Quality of work life as predictor of employees' mental health

Submitted by

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DECLARATION

I Lyle Markham,

Hereby declare that the dissertation entitled

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Lyle Markham

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To …

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CHAPTER 1

1.1 BACKGROUND

It is important for employees in the work place to have a sound mental health in order for them to actualize their full potential and to add value to the organization. According to Plug, Meyer, Louw and Gouws (1991), “mental health is a condition of relative good adaptation which is accompanied by a feeling of satisfaction, a zest for life and the actualization of potential and skills as well as the absence of psychopathological conditions”. Mayo (Gellerman, 1963), Argyris (1957), McGregor (1966) and other mid-20th century writers pointed out that organizational practices may affect mental health.

A worker’s adaptation to rigid hierarchy, autocratic management and an unenriched job is itself an indication of retarded emotional development. The nature of the job could prevent the worker from attaining full mental health. The workplace itself may contribute to distress and, ultimately to mental disorders (Thomas & Hersen, 2002). This notion dates back to the 1930s, with studies examining the presence of inhalable toxic chemicals and employee emotionality (Tiffin, 1942). Too much work, poorly defined responsibilities, an unsupportive boss, a lack of control and many other factors can constitute stressors that, in turn, under the right conditions, can create sufficient strain such that a person becomes physically or mentally ill.

D’Souza, Strazdins, Broom, Rodgers and Berry (2006) added that both high work demands and job insecurity have been shown to predict poor mental health. Tubre and Collins further stated that the clarity with which individuals perceive their work roles has been linked to several organization outcomes. Role ambiguity was significantly related to low job satisfaction and to feelings of job-related threat to one’s mental and physical well-being. Spence, Wilson, Kavanagh, Strong and Worrel (2001) maintained that the personal support aspect of supervision aims to optimize motivation, morale and to minimize work-related stress, burnout and mental health problems of employees.

Currently, many people are losing their jobs as a result of the financial constraints that organizations are facing due to the economic recession. The result of this is that less individuals have to do more work, often leading to work overload. Service organizations especially, service provision often unfolds within the constraints of limited fiscal resources and increasing demands for service accountability (Wallach & Mueller, 2006). Kosny and Eakin (2008) added that despite some of the intrinsic rewards the work offers, jobs in these organizations can be difficult and demanding, characterized by high demands, long working hours, low pay, exposure to violence and infectious disease, conditions which may be deleterious to worker health and safety (Baines 2004; Holness, Somerville, Kosny, Gadeski, Mastandrea & Sinclair, 2004).

Unfortunately, according to Grant (2008) managers face considerable challenges in motivating employees in service organizations, which are riddled with high levels of burnout and emotional exhaustion (Halbesleben & Buckley, 2004; Maslach, Schaufeli & Leiter, 2001). Employees in service organizations are often exposed to extensive negative feedback and overloaded with responsibility for helping (Marshall, Barnett & Sayer, 1997). These challenges can lead to traumatic events (Brough, 2004) that result in depression and post-traumatic stress disorders (Regehr, 2001).

A core purpose of service organizations is to make a positive difference in the health, safety, and well-being of individuals, groups, and communities (Perry 2000; Piliavin, Grube & Callero 2002). Firefighters and paramedics save lives (Regehr, Goldberg, & Hughes, 2002), police officers protect and serve communities (Maynard-Moody & Musheno, 2003), public defenders safeguard the constitutional rights of citizens (Ashforth & Kreiner, 1999), social workers improve the welfare of families (Lloyd, Kind & Chenoweth, 2002), lifeguards promote the safety of swimmers (Harrell & Boisvert, 2003), and military officers protect the safety of countries (Britt, Adler & Bartone, 2001). The individuals, groups, and communities that benefit from these jobs depend on motivated and healthy employees to perform them effectively.

In order to maintain an effective, productive and mentally healthy labour force, management should create an atmosphere that will enable people to actualize their full potential. According to Newell (1995), the satisfaction of employees was originally achieved by ensuring that work experience satisfied a common set of needs. These strategies amount to improving employees' quality of work life. According to Jensen and Fagen (1997), the present day approach to quality of work life advocates that work should be made more meaningful, that employees need to develop personal skills, that they should participate in the management process and that the control for any system should be voluntary rather than mandatory. Sirgy, Efraty, Siegel and Lee (2001) define quality of work life (QWL) as "employee satisfaction with a variety of needs by means of resources, activities, and outcomes stemming from participation in the workplace". Furthermore, organizational theorists and researchers emphasize the importance of work environments that cultivate an empowered work force and promote effective interaction with clients, co-workers and managerial staff (Peterson & Speer, 2000).

Research indicated that employees should experience high levels of quality of work life as well as mental health in order to realize their full potential, and become an asset to the organization. QWL variables are excellent indicators of whether or not employees are coping well with the stressors they are confronted with. Employees in the workplace should experience and exhibit high levels of mental health in order to ensure that they cope effectively with the stressors they are being exposed to. According to the literature, QWL can produce a favourable work environment which is beneficial for developing and maintaining a good mental health. If this is the case, it could be assumed that QWL is an important determinant and predictor of mental health.

1.2 Problem formulation

It is evident that employees working in service organizations are exposed to a broad range of stressors and these stressors could impact their mental health. Since the literature indicates that QWL plays an important role in the mental health of employees, it would be of value to investigate which QWL variables play a significant role in determining mental health especially in service organizations where demands are high.

1.3 Research Questions

The following research questions result from the problem statement:

- What is the current state of employees' mental health employed in a service organization in the Free State?
- What is the current state of quality of work life of employees employed in a service organization in the Free State?
- Is quality of work life a significant predictor of employees' mental health in a service organization in the Free State?

1.4 Research Objectives

The following research objectives results from the research question:

- To determine the current state of employees' mental health employed in a service organization in the Free State.
- To determine the current state of the QWL of employees employed in a service organization in the Free State.
- To determine the significance of QWL as a predictor of employees' mental health in a service organization in the Free State.

1.5 Research Hypothesis

The following research hypothesis was formulated:

Null hypothesis

- Quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State.

Alternative hypothesis

- Quality of work life variables are significant predictors of employees' mental health in a service organization in the Free State.

1.7 The outline of the study

In this section, a general overview of the study was provided including the rationale for the purpose of the study. Certain important aspects of QWL and mental health were briefly discussed. Furthermore, the research questions, research objectives and propositions of the study were provided.

In the next chapter (Chapter 2) the focus was on QWL. The aim of this chapter was to present an outline of the origin and development of the concept QWL, the definitions of QWL, different models that relate to QWL, the determinants of QWL, the measurement of QWL and the benefits of QWL to the organization. From this framework an attempt was made to identify the QWL dimensions that may have an impact on an individual's mental health.

In Chapter 3, the focus was on mental health in the workplace. As mental health forms an integral part of the study the aim of this chapter was to provide a systematic overview of the most important definitions of mental health, as well as the different theoretical models of mental health. The environmental features that affect mental health, the contribution of environmental features to mental health, the components of mental health and the impact of mental health in the work place on the general functioning of the individual, were also addressed.

In Chapter 4 the focus was on the research methodology that was used in this study. Specific emphasis was on the research design which included the selection of test persons, data gathering and a discussion of the statistical methods that were used.

In Chapter 5, the results obtained from the research was discussed and presented graphically. The inferential statistics included a discussion on the alpha coefficients regarding the dimensions of mental health and QWL. Focus was also placed on the overall conclusions with specific reference to the literature study, research methodology as well as the results of the study. In closing, recommendations were made for future research on this topic as well as in light of the achieved results within an organizational context.

CHAPTER 2

QUALITY OF WORK LIFE

2.1 Introduction

According to Rose, Beh, Uli and Idris (2006) QWL is a philosophy or a set of principles, which holds that people are trustworthy, responsible and capable of making a valuable contribution to the organization. It also involves treating people with respect. The elements that are relevant to an individual's QWL include the task, the physical work environment, the social environment within the organization, administrative system and a relationship between life on and off the job (Rose, Beh, Uli & Idris, 2006).

Dolan, Garcia, Cabezas and Tzafrir (2008) state that the concern for QWL has preoccupied social scientists for the past several decades. QWL is a major issue for employees, and how organizations deal with this issue is both of academic and practical significance. Therefore, it is no wonder that thousands of studies have revolved around the concept of job satisfaction and stress as core concepts. QWL and its relationship with employee health and performance has become an explicit objective for many of the human resource policies in modern organizations (Dolan, Saba, Jackson & Schuler, 2007).

The aim of this chapter is to present an outline of the origin and development of the concept QWL, the definitions of QWL, different models that relate to QWL, the determinants of QWL, the measurement of QWL and the benefits of QWL to the organization. From this framework an attempt will be made to identify the QWL dimensions that will have an impact on an individual's mental health.

2.2 The meaning and nature of Quality of Life (QoL)

The dictionary's definition of 'quality' is a grade of goodness (Chambers Twentieth Century Dictionary, 1961). Mendola and Pellingrini (1979) defined quality of life (QoL) as "the individual's achievement of a satisfactory social situation within the limits of perceived physical capacity". Shin and Johnson (1978) defined QoL as "the possession of resources necessary for the satisfaction of individual needs, wants and desires, participation in activities enabling personal development and self actualization and satisfactory comparison between oneself and others". More recently, the World Health Organization Quality of Life Group (1993) defined QoL as "including the individual's perception of his or her position in the context of culture and value systems in which they live and in relation to goals". These various definitions reveal not only the complexity of the concept, but very real differences in opinion as to the nature of QoL (Walker, 2005).

QoL is an area of study that has attracted an ever increasing amount of interest. QoL conceptual models and instruments for research, evaluation and assessment have been developed since the middle of the last century (McCall, 2005; Ruzevicius, 2006). However, Greek philosophers were searching for meaning of life which could help people look for a higher existential level of their life. In the past century QoL was determined to be material welfare or wealth.

Interest in QoL is not a recent phenomenon (Chung, Killingworth & Nolan, 1997). The Greek philosophers were much taxed by notions of happiness and the good life. Aristippus, a philosopher of the fourth century BC, taught that the goal of life is to experience the maximum amount of pleasure, and that happiness is the sum total of hedonic episodes. Others in hedonic tradition include Hobbes, who argued that happiness lies in the pursuit and fulfillment of human appetites and DeSade, who argued that the pursuit of pleasure and sensation is the ultimate goal in life (Ryan & Deci, 2001). More recently, psychologists such as Kubovy (1999) have argued that hedonism includes the pleasure and preferences of the mind as well as the body.

Arostotle believed that hedonic happiness was a vulgar ideal and argued that true happiness is found in what is worth doing (Ryan & Deci, 2001). The term, eudaimonia (daimon = true self) refers to this type of well-being. Eudaimonia, according to Waterman (1993), occurs when activities are congruent with deeply held values and are holistically engaged. Self - determination theory according to Ryan and Deci (2000) has embraced the concept of eudaimonia as central to well-being. Ryff and Singer (1998, 2000), in their lifespan theory of human flourishing, argue that psychological well-being is distinct from subjective well-being, a tapping aspect of human actualization.

The ancient debate between hedonic and eudaimonic theorists continue to exert an influence on conceptions of well-being. However, what appears to have happened over the past 20 years is a move away from the measures of, as well as interest in, the construct of well-being to discourse about QoL (Walker, 2005).

First, in medicine there was a need to recognize that many treatments and interventions could not cure disease, but could best control unpleasant symptoms. For example, coronary artery bypass surgery could not cure heart disease, nor could it necessarily prevent a heart attack, but it could reduce the pain associated with angina.

With reductions in angina pain, patients would be able to live a more normal and independent life, and would be less miserable. In other words, patients would be happier, not only because of a reduction in unpleasant events, but because they could engage in activities leading to self-actualization. However, an increase in happiness is a less scientific health-related outcome, while improved QoL is a more objective outcome measure when assessing the impact of treatment and intervention (Walker, 2005).

Not only did QoL appear to be an outcome with more scientific nuances, but it was, and perhaps still widely is, believed to be something that can be assessed by others, rather than relying on the subjective views of the patient (Walker, 2005). According to Walker (2005) a second factor contributing to the shift from a research interest in well-being to QoL over the past 20 years is a growing interest in inequalities in

health, social exclusion and government policies that might disadvantage large sections of the population.

