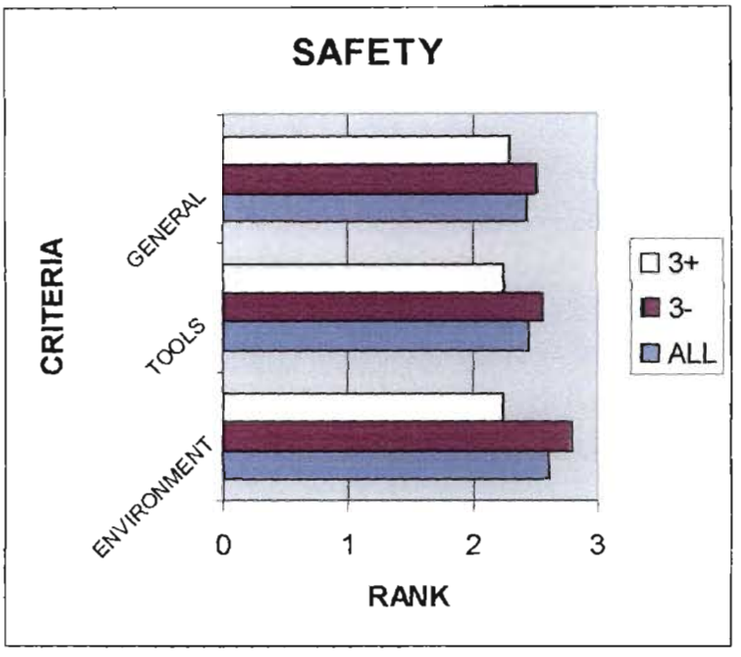
	All	3-	3+
Length of working hours	2.62	2.68	2.52
Balance between work and home life	2.81	2.9	2.62



)13 Safety

.espondents were asked to indicate on a ranking scale of Very good (5) to Very bad (1), ow they felt about their work environment. On average, respondents indicated that their vork environments adequately provided a good environment, working tools and general ıealth and safety standards.

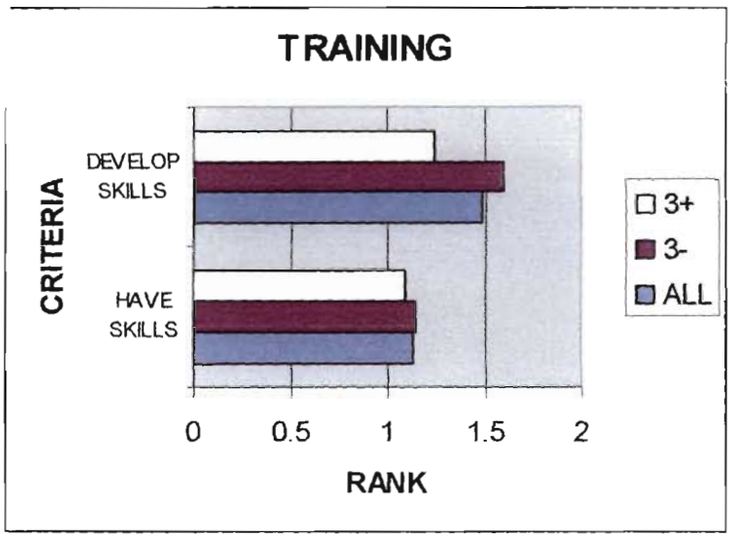
	All	3-	3+
Environment	2.6	2.79	2.24
Tools	2.44	2.55	2.24
General	2.43	2.5	2.29



Q14 Training

Respondents were asked to indicate whether they agreed, disagreed or were not sure about the training provided at their workplaces. It is evident that respondents were happy with skills development at their workplaces. Further, they also indicated that they had the right skills to do their jobs.

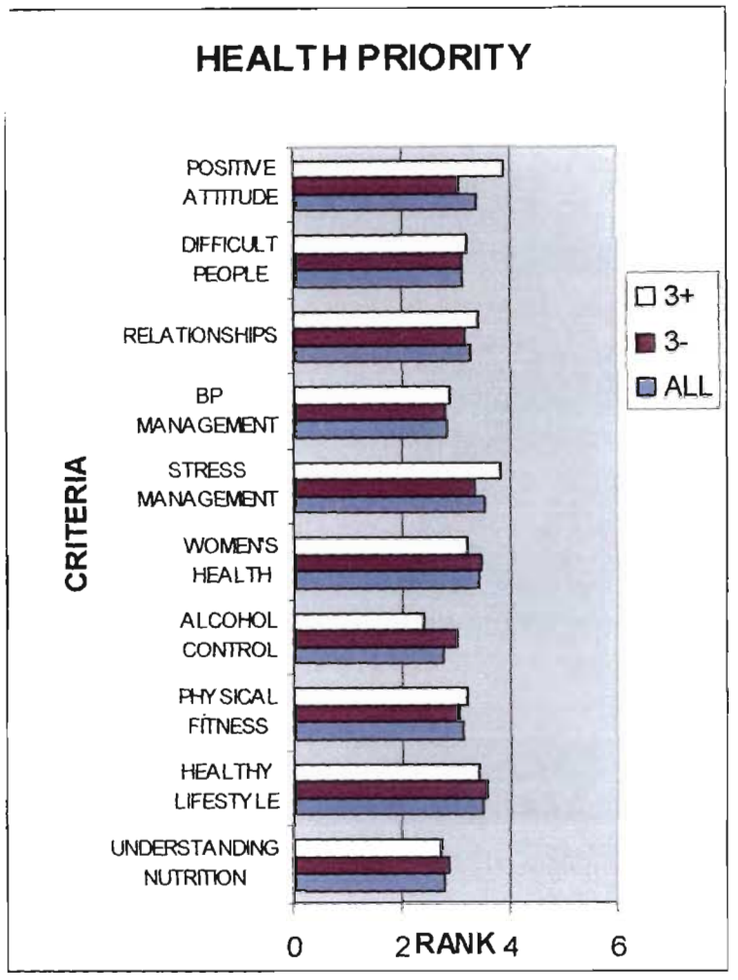
	All	3-	3+
Have skills to do job	1.13	1.14	1.09
Encouraged to develop skills	1.48	1.6	1.24



Q23 Health Priority

Respondents were asked to indicate on a ranking scale from 1 (lowest level of priority) to 5 (highest level of priority), how they felt about the health promotion variables listed below. Most respondents felt that stress management was of top priority to them, followed by leading a healthy lifestyle. This suggests that dealing with stress cannot be dealt with in isolation. Other areas that concern overall health are also crucial.

	All	3-	3+
Understanding nutrition	2.81	2.87	2.72
Healthy lifestyle	3.49	3.55	3.4
Physical fitness	3.11	3.05	3.2
Alcohol control	2.78	3.03	2.4
Women's health	3.4	3.45	3.2
Stress management	3.52	3.34	3.8
BP management	2.83	2.79	2.88
Relationships	3.27	3.18	3.4
Difficult people	3.14	3.11	3.2
Positive attitude	3.38	3.05	3.88



4.2 Correlational hypotheses

The correlations in Table 4.3 and in the Excel file suggest that the variables occur together in some specified manner without necessarily implying that one causes the other.

CORRELATION	VARIABLES	ASSUMPTIONS/IMPLICATIONS
0.80	Healthy lifestyle versus personal fitness	Individuals who follow a healthy lifestyle may be keen on personal fitness, hence the high correlation between the two variables
0,78	Healthy relationships versus dealing with difficult people	Building healthy relationships with others may be important to individuals who are keen on dealing with difficult people
0,74	Healthy relationships versus stress management	Individuals who have healthy relationships with others may also be keen on stress management
0,74	Dealing with difficult people versus positive mental attitude	Individuals who are keen on dealing with difficult people may also tend to have positive mental attitude

CORRELATION	VARIABLES	ASSUMPTIONS/IMPLICATIONS
),70	Physical fitness versus positive mental attitude	Physical fitness may be linked to a positive mental attitude
),71	Positive mental attitude versus women's health	Individuals with positive mental attitude may also be keen on women's health issues
0,78	Healthy lifestyle versus healthy relationships with others	Individuals who lead healthy lifestyle may also be keen on building healthy relationships with others
0,73	Healthy lifestyle versus stress management	Individuals who lead a healthy lifestyle may also be able to manage stress
0,72	Healthy lifestyle versus dealing with difficult people	Individuals who lead healthy lifestyle may also have the capacity to deal with difficult people
0.85	Treatment by manager versus relationship with manager	The way an employee is treated by manager may determine the relationship between the two
0.74	Treatment by manager versus support given by manager	The relationship between employee and manager may determine the kind of support given by the manager
0.73	Grievance versus fair allocation of work	The allocation of work may be determined by past grievances raised by employees
0.73	Job security versus changes at work	Employees may feel less secure about their jobs if there are regular changes at work
0.76	Information versus support from managers	The extent to which a manager shares information may determine the level of support he will give to employees
0.72	Communication versus fair allocation of work	The extent to which a manager communicates to employees may determine the amount of work allocation given to each employee
0.70	Job satisfaction versus opportunity to use skills	The extent to which an employee is given the freedom to use his skills may determine his level of job satisfaction
0.71	Fairness and fair allocation of work	The extent to which a manager is fair may determine how much work he will allocate to each employee
0.69	Praise for a job well done versus fair treatment at work	The extent to which employees are treated fairly may determine whether they receive recognition for a job well done
0.67	Job satisfaction versus clear objectives	The extent to which employees are clear about their work objectives may determine their level of job satisfaction
0.63	Job satisfaction versus variety	The extent to which employees have variety in their work may determine their job satisfaction

Table 4.3 Correlations between variables

The study highlights a number of problems in relation to work related stress. Stress remains a serious problem and that is probably why the respondents see it is a health

priority to be dealt with. 41% of respondents have indicated that they have raised concerns about stress in the workplace with their employers. They have also indicated that their employers have acknowledged the existence of the same. What is not clear is whether the employers are looking deeply into the organizational causes of workplace stress.

In order to better understand the data from the study, descriptive statistics (mean, standard error, median, mode, standard deviation, sample variance, kurtosis, skewness, range, minimum, maximum, sum, count, largest, smallest and confidence levels) have been used to summarise responses. They have been used to examine and explore one variable at a time. This is accomplished by understanding the data levels for the measurements chosen, their distributions, characteristics of location, spread and shape.

Measures of position (or central tendency) have been used in the descriptive statistics to describe where the data are concentrated. The mean is the mathematical average of the data. The mean provides a quick way of describing data and is probably the most common used measure of central tendency. However, it is greatly influenced by outliers. Hence the mean is not always the best measure of central tendency. The median is the middle observation in a data set and the mode is the value around which the greatest number of observation are concentrated.

Measures of variability have been used to describe where the data points are concentrated. They measure the dispersion (or spread) of the data set. Measures that have been used include the range, variance and standard deviation).

Measures of skewness have also been used in the descriptive statistics and these tell us where the data are located and how dispersed they are. Measures of skewness are concerned with whether the data are symmetrically distributed, or the shape of the distribution. If the data are not distributed symmetrically, the distribution is said to be skewed. One way of determining skewness in this study is by comparing the values of the mean, median and mode. If the three are equal, then the data are symmetrical. If the mean is to the left of the median and mode, the distribution is said to be negatively skewed (skewed left). If the mean is to the right of the median and mode, the distribution is said to be positively skewed.

A summary of the descriptive statistics of this study are to be found the pages that follow.

AGE		*JOB*		*EDUCATION*		*MARITAL STATUS*	
Mean	1.714285714	Mean	1.920634921	Mean	2.666666667	Mean	
Standard Error	0.094466924	Standard Error	0.109229924	Standard Error	0.10613539	Standard Error	
Median	2	Median	2	Median	3	Median	
Mode	1	Mode	1	Mode	3	Mode	
Standard Deviation	0.749807963	Standard Deviation	0.866985644	Standard Deviation	0.842423539	Standard Deviation	
Sample Variance	0.562211982	Sample Variance	0.751664107	Sample Variance	0.709677419	Sample Variance	
Kurtosis	0.031931307	Kurtosis	-1.667032699	Kurtosis	-0.657715757	Kurtosis	
Skewness	0.76450642	Skewness	0.156626693	Skewness	0.037150638	Skewness	
Range	3	Range	2	Range	3	Range	
Minimum	1	Minimum	1	Minimum	1	Minimum	
Maximum	4	Maximum	3	Maximum	4	Maximum	
Sum	108	Sum	121	Sum	168	Sum	
Count	63	Count	63	Count	63	Count	
Largest(1)	4	Largest(1)	3	Largest(1)	4	Largest(1)	
Smallest(1)	1	Smallest(1)	1	Smallest(1)	1	Smallest(1)	
Confidence Level(95.0%)	0.188836482	Confidence Level(95.0%)	0.218347266	Confidence Level(95.0%)	0.212161387	Confidence Level(95.0%)	

EMPLCONT		*STRESS1*		*STRESS2*		
1.777777778	Mean	1.952380952	Mean	0.238095238	Mean	0.507936508
0.102314347	Standard Error	0.079773654	Standard Error	0.054091603	Standard Error	0.063492063
2	Median	2	Median	0	Median	1
2	Mode	2	Mode	0	Mode	1
0.81209495	Standard Deviation	0.633183748	Standard Deviation	0.429338791	Standard Deviation	0.503952631
0.659498208	Sample Variance	0.400921659	Sample Variance	0.184331797	Sample Variance	0.253968254
3.881220366	Kurtosis	-0.412935854	Kurtosis	-0.426885246	Kurtosis	-2.06557377
1.553600867	Skewness	0.036603808	Skewness	1.260038967	Skewness	-0.032529729
4	Range	2	Range	1	Range	1
1	Minimum	1	Minimum	0	Minimum	0
5	Maximum	3	Maximum	1	Maximum	1
112	Sum	123	Sum	15	Sum	32
63	Count	63	Count	63	Count	63
5	Largest(1)	3	Largest(1)	1	Largest(1)	1
1	Smallest(1)	1	Smallest(1)	0	Smallest(1)	0
0.204523239	Confidence Level(95.0%)	**0.159465086**	Confidence Level(95.0%)	**0.108127455**	Confidence Level(95.0%)	**0.126918686**

STRESS3		*STRESS4*		*STRESS5*		*STRESS6*	
Mean	0.206349206	Mean	0.349206349	Mean	0.174603175	Mean	
Standard Error	0.051394931	Standard Error	0.060543409	Standard Error	0.048212719	Standard Error	
Median	0	Median	0	Median	0	Median	
Mode	0	Mode	0	Mode	0	Mode	
Standard Deviation	0.407934615	Standard Deviation	0.480548415	Standard Deviation	0.38267659	Standard Deviation	
Sample Variance	0.16641065	Sample Variance	0.230926779	Sample Variance	0.146441372	Sample Variance	
Kurtosis	0.216726356	Kurtosis	-1.632765076	Kurtosis	1.119454316	Kurtosis	
Skewness	1.486898524	Skewness	0.648166553	Skewness	1.756394736	Skewness	
Range	1	Range	1	Range	1	Range	
Minimum	0	Minimum	0	Minimum	0	Minimum	
Maximum	1	Maximum	1	Maximum	1	Maximum	
Sum	13	Sum	22	Sum	11	Sum	
Count	63	Count	63	Count	63	Count	
Largest(1)	1	Largest(1)	1	Largest(1)	1	Largest(1)	
Smallest(1)	0	Smallest(1)	0	Smallest(1)	0	Smallest(1)	
Confidence Level(95.0%)	0.102736889	Confidence Level(95.0%)	0.121024418	Confidence Level(95.0%)	0.096375745	Confidence Level(95.0%)	

STRESS7		STRESS8		STRESS9			
0.492063492	Mean	0.285714286	Mean	0.274193548	Mean	0.238095238
0.063492063	Standard Error	0.057372809	Standard Error	0.057118147	Standard Error	0.054091603
0	Median	0	Median	0	Median	0
0	Mode	0	Mode	0	Mode	0
0.503952631	Standard Deviation	0.455382556	Standard Deviation	0.44974874	Standard Deviation	0.429338791
0.253968254	Sample Variance	0.207373272	Sample Variance	0.202273929	Sample Variance	0.184331797
-2.06557377	Kurtosis	-1.090928962	Kurtosis	-0.955240944	Kurtosis	-0.426885246
0.032529729	Skewness	0.971980471	Skewness	1.037616396	Skewness	1.260038967
1	Range	1	Range	1	Range	1
0	Minimum	0	Minimum	0	Minimum	0
1	Maximum	1	Maximum	1	Maximum	1
31	Sum	18	Sum	17	Sum	15
63	Count	63	Count	62	Count	63
1	Largest(1)	1	Largest(1)	1	Largest(1)	1
0	Smallest(1)	0	Smallest(1)	0	Smallest(1)	0
0.126918686	Confidence Level(95.0%)	0.114686485	Confidence Level(95.0%)	0.114214826	Confidence Level(95.0%)	0.108127455