Governments do not, on the whole, view themselves as responsible for individual happiness, but have come to acknowledge that there are things that governments can do to affect the quality of housing, the work and neighbourhood environments, and other things outside family and private life. Thus, QoL came to prominence as a concept as government departments set out programme evaluation. As in medicine, QoL proved to be a useful concept in that governments were unlikely to 'cure' many of the problems besetting society, but might be able to make improvements of one's QoL in population (Walker, 2005).

Although it is widely acknowledged that there is no definition of QoL according to Smith (2001), what seems to be clear is that there is a general reluctance to suggest that QoL is identical to hedonic happiness or eudaimonia. This may be due to a growing body of literature suggesting that happiness and psychological well-being are related to personality characteristics which are not only stable across the life span, but are biologically determined (Diener, 2000).

Since it seems that personality traits influence levels of subjective well-being, there is little, or certainly less, that governments can do to increase well-being, hence the interest in the construct of QoL, rather than happiness or psychological well-being. What can, however, be hoped for by policy-makers is that policy can alter the environment, service provision, distribution of wealth, and so on, and that such factors will influence perceptions of QoL (Myers, 2000). The personality characteristics most consistently and strongly related to subjective well-being are extroversion and neuroticism. Optimism and self-esteem are also correlated with subjective well-being, though the direction of causality has not been determined.

Physical health will have a major impact on perceptions of QoL. However, in recent years it has been argued that government policies have a major impact on the likelihood of poor health. It is through their influence on levels of poverty and the distribution of wealth and status that government policies, it is argued, can influence health. Apart from influences on physical health, money itself may impact on

perceptions of QoL, though the research evidence, especially in wealthy nations, is complex (Myers, 2000).

Studies of individuals have also revealed that very healthy Americans are only slightly happier than the average American. The overall conclusion drawn by Myers (2000), when reviewing the relationship between money and happiness, is that happiness depends less on exterior things than might be expected. Indeed, as noted by Ryan and Deci (2001), several studies have indicated that the more individuals focus on financial and materialistic goals, the lower their well-being.

In addition, the belief or assumption shared by most industrial psychologists is that work should be morally desirable so that people enjoy it, that everybody concerned with the world of work should be taking more active and vigorous steps than at present to make work more likeable for those who have to do it. Therefore the task of making work more likeable has increasingly been discussed within the points of reference supplied by the phrase, quality of work life (Orpen, 1981).

In order to have QWL, it is not enough to have a job that generates labor satisfaction. There are other factors involved, such as the physical conditions of the workplace, which contribute to a better or worse QWL. One factor is satisfaction with one's work, but other relevant factors are the level of stress, fatigue, overcrowding, and weekend work schedules. All these factors contribute to determine the quality of life at work that an individual experiences, but also influential are the relations that the worker maintains with others in the workplace. A higher quality of life at work will undoubtedly be determined by elements relating to better or worse relationships,and trust and commitment with bosses and/or subordinates (Requena, 2003).

Therefore, from an organizational psychological perspective, Danna and Griffin (1999) have advanced the view that QWL involves a hierarchy of concepts that includes life satisfaction, job satisfaction and work-specific facet satisfaction such as satisfaction with pay, co-workers and supervisor among others.

Evaluation of quality of life must encompass all the above elements. QWL includes such areas as workers health and well-being, guarantee of employment, career planning, competence development, life and work balance and other. The results of the evaluation of QWL factors could be a possibility for the establishment, implementation and development of social programs in organizations, at national and international level (Van de Looij & Benders, 1995; Ruzevicius, 2006).

Given the lack of consensus concerning the solutions that have been developed to date, a new definition of QWL is suggested. This was inspired by research on a related concept, Quality of Life (QOL), which as the literature shows, has faced the same conceptualization and definition challenges as QWL. Therefore, in the next section the focus is on the development of the concept and the various definitions that emerged over the years.

2.3 Origin and development of the concept quality of work life (QWL)

It would be an understatement to say that there has been and continues to be confusion about what QWL means (Nadler & Lawler, 1983). It has been used to refer to a wide range of concerns and projects, and it has been defined differently by its most articulate champions. Indeed, some of its staying power may be chalked up to its ambiguity as it can be and has been redefined as times have changed and as different people have used it.

The term QWL was first used in the late 1960s, originating with General Motors and the United Auto Workers, to describe workers' level of job satisfaction. Irving Bluestone coined the term QWL, which began as a variable expressing the level of worker satisfaction and development into an approach and series of programs designed ultimately to increase worker productivity (Goode, 1989). Labour management cooperation guided the development and implementation of these early QWL efforts, resulting in workplaces where employees participated in problem-solving and decision-making efforts to improve their work lives (Schalock & Begab, 1990). In addition, management attitudes become more concerned with the individual's welfare, stressing positive inter personal relationships and overall improved working conditions (Bowditch & Bruno, 1982; Goode, 1989).

In the mid 1970s, QWL was considered in light of specific changes and methods that could be instituted in companies not only to enhance bottom line productivity, but also to increase employee identification and a sense of belonging and pride in their work (Davis & Cherns, 1975; Sashkin & Burke, 1987). Examples of these approaches include work teams autonomous groups, job enrichment and sociotechnical change (Charland, 1986; Gadon, 1984). Such approaches can be very effective, but must not be seen as cure – calls that can be introduced and implemented in a "connect the dots" fashion. These types of programs are frequently what come to mind when pondering QWL (Schalock & Begab, 1990).

2.3.1 Quality of work life as an outcome

Some authorities place the actual beginning of the QWL movement at the British coal mines more than fifty years ago. During the fifties and sixties, QWL was mostly regarded as a variable which focused on outcomes, such as job satisfaction and mental health, with their emphasis on the impact of work on the individual. It has been suggested that organizations should be evaluated on the basis of how successful they were in providing QWL for their employees (Nadler & Lawler, 1983). Some researchers argue that the term QWL in the United States can be traced back to at least the late sixties (Kerce & Booth-Kewley, 1993) and/ or the early seventies (Ault, 1983; Skrovan, 1983, Kieran & Knuston, 1990). A series of national attitude surveys conducted at the University of Michigan in 1969 and 1973 helped draw attention to what was called the quality of employment or the sum total of the effects of job experiences on the individual (Nadler & Lawler, 1983).

According to Kieran and Knuston (1990) (Kotze, 2005), the term QWL originated with General Motors and United Auto Workers to describe levels of job satisfaction. The dominant theme of much QWL research was the assumption that individuals' experiences of satisfaction or dissatisfaction define the quality of their work life (Wilcock & Wright, 1991; Kerce & Booth-Kewley, 1993). Thus as an outcome, QWL is measured by assessing an individual's reaction to work or personal consequences of the work experience (Nadler & Lawler, 1983).

2.3.2 QWL as an approach and series of programs and methods

During the early seventies, many projects were launched in order to move labour and management toward cooperation in the improvement of QWL in the workplace. At the same time, there was interest on the part of the U.S. government, which led to such activities as the creation of a federal productivity commission and the sponsorship of a number of joint – labour QWL experiments. As a consequence of these projects, the term QWL became synonymous with certain approaches (Kotze, 2005).

A second definition of QWL emerged defining QWL as an approach, and focusing still on individual, rather than organizational outcomes. During this time, the improvement of QWL was often considered to proceed in two separate, but not mutually exclusive, directions. One direction concerned the alleviation or removal of negative aspects of work and working conditions to diminish fatigue, boredom, and psychological stress. The other direction concerned the modification of aspects of work and working conditions to enhance capabilities of job holders and to relate jobs to some desirable future, in order to promote behaviour deemed desirable or valuable for the individual and society (Kotze, 2005).

According to Kotze (2005), the aforementioned includes aspects such as increased productivity, improved personal initiative and growth potential, a more active social and community life, and greater capacity to cope with change. Changes in work and working conditions which may affect either or both aspects include modifying the content of jobs to provide tasks of increased interest, challenge, and job satisfaction as well as reduced conflict between the demands made on the individual at work and in other areas of life.

QWL was seen as the extent to which workers were able to satisfy important personal needs through their experiences within the organization, not only in terms of material matters, but also in terms of self-respect, contentment, an opportunity to use their talents, make a contribution, and for personal growth (Dessler, 1981).

Although QWL began as a variable focusing on the level of worker satisfaction, it developed during this period, into an approach and series of programs designed to increase worker productivity. Another definition of QWL emerged, namely QWL as a set of methods, approaches or technologies which improve the work environment in order to make it more productive and satisfying (Kerce & Booth-Kewley, 1993; Nadler & Lawler, 1983). Here QWL referred to methods which attempt to serve both individual needs and organizational effectiveness and was considered in the light of specific changes and methods that could be instituted in companies to enhance employee identification and a sense of belonging and a feeling of pride in their work.

QWL was regarded as synonymous with concepts such as autonomous work groups, job enrichment, work structuring, innovative reward systems, and the design of work systems as integrated social and technical systems. Brooks and Gawel (2001) state that efforts to understand the theoretical underpinnings of QWL can be traced back to sociotechnical systems (STS) theory. STS theory maintains that engaging employees fully in designing work gives them a sense of well-being as they find their work fulfilling. At the same time, it is productive in that it helps the organization reach its goals. This theory has emerged as a significant approach to designing organizations, especially at the technology and people interface. It recommends simultaneous modification of technical and social systems to create work designs that can lead both to greater task productivity and to increased fulfillment of organization members (Bachner & Bently, 1983). By the 1970s, Davis (Davis & Trist, 1974) used QWL to describe the work life of employees who worked in settings that used the STS approach in work design.

The above approach perceives QWL to have, at its core, two goals: (a) to humanize the work place and improve the quality of employees' work experiences, and (b) simultaneously, to improve the overall productivity of the organization (Kotze, 2005). The central thrust to this perspective is that organizational productivity can be served by providing people with the opportunity to use their human capacities, pursue self – improvement, and identify with the work place. QWL responds to both organizational needs and worker growth needs for improved work and working conditions. This dual purpose is less explicit in traditional job satisfaction endeavors.

According to Rubinstein (1983), these dual and at times apparently conflicting needs, are nevertheless interdependent. Management in a QWL style encourages attention to both, and seeks to involve workers themselves in the process of integration. Most QWL programs are thus based on the assumption that organizational survival and economic well-being relate directly to the dynamics of the 'total job environment' for people.

Corporate education programs, including training and development, are seen as an integral part of human resource management in firms recognized for their outstanding QWL (Kirby & Harter, 2001). Stein (1983) argues that the issue is not whether productivity and high QWL are realted, but rather to define the circumstances in which they can be increased. Cummings and Molloy (1977) propose four distinct strategies, which represent sets of beliefs and findings about the causes of productivity and QWL, namely, autonomous work groups, job restructuring, participative management, and organization-wide change.

Methods such as quality circles are used to provide a vehicle for unlocking the potential in participation. Quality circles also provide a vehicle for allowing workers a sense of dignity, a sense of fuller participation in the organization, and an opportunity to develop their skills. Concurrently, they contribute to the organizational goals of increased productivity, cost reduction, and improved quality. Although quality circles are not the only vehicles for these purposes, it is being increasingly recognized that it is important to establish some form of method to exist for these purpose. Other interventions include suggestion boxes, general opinion surveys, all-employee meetings, representative communication councils, and worker representation boards of directors (Stein, 1983).

Thus the motivation for improving QWL rests largely on the strategy aimed at improving the performance of employees, rather than on the strategy aimed at evaluating the work environment as experienced by workers (Nzimande, 1983). According to Kiernan and Knutson (1990), the most complex view of QWL is the social movement or overall commitment not just to the bottom line, the employee, or society, but to the interaction of the three. Definitions of what criteria are relevant

differ from the point of view of individuals, organizations, or society at large. Therefore QWL must be considered in light of the whole person if one is to understand and impact the QWL for an individual.

2.3.3 QWL as a movement

According to Nadler and Lawler (1983) (Kotze, 2005), QWL was regarded more as a movement instead of a specific program during the seventies. It was seen as a continuing process, not something with a beginning, a middle and an end, that could be turned on today and turned off tomorrow (Brooks & Gawel, 2001). The focus was on utilizing all of the organization's resources, especially its human resources, better than what was done yesterday and even better tomorrow, developing among all the members of an organization an awareness and understanding of the concerns and needs of others, and a willingness to be more responsive to those concerns and needs. Furthermore, Skrovan (1983) states that this perspective also includes improving the way things get done to assure the long-term effectiveness and success of organizations.