STRESS10		*STRESS11*		*STRESS12*		***STRESS13***	
Mean	0.316666667	Mean	0.238095238	Mean	0.095238095	Mean	
Standard Error	0.060560782	Standard Error	0.054091603	Standard Error	0.037280065	Standard Error	
Median	0	Median	0	Median	0	Median	
Mode	0	Mode	0	Mode	0	Mode	
Standard Deviation	0.469101798	Standard Deviation	0.429338791	Standard Deviation	0.295901341	Standard Deviation	
Sample Variance	0.220056497	Sample Variance	0.184331797	Sample Variance	0.087557604	Sample Variance	
Kurtosis	-1.393801444	Kurtosis	-0.426885246	Kurtosis	6.178602243	Kurtosis	
Skewness	0.808588554	Skewness	1.260038967	Skewness	2.825487612	Skewness	
Range	1	Range	1	Range	1	Range	
Minimum	0	Minimum	0	Minimum	0	Minimum	
Maximum	1	Maximum	1	Maximum	1	Maximum	
Sum	19	Sum	15	Sum	6	Sum	
Count	60	Count	63	Count	63	Count	
Largest(1)	1	Largest(1)	1	Largest(1)	1	Largest(1)	
Smallest(1)	0	Smallest(1)	0	Smallest(1)	0	Smallest(1)	
Confidence Level(95.0%)	0.12118197	Confidence Level(95.0%)	0.10812745	Confidence Level(95.0%)	0.07452170	Confidence Level(95.0%)	

STRESS14		*STRESS15*		***STRESS16***		
0.142857143	Mean	0.111111111	Mean	0.063492063	Mean	0.047619048
0.044440787	Standard Error	0.039912289	Standard Error	0.03096846	Standard Error	0.027045802
0	Median	0	Median	0	Median	0
0	Mode	0	Mode	0	Mode	0
0.352737811	Standard Deviation	0.316793976	Standard Deviation	0.24580453	Standard Deviation	0.214669395
0.124423963	Sample Variance	0.100358423	Sample Variance	0.060419867	Sample Variance	0.046082949
2.450637523	Kurtosis	4.573770492	Kurtosis	11.82978605	Kurtosis	17.50229508
2.091368987	Skewness	2.53565014	Skewness	3.66811525	Skewness	4.352861887
1	Range	1	Range	1	Range	1
0	Minimum	0	Minimum	0	Minimum	0
1	Maximum	1	Maximum	1	Maximum	1
9	Sum	7	Sum	4	Sum	3
63	Count	63	Count	63	Count	63
1	Largest(1)	1	Largest(1)	1	Largest(1)	1
0	Smallest(1)	0	Smallest(1)	0	Smallest(1)	0
0.088835769	Confidence Level(95.0%)	0.079783441	Confidence Level(95.0%)	0.061905001	Confidence Level(95.0%)	0.054063727

STRESS17		*STRESS18*		*STRESS19*		*WP1*	
Mean	0.126984127	Mean	0.047619048	Mean	0.079365079	Mean	
Standard Error	0.042285351	Standard Error	0.027045802	Standard Error	0.034329115	Standard Error	
Median	0	Median	0	Median	0	Median	
Mode	0	Mode	0	Mode	0	Mode	
Standard Deviation	0.335629572	Standard Deviation	0.214669395	Standard Deviation	0.272478901	Standard Deviation	
Sample Variance	0.112647209	Sample Variance	0.046082949	Sample Variance	0.074244752	Sample Variance	
Kurtosis	3.376274218	Kurtosis	17.50229508	Kurtosis	8.434663652	Kurtosis	
Skewness	2.295661253	Skewness	4.352861887	Skewness	3.18869628	Skewness	
Range	1	Range	1	Range	1	Range	
Minimum	0	Minimum	0	Minimum	0	Minimum	
Maximum	1	Maximum	1	Maximum	1	Maximum	
Sum	8	Sum	3	Sum	5	Sum	
Count	63	Count	63	Count	63	Count	
Largest(1)	1	Largest(1)	1	Largest(1)	1	Largest(1)	
Smallest(1)	0	Smallest(1)	0	Smallest(1)	0	Smallest(1)	
Confidence Level(95.0%)	0.08452712	Confidence Level(95.0%)	0.054063727	Confidence Level(95.0%)	0.068622847	Confidence Level(95.0%)	

WP2		*WP3*		*WP4*		
3.018867925	Mean	5	Mean	6.378378378	Mean	3.9
0.48226197	Standard Error	0.470378612	Standard Error	0.545733316	Standard Error	0.540417692
1	Median	5	Median	6	Median	2
1	Mode	1	Mode	2	Mode	1
3.51092014	Standard Deviation	3.190262964	Standard Deviation	3.319566164	Standard Deviation	3.41790159
12.32656023	Sample Variance	10.17777778	Sample Variance	11.01951952	Sample Variance	11.68205128
0.923085739	Kurtosis	-0.915877051	Kurtosis	-1.325441612	Kurtosis	-0.04284448
1.435558125	Skewness	0.386373164	Skewness	0.09126163	Skewness	1.01445502
12	Range	11	Range	11	Range	11
0	Minimum	1	Minimum	1	Minimum	1
12	Maximum	12	Maximum	12	Maximum	12
160	Sum	230	Sum	236	Sum	156
53	Count	46	Count	37	Count	40
12	Largest(1)	12	Largest(1)	12	Largest(1)	12
0	Smallest(1)	1	Smallest(1)	1	Smallest(1)	1
0.967728787	Confidence Level(95.0%)	0.947391116	Confidence Level(95.0%)	1.106797006	Confidence Level(95.0%)	1.093096885

WP5		*WP6*		*WP7*		*WP8*	
Mean	6.743589744	Mean	6.861111111	Mean	6.636363636	Mean	
Standard Error	0.572323848	Standard Error	0.537709395	Standard Error	0.610542143	Standard Error	
Median	7	Median	7.5	Median	6	Median	
Mode	10	Mode	9	Mode	6	Mode	
Standard Deviation	3.574161283	Standard Deviation	3.226256369	Standard Deviation	3.507297587	Standard Deviation	
Sample Variance	12.77462888	Sample Variance	10.40873016	Sample Variance	12.30113636	Sample Variance	
Kurtosis	-1.521499799	Kurtosis	-1.236316797	Kurtosis	-1.185127837	Kurtosis	
Skewness	0.042568373	Skewness	-0.294681018	Skewness	0.008487959	Skewness	
Range	10	Range	11	Range	11	Range	
Minimum	2	Minimum	1	Minimum	1	Minimum	
Maximum	12	Maximum	12	Maximum	12	Maximum	
Sum	263	Sum	247	Sum	219	Sum	
Count	39	Count	36	Count	33	Count	
Largest(1)	12	Largest(1)	12	Largest(1)	12	Largest(1)	
Smallest(1)	2	Smallest(1)	1	Smallest(1)	1	Smallest(1)	
Confidence Level(95.0%)	1.158609098	Confidence Level(95.0%)	1.091609439	Confidence Level(95.0%)	1.243632595	Confidence Level(95.0%)	

WP9		*WP10*		*WP11*		*WP12*	
6.228571429	Mean	5.387096774	Mean	6.6	Mean	4.41025641	
0.443601976	Standard Error	0.538171774	Standard Error	0.563899985	Standard Error	0.495210459	
6	Median	4	Median	7	Median	3	
6	Mode	3	Mode	8	Mode	2	
2.624384682	Standard Deviation	2.996413627	Standard Deviation	3.336077302	Standard Deviation	3.092588328	
6.887394958	Sample Variance	8.978494624	Sample Variance	11.12941176	Sample Variance	9.564102564	
-0.559169986	Kurtosis	-0.727145276	Kurtosis	-1.131182475	Kurtosis	-0.027949	
0.036254666	Skewness	0.687925421	Skewness	-0.198011129	Skewness	1.033463308	
10	Range	10	Range	11	Range	11	
1	Minimum	1	Minimum	1	Minimum	1	
11	Maximum	11	Maximum	12	Maximum	12	
218	Sum	167	Sum	231	Sum	172	
35	Count	31	Count	35	Count	39	
11	Largest(1)	11	Largest(1)	12	Largest(1)	12	
1	Smallest(1)	1	Smallest(1)	1	Smallest(1)	1	
0.901507088	Confidence Level(95.0%)	1.09909226	Confidence Level(95.0%)	1.145981896	Confidence Level(95.0%)	1.002501199	

WP12		*8changes*		***praise***		***fair***	
Mean	6.6	Mean	2.766666667	Mean	2.704918033	Mean	
Standard Error	0.704011494	Standard Error	0.117330637	Standard Error	0.140926409	Standard Error	
Median	7	Median	3	Median	3	Median	
Mode	12	Mode	3	Mode	3	Mode	
Standard Deviation	3.856029761	Standard Deviation	0.908839205	Standard Deviation	1.100670437	Standard Deviation	
Sample Variance	14.86896552	Sample Variance	0.825988701	Sample Variance	1.21147541	Sample Variance	
Kurtosis	-1.390333543	Kurtosis	-0.139359896	Kurtosis	-0.135053971	Kurtosis	
Skewness	0.129752967	Skewness	0.347442771	Skewness	0.231504964	Skewness	
Range	11	Range	4	Range	4	Range	
Minimum	1	Minimum	1	Minimum	1	Minimum	
Maximum	12	Maximum	5	Maximum	5	Maximum	
Sum	198	Sum	166	Sum	165	Sum	
Count	30	Count	60	Count	61	Count	
Largest(1)	12	Largest(1)	5	Largest(1)	5	Largest(1)	
Smallest(1)	1	Smallest(1)	1	Smallest(1)	1	Smallest(1)	
Confidence Level(95.0%)	1.439865962	Confidence Level(95.0%)	0.234778309	Confidence Level(95.0%)	0.281894696	Confidence Level(95.0%)	

com		grievance		support			
2.741935484	Mean	2.766666667	Mean	2.8	Mean	2.403225806	
0.114832055	Standard Error	0.145296631	Standard Error	0.144190709	Standard Error	0.124815416	
3	Median	3	Median	3	Median	2	
3	Mode	2	Mode	3	Mode	2	
0.904188503	Standard Deviation	1.125462868	Standard Deviation	1.116896426	Standard Deviation	0.98279757	
0.817556848	Sample Variance	1.266666667	Sample Variance	1.247457627	Sample Variance	0.965891063	
-0.634570616	Kurtosis	-0.68553869	Kurtosis	-0.868364445	Kurtosis	-0.426959733	
-0.282428601	Skewness	0.185417644	Skewness	-0.193296396	Skewness	0.279486188	
3	Range	4	Range	4	Range	4	
1	Minimum	1	Minimum	1	Minimum	1	
4	Maximum	5	Maximum	5	Maximum	5	
170	Sum	166	Sum	168	Sum	149	
62	Count	60	Count	60	Count	62	
4	Largest(1)	5	Largest(1)	5	Largest(1)	5	
1	Smallest(1)	1	Smallest(1)	1	Smallest(1)	1	
0.229620949	Confidence Level(95.0%)	0.290738194	Confidence Level(95.0%)	0.288525245	Confidence Level(95.0%)	0.24958392	

treat		*relationship*		*9perf*		*vol*	
Mean	2.393442623	Mean	2.387096774	Mean	2.596774194	Mean
Standard Error	0.107831807	Standard Error	0.101169363	Standard Error	0.118289585	Standard Error
Median	3	Median	3	Median	2	Median
Mode	3	Mode	3	Mode	2	Mode
Standard Deviation	0.842193337	Standard Deviation	0.796608358	Standard Deviation	0.931413124	Standard Deviation
Sample Variance	0.709289617	Sample Variance	0.634584876	Sample Variance	0.867530407	Sample Variance
Kurtosis	-0.746385148	Kurtosis	-0.672266525	Kurtosis	0.015878699	Kurtosis
Skewness	-0.344621481	Skewness	-0.420532871	Skewness	0.651577832	Skewness
Range	3	Range	3	Range	4	Range
Minimum	1	Minimum	1	Minimum	1	Minimum
Maximum	4	Maximum	4	Maximum	5	Maximum
Sum	146	Sum	148	Sum	161	Sum
Count	61	Count	62	Count	62	Count
Largest(1)	4	Largest(1)	4	Largest(1)	5	Largest(1)
Smallest(1)	1	Smallest(1)	1	Smallest(1)	1	Smallest(1)
Confidence Level(95.0%)	0.21569565	Confidence Level(95.0%)	0.2023007	Confidence Level(95.0%)	0.2365347	Confidence Level(95.0%)

staff		*fair al*		*time*			
2.904761905	Mean	3.032258065	Mean	2.803278689	Mean	2.919354839	
0.112492329	Standard Error	0.117184812	Standard Error	0.10140993	Standard Error	0.122330592	
3	Median	3	Median	3	Median	3	
3	Mode	3	Mode	3	Mode	3	
0.892880184	Standard Deviation	0.922714135	Standard Deviation	0.792036871	Standard Deviation	0.963232044	
0.797235023	Sample Variance	0.851401375	Sample Variance	0.627322404	Sample Variance	0.92781597	
-2.37721E-05	Kurtosis	-0.37626639	Kurtosis	0.058915558	Kurtosis	0.122989275	
0.331756813	Skewness	0.064083157	Skewness	-0.462026777	Skewness	-0.403256676	
4	Range	4	Range	3	Range	4	
1	Minimum	1	Minimum	1	Minimum	1	
5	Maximum	5	Maximum	4	Maximum	5	
183	Sum	188	Sum	171	Sum	181	
63	Count	62	Count	61	Count	62	
5	Largest(1)	5	Largest(1)	4	Largest(1)	5	
1	Smallest(1)	1	Smallest(1)	1	Smallest(1)	1	
0.224868714	Confidence **Level(95.0%)**	**0.23432**558	Confidence Le**vel(95.0%)**	**0.202849**96	Confidence L**evel(95.0%)**	**0.24461**5205	

rest		*10sec*		*changes*		*info*	
Mean	2.733333333	Mean	2.7	Mean	2.983333333	Mean	
Standard Error	0.12989928	Standard Error	0.150891887	Standard Error	0.115204722	Standard Error	
Median	3	Median	3	Median	3	Median	
Mode	3	Mode	3	Mode	3	Mode	
Standard Deviation	1.006195497	Standard Deviation	1.168803531	Standard Deviation	0.892371942	Standard Deviation	
Sample Variance	1.012429379	Sample Variance	1.366101695	Sample Variance	0.796327684	Sample Variance	
Kurtosis	0.014196761	Kurtosis	-0.466390007	Kurtosis	0.019491296	Kurtosis	
Skewness	0.050334703	Skewness	0.419039599	Skewness	0.181337672	Skewness	
Range	4	Range	4	Range	4	Range	
Minimum	1	Minimum	1	Minimum	1	Minimum	
Maximum	5	Maximum	5	Maximum	5	Maximum	
Sum	164	Sum	162	Sum	179	Sum	
Count	60	Count	60	Count	60	Count	
Largest(1)	5	Largest(1)	5	Largest(1)	5	Largest(1)	
Smallest(1)	1	Smallest(1)	1	Smallest(1)	1	Smallest(1)	
Confidence Level(95.0%)	0.259928133	Confidence Level(95.0%)	0.301934286	Confidence Level(95.0%)	0.23052436	Confidence Level(95.0%)	

involv		*support*		*11job sat*			
2.95	Mean	3.118644068	Mean	2.966101695	Mean	2.682539683	
0.124476304	Standard Error	0.1369381	Standard Error	0.130112799	Standard Error	0.139168397	
3	Median	3	Median	3	Median	3	
2	Mode	3	Mode	3	Mode	3	
0.964189306	Standard Deviation	1.051841501	Standard Deviation	0.999415376	Standard Deviation	1.104614906	
0.929661017	Sample Variance	1.106370544	Sample Variance	0.998831093	Sample Variance	1.220174091	
-0.865617241	Kurtosis	-0.416360011	Kurtosis	-0.207649772	Kurtosis	-0.447017081	
0.337128604	Skewness	0.123626864	Skewness	0.069610466	Skewness	0.223254465	
4	Range	4	Range	4	Range	4	
1	Minimum	1	Minimum	1	Minimum	1	
5	Maximum	5	Maximum	5	Maximum	5	
177	Sum	184	Sum	175	Sum	169	
60	Count	59	Count	59	Count	63	
5	Largest(1)	5	Largest(1)	5	Largest(1)	5	
1	Smallest(1)	1	Smallest(1)	1	Smallest(1)	1	
0.249076771	Confidence **Level(95.0%)**	**0.274111**183	Confidence **Level(95.0%)**	**0.260**44887	Confidence **Level(95.0%)**	**0.27819**3354	

train		*op skill*		*variety*		*obj*	
Mean	2.746031746	Mean	2.603174603	Mean	2.786885246	Mean	
Standard Error	0.137582548	Standard Error	0.14228708	Standard Error	0.119458601	Standard Error	
Median	3	Median	3	Median	3	Median	
Mode	3	Mode	2	Mode	3	Mode	
Standard Deviation	1.092027619	Standard Deviation	1.129368687	Standard Deviation	0.933001502	Standard Deviation	
Sample Variance	1.192524322	Sample Variance	1.27547363	Sample Variance	0.870491803	Sample Variance	
Kurtosis	-0.291365748	Kurtosis	-1.158260082	Kurtosis	0.016921711	Kurtosis	
Skewness	0.298865684	Skewness	0.012476057	Skewness	0.445193233	Skewness	
Range	4	Range	4	Range	4	Range	
Minimum	1	Minimum	1	Minimum	1	Minimum	
Maximum	5	Maximum	5	Maximum	5	Maximum	
Sum	173	Sum	164	Sum	170	Sum	
Count	63	Count	63	Count	61	Count	
Largest(1)	5	Largest(1)	5	Largest(1)	5	Largest(1)	
Smallest(1)	1	Smallest(1)	1	Smallest(1)	1	Smallest(1)	
Confidence Level(95.0%)	0.275023291	Confidence Level(95.0%)	0.284427506	Confidence Level(95.0%)	0.238952702	Confidence Level(95.0%)	

freedom		*12length*		*bal*		
2.741935484	Mean	2.770491803	Mean	2.629032258	Mean	2.80952381
0.127903578	Standard Error	0.137092053	Standard Error	0.115517073	Standard Error	0.119431026
3	Median	3	Median	3	Median	3
2	Mode	3	Mode	3	Mode	3
1.007113777	Standard Deviation	1.070723161	Standard Deviation	0.909582339	Standard Deviation	0.947954383
1.01427816	Sample Variance	1.146448087	Sample Variance	0.827340032	Sample Variance	0.898617512
-0.581795713	Kurtosis	-0.61478559	Kurtosis	-0.176622326	Kurtosis	0.107755079
0.148681624	Skewness	-0.195139059	Skewness	0.007448834	Skewness	0.161760674
4	Range	4	Range	4	Range	4
1	Minimum	1	Minimum	1	Minimum	1
5	Maximum	5	Maximum	5	Maximum	5
170	Sum	169	Sum	163	Sum	177
62	Count	61	Count	62	Count	63
5	Largest(1)	5	Largest(1)	5	Largest(1)	5
1	Smallest(1)	1	Smallest(1)	1	Smallest(1)	1
0.255759082	Confidence Level(95.0%)	0.274224846	Confidence Level(95.0%)	0.230990728	Confidence Level(95.0%)	0.238738956

13env		***tools***		***health***		***14skills***	
Mean	2.603174603	Mean	2.444444444	Mean	2.428571429	Mean
Standard Error	0.145841279	Standard Error	0.114887192	Standard Error	0.112492329	Standard Error
Median	3	Median	3	Median	2	Median
Mode	2	Mode	3	Mode	2	Mode
Standard Deviation	1.157579267	Standard Deviation	0.911888819	Standard Deviation	0.892880184	Standard Deviation
Sample Variance	1.339989759	Sample Variance	0.831541219	Sample Variance	0.797235023	Sample Variance
Kurtosis	-0.654056976	Kurtosis	-0.820124364	Kurtosis	-0.654992882	Kurtosis
Skewness	0.320462172	Skewness	-0.225648089	Skewness	0.151869482	Skewness
Range	4	Range	3	Range	3	Range
Minimum	1	Minimum	1	Minimum	1	Minimum
Maximum	5	Maximum	4	Maximum	4	Maximum
Sum	164	Sum	154	Sum	153	Sum
Count	63	Count	63	Count	63	Count
Largest(1)	5	Largest(1)	4	Largest(1)	4	Largest(1)
Smallest(1)	1	Smallest(1)	1	Smallest(1)	1	Smallest(1)
Confidence Level(95.0%)	0.29153224	Confidence Level(95.0%)	0.22965597	Confidence Level(95.0%)	0.22486871	Confidence Level(95.0%)

develop		*15hara*		*who*			
1.126984127	Mean	1.476190476	Mean	1.603174603	Mean	0.634920635	
0.047959188	Standard Error	0.08423367	Standard Error	0.066125618	Standard Error	0.118234121	
1	Median	1	Median	2	Median	0	
1	Mode	1	Mode	2	Mode	0	
0.380664254	Standard Deviation	0.668584032	Standard Deviation	0.524855819	Standard Deviation	0.938454242	
0.144905274	Sample Variance	0.447004608	Sample Variance	0.27547363	Sample Variance	0.880696365	
10.22546577	Kurtosis	0.024726587	Kurtosis	-0.664830956	Kurtosis	0.027081471	
3.15533644	Skewness	1.092767238	Skewness	-0.775455354	Skewness	1.166341106	
2	Range	2	Range	2	Range	3	
1	Minimum	1	Minimum	0	Minimum	0	
3	Maximum	3	Maximum	2	Maximum	3	
71	Sum	93	Sum	101	Sum	40	
63	Count	63	Count	63	Count	63	
3	Largest(1)	3	Largest(1)	2	Largest(1)	3	
1	Smallest(1)	1	Smallest(1)	0	Smallest(1)	0	
0.095868945	Confidence Level(95.0%)	0.168380522	Confidence Level(95.0%)	0.13218308	Confidence Level(95.0%)	0.236346379	

16viol		*report to*		*17stress*		*18resp*	
Mean	1.793650794	Mean	0.111111111	Mean	1.412698413	Mean
Standard Error	0.05615578	Standard Error	0.039912289	Standard Error	0.066493325	Standard Error
Median	2	Median	0	Median	1	Median
Mode	2	Mode	0	Mode	1	Mode
Standard Deviation	0.445722688	Standard Deviation	0.316793976	Standard Deviation	0.527774409	Standard Deviation
Sample Variance	0.198668715	Sample Variance	0.100358423	Sample Variance	0.278545827	Sample Variance
Kurtosis	3.515031823	Kurtosis	4.573770492	Kurtosis	-1.270546755	Kurtosis
Skewness	-2.03566763	Skewness	2.53565014	Skewness	0.021526047	Skewness
Range	2	Range	1	Range	2	Range
Minimum	0	Minimum	0	Minimum	0	Minimum
Maximum	2	Maximum	1	Maximum	2	Maximum
Sum	113	Sum	7	Sum	89	Sum
Count	63	Count	63	Count	63	Count
Largest(1)	2	Largest(1)	1	Largest(1)	2	Largest(1)
Smallest(1)	0	Smallest(1)	0	Smallest(1)	0	Smallest(1)
Confidence **Level(95.0%)**	**0.11225**3681	Confidence Le**vel(95.0%)**	**0.07978**341	Confidence L**evel(95.0%)**	**0.13291**8117	Confidence Le**vel(95.0%)**

EAP1		*EAP3*		*UN*			
0.936507937	Mean	1.603174603	Mean	1.317460317	Mean	2.80952381
0.127749867	Standard Error	0.073461982	Standard Error	0.100753426	Standard Error	0.223843838
1	Median	2	Median	1	Median	3
1	Mode	2	Mode	1	Mode	5
1.013983137	Standard Deviation	0.583086408	Standard Deviation	0.799705527	Standard Deviation	1.776705386
1.028161802	Sample Variance	0.339989759	Sample Variance	0.63952893	Sample Variance	3.156682028
-0.020378365	Kurtosis	0.438256046	Kurtosis	0.3918763	Kurtosis	-1.254072357
0.993174225	Skewness	-1.173756635	Skewness	0.919204592	Skewness	-0.201159395
3	Range	2	Range	3	Range	5
0	Minimum	0	Minimum	0	Minimum	0
3	Maximum	2	Maximum	3	Maximum	5
59	Sum	101	Sum	83	Sum	177
63	Count	63	Count	63	Count	63
3	Largest(1)	2	Largest(1)	3	Largest(1)	5
0	Smallest(1)	0	Smallest(1)	0	Smallest(1)	0
0.255368064	Confidence Level(95.0%)	0.146848248	Confidence Level(95.0%)	0.201403006	Confidence Level(95.0%)	0.447456963

HL		*PFE*		*ADC*		*WHI*	
Mean	3.492063492	Mean	3.111111111	Mean	2.777777778	Mean	
Standard Error	0.215708048	Standard Error	0.211195984	Standard Error	0.245225211	Standard Error	
Median	4	Median	3	Median	3	Median	
Mode	5	Mode	5	Mode	5	Mode	
Standard Deviation	1.712129554	Standard Deviation	1.676316152	Standard Deviation	1.946414772	Standard Deviation	
Sample Variance	2.931387609	Sample Variance	2.810035842	Sample Variance	3.788530466	Sample Variance	
Kurtosis	-0.416540037	Kurtosis	-0.757739091	Kurtosis	-1.588169281	Kurtosis	
Skewness	-0.892143412	Skewness	-0.584059925	Skewness	-0.177818171	Skewness	
Range	5	Range	5	Range	5	Range	
Minimum	0	Minimum	0	Minimum	0	Minimum	
Maximum	5	Maximum	5	Maximum	5	Maximum	
Sum	220	Sum	196	Sum	175	Sum	
Count	63	Count	63	Count	63	Count	
Largest(1)	5	Largest(1)	5	Largest(1)	5	Largest(1)	
Smallest(1)	0	Smallest(1)	0	Smallest(1)	0	Smallest(1)	
Confidence Level(95.0%)	0.431193768	Confidence Level(95.0%)	0.42217429	Confidence Level(95.0%)	0.490197671	Confidence Level(95.0%)	

SM		*BPM*		*HRO*		
3.349206349	Mean	3.523809524	Mean	2.825396825	Mean	3.26984127
0.219573121	Standard Error	0.219221196	Standard Error	0.218850138	Standard Error	0.228764071
4	Median	4	Median	3	Median	4
5	Mode	5	Mode	3	Mode	5
1.742807618	Standard Deviation	1.740014302	Standard Deviation	1.737069116	Standard Deviation	1.815758521
3.037378392	Sample Variance	3.02764977	Sample Variance	3.017409114	Sample Variance	3.296979007
-0.533038568	Kurtosis	-0.441039955	Kurtosis	-1.196485288	Kurtosis	-0.992185296
-0.824363029	Skewness	-0.951866714	Skewness	-0.351722683	Skewness	-0.683716483
5	Range	5	Range	5	Range	5
0	Minimum	0	Minimum	0	Minimum	0
5	Maximum	5	Maximum	5	Maximum	5
211	Sum	222	Sum	178	Sum	206
63	Count	63	Count	63	Count	63
5	Largest(1)	5	Largest(1)	5	Largest(1)	5
0	Smallest(1)	0	Smallest(1)	0	Smallest(1)	0
0.43891993	Confidence Level(95.0%)	0.43821643	Confidence Level(95.0%)	0.43747471	Confidence Level(95.0%)	0.45729235

DDP		*PMA*		*PMSYSTEM*		***FREQPMAN***	
Mean	3.142857143	Mean	3.380952381	Mean	1.26984127	Mean	
Standard Error	0.208445767	Standard Error	0.235624663	Standard Error	0.06074444	Standard Error	
Median	4	Median	4	Median	1	Median	
Mode	4	Mode	5	Mode	1	Mode	
Standard Deviation	1.654486987	Standard Deviation	1.870212783	Standard Deviation	0.482144042	Standard Deviation	
Sample Variance	2.737327189	Sample Variance	3.497695853	Sample Variance	0.232462878	Sample Variance	
Kurtosis	-0.764903213	Kurtosis	-1.072725656	Kurtosis	-0.536951371	Kurtosis	
Skewness	-0.720616349	Skewness	-0.746942611	Skewness	0.608575305	Skewness	
Range	5	Range	5	Range	2	Range	
Minimum	0	Minimum	0	Minimum	0	Minimum	
Maximum	5	Maximum	5	Maximum	2	Maximum	
Sum	198	Sum	213	Sum	80	Sum	
Count	63	Count	63	Count	63	Count	
Largest(1)	5	Largest(1)	5	Largest(1)	2	Largest(1)	
Smallest(1)	0	Smallest(1)	0	Smallest(1)	0	Smallest(1)	
Confidence Level(95.0%)	0.41667692	Confidence Level(95.0%)	0.47100647	Confidence Level(95.0%)	0.12142627	Confidence Level(95.0%)	

RESP/PAPP		*STRESSPOL*		*JOBDES/STRESS*			
1.285714286	Mean	0.777777778	Mean	1.80952381	Mean	1.365079365
0.145646099	Standard **Error**	0.065755854	Standard **Error**	0.09290538	Standard **Error**	0.082527866
1	Median	1	Median	2	Median	1
0	Mode	1	Mode	2	Mode	1
1.156030073	Standard Deviation	0.521920908	Standard Deviation	0.737413589	Standard Deviation	0.655044625
1.33640553	Sample Variance	0.272401434	Sample Variance	0.543778802	Sample Variance	0.429083461
-1.006285102	Kurtosis	-0.032941283	Kurtosis	-0.188241555	Kurtosis	0.612713978
0.447575698	Skewness	-0.240119821	Skewness	-0.178601605	Skewness	0.877000928
4	Range	2	Range	3	Range	3
0	Minimum	0	Minimum	0	Minimum	0
4	Maximum	2	Maximum	3	Maximum	3
81	Sum	49	Sum	114	Sum	86
63	Count	63	Count	63	Count	63
4	Largest(1)	2	Largest(1)	3	Largest(1)	3
0	Smallest(1)	0	Smallest(1)	0	Smallest(1)	0
0.291142082	Confidence **Level(95.0%)**	**0.13144**3933	Confidence Le**vel(95.0%)**	**0.185**715003	Confidence **Level(95.0%)**	**0.16497**067

SUPDISC		*PAPP/PCIRC*	
Mean	1.26984127	Mean	1.031746032
Standard Error	0.06865823	Standard Error	0.087545625
Median	1	Median	1
Mode	1	Mode	1
Standard Deviation	0.544957803	Standard Deviation	0.69487186
Sample Variance	0.296979007	Sample Variance	0.482846902
Kurtosis	-0.391353775	Kurtosis	-0.869975588
Skewness	0.088171498	Skewness	-0.042355587
Range	2	Range	2
Minimum	0	Minimum	0
Maximum	2	Maximum	2
Sum	80	Sum	65
Count	63	Count	63
Largest(1)	2	Largest(1)	2
Smallest(1)	0	Smallest(1)	0
Confidence Level(95.0%)	0.13724569	Confidence Level(95.0%)	0.17500101