The terms participative management and industrial democracy were frequently employed to encompass the ideals of the QWL movement (Nadler & Lawler, 1983). Skrovan (1983) stated that the involvement and participation of employees in the creation of their work place was a central focus of every QWL process. Through this process, all members of the organization, through appropriate channels of communication set up for this purpose, have some say about the design of their jobs in particular and the work environment in general (Bachner & Bently, 1983). Thus QWL is defined as the process used by an organization to unlock the creative potential of its people by involving them in decisions affecting their work lives (Rubenstein, 1983).

Ellinger and Nissen (1987: 198) established the following definition of QWL after some discussion with five top management and five top union people of a large manufacturing facility in the USA: "Quality of Work Life is an environment based on mutual respect which supports and encourages individual participation and open

communication in matters which affect our jobs, our business, our futures and our feelings of self worth".

According to Rubenstein (1983), in order to accomplish this integration of organizational needs and worker growth needs through active employee participation, is vital to employees all facets of the organization so that their participation has a meaningful basis in the organization's mission. Since many workers have not been invited to contribute their knowledge and skills to the solution or organizational problems in the past, they are not practiced in the necessary skills (Kotze, 2005). Many need to be trained to participate effectively in group settings and to acquire skills for participatory problem solving. According to Kantsperger and Kuhnz (2005), systematic and regular training programs are expected to empower employees.

A method that can be used to unlock potential in worker participation is quality circles (Stein, 1983; Gerber, Nel & van Dyk, 1998). According to Ette, Pierce, Cannon and Daripaly (2005), the benefit of this approach is that it recognizes that individuals in the organization are one of the most valuable assets and attempts to tap the knowledge and insights of employees. Organizational change due to implementation of quality circles is a result of several aspects including fostering a change in employee attitude, development of individuals involved, creating a team spirit and positive working environment.

2.3.4 The role of unions in QWL

Among QWL theorists there exists a body of opinions that views trade union collaboration and endorsement of QWL efforts as critical for their success (Fuller, 2001; Maccoby, 1984; Bluestone, 1989). Thus, Maccoby (1984) concurred that QWL grew out of the collective bargaining process. It is therefore a commitment of management and union to support localized activities and experiments to increase employee participation in determining how to improve work. This process is guided by union – management committees and facilitators, and requires education about the goals of work and training in group process. The growth of QWL projects

requires a developing relationship between management and union built on mutual respect for institutional interests and values (Maccoby, 1984; Kotze, 2005).

According to Bluestone (1989), a QWL program cannot succeed unless the local parties develop a collective bargaining climate of mutual respect, a climate in which solving problems supersedes beating the other party down.

2.3.5 QWL as need fulfilment, employee well-being and work wellness

According to Kotze (2005) it seems that during the last decades there has been a tendency to focus research on QWL more from the perspective of the employee and the fulfillment of their needs. Although there is no formal definition of QWL, industrial psychologists and management scholars agree in general that QWL is a construct that deals with the well-being of employees and that QWL differs from job satisfaction (Sirgy, Efraty, Siegel & Lee, 2001).

Sirgy et al., (2001) states that there are two dominant theoretical approaches in the QWL literature, namely, need satisfaction and spillover. The need satisfaction approach to QWL is based on need-satisfaction models developed by Maslow (1954), McClelland (1961), Herzberg (1966) and Alderfer (1972). The basic tenet of this approach to QWL is that individuals have basic needs they seek to fulfill through work. Employees derive satisfaction from their jobs to the extent that their jobs meet these needs.

The spillover approach to QWL according to Sirgy et al. (2001) posits that satisfaction in one area of life may influence satisfaction in another. For example, satisfaction with one's job may influence other life domains such as family, leisure, social, health, financial, etcetera. There is horizontal and vertical spillover. Horizontal spillover is the influence of affect in one life domain on a neighbouring domain (e.g. job satisfaction, may influence feelings of satisfaction in the family life domain and vice versa). To understand the concept of vertical spillover, the notion of domain hierarchy must be understood. Life domains (job, family, leisure, community etcetera) are organized hierarchically in people's minds.

At the top of the domain hierarchy is the most superordinate domain, namely overall life. Feelings in this superordinate domain reflect what quality of life (QoL) researchers call life satisfaction, personal happiness or subjective well-being. Subordinate to the most superordinate life domain are major life domains such as family, job, leisure and community (Sirgy et al., 2001). Satisfaction/ dissatisfaction with each of these major life domains “spills over” to the most superordinate domain, thus affecting life satisfaction. For example, satisfaction in the job domain spills over vertically (bottom-up) affecting life satisfaction. This is vertical bottom – up spillover, which is different from vertical top-down spillover. The latter concept refers to the influence of life satisfaction on a particular life domain, namely, job satisfaction.

QWL differs from job satisfaction in that job satisfaction is construed as one of the many outcomes of QWL (Sirgy, et al., 2001). QWL does not only affect job satisfaction but also satisfaction in other life domains such as family life, leisure life, social life, financial life and so on. Therefore the focus of QWL is beyond job satisfaction. It involves the effect of the workplace on satisfaction with the job, satisfaction in non-work life domains and satisfaction with overall life, personal happiness and subjective well-being. Furthermore, Van Der Doef and Maes (1999) also regards job satisfaction as an outcome variable of QWL. Brooks and Gawel (2001) distinguish between job satisfaction and QWL by stating that conventional job satisfaction research focuses on the employee’s likes and dislikes, and sees the solution to problems as something for management to “fix”. QWL research on the other hand, focuses on the provision of opportunities for employees to make meaningful contributions to their organizations. According to Kerce and Booth-Kewley (1993), job satisfaction is a simple way of conceptualizing QWL. It does not, however, by itself reflect the impact of the work environment on employees. While survey-based research on job satisfaction has found that workers are generally satisfied with their jobs, researchers using the case study have frequently found that workers are angry, unhappy, and bored.

2.3.6 Work/life balance and QWL

Balancing one's life has become a prominent topic in society over the past decade or so. Just keeping up with life seems to be challenging for many individuals. Part of the reason for this challenge is that people are working longer hours than ever before (Bailey, 2006). However, longer working hours and working more days per year are not the only issues. The demographics of work and family have changed substantially with more single parent and dual-career couples in the workforce (Bailey, 2006).

In work/life literature the concept of work/ life is often coupled with the word "balance" (Bailyn, 2001; Williams, 2000). Work/life is commonly referred to as work and life or work and family to represent the dichotomy of these two areas of a person's life. However, researchers in the field of work/ life often struggle with the term balance because it implies an equal distribution of work and life causing individuals to struggle with the idea that there should be an equal division between these two aspects of their lives (Ward, 2003). Instead, the terms integration or weaving is more appropriate. It is important to realize that work is a meaningful and necessary part of life for most people, not to be separated from life as in the notion work/ life (Rapport, Bailyn, Fletcher & Pruitt, 2002). It is not an either/ or and not everyone wants to give equal weight to work and personal life (Rapport et al., 2002). Therefore it is helpful to approach work/ life from an integrated perspective.

Men and women should be able to experience work and personal lives, not in conflict or as separate, but as integrated. To foster this integrated perception, it is important to view work and personal life as interdependent, equally valued activities (Bailyn, Drago & Kochan, 2001). Jackson (2002) approaches integrating work and personal life by examining home and personal lives to see how work can be blended into them. Jackson's (2002) research examines work/ life in diverse ways including integration, redefining home to integrate work, and breaking up or changing the workday to take time for personal activities.

Others agree that work/ life is an approach to changing the ways individuals work to that allows time for personal lives. The concept of work/ life balance has also become more apparent in literature relating to QWL (Kotze, 2005). Greenhaus, Collins and Shaw (2003) define work-family balance as the extent to which an individual is equally engaged in and equally satisfied with his work role and family role. The above-mentioned authors state that work-family balance is generally thought to promote well-being. Imbalance, in particular, work imbalance, arouses high levels of stress, detracts from quality of life and ultimately reduces individual's effectiveness at work.

According to Kotze (2005) work-family balance enhances an individual's QWL, as involvement in multiple roles protects or buffers individuals from the effects of negative experiences in any one role. Beyond this buffering effect, work-family balance is thought to promote well-being in a more direct manner. Balanced individuals experience low levels of stress when enacting roles, presumably as they are participating in role activities that are salient to them.

2.4 Definitions of quality of work life

Various authors include a description of the ideal definition of QWL. Although not all authors define QWL precisely, in most cases one can make an accurate deduction. Herewith, follows a few definitions, which will be referred to in the literature.

The first definition that emerged during the period 1959 to 1972 was QWL as a variable or outcome. Many authors working in this area saw QWL as an individual's reaction to work or the personal consequences of the work experience.

During the period 1969 to 1975, a second definition of QWL as an approach emerged. The focus of this definition was on the individual rather than organizational outcomes, and at the same time QWL tended to be seen as meaning joint labour-management cooperative projects, particularly those aimed at improving outcomes for both the individual and the organization.

A third definition emerged from 1972 to 1975 from a number of projects that were initiated during this period, namely QWL as methods. Individuals using this definition reffered to QWL as a set of methods, approaches or technologies for enhancing the work environment, and for making it both more productive and more satisfying. In fact QWL was seen as synonymous with such concepts as autonomous work groups, job enrichment or the design of new plants as integrated social and technical systems.

The late 1970s (1975 to 1980) was a period during which interest in QWL activity decreased. Many authors felt that interest in the subject had waned with the onslaught of economic problems and the energy crisis. During this time, a number of individuals were concerned about maintaining the momentum that had been created and they decided to identify a coalition of interests that would support the contribution of QWL activities. Organizations were formed to further the ideology of QWL. Out of these activities emerged the fourth definition of QWL as a movement. QWL was seen as more of an ideological statement about the nature of work and the worker's relationship to the organization. The terms participative management and industrial democracy were frequently invoked as ideals of the QWL movement. According to Boisvert (1977), QWL is a set of beneficial consequences of working life for the individual, the organization and society.

The late 1970s and early 1980s (1979 to 1982) brought renewed interest in QWL. It was during this time that the fifth definition appeared. This definition was referred to as QWL equals everything. All organizational development or organizational effectiveness efforts became labeled as part and parcel of QWL. QWL was seen as a global concept and was frequently perceived as a panacea for cooperating with foreign competition, grievance problems and almost everything else. The definition of Carlson (1980) takes a resolutely organizational point of view. Carlson (1980) emphasizes the dynamism of QWL and describes it as a process experiencing constant change. Carlson (1980) refers to QWL as both a goal and an ongoing process for achieving that goal. As a goal, QWL is the commitment of any organization to work improvement: the creation of more involving, satisfying, and effective jobs, and work environments for individuals at all levels of the organization.

As a process, QWL, calls for efforts to realize this goal through the active involvement of individuals throughout the organization.

Furthermore Nadler and Lawler (1983), defines QWL as a way of thinking about people, work, and organizations. Its distinctive elements are (1) a concern about the impact of work on people as well as on organizational effectiveness, and (2) the idea of participation in organizational problem solving and decision - making. Although this approach adequately integrates the three QWL constituents, its main weakness lies in attempting to define a complex subjective construct by means of an equally complex and subjective notion, that is, a way of thinking.

According to Skrovan (1983), QWL is a process of work organizations, which enables its members at all levels to actively participate in shaping the organization's environment, methods and outcomes. This value-based process is aimed towards meeting the twin goals of enhanced effectiveness of the organization and improved quality of life at the work of employees.

During the 1990's emphasis was on the subjective nature of QWL to the point of making it a concept specific to each individual. Nevertheless, this theoretical approach has the advantage of taking into account the advantage of the dynamic nature of QWL. Therefore, Kieran and Knuston (1990) define QWL as an individual's interpretation of his/her role in the workplace and the interaction of that role with the expectations of others. The QWL is individually determined, designed and evaluated. QWL means something different to each individual, and is likely to vary according to the individual's age, career stage, and/or position in the industry. Kerce & Booth-Kewley (1993) further add that QWL is a way of thinking about people, work and the organization.

Another definition that emerged during the last decade was QWL as a need fulfillment. Sirgy, Efraty, Siegal and Lee (2001), define QWL as employee satisfaction with a variety of needs through resources, activities, and outcomes stemming from participation in the workplace. This definition returns to the concept of satisfaction as an underlying theoretical model. It suggests that 30 years after the

concept first appeared, QWL is still being defined in terms of satisfaction. In addition to the above-mentioned definitions, Danna and Griffin (1999), view QWL as a hierarchy of concepts that includes life satisfaction (top of the hierarchy), job satisfaction (middle of the hierarchy) and work specific facet satisfaction such as satisfaction with pay, co-workers, supervisor, among others.