)B	0.014177782	1																			
)UCATION	0.076603572	0.20611172	1																		
ARITAL STATUS	0.450298369	-0.117085986	-0.110021557	1																	
MPLCONT	-0.131037086	0.169290552	0.090712955	-0.020911273	1																
TRESS1	-0.035787396	-0.16506955	-0.133782388	0.200458035	-0.016951588	1															
TRESS2	0.21951945	-0.053908093	-0.126638817	0.280252341	-0.074615875	0.177488073	1														
TRESS3	0.143127559	-0.04415655	0.203380521	-0.005409641	0.038655567	0.175411604	0.109589806	1													
TRESS4	0.012789485	-0.009831928	-0.185929135	0.119397488	0.00252419	-0.01861323	0.254775661	-0.044403681	1												
TRESS5	0.008030236	-0.006173251	-0.26683614	0.126867323	-0.098262782	0.233736748	0.285420136	-0.027880094	0.277045942	1											
TRESS6	-0.091466438	-0.167583853	0.012663882	-0.043789428	0.024069637	-0.028398092	0.206653226	0.204235547	0.011628765	0.049118814	1										
TRESS7	-0.087725769	0.099213529	-0.210218741	3.14738E-17	-0.007991055	0.223917147	-0.080321933	0.198455675	0.126350795	0.449553003	-0.130523141	1									
TRESS8	0.03212664	-0.164297719	-0.182289125	0.126459104	-0.181440481	-0.009531753	0.088684405	0.127493949	0.299821694	0.09311458	0.128359008	0.005138859	1								
TRESS9	-0.035787396	0.051584234	-0.312158905	-0.123358791	-0.254273814	0.125	0.102943082	-0.00877058	0.294089033	0.331906181	-0.177488073	0.223917147	0.074892342	1							
TRESS10	0.050689897	0.039368537	0.056212718	0.079383786	-0.058456526	-0.06205716	-0.130250057	0.107486155	0.026291091	0.080115449	-0.06224158	0.101640075	0.035821178	0.21742479	1						
TRESS11	-0.08588975	0.051584234	-0.178376517	0.154198489	-0.135612701	0.2125	0.102943082	0.175411604	0.137737901	0.331906181	-0.028398092	0.471404521	0.169316437	0.3	0.268914361	1					
TRESS12	0.197318084	-0.032932361	-0.19411189	0.156614278	-0.14757569	0.072547625	0.103010705	0.369045163	0.102626267	0.135656367	0.113311776	0.273594227	0.165683374	0.453422656	0.442913365	0.453422656	1				
TRESS13	0.095829868	0.090412316	-1.80783E-17	-0.056305327	0.175378931	-0.121716124	0.038885689	0.128102523	-0.013593181	-0.068278874	-0.038885689	-0.15778821	-0.048007389	0.197788701	0.154584974	-0.015214515	0.176604314				
TRESS14	0.203705429	-0.08482431	0.020145574	0.285605084	0.026802813	0.039528471	0.145929308	0.318952613	0.164808563	0.236524958	0.157164639	0.335410197	0.165683374	0.158113883	0.199034377	0.276699295	0.401477534				
TRESS15	-0.162522574	0.099711228	-0.129818529	0.071822265	0.019739192	0.007277781	-0.004133502	0.028085361	-0.054185207	-0.11975638	-0.126071813	-0.164677394	-0.014242182	0.007277781	-0.181936927	-0.145555627	-0.084477721				
TRESS16	0.08588975	0.020633694	-0.089188259	0.061679395	0.016951588	0.225	0.220085211	0.43852901	-0.007445292	-0.102844169	0.078094752	0.188561808	0.029893401	0.225	0.337006539	0.225	0.43528575				
TRESS17	0.082402903	0.035192946	0.038030001	0.10520073	0.028912725	0.010660036	0.184662052	-0.076665653	0.22064048	0.201324682	0.006054493	-0.135680105	0.086975596	0.122590412	0.087426315	0.122590412	-0.123737645				
TRESS18	-0.114519667	0.193956721	0.178376517	0.061679395	0.135612701	-0.125	-0.078094752	0.070164642	-0.163796423	-0.102844169	-0.070995229	-0.141421356	0.029893401	-0.125	0.172613105	0.05	-0.072547625				
TRESS19	-0.124056644	0.163643938	-0.163953889	-0.064791211	-0.164713085	-0.026261287	-0.063390486	0.140499299	0.154463127	0.329009005	-0.054068356	0.334251609	0.216305831	0.387353977	0.313280185	0.249482222	0.304831035				
IP1	0.095794403	0.254941324	0.159681479	0.089572296	0.026975469	-0.002776586	0.005741805	0.035956236	-0.354775975	-0.098264097	-0.179636477	0.119809932	-0.220618939	0.045973579	0.320196838	0.243377246	-0.019061931				
IP2	0.10468226	0.237300441	0.200020594	0.047582845	0.19079637	1.74191E-17	-0.068960312	0.251036041	-0.25464003	-0.018176463	-0.151712687	0.141207773	-0.091805517	0.078448763	0.184246986	-0.032303219	0.306933299				
IP3	0.188867442	-0.012267092	0.09733044	0.306119579	0.199599459	-0.080743735	-0.015760318	-0.255749521	-0.00292843	-0.013669989	-0.003124291	-0.181841601	-0.111280326	0.039559011	0.112880573	-0.007799335	-0.004086359				
IP4	-0.004287967	-0.126798613	-0.053603487	0.037615577	0.066255684	-0.031520739	-0.207413098	0.101198164	0.117788026	-0.132770939	-0.072685498	-0.012931785	-0.124471636	0.140140327	0.069994579	0.246576019	0.092809106				
IP5	0.186365539	0.010780347	-0.185063292	0.11659244	-0.118355046	0.298554515	0.402597947	-0.11595365	0.042677872	0.201783598	-0.093200369	-0.040543978	-0.010178316	0.229555249	0.009994686	-0.06369163	0.02456958				
IP6	0.288142709	0.141399326	0.121129301	-0.094888155	-0.039294192	0.023337366	-0.198718317	0.218523226	-0.524831364	-0.249709815	-0.076280625	-0.08477648	-0.075621708	-0.011913843	0.15317553	-0.035290131	0.071006596				
IP7	-0.376773178	-0.061730248	0.114620708	-0.319651253	-0.072821647	-0.368941088	-0.23708087	0.222081043	-0.073430022	-0.224377252	0.330371498	0.145791447	0.16192762	-0.26801813	-0.133643087	-0.224377252	-0.088786186				
IP8	-0.072639159	-0.411387066	-0.05544555	-0.028826933	-0.105869307	0.13603502	0.103264213	0.066367067	-0.05982459	-0.186736521	0.058917618	-0.17814318	0.038660465	-0.021795666	0.041345793	-0.069502831	0.012400982				
IP9	0.112645252	-0.084075726	0.092326205	-0.192058422	-0.057310347	-0.018574828	0.075192435	0.172648029	0.012443546	0.157262002	0.105253709	0.108881026	-0.070922071	0.097618745	0.267676768	-0.202832241	0.105075095				
IP10	-0.058346194	0.381135324	0.107605613	-0.129244997	0.085030119	0.086912228	0.020863107	-0.235845199	-0.230818014	0.285894315	-0.041863247	0.096174173	-0.182101807	0.148992387	0.247907078	0.039102356	-0.024832065				
IP11	0.028328885	-0.173354979	0.087746779	-0.047194817	-0.010173633	-0.098153968	0.215011918	0.363740802	0.279149366	-0.151476857	0.178857941	-0.059393482	0.055735671	-0.162390485	-0.157539301	-0.25222553	-0.001288426				
IP12	-0.185928284	-0.162714661	-0.135938747	-0.321252995	0.058843585	-0.108096506	-0.151563873	0.242563108	0.182932549	0.096714743	0.246182982	0.16303422	0.162656613	0.043740888	-0.058836991	-0.189033361	0.064476495				
changes	-0.175340156	0.143511271	-0.130957824	-0.10289153	-0.14506012	0.19218664	0.139392661	-0.009246584	-0.081421652	-0.020710486	0.258904353	0.121751026	0.142430656	-0.163236172	-0.079574384	0.317727548	0.0111518				
ralse	-0.040404908	-0.03301733	-0.166903447	0.129362622	-0.0953277	0.254670397	0.386079502	0.104008418	0.234301307	0.361160225	0.257334889	0.141967006	0.071611296	0.164362347	0.087147245	0.468232454	0.139711415				
lir	-0.207596807	0.104010662	-0.153667259	0.025479706	0.028124033	0.288532872	0.2517725	0.059853538	0.025461748	0.039482275	0.062685688	0.184039123	0.131848283	0.078567636	0.060240836	0.372518966	0.155012852				
om	-0.034521947	0.022454581	0.009998168	0.101551346	0.049072015	0.327189272	0.18627688	0.182454062	0.22105881	0.099058908	-0.029867385	0.13145753	0.128656447	0.086219713	0.122373394	0.221264688	0.119469538				
rlevance	0.071772221	-0.21930595	-0.014223322	-0.052441691	-0.122641393	0.278019219	0.240771706	0.203151127	0.069409265	0.163339652	0.084316953	0.113542106	0.136564403	0.104267207	-0.136823788	0.208514414	-0.040128618				
upport	-0.104760634	-0.084506663	0.001273659	-0.08204599	-0.010349813	0.268570233	0.049636959	0.152743018	0.142782109	0.111068487	0.195443231	-0.009406597	0.206674947	0.075399668	0.035433193	0.229936	-0.079430665				
eat	-0.139097564	-0.115531811	-0.142592381	-0.012104909	-0.122481978	0.369105111	0.204016571	0.09035521	0.300180189	0.391662656	0.258999974	0.21164033	0.261069752	0.232371841	0.172936737	0.302991116	0.10804152				
ilationship	-0.164415063	-0.200850332	-0.030641294	-0.030573292	-0.113855561	0.295209987	0.163299316	0.148813563	0.361941838	0.360237757	0.220041821	0.226300953	0.314295672	0.199881762	0.235574688	0.199881762	0.046770717				
perf	-0.113887366	0.0934327	-0.20889567	-0.113545774	-0.130139464	0.12426938	0.276094241	0.139034707	-0.077683624	0.065600245	0.282855733	0.086848502	0.145294763	-0.12032432	0.039861522	0.328097463	0.024762848				
ol	-0.137666106	0.09425568	-0.107214775	-0.185364716	-0.150795732	0.018031764	0.145085844	0.010543269	0.003580047	0.002247832	0.141672059	0.06800204	0.055987186	-0.024042352	0.200704587	0.270476458	-0.026163233				
taff	-0.200131532	0.043681031	0.034693169	-0.23134847	-0.080805933	0.144688495	0.035245369	0.155008432	0.084356601	-0.016368667	0.106928702	0.055105144	0.096792762	-0.143361078	0.196693065	0.226988373	-0.071143323				
ur al	-0.14431098	0.064309347	-0.028527482	-0.061115082	0.000562198	0.384824091	0.179490456	0.181293193	0.093609035	0.054523155	-0.004106046	0.155665878	0.11213321	0.186310184	0.10560026	0.285567137	0.152794854				
me	-0.213050007	0.167967753	-0.032488269	-0.168577493	-0.140230132	0.008265271	0.28985736	0.043476238	0.027315441	0.083389764	0.219458127	-0.020395044	0.004389427	0.085960238	0.11368239	0.284198172	-0.029470578				
st	0.015926475	0.115847251	0.134168372	-0.006327593	-0.211126683	0.226428718	0.176044814	0.140559023	-0.084049772	0.029880715	0.167036276	-0.054367578	-0.151437565	-0.010531568	-0.085672191	8.56556E-18	-0.02227177				
Osec	-0.180002098	0.065353349	0.180897908	-0.159332834	0.235348129	0.006799785	-0.0201431	0.136129455	-0.111549564	-0.077170817	0.238839609	0.067014489	-0.163859087	-0.29919053	-0.021007291	-0.016604516	-0.10545284				
nanges	-0.089878486	0.216921346	0.015646649	-0.033889771	0.212114223	0.143983013	0.094852671	0.05562304	0.053308386	0.109499166	0.170232277	0.095436464	0.012083791	-0.078671131	0.082855226	0.184859087	-0.119284718				
nfo	-0.124148855	-0.088363254	-0.122055933	0.07923916	0.108750011	0.234919588	0.158715324	0.027502999	0.07492025	0.163708169	0.019185369	0.110248701	0.0616998	0.028849774	0.209873294	0.15096167	0.017431552				
nvolv	-0.063780793	-0.039080779	-0.034084605	-0.002330998	-0.27798694	0.165759866	0.205758917	0.174789303	0.017259551	0.078558907	0.111852606	-0.00060822	0.096577713	0.051152459	0.092519221	0.232168765	0.176806353				
upport	0.05880579	-0.105716435	-0.052598205	0.206507164	-0.142173292	0.260319714	0.240079283	0.100722355	0.025430905	0.243403313	0.069008296	0.059531635	0.087629336	-0.021125422	0.150862857	0.220113266	0.011610168				
1Job sat	-0.189172601	0.006950536	-0.132884247	-0.151831431	-0.021962327	0.025911823	0.091520887	0.111926398	0.090672912	0.01877529	0.343088351	0.022903032	0.171053614	0.093930359	0.140435945	0.161948894	0.192883726				
ain	-0.050652292	0.046510465	0.064285685	0.062646094	0.14551137	-0.075355177	0.00372164	-0.025286939	-0.012684412	-0.123752395	0.054894196	-0.111201719	-0.095954279	-0.006552624	0.123295075	0.027848652	0.076060371				
p skill	0.073466313	0.132041817	-0.056509416	-0.062527811	0.040813807	0.09820754	0.019792241	-0.029452172	0.110856901	0.050944649	0.036886541	0.004480208	0.042532345	0.131471385	0.232213893	0.064943696	0.1149149				
ariety	-0.009753776	0.023478646	0.209774708	-0.104071742	-0.017745659	-0.07418998	0.064554438	0.119859241	-0.019560838	-0.122380094	0.056932692	-0.161748533	-0.07315381	-0.042820907	0.168350644	0.049235169	0.01657941				
bl	-0.030093404	-0.019403834	-0.0994326	-0.067207039	0.056759488	0.03283673	0.137571671	0.014073874	0.150768178	0.077711291	0.193750105	-0.012621785	0.10908147	0.023667896	0.136441989	0.259045314	0.139170808				
eedom	-0.076152813	-0.111001558	-0.04738233	-0.071893495	-0.159184968	0.159267442	0.157941181	-0.11371239	0.124107646	0.181681203	0.119974551	0.00443917	0.043253238	0.154668701	0.218726418	0.044634957	0.019545785				
2length	-0.088546285	-0.192697873	-0.008945172	0.119948773	-0.07175696	0.222059038	0.160893955	-0.007791484	0.180947294	0.180311482	0.017877106	0.092427783	0.035221494	0.065309205	0.071242235	0.14879726	-0.046813263				
al	-0.055108895	0.000934522	0.080788653	0.090789612	-0.203455269	0.113227703	0.172026613	-0.105265701	0.077557225	0.137620471	0.064309014	-0.058713656	-0.103381581	0.033968311	0.148673123	0.1528574	-0.049286406				
3env	-0.132733176	0.337748244	-0.12129098	0.093412357	-0.048202143	0.128267385	0.129902951	-0.062890414	0.166144923	0.049703112	-0.102254687	0.004371023	-0.053746703	0.193173772	-0.168496137	0.030907804	-0.076237783				
ools	-0.141536229	0.249347311	-0.034993282	-0.038720155	0.09311409	0.178520621	0.132590714	-0.120440725	0.081793117	0.00513561	0.11309208	6.46832E-18	-0.119510244	0.137323555	-0.12888937	0.013732355	0.019924995				
ealth	0.137666106	0.086318359	0.04288591	-0.044487532	0.036680043	0.024042352	-0.025603384	-0.025303845	-0.053700699	-0.033717487	0.168982336	-0.028334183	0.024210714	0.024042352	0.169720953	-0.06010588	-0.095931854				
4skills	-0.096872247	-0.01784192	-0.167654211	-0.115943629	-0.041424809	-0.0892895	-0.089415076	0.036270854	0.018194154	-0.043937342	-0.078738649	-0.026584089	0.076665839	-0.0892895	0.043331818	0.009398895	-0.109098799				
evelop	-0.078136354	0.066250798	0.200456368	-0.099020302	0.092528055	-0.06421613	-0.059267505	0.225285087	-0.023905392	-0.078050281	-0.084342219	0.128655039	-0.066565328	0.104351211	0.097058672	0.104351211	0.011646819				
5hara	-0.25176112	-0.282998298	-0.048638093	-0.096704528	-0.106310723	0.139743858	0.103567098	0.011957412	-0.081204591	0.029317281	0.201326695	0.009640374	0.040438208	-0.146560631	-0.095942937	0.139743858	-0.064290295				

ort to	-0.06790181	0.150073778	0.141019019	-0.09055771	0.187619694	-0.079056942	-0.359210604	-0.05547002	-0.153036523	-0.02956562	-0.145929308	0.111803399	-0.219273364	-0.079056942	0.310642439	0.158113883	-0.114707867
tress	-0.023290129	0.002238038	-0.012092281	-0.196520799	-0.036773157	-0.08473846	-0.012513335	0.12248026	0.122142739	-0.122958703	-0.169411303	0.172567122	-0.077734604	0.199982766	0.119858898	-0.013558154	0.157377895
esp	0.103040607	-0.299376865	-0.100703789	0.080524861	0.171066339	0.072333922	0.127256809	0.032184726	-0.086167547	0.070597433	0.030561675	-0.169661017	-0.103522159	-0.112911487	0.032408295	-0.112911487	-0.140790723
P1	0.068512633	-0.063304262	-0.043780794	-0.291418285	-0.095693881	-0.003068004	-0.071442884	0.146380489	-0.188219629	-0.045894743	0.071442884	-0.05206576	-0.071278351	0.061360087	0.098313192	-0.003068004	-0.057869871
P3	-0.195974832	0.339344855	0.039902166	-0.18764535	0.125894643	-0.176720072	-0.0463736	-0.204042414	-0.083274211	0.026770455	0.086394651	0.145522993	-0.157711296	-0.082767629	0.118003599	-0.129743851	-0.061668812
	0.006918386	-0.167034622	-0.010776119	-0.029809508	-0.051204143	0.039267936	0.235893826	0.010597003	-0.166421019	0.097149407	0.178421512	-0.111066496	0.058499596	-0.25675189	-0.080738007	-0.087597704	-0.05697591
	-0.102305376	-0.071058567	-0.041002716	-0.047689645	0.066596359	-0.030300533	0.172985609	0.013929136	-0.055387784	-0.010159506	0.200876942	0.002955271	0.171048716	-0.227776417	-0.075619355	0.079408292	-0.030320437
E	0.089825651	-0.016030288	-0.030457245	-0.017113798	0.111435624	-0.014940358	0.123040517	0.154622013	-0.189100052	0.019555819	0.258809364	0.105644282	0.144487359	-0.306277331	-0.086271856	0.097112325	0.010838875
C	0.077360792	-0.096640662	0.140990427	0.049885724	0.095972009	-0.012867125	0.100485496	0.05868312	-0.381282029	-0.141954945	0.129717641	-0.29114981	-0.053802574	-0.283076757	-0.178703714	-0.186573317	-0.214700258
H	0.003526475	-0.17350275	-0.150138119	-0.206394037	-0.072384095	0.016423262	0.198798439	0.055816095	-0.109437002	-0.04452915	0.260303528	-0.046452	0.191946228	-0.199132051	-0.07731751	0.081089856	0.02829738
	-0.167776453	-0.143064082	-0.220067036	-0.133166649	0.008365419	0.02467444	0.169921452	0.095220029	-0.048682729	-0.018455435	0.289917529	-0.049434482	0.282180461	-0.061686101	0.082078659	0.132625117	0.058177341
M	0.08491499	-0.169996021	0.003674003	-0.062249802	-0.081002822	-0.246132912	0.047670373	0.210995382	-0.254254146	-0.001925701	0.228700808	-0.20098603	0.173203638	-0.22450617	0.102290478	0.013387983	0.064263004
O	0.033847931	-0.129615245	-0.119502609	0.052259994	-0.044758546	0.081772804	0.182697723	-0.011060356	-0.054280551	0.047161515	0.29321166	0.061305363	0.21841315	-0.104432737	-0.102626267	0.143841317	0.041455484
P	0.085438713	-0.059434243	0.034716483	2.93205E-17	0.083579689	0.019462474	0.182390046	0.075106762	-0.084044203	-0.040032038	0.301219925	0.116212842	0.083364959	-0.116774842	-0.101735722	0.087581131	0.136489103
A	0.113375259	-0.060631185	-0.184271979	0.056638169	0.042806742	-0.014347926	0.287662323	0.085570952	-0.024783283	-0.004292656	0.311294639	0.002705471	0.110167007	-0.134870503	-0.005557643	0.146348844	0.108254427
SYSTEM	0.038241478	-0.179451325	-0.330917524	-0.009154027	-0.010063347	0.074206522	-0.042146472	-0.041653392	0.004419914	0.265028408	-0.024234222	0.304337223	-0.049716696	0.15212337	0.119134686	0.15212337	0.043068056
EQPMAN	-0.090379515	0.10345268	0.149056594	0.068721457	0.173130693	-0.106774819	0.134471528	0.078175481	0.078805693	-0.296882159	0.114696303	-0.218844055	0.002018766	-0.139271504	-0.164803447	-0.26925824	-0.080830535
SP/PAPP	-0.164859341	0.03168394	0.122278997	-0.118389266	0.113880835	-0.191942974	-0.177151461	-0.084172562	-0.007145357	-0.367885837	0.054508142	-0.407172536	0.127562753	-0.119964359	-0.038445307	-0.119964359	-0.069625035
RESSPOL	-0.012501736	-0.024026802	-0.103854823	0.008977783	-0.088826363	0.043666688	0.090937045	-0.135320374	0.145216355	-0.051712982	0.299678899	0.068615581	0.000798727	-0.058222251	-0.089479406	-0.109166721	-0.06335829
BDES/STRESS	0.248636683	-0.09016022	-0.009742842	0.064009098	-0.151845603	-0.027309767	-0.131067152	-0.105389902	-0.05286559	0.192009549	-0.064370258	0.077243687	0.038378098	0.202092278	0.001816588	0.087391255	-0.01585007
PDISC	0.03383363	-0.022216561	-0.011710992	0.101236268	-0.055646312	0.134589094	-0.037288521	0.108253558	0.065500187	0.234480298	-0.256358583	0.204264872	-0.110439969	0.134589094	0.040134755	0.203524971	0.038103879
PP/PCIRC	-0.044223743	0.111340309	-0.009184422	-0.015879041	-0.179800857	0.298635994	0.045327838	-0.023482581	-0.033734833	0.100130061	0.000731094	0.021844918	-0.028533774	0.190509169	0.138327127	0.02831893	0.063501836