Maccoby (2001) defines QWL as a commitment of management and union to support localized activities and experiments to increase employee participation in determining how to improve work. This process is guided by union-management committees and facilitators, and requires education about the goals of work in training and group process.

Lau, Wang, Chan and Law (2001) opertationlized QWL as the favourable working environment that supports and promotes satisfaction by providing employees with rewards, job security and career growth opportunities. Indirectly the definition indicates that an individual who is not satisfied with reward, may be satisfied with job security and to some extent would create the career opportunity provided by the organization for the their personal as well as their professional growth.

The recent definition by Serey (2006) on QWL is quite conclusive and best meets the contemporary work environment. The definition is related to meaningful and satisfying work. It includes (1) an opportunity to exercise one's talents and capacities, to face challenges and situations that require independence and initiative and self-direction, (2) an activity thought to be worthwhile by the individuals involved, (3) and activity in which one understands the role the individual plays in the achievement of some overall goals and (4) a sense of taking pride in what one is doing and in doing it well. The issue of meaningful and satisfying work is often merged with discussions of job satisfaction, and are believed to be more favourable to QWL. This study focused on the above definition.

Rethinam and Ismail (2008) define QWL as the effectiveness of the work environment that transmit to the meaningful organization and personal needs in shaping the values of employees that support and promote better health and wellbeing, job security, job satisfaction, competency development and balance between work and non work life.

The difficulty of defining QWL represents a sizable obstacle to the further development of research in this field. Up to now, critique concerns primarily the difficulty of operationalizing any definition that represents a significant theoretical advance. If this criticism is justified, an examination of recent work on QWL should confirm the difficulty of creating a link between the state of theoretical knowledge of QWL and its application in research (Martel & DuPuis, 2006).

This review on the definitions of QWL indicates that QWL is a multi-dimensional construct, made up of a number of interrelated factors that need careful consideration to conceptualize and measure. It is associated with job satisfaction, job involvement, motivation, productivity, health, safety and wellbeing, job security, competence development and balance between work and non work life.

To sum up, the changes in the theoretical concept of QWL over some three decades have followed a fairly linear trajectory. Initially rigid and objective, the construct became progressively more subjective, dynamic and systemic. Despite all the work, many points are still subject to debate, including the need to develop a clear operational definition of the construct, while taking the progress and consensus achieved to date into account (Martel & DuPuis, 2006).

After drifting along on the prevailing conceptual wave during the 1970s, QWL became subject to a certain consensus during the next decade, based on the work of authors such as Nadler and Lawler (1983), Seashore (1975), Sashkin and Burke (1987) and others.

In the beginning, QWL was synonymous with employability rate, job security, earnings and benefits (Elizur & Shye, 1990). This listing of objective criteria soon gave way to job satisfaction as the target assessment criterion. Despite this shift to a more subjective construct, some researchers, such as Lawler (1975), remained convinced of the need for objective criteria to measure QWL. This contradiction between the theoretical way of thinking of the construct and the means to measure it is exacerbated by the different meanings given to QWL based on an individual (subjective criteria) or organizational (objective criteria) point of view (Walton, 1975).

The definitions of QWL most frequently quoted during the 1980s reveal a marked trend towards accepting the subjectivity of the construct. In his description of a QWL model as a dynamic process, Carlson (1980) defines QWL as an organizational goal, which the business is perpetually striving to achieve. Moreover, still from the organizational point of view, this author considers QWL as a philosophy which, even though it varies with organizations, brings them together under a common denominator: human dignity. Despite the many definitions of QWL, there are also different models that are related to QWL.

2.5 Different models that relates to QWL

In this section the different models that relates to QWL, namely, the integration model, the transfer model (or spillover effect), the compensation model, the segmentation model and the accommodation model, will be discussed.

2.5.1 The Integration model

As early as 1975, Seashore conceptualized QWL as being based on three levels of actors involved in the work environment, that is, the employee, the company and the community. This approach differs from the concept of QWL that had hereto been reserved for employees at the bottom of the pyramid. According to this model, the domains constituting QWL differ from the perspective of the employee, the company and the community, which contributes to the confusion surrounding the construct (Sashkin & Burke, 1987).

Ten years later, the concern for integration initiated by Seashore (1975) resurface, this time with a more holistic view of the role of the three structures involved. This integrative perspective considered QWL as a social movement with repercussions that extend beyond the strictly organizational framework (Kiernan & Knutson, 1990). Moreover, many authors have noted that workers are becoming better educated and that they now consider work as a tool for personal growth and social support rather than merely a means of achieving financial independence (Kerce & Booth-Kewley, 1993). QWL therefore becomes an integral part of people's overall quality of life (QOL). Kiernan and Knutson (1990) consider this model of QWL to be the most complex and the most contemporary developed to date.

2.5.2 The Transfer model (or Spillover Effect)

Job satisfaction affects other areas of life and vice versa (George & Brief, 1990). Kavanagh and Halpern (1977), Schmitt and Bedian (1982) and Kornhauser (1965) conclude that there is a positive correlation between work and areas of life outside of work. However, Staines (1980) adds certain nuances to this observation. Following an in-depth analysis of the research, he concludes that only certain spheres of work life are positively correlated with other spheres outside work. In support of this hypothesis, Rousseau (1978) claims that the transfer model does not apply to all kinds of jobs. Jobs with extreme characteristics (prolonged solitude, oppressive physical requirements, etc.) fit better with the compensation model.

For their part, Leiter and Durup (1996) add that the spillover effect between job satisfaction and personal life may be either direct or indirect. A direct effect can be observed when an objective condition of either one's working or personal life (change of workplace, arrival of a new baby, etc.) influences the environment without the individual's subjective perception being involved. An indirect effect results from the individual's perception of an objective condition as creating either stress or satisfaction.

2.5.3 The Compensation model

The compensation model assumes that when a person is not satisfied at work, they will try to correct this situation through stimulating activities outside work (Rosseau, 1978; Schmitt & Bedian, 1982; Schmitt & Mellon, 1980; Staines, 1980). Staines' (1980) analysis tends to confirm the compensation model in certain circumstances and shows that certain spheres of work life correlate negatively with areas outside work. For example, workers who have physically demanding jobs generally tend to seek out non-tiring leisure activities so that they can recuperate better.

The main criticism the various authors have concerning the compensation model is that, taken to the limit, this model predicts an inverse relation between job satisfaction and satisfaction outside work (Martel & DuPuis, 2006).

2.5.4 The Segmentation model

This model assumes that life at work and life outside work does not influence each other (Georges & Brief, 1990). Foucher, Savoie and Brunet (2003) add that the state that characterizes a person who makes this kind of segmentation may be qualified as psychological disengagement: in the face of the life or work domain that is divested.

Martin and Schermerhon (1983) in their stressor-health path analysis model, identified a similar relationship between job and life satisfaction. Martin and Schermerhon (1983) projected that a clear separation of job and life dimensions creates balance, whereas a spillover of work-related feelings detrimentally affects life satisfaction. Edwards and Rothbard (2000) described the uniqueness of work and nonwork demands and wrote that an active role is often required to maintain a separation between roles. The model developed by Martin and Schermerhon (1983) stressed the importance of boundary creation between these two roles in order to maintain equilibrium. Leakages can develop between role boundaries as responsibilities in one area spill over to others. When workers are unable to maintain balanced, separate role responsibilities between work and family, the likelihood for

conflict between the two role areas increases. Research shows that spillover and stress can adversely affect mental health (Edwards & Rothbard, 2000).

2.5.5 The Accommodation model

The Accommodation model consists of voluntarily reducing one's investment in one sphere of activity in order to more adequately respond to the demands of another (Lambert, 1990). This way of reconciling work life and life outside work is particularly common among mothers of young children. However, considering the importance recently given to "work life – family life" conciliation, this model will probably be suitable for more and more categories of workers, either men or women.

Loscocco and Roschelle (1991) mention that neither of the first three models described above have been universally accepted. Loscocco and Roschelle (1991) emphasize that the most solid support for any of the models comes from Schmitt and Bedian (1982), who confirm the existence of a relationship between job satisfaction and life satisfaction. However, the results that Staines (1980) and Rosseau (1978) present qualify the adoption of any of the models and suggest that they should be applied based on the spheres and jobs studied.

Along the same lines, Elizur and Shye (1990) attempted to define the relationship between general QOL and QWL. In their efforts to clarify the situation, these researchers formulated a conceptual system in the shape of a cone, with QOL at the base of the cone and QWL at the apex.

Their results show that, in this model, job satisfaction, life satisfaction and perceived quality of work performance are located between the extremities of the cone. The authors interpret these results as follows: quality of work performance is affected by both QOL and QWL. Thus, to evaluate the total impact of the role of work for an individual, it is important to consider the work aspects likely to influence their life away from work. Consequently for these authors, an activity designed to increase QWL or general QOL may improve performance at work.

Apart from defining QWL, some scholars have operationalized the concept (Walton, 1973; Orpen 1981; Taylor, 1978). One of the first scholars to do so was Walton (1973), and emerging from his research was a number of determinants or components of QWL. Walton (1973) remains arguably the most comprehensive attempt to operationalize the concept, and attempts that have followed have mostly drawn from his endeavours and hence bear similarities. Orpen (1981) is an example of these authors who clearly adopted and extended Walton's (1973) criteria for the QWL, and Taylor (1978) whose investigations into the underlying structure of QWL revealed similarities to Walton's categories.

From the above-mentioned, it is evident that there are a number of models that relate to QWL. Therefore, for the purpose of this study emphasis will be placed on the spill- over model since the model does not only capture need satisfaction, per se, but also employees' perceptions of organizational sources of need satisfaction stemming from the work environment, job requirements, supervisory behaviour and ancillary programs. Managers can administer this measure to employees through a confidential and anonymous survey, and the survey results should reveal strategic gaps in the organization's work environment, job requirements, supervisory behaviour and ancillary programs.

2.6 Determinants/ dimensions of QWL

An examination of what is involved in psychological growth, of what it is that distinguishes this condition from others, leads one to a consideration of the so-called dimensions or determinants of QWL. In effect, what is being proposed is a set of yardsticks which could be used to assess QWL. It should be clear that these determinants or dimensions must both include those that have been set down by each of the previous reform movements as well as the more recent ones concerned with job satisfaction, namely effective performance, mental health and psychological growth.

In the this section the focus will be on the determinants/ dimensions of QWL namely, adequate and fair compensation, safe and healthy working conditions, immediate opportunity to use and develop human capacities, future opportunity for continued growth and security, social integration in the work, constitutionalism in the work organization, work and total life space and the social relevance of work life.

2.6.1 Adequate and fair compensation

According to Schreuder and Theron (1997) and Walton (1973) the fundamental driving force behind work is to earn a living. It is therefore plausible that QWL is affected by the extent to which this goal is achieved (Walton, 1973). Similarly, Nirenberg (1993) cites Walton's QWL determinant of adequate and fair compensation as a factor to consider when wishing to operationalize QWL programs. Both the factors of adequate and fair compensation are therefore considered important determinants of QWL. Difficulties are however experienced in terms of assessing what constitutes adequate compensation. This difficulty stems from the relativity of the concept in that the work situation and the particular employee concerned largely influence its operational definition (Orpen, 1981; Walton, 1973). Operationally defining 'fairness' in compensation is less challenging and at least three ways exist to determine fairness in compensation.

Fairness can be determined through job evaluation measures such as job ranking, job classification and by factor comparison (Schuler, 1998). These measures assist in assessing the relationship between compensation and factors such as training that is required, job responsibility, intricacy of decision-making and harmfulness of working conditions (Orpen, 1981; Walton, 1973).

Concomitantly, various techniques are available to determine the supply and demand for particular skills and competencies, and for establishing average levels of compensation for these various categories, thus enabling the implementation of fair compensation levels (Schuler, 1998). Furthermore, benchmarks can be used to determine what proportions of profits should be distributed to employees in different occupations and across different categories within these occupations (Orpen, 1981; Walton, 1973).

Stein (1983) and Reid (1992) have also recognized the importance of compensation in determining QWL. Stein (1983) identified pay as being one of five important components of QWL, although its categorical classification is somewhat different to Orpen (1981) and Walton (1973). Stein includes pay under the category of external rewards, which in addition to pay includes promotion or position, and rank or status. Reid (1992) who evaluated the QWL of clothing workers confirmed Walton's (1973) proposition that compensation does indeed play a critical role in determining QWL, although the employees within the study did not experience fairness and adequacy of compensation. Results of the study indicated low levels of QWL, which confirms the importance of compensation 'adequacy' and 'fairness' in influencing QWL. Finally, additional support is provided by Newell (2002) who whilst not alluding specifically to compensation, emphasizes the importance of reward systems that take cognizance of both individual and group contribution.

2.6.2 Safe and healthy working conditions

It is widely accepted that employees should not be exposed to working conditions that can adversely affect their physical and mental health (Orpen, 1981). Consequently, the results of employer concern, union action, and legislation have promoted favourable working conditions through focus on noise, illumination, workspace, accident avoidance as well as the implementation of reasonable work hours and age limits for potential employees (Orpen, 1981; Walton, 1973).

Like Walton (1973) and Orpen (1981), (Newell, (2002); Stein, (1983); Kerce & Booth-Kewley, (1993); Bertrand, (1992) and Harrison (2000), agree that safe and healthy work conditions have a significant impact on QWL. Newell (2002) highlights that QWL involves making improvements to the physical working conditions under which employees operate in order to make their work setting more favourable.

Stein (1983) suggests that whilst sometimes overlooked it is almost impossible to experience QWL without decent working conditions. Concomitantly, Kerce & Booth-Kewly (1993) suggest that a high QWL is likely to occur when amongst other factors such as job involvement and democratic supervision and a safe working environment

is experienced. Harrison (2000) focusing upon the measurement of QWL suggests that by asking employees their opinions surrounding their satisfaction or dissatisfaction with their work environment, can lead to an increased sense of belonging to the organization and in conjunction with other employee-centered areas can lead to an overall perception of QWL.

The trouble with both compensation and working conditions is that, while in themselves they are very capable of removing feelings of job dissatisfaction, they are seldom able to arouse strong feelings of satisfaction (Orpen, 1981). For most, but clearly not for all, employees in contemporary western society, fair compensation and good working conditions function mainly as hygiene factors (Herzberg, 1959).

The above point demonstrates that even if compensation and working conditions are excellent, one may still have a long way to go before the situation is such that one can speak of it as leading to the psychological well-being of employees (Orpen, 1981). Despite working conditions that are excellent and pay that is very good, employees may feel that their needs for personal growth cannot be properly gratified in the work situation. Because they regard their work as restrictive and stultifying their experiences in the job may be the opposite of those characterized by the phrase, psychological well– being. Moreover, if they felt that these needs could be met, employees may lack the necessary ability and job knowledge to really perform effectively and may suffer feelings of inadequacy as a result, neither of which are conductive to a state of psychological well-being. Hence, while the provision of excellent working conditions may be necessary for a high QWL, it is clearly insufficient by itself (Orpen, 1981).

2.6.3 Immediate opportunity to use and develop human capacities

Walton (1973) asserts that experiencing a high QWL is dependent upon the extent to which jobs allow the employee to use and develop his/ her skills and competencies. In light of the above - mentioned, jobs should contain a number of features that would allow employees the opportunity to use and develop their human capacities and eventually experience QWL. These features include autonomy, skill variety, task significance and feedback, meaningfulness and wholeness. Orpen (1981) agrees

with the importance of these features in determining QWL, yet locates their significance as contributing to personal growth, another of Walton (1973) determinants. A distinction in terms of the classification of the determinants of QWL is therefore witnessed.

The feature of skill variety allows employees the opportunity to use and develop their human capacities through exercise of their competencies, skills and abilities rather than the reception of limited, narrow skills (Orpen, 1981; Walton, 1973). Oomens, Geurts and Scheepers (2007) found that people suffer more from mental illness when they have demanding jobs, experience higher job pressure and lower skill variety. The structural approach suggested by Herman and Hulin (1972) and Loscocco (1990) hints at the necessity of jobs to contain variety. Stein (1983) refers to the component of progress and development which implies that the development of skills and competencies are an important contributing factor for QWL to be high. Hackman and Oldham (1980) proposed that jobs which require the use of multiple talents are experienced as more meaningful and therefore more intrinsically motivating than jobs that require only the use of one or two types of skills. Pinder (1984) and Ramlall (2004) pointed out that the inclusion of task variety as an element of job design is consistent with the concept of growth need satisfaction, as well as with more psychological approaches taken by activation theory. It is not consistent, however, with Herzberg's approach, which refers to the simple addition of tasks as horizontal job loading or as job enlargement.

2.6.4 Future opportunity for continued growth and security

According to this determinant of QWL, the emphasis is shifted from job to career advancement (Walton, 1973). Although Orpen's (1981) research reflects a degree of overlap between this determinant and the previous one, similarly what he categorized as 'opportunity for personal growth' includes focus upon the opportunities that are provided for employees to advance in their careers. This also relates to the idea of professional learning as a means for career development or succession possibilities (Bertrand, 1992).

Meaningful and satisfying work is said to include: (1) an opportunity to exercise one's talents and capacities, to face challenges and situations that require independent initiative and self-direction (and which therefore is not boring and repetitive work); (2) an activity thought to be of worth by the individual involved; (3) work which one understands the role one's activity plays in the achievement of some overall goal; and (4) pride in what one is doing and in doing it well. This issue of meaningful and satisfying work is often merged with discussions of job satisfaction, however, Rose, Beh, Uli and Idris (2006) believed this favorable estimate to QWL instead.

There are three distinctive elements of QWL related interventions: (1) a concern about the effect of work on people as well as organizational effectiveness, (2) the idea of worker participation in organizational problem - solving and decision - making and (3) the creation of reward structures in the workplace which consider innovative ways of rewarding employee input into the work process such as gain sharing. In the 1980s, emphasis was increasingly placed on employee centered productivity programs. In the mid 1990s till today, many organizations are faced with challenges of downsizing and corporate restructuring.

Most people want to improve their performance on the job, to receive constructive suggestions regarding areas they need to work on and to be commended on their job well done. Thus, employees during their career will like to experience growth and development, a sense of where one is going in one's work life. QWL encompasses the career development practices used within the organization such as placing clear expectations on employees on their expectations and succession plans.

Careers arise from the interaction of individuals with organizations and society. Careers are not primarily a theoretical construct, but are used in meaningful ways given meaning it creates meaning and also experience. Careers are typically defined as a sequence of work roles (Morrison & Holzbach, 1980) or a sequence of a person's work experiences over time (Arthur, Hall & Lawrence, 1989).

Many career models propose that individuals may view their career differently depending on which age-related career stage they are (Judge, Cable, Boudreau & Bretz, 1995; Veiga, 1983). In particular, researchers have observed that in early stages of their careers, individuals are often willing to sacrifice their personal lives in the interests of their career progression. Research also suggests that career tenure and total tenure in one's occupation are positively related to career achievement (Judge & Bretz, 1994).

Thus, having occupational tenure and international experience will positively predict career success. The level of accomplishment in their job and career should affect career achievement. Considerable research also supports the relationship between the number of hours worked per week and salary and ascendancy (Judge & Bretz, 1994) meaning that the desire to spend time at work predicts career achievement. Cox and Cooper (1989) in trying to discover the motivation behind successful executives' long work hours, found that these executives enjoyed working long hours. It was found that ambition or the desire to get ahead was one of the best predictors of advancement in their study of American Telegraphic & Transfer (AT & T) managers. A positive relationship between ambition and career achievement has been found in several other studies of managers and executives (Cannings & Monmarquette, 1991).

2.6.5 Social interaction in the work organization

According to Walton (1973) and Orpen (1981), the importance of social interaction is another determinant of QWL. Five factors, namely, supportiveness, tolerance, equality, mobility and identification are considered essential for these interactions to have beneficial outcomes for individuals.

Supportiveness relates to the nature of relationships between team members, which should be characterized by socio-emotional assistance, respect for individuality, reciprocity, trust, openness and honesty (Orpen, 1981; Walton, 1973). According to Bertrand (1992) the idea of supportiveness should also be demonstrated within supervisory relationships which should be both helpful and caring in nature. Some

researchers have included supervisor support as an important determinant/ dimension of QWL. Another form of social support that is referred to in the literature is social support colleague. The above-mentioned types of support will be discussed in much detail later.

2.6.6 Constitutionalism in the work organization

Besides the above dimensions or determinants that help to define what constitutes QWL, there are another set that are frequently overlooked by industrial psychologists, since they are essentially of a legal nature, and are concerned not so much with how people behave but rather with what rights they should enjoy, whether they exercise them or not. The criteria to be proposed are essentially concerned with the extent to which work organizations, acting either in response to trade union pressure or on their own initiatives, have set up formal procedures to protect the individual worker from arbitrary and capricious actions by employers (Orpen, 1981).

According to Bell (1974), Friedman (1961) and Hill (1971) only if the work organization ensures that the following so-called rights of individuals are officially respected can the quality of life be high. The following are some of the workers' rights that should be noted in the work place.

The first is privacy, which refers to the right of individuals to personal privacy. The fact that they are entitled to expect that things they consider part of their private lives are not divulged to others without their permission (Orpen, 1981).

Furthermore, Orpen (1981) includes equity which is the right of the individual to equitable treatment in all matters of the importance on the job, such as compensation, status, security and advancement. Free speech is another right which includes the right of the individual to disagree openly with the ideas and opinions of their superiors in the organization without fear of reprisal or subsequent victimization (Orpen, 1981).

Another right includes due process which refers to the right of individuals to be governed by the rule of law rather than by the arbitrary and capricious actions of particular individuals, with established procedures to prevent them suffering unfairly at the hands of others. It entails that all people in the organization, from the lowest to the highest level, should have the same access to appeals and to due process procedures.

The last right according to Orpen (1981) is equality which refers to the right of individuals not to be penalized as of their membership of any particular group or class. It implies that all individuals are entitled to expect to be treated in the same way as others, irrespective of the sex, race, religion or social class.

2.6.7 Work and total life space

The above-mentioned refers to the extent to which there is a balanced role of work in the employee's other life spheres. This concept of a balanced role encompasses work, schedules, career demands, and travel requirements that do not continually take up leisure and family time and advancement and promotion that do not require repeated geographical moves (Walton, 1973).

According to Orpen (1981) there is a wealth of evidence which points to the fact that an individual's non-work experiences can have positive or negative effects on his or her non-working life, such as how he or she spends his or her leisure time and what sort of relations he or she has with family members. The importance of this point for the concept of quality of life is that work organizations, by virtue of this kind of 'spill-over effect, influence an individual's life of the job.

2.6.8 The social relevance of work life

According to Walton (1973), organizations which do not act in a socially responsible manner are suggested to cause increasing numbers of their employees to depreciate the value of their work and careers that, in turn, will affect their self – esteem. It is obvious therefore that QWL is affected by all facets of the employee's functioning in the organization. Effective utilization of an employee and his or her satisfaction in the

job are essential if a high QWL is to be maintained in an organization. As a consequence, work organizations whose actions are seen to have beneficial consequences receive more acclaim and are accorded more prestige than those whose actions are felt to have injurious or harmful consequences (Orpen, 1981).

According to Knez-Riedl, Matjaz Mulej and Dyck (2006) the concept of corporate social responsibility (CSR) is not new. But the era of globalization and the so-called new economy demand that companies comprehend all the different problems of their employees and their partners in their social and business environments, and work with them in solving broader societal problems. These include producing and implementing innovative ideas in order to contribute to a higher QWL in the originating community. Business behavior must be aimed at meeting societal needs, generating revenues and profits, creating jobs, and investing in the future company development as well as its societal and business environments. Corporate social responsibility is being put on stage anew by certain European Union Documents, such as the “Green Paper on Promoting a European Framework for Corporate Social Responsibility” (EU, 2001, p. 366) and the “EU Strategy for Sustainable Development,” launched in 2001. From the viewpoint of the firm, working along these lines provides several economic benefits, including a responsible corporate image, increased sales, improved customer loyalty (Knez-Riedl, Matjaz Mulej & Dyck, 2006).