1																							
.144337567	1																						
.265747002	-0.092057462	1																					
.121716124	0.158113883	-0.058222251	1																				
.019462474	0.016854997	-0.099304205	-0.085280287	1																			
.121716124	-0.079056942	0.247444567	-0.05	0.138580466	1																		
.119865825	0.26989781	-0.076449561	0.210090293	0.064387639	-0.065653216	1																	
.149265244	-0.087555651	-0.145325784	0.092584887	0.142105002	0.397804919	-0.104247029	1																
.127235243	0.167418163	-0.139515136	-1.31275E-17	0.10905878	0.111612109	0.139516136	0.39101835	1															
.352235467	-0.004086359	0.118385574	-0.137129957	0.281373932	0.207587017	-0.137129957	0.378989362	0.456237131	1														
.014815221	0.133336991	-0.21655458	0.24471683	0.150114579	-0.047810751	-0.061179207	0.083336954	0.122415214	-0.002994817	1													
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.089817029	0.171132647	-0.027531809	0.010589157	-0.133962539	0.265913805	0.124952055	0.244388493	0.391135402	0.20246059	-0.050215625	0.398209398	1											
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.036634898	-0.117015447	0.232786494	0.143695367	-0.092034013	0.031044914	-0.085914129	-0.184672246	-0.253064204	-0.452459745	-0.262240091	-0.222032738	-0.136224458	0.276722691	-0.379341696	1								
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.199792773	-0.073118453	0.197237412	0.087290235	0.156017952	-0.007274186	-0.073118453	-0.151112431	-0.015041292	-0.187313694	0.029533027	-0.071155169	-0.367143838	0.003636017	0.003808928	0.09278786	**-0.5034877**	1						
.101110868	0.211013985	0.204434991	-0.007049482	-0.167052738	-0.111368492	0.310177228	-0.415826868	-0.356677394	**-0.581105399**	-0.0768883	-0.312046098	-0.164841805	0.38564499	-0.010965911	**0.65066601**	-0.45453517	0.3110957	1					
.224862136	-0.160274123	-0.079080113	0.048077331	-0.007253617	0.059396732	-0.153217719	0.055026547	-0.184855173	-0.123496582	-0.387304918	-0.043476432	0.027335618	0.295465662	-0.218666583	0.001320638	0.372144892	-0.155295768	-0.078023473					
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085265871	-0.290250084	-0.22222552	-0.08804551	-0.028032908	0.016987073	-0.04007045	-0.016509929	-0.063337698	-0.1028228	0.04690001	-0.050374005	-0.253699317	0.04647461	-0.064304348	-0.069593329	-0.052963871	-0.151743353	0.070777745			
).00126077	-0.175991778	-0.184970484	-0.02927788	0.007952555	-0.055339907	-0.011178395	-0.013222147	-0.012030846	-0.042762497	0.121660146	-0.208535346	-0.149976568	-0.026534255	0.065295987	0.040618654	-0.092318618	-0.160963876	0.072793408			
073240841	-0.133503523	-0.156361817	-0.038917838	0.081964295	-0.080439347	0.014669811	0.023393991	-0.003547703	-0.100879779	0.064852082	0.044232324	-0.276410482	-0.139276544	0.108089086	-0.078316303	0.009074426	-0.194531383	0.132033721			
109120391	0.009724949	0.022098005	-0.059223327	0.004404549	0.151625091	0.073152511	0.078981	-0.094035985	0.052989578	0.064227575	0.161810556	0.095305113	0.175023774	-0.135230843	-0.337141838	0.222928546	0.189147444	0.035609767			
198482821	0.237274391	0.100595893	0.092955785	0.026855253	-0.035341163	0.000765971	-0.067282741	0.110197153	0.107101444	0.129472027	-0.083775885	0.050679703	-0.208864106	0.157166418	0.335380386	-0.220207582	-0.117072395	0.098283454			
351259962	0.380463373	0.231067548	0.205213978	0.263599624	-0.013638688	0.145764377	0.173866097	0.118650715	0.075309404	0.173053519	-0.018040518	0.030814587	-0.327107947	0.259780383	0.14636929	0.054194373	-0.305781098	0.277679761			
.241383147	0.339542588	0.237014688	0.184358965	0.216952083	0.192208543	0.158839315	0.22414064	0.117868684	0.367783177	0.223967975	0.145014574	0.088796681	0.093268656	-0.125413192	0.123848003	-0.115071827	0.039469311	-0.081147331			
.037859053	0.266994354	0.177186689	-0.008441744	0.041667844	0.072010635	0.096646703	0.113793778	0.151597652	0.075005486	0.224554134	0.005133633	0.075410285	-0.228610005	0.08912459	-0.179757075	0.189994347	-0.162918809	0.011178001			
).03742628	0.279630552	0.150583613	0.177409202	0.154247431	0.133509512	0.230938209	0.225986393	0.172481721	0.11179509	0.023676866	0.220910226	0.394195577	0.098459484	-0.08810579	-0.231879751	0.10380685	-0.000890136	0.002316563			
.265500415	0.20209531	0.345154041	0.222551946	0.231327974	0.329711379	0.238803395	0.303158815	0.116172988	0.130099916	0.133694907	0.0454903	0.105805505	-0.053350269	0.042793364	-0.134736698	-0.01628224	-0.212220968	0.094472553			

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150278148	0.096109022	**0.731198902**	1																	
177847878	0.057484165	**0.613754408**	**0.795504564**	1																
034739229	-0.02648062	0.4446336	0.347934958	0.294400992	1															
217922213	0.000183691	**0.620847586**	**0.698231396**	**0.709731009**	0.389357413	1														
192281276	0.110391617	**0.627558369**	**0.72960198**	**0.637755785**	0.392099058	**0.715239417**	1													
296746661	0.005713237	**0.600501118**	**0.671672786**	**0.521901598**	0.365201483	**0.56389313**	**0.633746462**	1												
0.10276984	-0.048838165	**0.681135262**	**0.776330329**	**0.700057375**	0.382334655	**0.662912457**	**0.735608994**	0.536773533	1											
093149087	0.013931786	**0.514203864**	**0.720682561**	**0.66297**	0.250426087	**0.614502714**	**0.640300858**	0.491462393	**0.781561231**	1										
185234051	-0.049812648	**0.531862284**	**0.675930992**	**0.701396207**	0.200862818	**0.53749426**	**0.621671485**	0.552036484	**0.648436715**	**0.743167032**	1									
272288454	0.067062885	-0.033174052	0.031944166	0.082041726	-0.021006142	0.116387106	0.021056551	0.076421202	0.062874034	0.031773335	**0.170353549**	1								
235861638	0.144556969	-0.216512527	-0.202560035	-0.258014993	-0.06451286	-0.30649718	-0.18785907	-0.151460006	-0.290890087	-0.190342106	-0.170517949	**-0.63249306**	1							
029444094	0.055818012	-0.098563443	-0.002005508	-0.155674962	0.061743857	-0.055165771	0.005920107	0.098835739	-0.156957151	-0.093392127	-0.011015934	-0.462911168	0.481179359	1						
158977245	0.131543428	-0.262041444	-0.090641592	-0.047842369	-0.2996612	-0.047809964	-0.1975327	-0.177481255	-0.165774463	-0.003777163	0.100244225	0.328355777	0.083789905	0.01396919	1					
0.34318944	-0.10165532	-0.133307345	-0.177142174	-0.140358085	-0.036545413	-0.155859123	-0.085579359	0.141974103	-0.002798222	-0.138194062	-0.036362614	0.193739409	-0.076069447	-0.041935344	0.112892565	1				
240903526	-0.014686381	0.02062453	-0.023597539	-0.121629434	0.057444235	-0.100815437	-0.100437295	0.084651006	-0.107372952	-0.186555003	-0.165789797	0.455035167	-0.252363972	-0.182724267	0.009556195	0.352140106	1			
031593673	0.068646628	-0.151795431	-0.189584279	-0.16923798	-0.113952573	-0.022620248	-0.107353987	-0.182408213	-0.224216322	-0.298626579	-0.294912931	-0.266693026	0.289706199	0.108712395	0.04346815	0.115866895	**0.1047929**	**1**		

number of potential causes of stress	
Mean	3.953125
Standard Error	0.353153
Median	3
Mode	3
Standard Deviation	2.825225
Sample Variance	7.981895
Kurtosis	1.31496
Skewness	1.296032
Range	12
Minimum	0
Maximum	12
Sum	253
Count	64
Largest(1)	12
Smallest(1)	0
Confidence Level(95.0%)	0.705721

Respondents were asked to rank in order of importance the potential causes of stress in their workplaces

CHAPTER 5: RECOMMENDATIONS

5.1 Introduction

From the findings of the survey, it can conclude that stress management is a priority for the respondents as evidenced by the high response rate received from the respondents as concerns their health priorities.

The respondents also indicated that they had experienced different effects of stress over the past twelve months. Consequently, these concerns have to be addressed for their own benefit as well as the benefit of their respective organisations. Their workplaces also caused concern for them with long hours, boring work, staff shortages and bullying ranking at the top of their areas of concern.

Recommendations will therefore be made to manage workplace stress and methods will be suggested to minimize its effects.

Pettinger (2002:112) states that stress management is substantially about recognizing and understanding the following:

- the universal potential for stress in all human situations including work and organisations;
- the range of sources and causes of stress and pressure;
- the need to respond either by taking effective action to address the problems and issues when they arise, and developing the organization, environment, practices and processes so that these effects are minimized;
- recognizing the full range of issues in advance and creating the conditions in which stress cannot occur, or in which its effects are kept to a minimum.

Employers and the respondents in this study have to first of all accept stress as a problem before beginning to deal with it. Barriers to the acceptance of stress as a problem are social, cultural, and prejudicial, and these are compounded by the inability to observe the physical symptoms in the same way as physical illness and injury. These are often

einforced by social, professional and occupational groups because they themselves do not wish to be perceived as weak or inadequate (Pettinger 2002:42).

Employers need to look deep into the causes of workplace stress and not misrepresent employee concerns as attitudinal or behavioural problems, a lack of motivation, commitment or loyalty. In this study, respondents have indicated the effects of stress they have felt over the past twelve months, in conjunction with the workplace concerns they are experiencing. Employers are encouraged not to think that if an employee is stressed, then they are not up to the job. Instead, they are encouraged to look into their policies, processes, practices and managerial style. As seen in the study, 41% of respondents have raised concerns about violence in the workplace. Further, they have alerted management about this concern. Unfortunately, it is not possible to tell whether management have taken these complaints seriously or not.

5.2 Organisational and environmental analysis

Pettinger (2002:112) states that effective organization and environmental analysis depends on a collective and individual willingness to recognize the potential for, and reality, of the existence of stress in all places of work. This means transcending and overcoming collective occupational, professional and individual prejudices and preconceptions. Once this is achieved, corporate attitudes, patterns of work, inter-group and intra-group relations, rank, status, and hierarchical structures can be assessed for:

- the likely presence of stress;
- the reality of particular problems; and
- recognizing the drives and restraints, and where necessary, ensuring that the emphasis is given to the drivers.

One means of doing this was proposed by Peters and Waterman (1982) in Pettinger (2002:113) as indicated in the figure below:

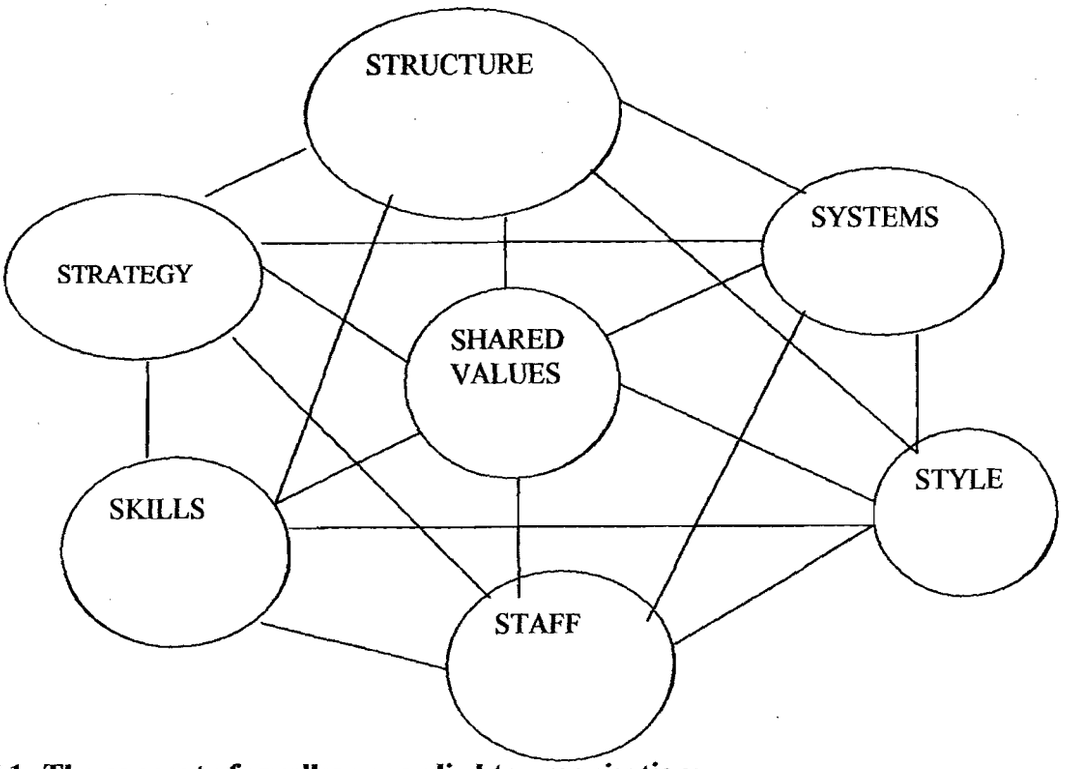

Figure 5.1: The concept of excellence applied to organisations
Purpose: a configuration of organization, pattern, and design that reflects the essential attributes that must be addressed in the establishment and development of an excellent organization. Peters and Waterman (1982) in Pettinger (2002:113)

The approach in the case of stress management is to identify actual and potential problems within each area as follows:

Structure: role conflicts; stress and conflict based on rank, status and hierarchy. In this study, respondents expressed concern about the structure provided at their workplaces. Respondents indicated that on average, their managers supported their efforts at work. They ranked their managers' support as being good on average.

Systems: stress caused by the inability of systems, procedures and processes to make effective operations and activities. Respondents in this study indicated that bad management was not so much a concern to them as was boring work, bullying and working long hours.

Shared values: the extent to which values are genuinely shared; the extent and prevalence of dissipated and negative elements, including canteen values.

Style: especial reference to managerial and supervisory styles, and the recognition that stress is caused where these are adversarial and confrontational. Respondents in this study indicated that on average, their grievances were dealt with satisfactorily. However, the support and treatment from their managers was below average.

Skills: the requirement of those with professional, occupational and technological expertise to be able to apply these, and develop these for their own as well as organizational satisfaction. Respondents in this study have indicated that they are allowed to develop and use their skills.

Staff: general climate of staff relations; particular contributions of labor relations and human resource management. Some respondents in the study have indicated that they have been bullied by colleagues and managers. Further, they have raised concerns about workplace violence with their managers who have acknowledged the existence of the same.

Stress between each of the elements is likely to affect the following:

- the relationship between strategy and all the other elements, especially the extent to which skills, staff and systems are capable of producing and delivering what is required; and any blockages that are apparent in structure and style;
- the need to maintain systems for the good of everything else. This is supposed to be a key output of business process re-engineering. However, this in itself is extremely stressful if there is insufficient attention to the human aspects of re-engineering and other restructuring programs.

Gatto (1993:20) has recommended the following reflection model which would be applicable to respondents who indicated that they had suffered effects of stress over the last twelve months. The model will help the respondents become more aware of where

hey are and where they want to go (mentally, physically and philosophically) given their wants, needs, desires and motivations.

The first step for the respondents would be to develop goals i.e. determining how to tackle a stressful element in their lives. This involves collecting data about themselves and assembling it for review. Based on the inventories, the respondents should collect data on what is causing them stress and determine what to do about the stressors. A realistic plan of action should then be developed based on the data they collect.

The second step for the respondents would be to reflect i.e. brainstorm ideas to deal with stressors and create strategies and explore methods for implementing their ideas.

The third step would be to act by implementing their ideas for a strategy/methodology within a specific, realistic time frame. Respondents should be patient and maintain momentum once they have began to combat the stressors they have identified.

The final step would be to reassess their progress periodically by recognizing strengths and problems, assessing risks, collecting unbiased information and finally, having the courage to continue.