Socially responsible behavior, then, includes a broad array of actions such as behaving ethically, supporting the work of nonprofit organizations, treating employees fairly, and minimizing damage to the environment (Mohr & Webb, 2005). In practical terms, both scientific evidence (Margolis & Walsh, 2003) and consumer reaction (McWilliams and Siegel, 2001) have signaled to firms that their participation in CSR is likely to be rewarded, resulting in improved performance. CSR participation can enhance various stakeholder relations (McWilliams & Siegel, 2001), thereby reducing a firm’s business risk (Boutin – Dufresne & Savaria, 2004). For these reasons, the strategic value of CSR is becoming increasingly recognized (Porter & Kramer, 2002; Saiia, 2002)

The importance of this aspect of organizational life derives from the fact that employees who feel their organization is acting in a socially responsible manner, in terms of such things as its products and services, will tend to value their work and careers more highly as a result, which in turn is likely to enhance the self-esteem and well-being (Orpen, 1981).

Conversely, organizations which are seen to be acting in a socially irresponsible manner in the above-mentioned respects will cause increasing numbers of their members to depreciate the value of their work and careers, with negative consequences for their self-esteem and well-being. What this means for the individual work organization set on improving the quality of life of its members is that it must ensure that its various actions are seen by its own members to be socially responsible in the broadest sense. To do this requires that the work organization at least know what actions its various members regard as socially responsible and irresponsible, in terms of the conceptions of what constitutes quality of life in general (Orpen, 1981).

2.6.9 Recognition for achievement

Recognition for achievement is defined by Kotze (2008) as the recognition for achievements by management, colleagues, subordinates and clients. Closely related to task significance is feedback. Feedback refers to the necessity of organizations to speedily provide employees with information and accurate knowledge regarding their performance and its wider organizational impact (Orpen, 1981; Walton, 1973). Hackman and Oldham (1979) suggested that feedback is a critical factor in reducing absenteeism, and employee turnover. Further, feedback is effective in delivering the personal and behavioural outcome variables.

Constructive *feedback* not only helps employees do their work more effectively but also improves communication between supervisors and employees. When specific and accurate information is provided in a constructive way, both employees and supervisors can improve or change their performance. All employees who perform well should receive frequent praise and encouragement, whereas those who are not performing at the expected level should be informed of any problems and coached

on how to improve. Appraising employees of good performance helps maintain their motivation and signals them to continue in this direction (Hackman & Oldham, 1980). Communicating with employees in a positive manner when they need to improve their performance will help prevent work problems and minimize surprises during the performance review. For example, performance feedback may mitigate the positive relationship between work–home interference and exhaustion, because adequate feedback reduces the tendency to worry at home about work-related issues (Bakker, Demerouti & Euwema, 2005).

2.6.10 Meaningfulness and significance of work

Meaningfulness according to Orpen, (1981) relates to the fact that the duties and tasks that define a particular job, should make sense to the person who has to perform that job, in that he feels that doing the job well or poorly will make a difference to himself and to others in the organization. Research on meaningful work has increased in recent years (Chalofsky, 2003; Dolet, 2003) and the growing interest in the academic field parallels with the interest and concern in the world of work.

Meaning according to Chalofsky (2003) is found to be more deeply intrinsic than values and suggests that it amounts to three levels of satisfaction, namely, extrinsic, intrinsic and something even deeper. Csikszeentmihalyi (1990) in his attempt to define meaning, proposes that any definition of the term would undoubtedly be circular, indicating a three sphere approach including purpose, the intentions one holds and clarifying the term in context. Thomas (2000), highlighting the role of meaningfulness identifies the four critical intrinsic reward motivators as a sense of meaning and purpose, a sense of choice, a sense of competence and a sense of progress.

According to Chalofsky (2003) meaning and work may present an even greater challenge to define and purports that meaning at work implies that there is a relationships between the individual and the organization in terms of commitment, loyalty and dedication. Furthermore, Chalofsky (2003) advocates that meaning in work, also termed meaningful work, is the way one expresses the meaning and

purpose of one's life through work activities although work is just one area of an individual's life. In essence, meaningful work is that which gives real substance to what one does, which brings a sense of fulfillment to one's life and contributes significantly to one's purpose in life. Chalofsky (2003) identifies three themes which determine meaningful work, namely, a sense of self, the work itself, and the sense of balance which overlap and intertwine and are reflected in the term integrated wholeness or meaningful work.

Therefore according to Grady and McCarthy (2008) meaningful work is influenced by an inclusiveness of all the aspects of one's life beyond that of paid employment which can lead to an integrated wholeness for the individual. However to attain a state of meaningful work, it is critical that no one sphere is so dominant that it adversely impacts the value gained from the other spheres. In conclusion, meaningful work is not just about the paid work that one does, but about the manner in which one lives one life, incorporating one's values and principles and doing so with honesty.

According to Wrezesniewski, Dutton and Debebe (2003), the meaning people make of their work is tied to their attitudes about the work they do and their overall well-being. It is evident that research regarding meaningful work has increased in recent years (Chalofsky, 2003; Dolet, 2003) and the growing interest in the academic field parallels with the interest and concern in the world of work (Grady & McCarthy, 2008).

Task routinization in particular, has demonstrated strong negative relationships with overall job satisfaction, as routine tasks generally reflect a high degree of repetitiveness in the job and therefore fail to generate enthusiasm in employees (Iverson & Maguire, 2000). Furthermore Farh, Podsakoff and Organ (1990) suggested that task characteristics may influence helpful behaviours by creating a sense of responsibility and rendering work more psychologically meaningful or satisfying. Thus enhanced satisfaction and enjoyment in the task could foster a sense of helpful behavior in employees by enabling them to appreciate the overall importance of the job in relationship to the global functioning of the organization, thus supporting the earlier work of Hackman and Oldham (1976, 1980).

The job characteristics model of Hackman and Oldham (1980) also predicts that jobs higher in skill variety, task identity, task significance, autonomy and feedback will create a greater experience of meaning, responsibility and knowledge of results. Increases in these latter three variables, the critical psychological states, are in turn predicted to result in greater job satisfaction, higher internal work motivation, better work performance, lower level of absence and labour turnover.

Hackman and Oldham (1976) stated that when an individual understands that the results of his work may have a significant effect on his well-being the meaningfulness of that work is usually enhanced. Thus, employees who maintain commercial aircraft may perceive their work as more meaningful than employees who repair small engines. Furthermore, Hackman and Oldham (1980) have looked at job meaning in terms of skill variety applied to the job, the level of control employees have over completion of the task (task identity), and the impact of the job on others (task significance). The meaning that is inferred from these job elements involves the overall value or worth of the job in organizational context. In fact, job design researchers have argued that people implicitly seek to understand the meaningfulness of their work in terms of whether it is broadly worthwhile and valuable (Wrezesniewski, Dutton & Debebe, 2003).

Hakanen (2004) stated that having a good Sense of Coherence (SOC) has been found to be positively related to well-being and negatively related to stress and burnout. Furthermore, although the research findings are still not conclusive there is evidence that SOC may (1) directly be associated with health and (2) mediate the effects of working conditions on health and (3) moderate the relationship between perceived work characteristics and health (Hakanen, 2004).

According to Antonovsky (1987) sense of coherence (SOC) is crucial to the prevention of ill-health and the maintenance of good health. SOC consists of three components, namely, comprehensiveness, manageability and meaningfulness. Comprehensiveness refers to characteristics as to how people perceive external events (e.g. what happens to them or around them at work), and how they interpret them. Manageability is the expectation that an individual has adequate resources available to cope with the variety of demands.

Meaningfulness is more related to emotions and motivation about work, the value an individual gives to a work goal or purpose, in relation to one's own ideals and standards. The lack of meaningfulness can lead to alienation or disengagement from work (Antonovsky, 1987).

Furthermore, management-related conditions of work that are linked with negative health include lack of control, autonomy, influence, participation or decision latitude (Dryer & Quine, 1998; Glass & McKnight, 1996), lack of supervisor support (Dolan et al., 1992), lack of perceived organizational and general support (Eisenberger, Jones, Aselage & Sucharski, 2004) and subjective unemployment as well as lack of skill utilization.

2.6.11 Work load/ pressures and work

Nordqvist, Hovmark and Zika-Viktorsson (2004) found that deadlines and time pressures are important regulators for how work is planned and practiced. Deadlines regulate and help structure the work through the breakdown of projects into interim goals, different courses of action and time anchoring. Activities and tasks are given a certain time frame, and the existence of a deadline motivates workers to start working on the task. The motivation intensifies as the deadline approaches and the workers increase their activity when they feel the time pressure because of a forthcoming deadline. Absence of time pressure can lead to attention straying to activities outside the task or to indifference (Gevers, Van Eerde & Rutte, 2001).

Van Eerd (2002) also mentioned that having high levels of time pressure can endanger the loss of enthusiasm and an ability to act high levels of time pressure produce stress, which in turn lead to passivity and avoidance may occur. This can have negative effects on workers' health and performance. Previous research emphasizes the importance of having a clear direction that specifies workers' purpose and orientates them towards its objectives. A well formulated and established goal enhances motivation and improves effectiveness (Nordqvist, Hovmark & Zika-Viktorsson, 2004).

Further, Waller, Conte, Gibson and Carpenter, (2001) stated that more common are situations in which workers are expected to achieve high levels of performance under extreme time pressure. In general, time pressure has a number of different consequences. At the individual level, time pressure leads to (1) faster performance rates, (2) lower performance quality and (3) more heuristic information processing, meaning, people stop considering multiple alternatives, engage in shallow rather than thorough and systematic processing of information and refrain from critical probing of a given seemingly adequate solution or judgement (De Dreu, 2003; Durham, Locke, Poon & McLoed, 2000; Kelly & Loving, 2004). Under high time pressure workers see task completion as their main objective and complete the task as quickly as possible, but at the sacrifice of quality (Van der Kleij, Lijkwn, Rasker & De Dreu, 2008).

2.6.12 Autonomy and control

The feature of autonomy suggests that a job should be designed in such a manner that it affords the employee a degree of independence and discretion in terms of how the job is carried out (Orpen, 1981). Stein (1983) too emphasizes the importance of autonomy or control and defines it as the ability to influence one's working environment. Similarly, Newell (2002) suggests that QWL involves providing employees with greater responsibility and autonomy. In addition, Kerce & Booth-Kewley (1993) reflect upon the work of Herman and Hulin (1972) and Loscocco (1990) who point towards various situations and or structural factors, entitled the structural approach, within a job that affect QWL. A job that lacks autonomy will result in low QWL.

Different empirical results and theories about occupational stress have regarded job *autonomy* to be crucial for the health of employees, mainly because greater autonomy is associated with more opportunities to cope with stressful situations (see Jenkins, 1991; Karasek, 1998). Several studies with the Demand Control Model (DCM) have indeed confirmed that autonomy may act as a buffer against the influence of job demands (work overload, time pressure; Van der Doef & Maes, 1999).

According to Karasek and Theorell (1990) healthy work conditions may be obtained by organizational reconstruction emphasizing opportunities for taking responsibility through participative decision-making. Decision authority, skill discretion and learning opportunities may be mutually reinforcing aspects of work (Mikkelsen, Saksvik, Eriksen & Ursin, 1999). An ideal work environment would facilitate an active approach towards learning new behavior patterns or solving problems. In this type of environment, demands may be seen as challenges and opportunities for growth and learning rather than as burdens. According to the active learning hypothesis (Karasek & Theorell, 1990), most learning should take place in demanding and challenging situations and especially when the individual is able to exercise his or her decision-making capabilities. Given sufficient decision authority the individual is then free to choose the best way to cope with a new problem. The new behaviour response, if effective, is more likely to be stored (learned) and incorporated in the repertoire of coping strategies.

In the demand-control model, decision authority and learning opportunity are part of the control concept, and the relationship between demands, control and social support is emphasized. The conceptual relationship between decision authority and learning opportunities may be illustrated by a two-by-two model (see figure 2.1).

Learning opportunities

Decision authority	Low	High
	Cell 1 Lack of challenges/ boredom	Cell 2 Own control over the learning process/ future orientation
	Cell 3 Routine work/ loss of skill	Cell 4 Management control over the learning process/ Instruction

Low

High

Figure 2.1 An illustration of the relationship between decision authority and learning opportunities in a workplace situation (Mikkelsen, Saksvik, Eriksen & Ursin, 1999).