5.3 Organisation acceptance and understanding

This is a key corporate attitude (Pettinger:2002:114). It is required as a prerequisite of effective stress management. It is founded on:

- understanding the human side of enterprise and activity, as well as the strategic and operational; and
- recognizing the relationship between effective and positive attitudes and behaviour, and long term effectiveness and profitability.

)nce this is achieved, specific attention can then be paid to the following aspects:

- relations between different occupational, professional, and functional groups and individuals where stress arises as the result of known, understood, and perceived differentials in status, influence and ability to command resources and prioritise demands. Those of lesser influence feel frustration and resentment towards those who do command higher levels of influence. Respondents in this study indicated that, as one of their priorities, they were willing to foster good relations with their colleagues.
- Working hours, terms and conditions of employment: especially where these are non-standard (e.g. shift patterns). These bring stresses such as physical pressures caused by long, fragmented, variable or unsocial hours. Attention is especially required to those who have to work variable patterns (e.g. irregular or split days and nights). It is also important to recognize the meaning of "unsocial" in this context. This concerns the difficulty of building regularized total pattern of life due to constantly varying hours, days, and patterns of work. Respondents in this study indicated a satisfactory balance between their sociable hours and work hours.
- Resource and influence shortages: there is an enduring physical and psychological strain in these situations. It is especially the case that high levels of stress exist among those who know that if something goes wrong there are sufficient resources available to be able to cope effectively.
- Investment appraisal: stress is caused when the behavioural aspects of investments and ventures are not fully considered.
- Constantly having to deal with negative situations and environments: this is an institutional and occupational problem for those concerned with health services management and professional activities; social deprivation and inadequacy (social work and social care); and for those whom are employed mainly to handle customer complaints in industrial and commercial sectors. Respondents from the nursing profession indicated long working hours (7 am to 7 pm), with irregular shifts during night duty.

Matteson and Ivancevich (1987) state that improving individual-organisational relationship is the key to controlling workplace stress. They further state that the most

frequently used and most fully developed is the notion of "person-environment fit". A representative person-environment (P-E) fit approach makes a distinction between objective fit, which is the degree of fit between the work environment as it exists and the person as she really is, and subjective fit, which is the result of how the person perceives her objective environment and how she perceives herself. According to the P-E fit approach, it is this subjective fit (or lack thereof) that is the major cause of dysfunctional stress.

5.3.1 The psychological contract

An important dimension of individual-organisational relationships deals with the extent to which an employee's expectations regarding the job, the work environment, rewards, career and professional development and progress, and a host of related concerns match the reality of the chosen job and work situation. To the extent that there is a gap between expectation and reality, individuals may experience "surprise" and "reality shocks" (Matteson and Ivancevich, 1987).

The concept of the psychological contract was developed by Argyris (1960) and Levinson (1962). A psychological contract is an unwritten, implicit agreement between an individual and an organization that specifies what each expects to give to and receive from the other. It is a direct analogue of a legal contract, including an escape clause whereby either party may cancel the contract without penalty if certain conditions are not met (Matteson and Ivancevich, 1987). The only real difference is that a psychological contract is unwritten and not legally enforceable.

5.3.2 Recruitment and selection process

Matteson and Ivancevich (1987) further argue that taking steps to ensure that the relationship between an individual and an organization starts off in a positive vein is a great deal more effective than attempting to "cure" poor relationships after they develop. Hence the old maxim "an ounce of prevention is worth a pound of cure". One big step in the direction of positive individual-organisational relationships is the use of realistic job previews, or what is termed a "vaccination" (McGuire: 1964 in Matteson and Ivancevich: 1987). In a medical context, vaccination refers to the process of injecting an individual

with a small amount of disease-causing virus with the expectation that the body will develop a small amount of resistance to it and thus be protected from the disease caused by the virus. Used in the context of realistic job previews, vaccination consists of giving the job applicant a dose of organizational reality to assist in building a resistance to unrealistically high expectations. "Telling it like it is" is certainly neither a new nor an innovative approach, but it does represent a philosophy that has not been frequently applied to organizational recruiting efforts.

Realistic job previews involve providing the prospective job holder with enough information about the job itself and the larger job environment to enable him more adequately determine whether the reality of the job matches expectations. In most instances this process will involve the communication of both positive and negative information. A variety of methods for presenting such a preview includes booklets, films, videos, oral presentations, job visits and sample work simulations. The choice of medium will depend on a number of factors, including:

- the number of potential employees involved;
- the type of jobs; and
- the accessibility of the recruits.

The critical question, according to Matteson and Ivancevich (1987) is of course: are realistic job previews helpful? In a word, yes. Dugoni and Ilgen (1981) in Matteson and Ivancevich (1987) conclude from their research that if employees are made aware of problems to be faced on the job, they cope with them better; they are less disturbed by problems about which they have been forewarned. This is also consistent with the fact that individuals experience less stress if an event is predictable than when it is unpredictable.

During the selection process, the main objective is to obtain the optimal human resources for the organization in a manner that is not disproportionate in cost to the expected return on the individuals who are ultimately hired. Typically, this means that the organization attempts to ensure that potential employees possess the requisite skills, knowledge, experience, and abilities for the job. Frequently, an attempt is also made to ascertain

motivation i.e. "will do" as well as "can do". Obviously an organization has a vested interest in ensuring that its employees are qualified to perform the tasks expected of them. What may not be quite so obvious, however, is that it can be equally important that the potential employee possess needs, values, and attitudes that will mesh with organizational rewards, values and attitudes. Matteson and Ivancevich (1987) argue that little is accomplished by hiring an individual who has the capability to do the job but who does not fit with the organisation's climate or management philosophy, and consequently leaves.

Closely related to this concept is that of meshing personal predispositions to relevant aspects of the work environment. An absence of such meshing could lead to stress e.g. individual with low tolerance for ambiguity who find themselves in jobs or organisations where there is little structure will very likely experience distress, with its attendant outcomes and consequences. Other examples include individuals who are by nature authoritarian will experience distress if they find themselves in a participative organization; those who value intrinsic satisfaction will be frustrated in an environment that provides only extrinsic rewards; those wishing autonomy will be uncomfortable with tight controls.

Clearly, it is impractical, if not impossible to take into account all the myriad factors that could lead to mismatches. It is difficult enough to assess skills and abilities accurately much less values, personality characteristics, and personal predispositions. This does not mean that there are no practical means of obtaining useful information. Depending on the nature of the employment situation, the jobs themselves, and the job candidates, the pre-employment interview could be one useful tool for obtaining information that will enhance individual-organisational relationships (Schuler, 1984 in Matteson and Ivancevich, 1987).

5.3.3 Socialisation programmes

Of critical importance in minimizing the likelihood of dysfunctional stress is a successful, ongoing period of individual-organisational adaptation once recruitment and selection decisions have been made.

Pettinger (2002:115) states that stress management within socialization is concerned with the following:

- addressing particular cultural and attitudinal concerns that employees have as the result of their knowledge and understanding of the history and traditions of their organisations;
- addressing knowledge and understanding when individuals are to come to work in a new and unfamiliar environment or location. This may be as the result of the following:
    - the takeover of the existing organization by another which has lost its own distinctive and desired ways of doing things. In this case, stress is managed by re-inducting and re-orientating staff into the new required standards as well as operational drives;
    - the relocation of individuals to unfamiliar parts of the world. The best organisations provide structured, supported, settling in programs including a set of social, professional and occupational contacts so that comfort of life and quality of working life are addressed side by side.

Matteson and Ivancevich (1987) also state that once the individual and organization have chosen each other, the usually complex and often difficult adaptation period begins. The new employee and the organization must mutually learn to adjust to each other.
A variety of activities, such as orientation programs are designed to hasten the socialization process for new organizational members.

As a strategy for preventing stress, socialization may be effective by formalizing and structuring a large part of the process that in many organisations occurs informally. The advantage in this is that broader coverage of relevant socialization factors can be better assessed in formalized socialization than if the process was left to chance. Additionally, much of the process could be completed in a shorter period of time, thus minimizing a great deal of the distress experienced by unsocialised organizational members (Matteson and Ivancevich, 1987).

There are three stages of socialization within an organization as identified by Feldman (1976a, in Matteson and Ivancevich, 1987), namely getting in, breaking in and settling in.

5.3.3.1 Getting in

Most of what is involved in this stage takes place before the individual actually enters the organization. The major concerns here are that the prospective employees obtain a realistic view of what life in the organization is like, and they find a job for which they are suited in terms of making the most effective use of their experience and talents and in terms of working with people with whom they will experience positive interpersonal relationships.

5.3.3.2 Breaking in

This stage begins as the employee enters the organization and attempts to become a participating, contributing member. Feldman (1976a) in Matteson and Ivancevich (1987) identifies four major employee activities at this stage and four corresponding indicators that the socialization process is progressing as it should. First, employees establish new relationships with co-workers, both as they perform their jobs and as they informally socialize with others. The corresponding indicator of successful socialization is acceptance. If employees feel accepted they will more likely feel trusted and be trusted by co-workers and more likely receive information that will help them, not only in doing their job but in interacting with other organizational members.

The second activity involves learning new tasks, developing new skills, and learning the bureaucratic procedures associated with the jobs. The corresponding socialization indicator is competence. The third activity is the process new employees go through in clarifying their role in the organization. The corresponding indicator is successful role definition; employees are not only able to definer their role adequately but are also comfortable with it. As indicated earlier in the study, ambiguity and conflict are frequent and potent stressors.

The final activity comprises employees' attempts to evaluate their progress within the organization and come to agreement with relevant others about the overall quality of their

work and about specific strengths and weaknesses. The corresponding indicator is consensus i.e. the extent to which agreement is reached between employee and employer with respect to performance evaluation. In order to facilitate successful completion of the break-in stage, organisations can design and implement proper orientation programmes, training programmes and performance evaluation systems.

Orientation programmes should be designed to include information about the new job and supervisors to minimize intensified anxiety and reluctance among new employees to discuss their problems with their supervisors.

Training programmes should be structured to identify job-relevant skills and provide training geared to those skills, provide frequent feedback to new employees on how they are performing and integrate formal training with informal training. The most valuable training an employee receives is frequently the informal training that occurs as the new employee interacts with and learns from co-workers. Formal programmes should be designed to complement this informal training.

Performance evaluation can also play a major role in successful socialization. Sound performance evaluation systems should provide for performance judgments based on objective criteria that are known and understood by employees. It should allow for face-to-face meetings between the employee and the person performing the evaluation (with particular emphasis on a free exchange of both factual information and feelings), and to ensure that those performing the evaluations are sufficiently skilled not only at evaluation but also at giving feedback constructively.

5.3.3.3 Settling in

The settling in stage may commence within the first few months the individual is on the job and continue for the remainder of the person's working life. In a very broad sense, the settling in stage involves dealing successfully with two different issues: the resolution of potentially conflicting demands between the individual and other work groups or people in other units, and adjustment between work and nonwork life. Both of these are influenced by changes that are currently taking place organizationally and societally. Organisations

are becoming larger, more complex; jobs are being created and are disappearing at increasingly accelerated rates. The structure of the family is undergoing constant change, with increases in the number of two-career and single-parent families and decreases in the number of traditional nuclear families. Such changes are stressful for many people, and it is important that organisations be aware of, and sensitive to this fact.

Matteson and Ivancevich (1987) state that, increasingly organisations are providing mechanisms such as counseling services to assist employees in dealing with both work and home conflicts and the stress that frequently ensues from such conflicts.

Quick and Quick (1984:151), in support of the above argument, mention that organisations cannot achieve a high level of productivity, adaptability and flexibility without vital, healthy individuals. By the same token, individuals will have a great deal of difficulty maintaining their psychological and physical health in unproductive, rigid, unchanging organisations.

Quick and Quick (1984:153) propose a three stage stress management process, described more readily as organizational-level preventative management and individual-level preventative management.

A model of preventive management process is depicted below:

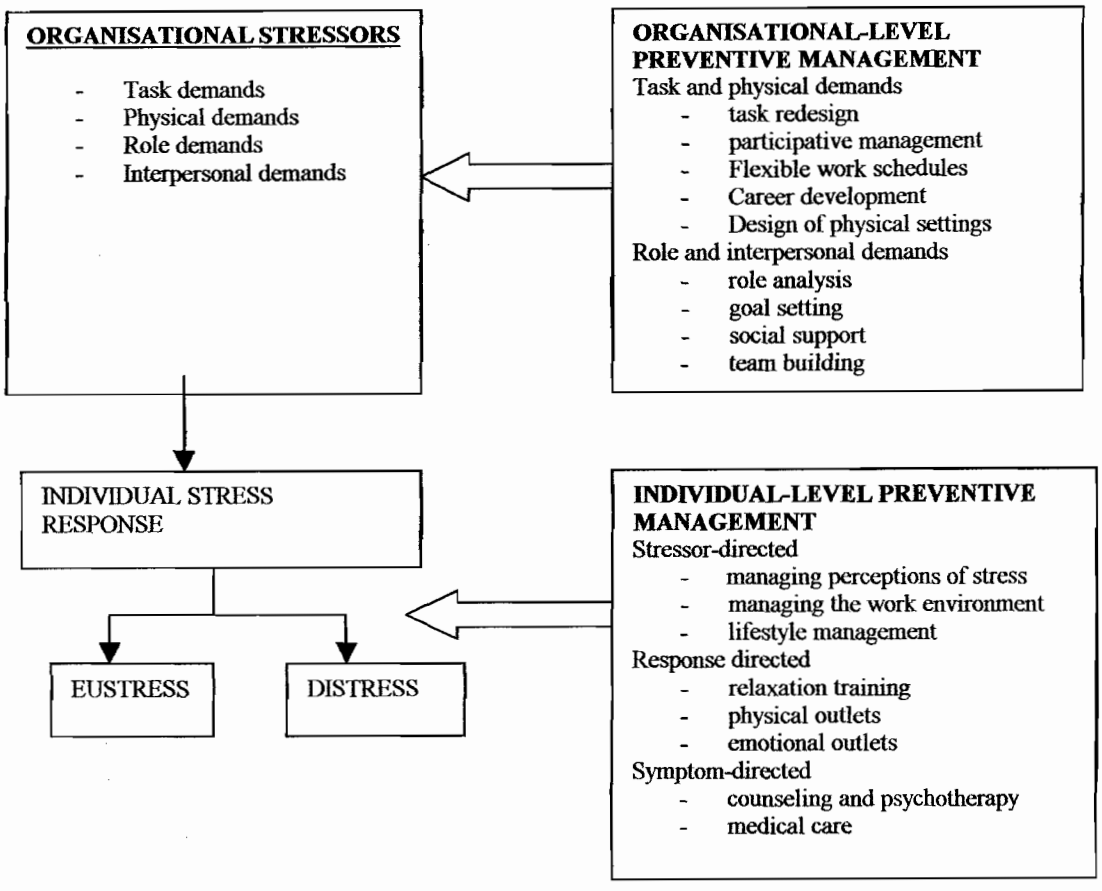

Figure 5.2: Organisational-level and individual-level preventive management.
Source: Organisational stress and preventive management. Quick and Quick (1984:155)

5.4 Organisational methods of preventive management

Quick and Quick (1984:156) state in this method of preventive management, the organization should look at changing the organisation's structure and practices by altering the nature of different demands. This means that organizational-level methods of preventive management are used to eliminate unnecessary demands while sharpening the focus of necessary demands in healthy ways. These methods are applicable to the workplace concerns raised by the respondents in the study.

Task redesign is aimed at changing the task demands which jobs place upon individuals holding them. This is accomplished by restructuring one or more core job dimensions. The result of task redesign efforts is to improve person-job fit and to increase the job occupant's level of motivation, thus reducing distress on the job.

In any organization there are many points at which stress-reducing interventions can be made. Because of the direct and immediate impact which job content has upon the individual, the job is one of the critical intervention points. Task redesign is the most advanced technique for analyzing and improving job structure. The thrust of the task redesign is to enhance employee motivation by altering specific task dimensions to achieve a better "fit" between individual needs and the structure of the job (Hackman, 1977 in Quick and Quick, 1984:163). It is an approach which can be applied to managerial as well as nonmanagerial work.

The way in which the individual interacts with a job is depicted in the task redesign diagram below. In the model five core job dimensions are postulated to impact three key psychological states within the individual. For individuals with high growth needs, the interaction of the core job dimensions with the critical psychological states will result in the personal and work outcomes listed in the figure. The motivating potential score of any particular job is determined through an additive and multiplicative combination of the five core job dimensions.

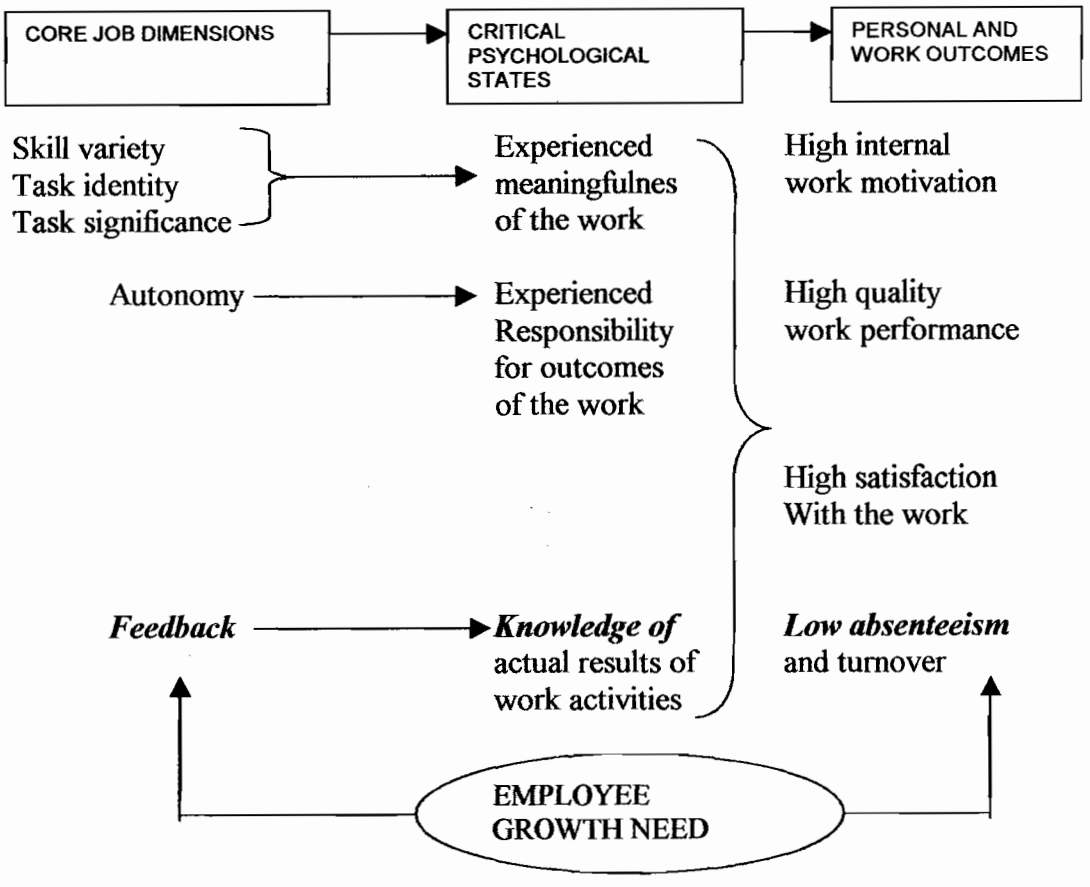

Figure 5.3: A model for task redesign. Source: Organisational stress and preventive management. J R Hackman (1977) in Quick and Quick (1984:164)

The job dimensions identified by Hackman leads us to question whether the specific core dimensions are the problem. If they are, then it is necessary to examine the scores for each core dimension, which are defined by Hackman as follows:

Skill variety – the degree to which a job requires a variety of different activities that involve the use of a number of different skills and talents.

Task identity – the degree to which the job requires completion of a whole and identifiable piece of work – that is, doing a job from beginning to end with a visible outcome.

Task significance – the degree to which the job has a substantial impact on the lives or work of other people, whether in the immediate organization or in the external environment.

Autonomy – the degree to which the job provides substantial freedom, independence, and discretion to the individual scheduling the work and determining the procedures to be used in carrying it out.

Feedback – the degree to which carrying out the work activities required by the job results in the individual obtaining direct and clear information about the effectiveness of his performance.

Each core dimension is examined to determine if it alone is the problem. Once the problems with one or more of the five core job dimensions have been identified, Hackman (1977) suggests that one of the five principles of job redesign may be employed to alter the job. These principles are:

1. Form natural work units. This involves organizing people whose work is interrelated into work groups or teams.
2. Combine tasks. This is done by despecialising a job and allowing individuals to do several different activities.
3. Establish client relationships. This enables the worker to interact directly with people who use or are affected by the work.
4. Use vertical loading. This allows the worker more responsibility and discretion over the work and decisions affecting the work.
5. Open feedback channels. This involves increasing the ways in which feedback from the work process.

The effects of these five change principles on the core job dimensions are shown below:

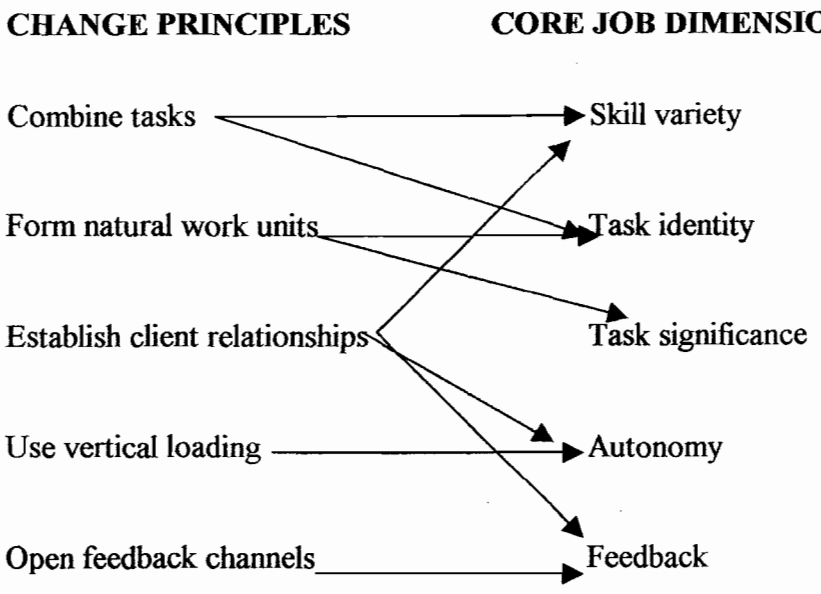

Figure 5.4: Principles for redesigning jobs. Source: J R Hackman (1977) in Quick and Quick (1984:168).

Each work setting is unique: it has specific problems that will resist task redesign efforts as well as opportunities that will enhance the efforts. Among the problems are insecurity, anxiety, and resistance on the part of those affected by the job redesign effort.

5.4.1 Job enrichment

Respondents in this study indicated that boring work was one of the workplace stressors. Job enrichment is therefore recommended as a way to tackle this problem. Job enrichment has been viewed as a practical approach to improving employee motivation and is the historical predecessor to the redesign work. Motivational factors are designed into a job to make it more challenging and stimulating. Quick and Quick (1984:168) mention Herzberg's theory which states that a job has specific motivational factors (recognition, responsibility, and the opportunity for achievement) which serve to stimulate employee motivation. In addition, each job has specific hygiene factors (e.g. lighting levels, company regulations, and employee benefit programs) which if poorly conceived or implemented, can cause significant dissatisfaction.

Job enrichment can be useful in the prevention of organizational distress in two ways. First, it can increase functional stress by building mildly stressful motivational factors into specific jobs. This provides for the constructive stress associated with movement up the stress curve to the optimum level. These additional motivational factors should provide regular, mildly intense stress for the job's incumbent, rather than severe, irregular stress.

Second, attention to the hygiene factors in the workplace can alleviate some of the distress associated with physically or psychologically poor working conditions. Other hygiene factors such as company benefit programs, tuition reimbursement, or sabbatical leaves, may cause distress by their absence (Quick and Quick, 1984:169).

Matteson and Ivancevich (1987) state that job enrichment can produce lower rates of absenteeism and turnover and improve job satisfaction. Apparently, working at an enriched job is more satisfying and personally rewarding, and less stressful. They further argue that in order for job enrichment to succeed, individuals must be motivated by the five job core features namely, autonomy, feedback, skill variety, task identity and task significance. Employees must also have the ability to learn and develop skills needed to perform the whole or enriched job.

5.5 Participative management

Participative management is a strategy for managing the resources and people in an organization. It incorporates the ideas and thoughts of individuals as well as groups into decision-making processes of the organization (Quick and Quick, 1984:170). Five benefits of participative management are (1) a reduction in turnover, absenteeism, and tardiness; (2) a reduction in grievances and an improvement in management-labour relations; (3) a greater readiness to accept change; (4) a greater ease in managing subordinates; and (5) an improvement in the quality of managerial decisions. Karasek (1979) in Quick and Quick (1984:170) complements these findings. He suggests that demanding jobs must allow incumbents commensurate decision latitude and autonomy, unless management wants unresolved strains in the workplace. Restricting an individual's opportunities for participation and autonomy increases depression, exhaustion, illness rates, and pill consumption. Increasing participation and autonomy leads to greater

freedom of action, still within defined limits, which enables an individual to more naturally channel and release stress-induced energy.

Participation in decision making has been linked to reduction in role conflict and ambiguity amongst workers (Matteson and Ivancevich, 1987). Role conflict and role ambiguity are amongst two stressors that have been linked to health and physical outcomes and consequences. Employees participating in decision making have derived such benefits as increased satisfaction, more open communication, and stronger organizational commitment.

Participation in decision making can affect motivation but it is not a straightforward relationship. First, it depends on people's needs for control, competence, achievement, and personal growth. Second, participation must concern an important work performance issue if it is to have a positive impact on motivation.

The organizational conditions for effective participation are:

- availability of time for individuals to participate in a decision (e.g. crisis decisions in military combat or in hospital emergency rooms should not be made participative);
- existence of benefits which outweigh the costs of time and effort in participative decision making;
- relative stability of working relationships between managers and subordinates;
- absence of decision-making situations in which the participants have a conflict of interest;
- shared goals and values;
- presence of channels whereby individuals may effectively contribute to decisions; and
- sufficient training and education about participation.

Participation allows individuals to contribute their resources to improved organizational functioning and health. It also enables individuals to improve the degree of personal fit with the organization, which in turn provides a vested interest in organizational performance (Quick and Quick, 1984:170).

5.6 Flexible work schedules

Flexible work schedules allow individuals discretion in determining their own working hours - within limited organisational constraints (Quick and Quick, 1984:173). For preventive stress management, work scheduling is an important dimension of job design. They further argue that there has been an increase in flexible work schedules since the Hawthorne studies in the 1920s and 1930s.

The general model has been one of choosing standard work schedule within certain limits e.g. an individual may choose a starting time between 7 and 9 am and leave work eight hours later. The intention is to increase the individual's degree of self-control in the work environment as well as in structuring his or her overall life. It is important to keep in mind that this aspect of job design cannot be taken independent of other design considerations.

There is difficulty in using flexible work schedules with interdependent tasks. The scheduling of shifts becomes more difficult and restrictive under such conditions. Where the work is accomplished very independently and task identity is high, there is more potential for success in the use of flexible work schedules.

5.7 Career planning and development

Occupations vary substantially in the amount of stress they cause individuals in the occupation. Occupations also vary in how individuals may pursue their careers within the occupation. Career development is an important aspect of an individual's career and refers to the actions an individual undertakes alone or in collaboration with other people to improve his career in specific ways.

From an organizational perspective, inattention to individual career development may result in organizational dysfunctions, such as poor quantity and quality performance, lower levels of commitment, or dysfunctional turnover due to frustrated aspirations.

From an individual's perspective, poor career choices and decisions may lead to prolonged stress and strain. In this context, it is management's responsibility to take certain career development initiatives as well as to make available opportunities for individuals to

undertake certain actions on their behalf. The use of structured instruments and workshops for self-assessment and career planning are ways which can benefit the organization and the individual.

With self-assessment, individuals need to ask themselves (1) what do I want and like to do? (2) what are my present strengths, abilities and talents?

Matteson and Ivancevich (1987) further this argument by stating that successful careers do not typically come about in a random, haphazard fashion. Rather, they are to a least some extent planned. The issue of career planning thus a very important one from the perspective of the organization as well as the individual. Ackoff (1981) in Matteson and Ivancevich (1987) identifies four types of planning activities that can be applied to career planning, namely reactive, inactive, preactive and interactive.

Reactive planning involves making career decisions on the basis of the opportunities as they present themselves. The reactive individual tends to depend on the organization to determine career choices.

Inactive planning involves ignoring the need to plan. It is a conservative approach that fits nicely with bureaucratic organisations. From an individual and organizational perspective, it consists of "if it isn't broken, don't fix it".

Preactive planning is future-oriented. Individuals who are preactive planners are likely to have clear career goals, and they decide what is needed to achieve them.

Interactive planning is similar to preactive planning in that it is future-oriented. In addition, however, it involves identification of contingencies that may affect plans and includes the development of alternative courses of action in response to these contingencies.

In summary, career development is eustressful to the extent to which it requires individuals to learn new skills, acquire new knowledge and overcome previous limitations to his or her full development.

5.8 Design of physical settings

Quick and Quick (1984:179) state that for a manager to undertake the design of physical settings as a preventive management intervention, a thorough understanding of the following six factors is crucial namely, (1) shelter and security; (2) social contact; (3) symbolic identification ; (4) task instrumentality; (5) pleasure; and (6) growth.

All these functions are of importance in stress management and in the design of physical settings, though their relative importance will vary according to department, managerial preference, organizational level and function, as well as other formal and informal organizational considerations. Many aspects of a physical setting fall in the category of what Herzberg would call hygiene factors, and these are typically what people think about when examining their physical environment.

The actual design of a physical setting involves creativity and an understanding of the functions of space as well as some careful forethought and planning. Each physical setting should be approached without preconceptions about its limitation, since such preconception will limit one's imagination in redesigning the space.

Quick and Quick (1984:181) list some possible alterations in the physical settings and these are listed below:

Structural changes

- points of entry and exit
- wall placement and height
- ceiling height and angle
- openings for vistas and lighting
- floor angles and elevations
- furniture, fixtures, and placements

Acoustical changes

- wall coverings, finishing and insulation
- cushions and draperies
- floor coverings and finishing

- ceiling coverings an finishing
- plants and natural additions

Lighting changes

- natural openings
- placement of artificial lights
- intensity of lights
- color of interior furnishings
- plant and natural additions

In evaluating the effect of any changes that were made to a physical setting, an examination of accident rates and performance and productivity rates can be done. Quick and Quick (1984:183) recommend that the analysis of the impact of changes should be done some months after the changes are made to avoid or minimize the more temporary effects of the change.

5.9 Individual-level preventive management techniques

Even with the most successful preventive management activities at the organizational level, individuals will still be faced with stressful demands and they will still experience a certain amount of distress.

Quick and Quick (1984:216) have identified a range of preventive management techniques that the respondents in the study can use and these are listed in Table 5.1.

PRIMARY PREVENTION – STRESSOR-DIRECTED	
Managing personal perceptions of stress - constructive self-talk - psychological withdrawal - recognizing the inevitable - disputing the cognitive distortion - changing the type A behaviour pattern	**Lifestyle management** - maintaining a balance - leisure time use - sabbaticals
Managing the personal work environment - planning - time management - overload avoidance - other methods (social support, task variation, leave job)	
SECONDARY PREVENTION – RESPONSE DIRECTED	
Relaxation training - progressive relaxation - the relaxation response - meditation - medical hypnosis and autogenic training - biofeedback training - momentary relaxation - traditional methods	**Emotional outlets** - talking it out - writing it out - acting it out
Physical outlets - aerobic exercise - recreational sports - flexibility and muscular relaxation techniques - muscle strength and endurance building	
TERTIARY PREVENTION : SYMPTOM-DIRECTED	
Counselling and psychotherapy - symptom specific programs - individual psychotherapy - behavioural therapy - group therapy - career counseling	**Medical care** - medications - surgery - physical therapy

Table 5.1: Individual-level preventive management techniques.
Source: Organisational stress and preventive management. Quick and Quick (1984:217).

Matteson and Ivancevich (1987) state that for most employed individuals, work represents a time commitment exceeded by no other single activity. Ideally this time should be satisfying, should contribute to the individual's quality of life, should respect health, and should leave adequate time for rest and leisure pursuits. Unfortunately, this is not the case for millions of workers.

Any attempt an individual makes to avoid, minimize, or deal with the effects of stressors or stress is part of a process that is consistently described as coping. Coping could also be defined as an effort to master, tolerate or reduce environmental demands and conflicts that tax a person's resources.

Quick and Quick (1984:220) state that self-observation is the first-step in personal stress management. Stressors can be identified by an individual through an informal process of personal reflection. In doing this, the individual should come away with a very specific knowledge of what stressors exist in his or her life and what is the relative impact of these stressors.

In identifying responses, individuals can simply become aware of their own distress. Responses can manifest themselves in subtle physiological changes such a rise in heart rate, increased smoking or alcohol consumption, depression, headaches or chest pains. It is important for individuals to develop an internal barometer which monitors these responses and tells them when stress responses and distress are increasing.

Individuals can identify their own coping mechanisms by deciding which ones seem to work best, and learning to apply these when tension begins to develop. An effective stress management plan will depend upon narrowing these options to those that seem to be acceptable, feasible and appropriate to the individual's particular stressors and stress responses.

5.10 Developing an employee assistance programme

Respondents in this study have indicated that they place a high priority in managing a range of issues about their health, inter alia, stress management, understanding nutrition,

physical education, women health issues. This requires a comprehensive employee assistance programme.

The first vital component in success of such a programme would be to gain management commitment. Demonstrated commitment by management will ensure that supervisors and workers perceive the programme as important. The people initiating the programme can gain management commitment by:

- having a clear understanding of the reason for and value of the programme
- providing senior managers with a written proposal which sets out the reasons for and benefits of the programme
- being available to discuss with key managers, the risks to the organization if the progamme is not implemented and the opportunities which may arise if the programme is implemented
- gaining the early ongoings of the occupational health and safety manager and/or human resource manager for the programme.

The second step is to define the expectations of the programme. A committee or team should be established to oversee the programme. Members of the group should agree on a number of objectives, which may include reducing workplace stress, reducing workers compensation claims for occupational stress, improving staff well-being and improving productivity.