High levels of decision authority and high levels of learning opportunities make an individual feel that he or she has control over the learning process (Cell 2, figure 2.1). Low levels of decision authority and low levels of learning opportunities (Cell 3, figure 2.1) should result in a work situation characterized by routine work, low task variety and no influences on how and when to do the job. In situations with high learning opportunities and low levels of decision authority (Cell 4, figure 2.1), the employees are trained, but there is still management control over the learning process. Finally, when decision authority is high, and the opportunities to learn are low (Cell 1, figure 2.1), the situation may be characterized by a lack of challenge and boredom as a possible consequence. Referring to the conceptualization in the above figure, the least amount of health problems are expected when people have high levels of decision authority and learning opportunities (Cell 2) and the highest

amount of problems when they have low decision authority and low learning opportunities (Cell 3) (Mikkelsen, Saksvik, Eriksen & Ursin, 1999).

Decision authority refers to the freedom of decision – making over one's work (Van Der Doef & Maes, 1999). Health depends not only on the work load, but also on whether an individual feels that he or she is in control of the situation. When this is the case, health may be preserved even in difficult and even taxing situations (Levine & Ursin, 1991). In a monograph on healthy work, Karasek and Theorell (1990) formulated the relationship between these two factors in their demand-control model. Their control concept also referred to as decision latitude, consists of the authority to make decisions (decision authority) and the opportunities to use skills that the individual has acquired (skill discretion).

2.6.13 Identification with and enjoyment of work

Task significance relates to whether or not an employee is encouraged to seek and receive holistic information about all job aspects so as to allow for both the divulging and appreciation of the significance of the job within the broader organization (Walton, 1973). This is where the employee may perceive his/her work as significant and thus may contribute to the satisfaction of esteem needs (Ramlall, 2004).

The continuing acquisition of knowledge is usually regarded as essential for psychological growth. Growth comes from exposure to unfamiliar and novel experiences, in the work situation and beyond, which are absorbed into the fabric of an individual's personality (Orpen, 1981). Need satisfaction models contend that work should be challenging and require workers to use skills and knowledge if they are to be motivated (Lee-Ross, 2002). If jobs are unskilled and easily accomplished, it is likely that employees will become bored and frustrated. This situation will give rise to job dissatisfaction unless job elements are changed in a positive way (Lee-Ross, 2002).

Internally motivated work behaviour may only develop if critical psychological states exist among employees (Hackman & Oldham, 1980). Core job dimensions must be present to create these psychological states. Experienced meaningfulness of work is enhanced primarily by skill variety, task identity and task significance. Experienced responsibility for work outcomes is linked to the presence of autonomy in a job. Knowledge of results is increased when a job elicits a high level of feedback (Hackman & Oldham, 1980).

Therefore, according to the Job Characteristics Model (JCM), positive outcomes are the result of all three psychological states being engendered in the job incumbent, due to a job containing a necessary amount of core job dimensions. However, individual attributes determine how positively a worker will respond to a complex and challenging job. This is known as a worker's growth need strength and according to Hackman and Oldham (1980), moderates relationships between variables specified by the model. An individual who has a strong desire for accomplishment and growth should respond positively, but an incumbent who has a low need for accomplishment or growth may feel intimidated and consequently may not respond favourably (Lee-Ross, 2002).

2.6.14 Creativity and innovation

Another essential characteristic of genuine psychological growth according to Orpen (1981) and Amabile (1988) is the provision of something new or novel, at least for the person concerned. Ideas are novel when they are unique to other ideas currently available in the organization (Shalley, Zhou & Oldham, 2004) and they are useful when they have potential for direct or indirect value to the organization either in the short or long term. It is important that the acquisition and absorbing of knowledge be done in such a way that it leads to creativity, in the sense of the person possessing something different from what he did earlier. That which is created in this way need not, and rarely is, something of significance or importance for mankind in general. The important things are merely that, the process leads to the creation of something novel or new to the individual, and originates from within the person himself.

Creativity is an important topic in management research (Shalley et. al., 2004). Researchers defined creativity as the generation of new and useful products, practices, services or products. Creativity is the prerequisite for an organization's innovation, effectiveness and long-term survival and an organization's adjustment to shifting environmental conditions and to take advantage of emerging opportunities (Oldham, 2002; Shalley et. al., 2004).

As creativity and proactivity are closely related behaviours (Unsworth & Parker, 2003) and as individuals can gain positive self-regard, a feeling of competence and a sense of independence by solving work problems in a creative way, creativity can be regarded as one form of active mental health (Warr, 1987, 1994).

Accordingly, researchers and organizations should be highly interested in identifying the factors that foster employees' creativity in order to directly stimulate an organization's effectiveness and promote employee's active mental health (Binnewies, Ohly & Niessen, 2008).

2.6.15 Skill discretion

The feature of skill variety allows employees the opportunity to use and develop their human capacities through exercise of their competencies, skills and abilities rather than the reception of limited, narrow skills (Orpen, 1981; Walton, 1973). The structural approach suggested by Herman and Hulin (1972) and Loscocco (1990) hints towards the necessity of jobs to contain variety. Stein (1983) refers to the component of progress and development which implies that the development of skills and competencies are an important contributing factor for QWL to be high. Hackman and Oldham (1980) proposed that jobs which require the use of multiple talents are experienced as more meaningful and therefore more intrinsically motivating than jobs that require only the use of one or two types of skills. Pinder (1984) and Ramlall (2004) pointed out that the inclusion of task variety as an element of job design is consistent with the concept of growth need satisfaction, as well as with more psychological approaches taken by activation theory. It is not consistent, however, with Herzberg's approach, which refers to the simple addition of tasks as horizontal job loading or as job enlargement.

2.6.16 Task control

According to Moen, Kelly and Huang (2008) occupational health literature have recognized the importance of employees' degree of control over how they do their jobs and how they manage their multiple responsibilities. In the classic job strain model, job control describes latitude or autonomy regarding how work is done using different skills and knowledge. It does not attend to control over when and where work is done. While job control is especially important for workers facing high job demands (Karasek & Theorell, 1990), work – time control may matter to workers with high family and or job demands, enabling employees to alter their work schedules in response to exigencies at home or at work.

Previous studies have shown that both high demands and low control at work endanger the work-home balance and increase the likelihood of work-family conflict. High job demands, such as quantitative workload among medical residents (Geurts, Rutte, & Peeters, 1999) and long working hours among private sector employees have been associated with work-home interference. Psychological demands (based on the JDC model) have been found to be associated with negative work-home interference both in European and American samples. In the 14-day daily diary study by Butler, Grzywacz, Bass and Linney (2005), too many demands at work were associated with work-family conflict, whereas greater job control was associated with less work-family conflict. Other studies also show that job control increases the conflict between work and family life (Grzywacz & Marks, 2000; Thomas & Ganster, 1995).

Barnett and Brennan's (1995) measure of schedule control consisted of respondents' assessments as to whether schedule control is a valued reward or concern for them. Fenwick and Tausig (2001) found schedule control to be a stronger predictor of well-being than shift type, with schedule control serving as a mediator of shift type.

2.6.17 Work and time pressure

Research into work and overload has received substantial empirical attention. French and Caplan (1974) have differentiated overload in terms of quantitative and qualitative overload. Quantitative refers to having “too much to do”, while qualitative means work is too difficult. Miller (1960) has theorized, and Terryberry (1968) has found that overload in most systems leads to breakdown, whether one is dealing with single biological cells or individuals in organizations. French and Caplan (1970) found that objective quantitative overload was strongly linked to cigarette smoking, an important risk factor or symptom of coronary heart disease.

Persons with more phone calls, office visits and meetings per given unit of work time were found to smoke significantly more cigarettes than persons with fewer such engagements. In a study of 100 young coronary patients, Russek and Zohman (1958) found that 25 percent had been working at two jobs and an additional 45 percent had worked at jobs which required, due to work overload, 60 or more hours per week.

A positive association between nursing staff participation in continuing education activities and ratings of work satisfaction has been reported (Sung, Chang & Tsai, 2005). In a study of nurse self-assessed competence, Tzeng (2004) suggested that opportunities for learning would contribute to organizational commitment among nursing staff. Several studies have found that staff competence is not in agreement with work tasks (Brulin, Winkvist & Langendoen, 2000). In addition competence development at work (Alaby, 2005) and training in new tasks is often limited. Insufficient competence regarding work tasks has been shown to be a source of strain and stress for nursing personnel (Morgan, Semchuk, Stewart & D’Arcy, 2002).

Furthermore, Brulin et al., (2000) and Morgan et al., (2002) have reported that heavier workloads have lead to increased time pressure among nursing staff, resulting in higher stress levels. In a study by Shaver and Lacy (2003), registered nurses and practical nurses’ perceptions of higher patient loads were inversely related to work satisfaction. Karsh, Bookse and Sainfort (2005) found positive staff

perceptions of their work environment and low pressure were significantly related to great satisfaction and work commitment.

According to Engwall and Jerbrant (2003) sharing time between several work tasks at an individual level may result in a perception of work as disrupted and fragmented, in elevated levels of time pressure and fewer opportunities for recuperation between periods of intense and strenuous work.

Other negative consequences of sharing time between many work tasks are decreased competence development and less improvement in work routines (Zika-Viktorsson, 2002). Switching from one task to another can result in a considerable amount of set - up time. On the other hand, there are also indications that multiple work task settings can provide for increased learning and rich work content (Noboeka, 1995; Lindkvist, 2001).

From a health perspective, it is of importance to have enough time to recuperate between work tasks or intensive periods of work. Time pressure in general must not be intrinsically regarded as detrimental to health. However, previous research in other areas has shown that there is a relationship between tenure, on the one hand and high level of time pressure and health problems on the other (Karasek & Theorell, 1990).

Professional competence and skills are constantly developed and shaped in daily work. Although it is an obvious necessity in many companies to keep up with the changing demands for competence, previous research has shown that opportunities for competence development can be impaired in a multi task setting (Zika-Viktorsson, 2002). In such settings, there is an obvious risk that time for long term development and training is not sufficiently prioritized in relation to short term task delivery. At the same time, it may be difficult to obtain time to reflect over and analyze daily work in a manner that generates new insights, knowledge and professional skills (Zika-Viktorsson, Sundström & Engwall, 2006).

2.6.18 Role ambiguity

Role ambiguity refers to not knowing what one's tasks are and also not knowing what is expected from oneself (Van Der Doef & Maes, 1999; Kleynhans, Markham, Meyer & Van Aswegen (2006).This may lead to stress when the individual does not do certain tasks as the employer expects or when he or she does tasks that are part of another person's job. All of the above-mentioned will then result in low QWL. In addition, pressure demands via role ambiguity were found to cause a significant increase in systolic blood pressure (Pollard, 2001).

According to Diedieff and Rubin (2007) roles in organizations are generally defined as the patterns of behaviours that are perceived by organizational members to be expected or required. More definitively, work roles encompass the expectations pertaining to the perceived responsibilities or requirements associated with enacting specific jobs. Enactment of work roles can vary greatly across individuals, even those within similar jobs. Broadly speaking, the clarity with which individuals perceive their work roles has been linked to several important organizational outcomes, including job performance, organizational commitment and job satisfaction (Tubre & Collins, 2000).

Work role ambiguity may result from unclear articulations of expected role activities, performance contingencies and work methods. A logical extension is that increased ambiguity is very likely to impact on perceptions of the specific requirements necessary for successfully enacting one's work role (Diedieff & Rubin, 2007). Tubre and Collins (2000) found that a condition of high ambiguity is associated with a lack of knowledge regarding what role activities are critical to the job. Therefore an ambiguous role would make it more difficult for an individual to judge exactly what is important or central to his or her job, and how often he or she may perform a particular activity (Diedieff & Rubin, 2007).

Khan, Wolfe, Quinn, Snoek and Rosenthal (1964) found in their study that men who suffered from role ambiguity experienced lower job satisfaction, higher job related tension, greater futility and lower self-confidence. French and Caplan (1970) found that at one of NASA's bases, in a sample of 205 volunteer engineers, scientists and

administrators, that role ambiguity was significantly related to low job satisfaction and to feelings of job-related threat to one's mental and physical well-being. This also related to indicators of physical strain such as increased blood pressure and pulse rate. Furthermore Mongolis, Kroes and Quinn (1974) also found a number of significant relationships between symptoms or indicators of physical and mental ill – health with role ambiguity in their representative national sample.

These indicators related to role ambiguity were depressed mood, lowered self-esteem, life dissatisfaction, low motivation to work and intention to leave the job. Today, workers are being required to perform multiple tasks, learn new skills and self-manage in order to meet the competitive demands of the modern job. According to Kendall, Murphy, O' Neill and Burnsnall (2000) this has lead to jobs that are more fluid (Cooper, Dewe and O' Driscoll, 2001), possibly exacerbating role ambiguity and role conflict and leading in turn to work stress and illness (Dunnette, 1998).