The third step is to develop a plan to communicate to staff and others the steps that the organization plans to take in order to achieve its objectives. This is followed by identifying the stressors and this accomplished by:

- examining unplanned absence rates to identify if some groups or individuals within the organization have higher absenteeism than others;
- recognizing and recording conflict measures (e.g. grievance procedures, harassment claims, performance management programmes) to identify issues which contribute to workplace stress;

- examining workers' compensation claims to see which individuals are making accepted stress claims and reasons for their claims;

The fifth step involves assessing the risk i.e. the organization needs to assess the likelihood of the identified stressors actually causing harm. By doing this, the organization gains an indication of which causes of stress it should control and of those, the priority it should give to controlling them.

The last step involves controlling the risk. Goods stressor controls are changes that reduce the risk of causing harm. Based on the stressors identified and the risks they pose to workers, managers should consider the following:

- nurturing a workplace environment that demonstrates to staff that management genuinely cares about their well-being and that their personal and professional lives are not artificially separated;
- establish effective formal and informal communication within the organization to ensure that managers and workers have a clear understanding of all workplace issues and concerns;
- clearly define priorities so that workers can avoid wasting time;
- clearly define roles so that people know who is responsible for various workplace activities and understand decision-making latitude;
- ensure that there is adequate staffing to avoid either under- or overstaffing problems;
- provide adequate resources to avoid the frustration that arises when workers are required to achieve goals with inadequate supplies, machinery or other resources;
- establish ways for managers and supervisors to gain skills in the use of human resource management systems;
- establish ways for workers with legitimate concerns about safety or productivity to be heard;
- become a partner with and promote the Employment Assistance Progamme;

- develop a critical incident plan of your workers experience a traumatic experience. Include staff training and access to a counseling service experienced in post-trauma debriefing and counseling;
- encourage social and sporting activity within the workplace where staff from all levels can get to know each other and develop positive relationships. This can reduce the incidence of misunderstandings during work; and
- provide meal-break facilities and a place where employees can go during their break to sit quietly, relax and unwind.

5.11 Improving performance appraisal in organisations

Some of the comments and suggestions made by the respondents in connection with improving performance management in their organisations include the following:

1. objectivity; non reference to the bell curve
2. unrealistic targets; give more incentives
3. be conducted fairly; discuss performance after appraisal
4. incorporate the person being appraised in discussion form; motivation
5. fair judgement by supervisor; frequent appraisals
6. appraisal against close ended goals in KPAs
7. involve other senior staff who work with me more regularly; take into account self initiative for improving own education and updating self
8. Managers should commit to what they promise
9. Allow employees to change their performance contracts when they feel the need to.
10. It must be in line with your work and not the team
11. The performance appraisal system is always biased

Below are further recommendations on how to improve the performance management system so as to render it beneficial to both employees and employers.

The appraisal of an employee's performance or task execution is a sensitive matter that must be handled with great care by managers and supervisors. The results of such an appraisal are directly related to the intrinsic motivation of the employee, his or her self-image and status among fellow employees (Gerber, Nel and Van Dyk: 1987). The application of performance appraisal in a scientific manner can have a great effect on the individual performance orientation of employees.

Gerber, Nel and Van Dyk (1987) suggest that performance appraisal should take place in an environment in which there are equal opportunities. Decisions about promotion, resignation, bonus payments etc should be based on objective and effective performance appraisal. The documentation should objectively compare employees according to defensible, job-related criteria, and should substantiate the superiority of the promoted employee to those who have not been promoted.

After completion of the performance appraisal, the results should be discussed with the employee. Feedback in the performance appraisal means that employees will be provided with an objective appraisal of the current situation to let them know how their performance can be improved. The performance appraisal interview provides an excellent opportunity to sum up the performance of the past year by pointing out incidents of success or failure. It is important to note that feedback is most effective when it takes place immediately or as soon as possible after the appraisal.

Feedback can be provided in a number of ways:

1. The tell-and-sell approach, in which the employee's performance is reviewed and an attempt is made to persuade him or her to perform better.
2. The tell-and-listen approach, which offers the employee the opportunity to provide reasons and excuses, and to express defensive feelings.
3. The problem-solving approach, which identifies problems that have an adverse effect on employee performance. Training, coaching or advice is used in an attempt to eliminate these shortcomings by setting new goals.

No matter which of these approaches is used, it is important to keep the following in mind (Gerber, Nel and Van Dyk: 1987):

- emphasise the positive aspects of the employee's performance;
- communicate to the employee that the appraisal session is there to improve performance and not to discipline;
- keep the performance review session private, with minimum disturbance;
- review the performance at least once a year, and more often in the case of new employees or employees who are doing poorly;
- keep the criticism specific and not vague or generalized;
- focus criticism on performance and not on personality characteristics;
- remain calm and do not argue with the person appraised;
- identify specific actions that the employee can carry out to improve performance;

- emphasise the performance evaluator's willingness to support the employee's attempts to improve performance; and end the performance appraisal by emphasizing the positive aspects of the employee's performance.

Performance appraisal provides extremely important feedback to the human resources management process. Human resources management should realize that poor job performance, particularly if it is widespread, may be a manifestation of problems in the application of human resources management, which may have an adverse effect on the individual performance attitude of employees.

5.12 Creating workplaces that work for women

All employees will benefit from workplaces that are known for inclusiveness, physical safety, and good management practices (McLean: 2003). If a workplace is characterized by frequent overtime, often unplanned, then it is suggested that rewards should be tied to working long hours, additional pay, promotions and employees should be seen as 'part of the team". Although these cultural characteristics may appear to affect men and women equally, they will typically have a different impact on women who could be less able to work late hours due to additional family responsibilities, safety concerns, etc. And these observable and apparently gender-neutral aspects of the workplace culture could reflect underlying attitudes or myths in the organization, such as working late is an individual choice, or, women just do not want to do this kind of work.

According to McLean (2003), a workplace culture that is inclusive of women, and that will attract and retain those with the skills and talents to help the organization succeed, is characterized by:

- cultural norms and values that support positive relations between men and women;
- a freedom from stereotyping about women's and men's roles and occupations;
- conditions (work schedules, job titles, physical environment) that are inclusive of both men and women;

- a strong "critical mass" of women, usually 30 per cent or more throughout the organization;
- opportunities for advancement;
- an emphasis on reducing sources of unnecessary stress such as harassment and work-family conflict. Employers should ensure that workplaces are free from harassment by clearly defining inappropriate behaviours, holding managers accountable for reporting and responding to all potential incidents and providing employees with formal and informal means of redress. They should enact a zero tolerance approach to gender-related harassment.
- Assisting employees find high-quality dependable childcare, including caregivers for evening, overtime and illness situations. Finding high-quality child care facilities is one of the key causes for many working parents. This can lower costs by improving retention and reducing absenteeism,
- Supporting the advancement of talented women within the organization by identifying and tracking those with potential, providing access to new challenges and good developmental assignments, ensuring candid constructive feedback on their performance and on-going support in their success.

According to McLean (2003), the most critical element in culture change is the leader's active and consistent support for women's full participation in the workplace.

A framework for assessing the workplace is attached in Appendix 2. This framework is aimed at assisting employers in identifying opportunities for meaningful change by reviewing current practices and results in their workplaces.

6. CONCLUSION

Workplace stress diagnosis is a process of identifying the sources and consequences of stress through in-depth knowledge of a particular individual or organization (Matteson and Ivancevich: 1987). Acknowledging the sources of workplace stress, recognizing the consequences and understanding the diagnostic process for organizational stress are all important. But distress will not be avoided and eustress will not be fostered until someone takes action. The type of action may vary depending upon where one is in an organization. Nevertheless, realization of the potential value of preventive stress management means that executives, managers and employees must act.

For preventive management activities to succeed, they must have visible, credible support from top management. In considering alternative stress management methods, executives must strike a balance between individual-level and organizational-level preventive management by using methods from both levels of prevention as appropriate to achieve the most desirable benefits (Quick and Quick: 1984:307). Stress management tools are always at risk of becoming tools by which management attempts to mollify employees in the face of unconscionably distressful organizational practices. Responsible executives should guard against this tendency and seek equity in stress management activities.

Executives can also make an invaluable contribution to the future directions of organizational stress through collaborative efforts with researchers. The best research on organizational stress and preventive management must come from the workplace.

In striking a reasonable balance between work and personal demands, individuals should expect organization life to be demanding, and they must learn to manage reasonable demands effectively. Integration of individual and organizational approaches to managing stress is essential for the optimal use of available human and material resources (Quick and Quick: 1984:307). Organisations are reducible to individual human acts; yet they are lawful and in part understandable only at the level of collective behaviour (Kahn, Wolfe et al: 1964:398). The hope of this study is that the effort and its product may contribute to the understanding of organized human behaviour. We know of no more urgent problem.

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APPENDIX 1 – SURVEY QUESTIONNAIRE

WORKPLACE STRESS AND FEMALE EMPLOYEES PERFORMANCE

I am currently undertaking a study to determine the impact of workplace stress on female employees' performance. Workplace stress is experienced when the demands of the work environment exceed the workers' ability to cope with (or control) them. Stress can lead to mental, physical ill health (such as depression, nervous breakdown and heart disease. Stress can be caused by the culture of your workplace, demands placed on you, the level of influence you have on your job, changes at work, how clear you are about your job, lack of support from colleagues and lack of training on the job.
Please take a few minutes to answer the following questions honestly. The survey is completely confidential. You do not need to give out your name.

1. What age group are you in

- ❑ 20-30
- ❑ 31-40
- ❑ 41-50
- ❑ Over 50

2. Are you in

- ❑ Administration
- ❑ Management
- ❑ Other (please specify).....

3. What is your highest level of education

- ❑ Matric
- ❑ Diploma
- ❑ Degree
- ❑ Postgraduate
- ❑ Other (please specify).....

4. What is your marital status?

- ❑ Single
- ❑ Married
- ❑ Divorced
- ❑ Separated

❑ Widowed

5. Please indicate the type of employment contract you have

❑ Fixed term contract

❑ Permanent

❑ Temporary

6. Please indicate whether you have felt any effects of stress during the last 12 months. Please tick as appropriate from the list below:

❑ Felt keyed up or on edge

❑ Low energy/tiredness

❑ Difficulty relaxing

❑ Been very irritable

❑ Sleeping poorly/difficulty in falling asleep

❑ Headaches or neckaches

❑ Worrying a lot

❑ Been worried about my health

❑ Lost interest in things

❑ Difficulty in concentrating

❑ Waking early

❑ Felt hopeless/depressed

❑ Tend to feel worse in the mornings

❑ Lost confidence in myself

❑ Consumed more alcohol

❑ Suffered from trembling, dizzy spells or sweating

❑ Had to take prescribed drugs or medication

❑ Smoked more

❑ Lost weight due to poor appetite

WORKPLACE CONCERNS

7. Please rank the potential causes of stress listed below in order of importance.

- ❑ Bad management
- ❑ Excessive workloads
- ❑ Staff shortages
- ❑ No job security
- ❑ Boring work
- ❑ Long hours
- ❑ Bullying
- ❑ Lack of control
- ❑ Dangerous conditions
- ❑ Lack of rest breaks
- ❑ Discrimination
- ❑ Threat of violence

Please indicate your response in the tables below.

8. Management at work

	Very good	Good	OK	Bad	Very bad
The number of changes at work					
Praise for a job well done					
Fair allocation of work					
Communication and consultation					
How problems and grievances are dealt with by your manager					
Support from your manager					
The way your manager treats you					
Your relationship with your manager					

9. Workloads

	Very good	Good	OK	Bad	Very bad
Realistic performance targets					
Volume of work					
Staffing levels					
Fair allocation of work					
Length of time to do each task and meet deadlines					
Opportunities for rest breaks during work					

10. Job security

	Very good	Good	OK	Bad	Very bad
Job security in your particular position					
Number of changes at work					
The level of information given about changes at work					
Your level of involvement in making changes to your job					
The level of support you are given support during changes					

11. Job satisfaction

	Very good	Good	OK	Bad	Very bad
Job satisfaction					
Training to do the job and personal career development					
Opportunity to use your skills					
The variety of work					
Clearly defined objectives and responsibilities					
Freedom to decide how to do the job					

12. Working hours

	Very good	Good	Ok	Bad	Very bad
Length of working hours or amount of unsociable hours					
Balance between work and home life					

13. Safety in working conditions

	Very good	Good	Ok	Bad	Very bad
Working environment (noise, temperature,ventilation and lighting)					
Having the right tools and equipment for the job					
Health and safety at your workplace in general					

14. Training

	Agree	Disagree	Not sure
Do you have the right skills to do your job?			
Are you encouraged to develop your skills?			

15. Have you ever been bullied or harassed at work?

- ❑ Yes
- ❑ No

If yes, please indicate if the bullying was carried out by:

- ❑ A manager
- ❑ A colleague
- ❑ Customer

16. Have you ever been exposed to violence at work?

❑ Yes
❑ No

If so, have you ever reported it? Please specify to whom you have reported violence at the workplace.....

17. Have you ever raised concerns about workplace stress with your employer

❑ Yes
❑ No

18. If you have raised concerns about workplace stress with your employer, what was the response you received?

❑ He/she acknowledged the existence of workplace stress
❑ He/she denied the existence of a problem
❑ Neither of these

EMPLOYEE ASSISTANCE PROGRAMMES

19. Do you have an employee assistance programme at work?

❑ Yes
❑ No

20. If you answered no the previous question, would you be willing to participate in an employee assistance programme?

❑ Yes
❑ No

If yes, what hours would be suitable for you to attend a health promotion programme?
From..... to.....

21. What are your working hours? From..... to .....

22. Would you prefer a health promotion programme at your workplace or some other place?

- ❑ Yes
- ❑ No
- ❑ Other

(If other, please write down the location you would prefer.....

23. Please indicate your level of priority (from 1 to 5) for the following health promotion activities. 1 is the lowest level of priority and 5 is the highest level of priority

	1	2	3	4	5
Understanding nutrition					
A healthy lifestyle					
Physical fitness education					
Alcohol and drug control					
Women's health issues					
Stress management					
Blood pressure management					
Developing healthy relationships with others					
Dealing with difficult people					
Positive mental attitude					

PERFORMANCE MANAGEMENT

24. Does your company have a performance appraisal system in place?

- ❑ Yes
- ❑ No

25. If yes, how often is your performance appraised?.....

26. Who is responsible for performance appraisal?.....

27. Does your employer have a policy for dealing with stress in the workplace?

- ❑ Yes
- ❑ No
- ❑ Not sure

28. Does your job description identify potential stressful pressures relating to your job e.g. the need to meet deadlines?

- ❑ Yes
- ❑ No
- ❑ Not sure

29. Do you discuss with your supervisor your goals, pressures, deadlines, responsibilities and change during your performance appraisal?

- ❑ Yes
- ❑ No

30. Do you feel that your performance appraisal is a fair indication of your performance, taking into account your personal circumstances?

- ❑ Yes
- ❑ No

31. If not, would you suggest two ways in which to improve the performance appraisal system:

i. .....

ii. .....

APPENDIX 2 - A FRAMEWORK FOR ASSESSING YOUR WORKPLACE

Ratio of women workers

1. What is the current ratio of women workers?
   - Compute ratios separately for non-traditional, high-growth occupations
   - Compute ratios separately for senior positions
   - Look further – what is the impact of age, education and family status?
2. Are the ratios increasing or decreasing over time?
3. How well do the ratios reflect the availability of skilled women in your location?
4. How do turnover rates compare for men and women?
5. Are the ratios approaching critical mass (30 per cent or more)?

Nature of interpersonal relations

6. Ask employees(individually, in groups or via surveys) questions such as:
   - Do workers feel they have an opportunity to contribute to decisions?
   - Are work group relationships generally positive?
   - What are the formal and informal mechanisms for handling conflict?
   - Do male workers show that they are aware of the challenges that women may face in traditionally male workplace environments?
   - Do women feel they are part of the team?
7. How many co-worker complaints and conflicts arise each month (or each quarter)?
   - What are the sources?
   - Is the number decreasing?

Gender inclusive conditions and freedom from stereotypes

8. Are the job titles, job descriptions and job ads inclusive of women?
9. Are the physical working conditions (e.g. equipment, clothing, shower and toilet facilities) appropriate for men and women?
10. Do workplace decisions about people reflect individual differences rather than assuming that all women have the same needs/concerns and so do all men?

11. What processes are in place to ensure that women are not automatically streamed into certain jobs or types and levels of work?

Opportunities for advancement

12. Are promotion, pay and performance evaluation systems clearly written and based on objective criteria?
    - Are men and women promoted at equal rates?
    - Are the average earnings for women and men the same?
    - Are men and women held to the same performance standards?
13. How is mentoring encouraged?
14. What other supports are available?
15. How are formal and informal definitions of "leadership potential", "manager material" and "ideal worker" critically reviewed to ensure the behaviours and assessments are inclusive of women?
16. How are workers chosen for training or special assignments? How many women are given training opportunities or special assignments that build critical skills? Is this number increasing over time?
17. What is the impact of seniority rules on women's career opportunities?
    - How do they affect individuals who might work part-time, who hold temporary jobs or who take leaves for family responsibilities?
    - Do they facilitate the movement of women into high-growth and high-paying occupations?

Psychologically healthy environment – harassment-free and work-family balance

18. What mechanisms signal to employees that harassment of any sort is not tolerated in the workplace?
19. What is the organisation's track record on responding to complaints of harassment?
    - Is it clear that they are taken seriously, quickly addressed and resolved without negative consequences for the complainant?
20. How do formal policies and informal norms support individual employees in reconciling their work and personal responsibilities?

- How predictable are work demands and hours of work?
- How much flexibility is given to employees regarding when and where they work?

Source: Denis McLean. 2003. *Workplaces that work: creating a workplace culture that attracts, retains and promotes women.*