More recently, Li and Bagger (2008) stated that role ambiguity reduces the quality of the information that can be used to make an accurate assessment of one's ability to perform a task. According to the social cognitive theory (Bandura, 1977), to have a high self-efficacy, a person must be able to visualize effective performance in a given situation. While role ambiguity is high, the ability to visualize one's performance is impaired, thereby reducing one's confidence in his or her ability to perform effectively (Li & Bagger, 2008).

According to Khan et al. (1964), the relationship between role ambiguity and its related variables tend to be moderated by three broad categories of variables, namely, organizational, interpersonal and personality processes. A potential moderator, namely goal orientation has also been discovered (Khan et.al., 1964).

VandeWalle, Cron and Slocum, (2001) suggested that there are two different dispositional goal orientations, namely, performance goal and learning goal orientation Performance – orientated individuals tend to conceive their ability as a fixed entity. As such, they seek to prove their competence on a task. Learning-oriented individuals, however, tend to view their abilities as malleable. For this reason, they tend to focus on improving their task performance.

Previous research has shown that individuals tend to view a challenging situation as an opportunity to advance their abilities. Instead of withdrawing themselves from the challenge, they confront it head-on, becoming intrinsically involved in the task, developing effective task strategies, expending additional effort and intensifying their attention on task related activities (Elliot & Thrash, 2002; Van Yperen & Janssen, 2002). These arguments suggest that learning-oriented individuals may proactively scout for information that can be used to reduce role ambiguity.

Even if they fail to perform adequately as a result of role ambiguity, they draw on these experiences to enhance their abilities. These characteristics enable them to remain resilient and see the positive side even in a dire situation, as well as allow them to acquire the competence to overcome role ambiguity and to perform effectively at work (Li & Bagger, 2008).

Therefore according to Hall (2008) a lack of role clarity is likely to make individuals believe they are helpless and thus reduce the impact they have in their work area. In contrast, individuals who understand their work roles are more likely to take actions and decisions that influence decisions and results in their work area. Prior research results suggest that higher levels of role ambiguity are related to lower levels of psychological empowerment (Hall, 2008).

2.6.19 Physical exertion

Physical exertion refers to the extent that one's work requires physical effort (Van Der Doef & Maes, 1999). Numerous studies over several decades have shown the role of heavy exertion – from snow shoveling to recreational exercise – in triggering sudden myocardial events and the protective role of regular exercise in mitigating them (Fine & Rosenstock, 2001).

This paradox that regular exertion is good even though an episode may trigger an adverse event is not a reason to dismiss these findings, but it should call for caution. According to Rosenstock and Olsen (2007), relative measures of association may be high because the incidence rate in the risk period (emergency situations) is high or because the incidence rate in the reference period (non emergency situations) is low

or both. Firefighters enter the workforce particularly healthy, but they do not necessarily maintain that attribute over time (Rosenstock & Olsen, 2007).

Firefighting is a high-hazard job, and the work is at times extremely physically demanding. It involves heavy lifting and maneuvering in sometimes awkward and unstable positions while wearing heavy clothing and protective gear in a hot environment (Bogucki & Rabinowitz, 2005). Firefighters have episodic exposure to extreme levels of physical exertion, and they face occupational hazards that may add to or amplify their risk of death due to cardiovascular causes. These hazards include chemicals (carbon monoxide, fine particular matter, and other cardiac toxins) and thermal and emotional stress. Moreover, although there has been improvement over time in respiratory protection during active fire suppression, such protection may be abandoned during overhaul (the period immediately after fire suppression), when exposure to fine particulate matter and other toxic chemicals may be particular high (Burgess, Nanson & Bolstad-Johnson, 2005).

Nursing work is physically demanding, requiring heaving lifting, bending and twisting and other awkward postures that are implicated in musculoskeletal disorders (MSD) (Trinkoff, Lipscomb, Geiger-Brown, Storr & Brady, 2003; Mentzel, Brooks, Bernard & Nelson, 2004). Physical demands increase the odds of injury (Fredrikson, Alfredsson, Ahlberg, Josephson, Kilbom, Wigaeus-Hhjelm, Wiktorin & Vingard, 2002; Punnett, Gold, Katz, Gore & Wegman, 2004) due to creation of compression, rotation, and sheer forces that exceed body tolerances (Hoozenmans, van der Beek, Frings-Dresen, van der Woude & van Dijk, 2002). Psychological job demands can amplify the effects of physical exertion (Ariens, Bongers, Hoogendoom, Van der Wal & Van Mechelen, 2002; Davis, Marras, Heany, Waters & Gupta, 2002; Devereux, Vlachonikolis & Buckle, 2002).

Because extended work schedules increase exposure to job demands, while limiting rest and recovery time, such extended hours may result in increased MSD (Jansen, Kant, van Amelsvoort, Nijhuis & van den Brandt, 2003). Engkvist, Hjelm, Hagberg, Menckel and Ekenvall (2000) found that Swedish nurses working full time were at increased risk of back injury. Engels, Van der Gulden, Senden and Van't Hof, 1996)

found that back and leg symptoms were positively associated with hours worked per week by nursing home staff, and Lipscomb et al. (2002) found that MSD was related to extended work hours, especially off-shift and weekend hours.

2.6.20 Hazardous exposure

Hazardous exposure refers to the extent that one is being exposed to dangerous tools, equipment and machinery (Van Der Doef & Maes, 1999). For hazardous substances to have a toxic effect on the body they must first pass across a functional barrier separating the environment from the internal organs (Cherrie, Semple, Christopher, Saleem, Hughson & Phillips, 2006). The common routes of entry into the body are inhalation with the barrier being lung surface, dermal absorption with the stratum corneum as the barrier and ingestion with the wall of the gastrointestinal tract as the barrier (Dinman & Dinman, 2000). In occupational settings inhalation exposure is most often singled out as the most important route in terms of potential toxicity, followed by dermal contact with chemicals and then ingestion. The basics approach to protect workers is either to eliminate the use of the material or to control exposure to a level where the risk is acceptably small, where the maximum exposure level that is considered acceptable is usually defined by an Occupational Exposure Limit (OEL) (Cherrie, 2009).

Work-related ingestion of hazardous substances may occur in one of four ways: (1) clearance of inhaled aerosols deposited within the ciliated airways of the lung, (2) ingestion of contaminated food or beverages, (3) transfer of contamination by hand-to-mouth or object-to-mouth contact and (4) by direct deposition of contaminants around the mouth and into the oral cavity. In the first case, the amount of contamination available for ingestion can be estimated by sampling the airborne extra-thoracic size fraction, that is, the coarsest part of the inhalable aerosol. In the second case the assessment of exposure is relatively straightforward because the consumption of food is purposeful and predictable, so exposure can be assessed by measuring the amount of chemical contamination in the food and the quantity of food consumed (Cherrie et al., 2006).

In occupational settings, metals are one of the few categories of materials where the ingestion route has received some attention. For example, removal of lead paint has the potential to cause significant ingestion exposure via hand-to-mouth contact and food contamination (Sen, Wolfson & Dilworth, 2002; Enander, Cohen & Gute, 2004).The effect of transfer by hand-to- mouth contact while eating in the workplace is exemplified in a comparative study between Chinese and Malay workers in a lead battery production plant. The increased lead in blood levels in the Malay workers was attributed to their cultural tendency to eat food using their hands (Hwanf & Chen, 2000).

Pesticides and other pharmacologically active agents are widely used and most are absorbed through the gut to a greater or lesser extent. The dangers of accidental ingestion of pesticides, is well known, and steps to prevent accidental ingestion of larger quantities of pesticides are well described in official precautionary advice (DEFRA, 2004).

Furthermore, there are three main groups of workers who are at significantly increased risk of work-related disease from ingestion of micro-organisms, namely, agricultural workers dealing with animals, health care workers and laboratory workers handling pathogenic agents. The main occupational infections amongst agricultural workers are zoonoses, where the causative agents may be viral, bacterial, fungal, protozoan or parasitic (Cherrie et al., 2006).

Laboratory, health care and health-related workers are at risk of a number of infectious agents, including mycobacterium tuberculosis, human-immunodeficiency virus (HIV) and hepatitis B virus but most of these are not spread by ingestion. The main issue in the health care sector is infection control, that is, transmission of infection from staff to patient or from patient to patient (Cherrie et al., 2006).

2.6.21 Job insecurity

Job insecurity refers to uncertainty about one's job (Van Der Doef & Maes, 1999). Accoridng to Sverke, Hellgren and Naswall (2006) many organizations have strived for functional and numerical flexibility which resulted in demands for new types of skills as well as changes in employment contracts. Most notably, organizations showed increased interest in employing workers on the basis of short or fixed term contracts rather than employing workers on the basis of implicit long-term contracts (Sverke, Gallagher & Hellgren, 2000). Furthermore, survivors of downsizing have to do more with less resources, increased work load and uncertainty regarding task performance is likely to be prevalent. As a result of the above-mentioned changes, job insecurity has emerged as one of the most important issues in contemporary work life (Sverke, Hellgren & Naswall, 2006).

In order for one to further understand the phenomenon of job insecurity, it is paramount to consider studies investigating potential antecedents of job insecurity. Sverke, Hellgren and Naswall (2006) further added that job insecurity experiences, regardless of whether they are qualitative or quantitative, arise from an interaction between situational characteristics and characteristics of the individual that influence the interpretation the individual makes of environmental factors

Age is one of the demographic factors that may affect the interpretation of cues in the environment as posing a threat of job loss. Adults in their 30s and 40s, are in the age bracket whose members are likely to be responsible for raising children and may, in connection with such circumstances, tend to experience the possibility of job loss more negatively than persons who are only responsible for their own sustenance (De Witte, 1999). Studies conducted by (Mohr, 2000; Naswall & De Witte, 2003) reported evidence that older employees may experience higher levels of job insecurity. This may be attributed to the fact that it is be more difficult for older employees to find new employment. Gender may too play a role in how a person prepares for different occurrences throughout life. Rosenblatt , Talmud and Ruvio (1999) found that men tend to report higher levels of job insecurity than women. This has been explained by the suggestion that traditional values may prompt men to

experience higher levels of job insecurity than women, since this role traditionally requires the man to be the breadwinner of the family. Accoring to De Witte (1999) men would then tend to be more vulnerable to the threat of job loss, as it would not only threaten their source of income, but also their identity, to a higher degree than it would for women.

According to Sverke, Hellgren, Naswall, Chirumbolo, De Witte and Goslinga (2004) there are also certain personality dispositions which related to experiences of job insecurity. Persons with a predominantly external locus of control are more likely to report higher levels of job insecurity (Sverke et. al., 2004). Socioeconomic status is another factor that may influence an individual's experience of a situation and result in the interpretation that the job is being threatened. Level of education the individual has and type of work (manual vs. non manual) are also related to socioeconomic status. Low status jobs are often also associated with lower levels of education, resulting in fewer coping resources and strategies. Naswall and De Witte (2003) have reported that blue-collar workers report higher levels of job insecurity than other worker categories

Sverke, Hellgren and Naswaal (2006) added that experiences of uncertainty concerning one's future employment are likely to have severe consequences for an employee's overall life situation in that economic and other highly valued aspects of life will be perceived as threatened. Furthermore Schabracq and Cooper (2000) reported that the individual's evaluation of work is also shaped by a strong desire for stability and losing the job would mean losing this structure and stability as well. The individuals will be frustrated and experience stress due to the fact that they feel these important features of life are threatened, and are uncertain as to how to protect them.

The aspects of uncertainty and ambiguity are two of the most prominent features of job insecurity. Lazarus and Folkman (1984) added not knowing how to counteract the threat to something valued will lead to stress experience. The experience of uncertainty concerning the future of employment prohibits the individual to cope with

the threat adequately and diminishes the opportunities for reducing the level of stress experienced.

Spector (2000) further stated that stress experiences are accompanied by stress reactions, which may be described as somatic, psychological and behavioural. Consistent with this, job insecurity has been associated with several different health-related, attitudinal and behavioural outcomes (Sverke et al., 2006).

Regarding health-related consequences, numerous studies have documented that job insecurity is negatively related to employee well-being. Physical health complaints, mental diseases, and work-to-leisure carry-over tend to increase with the level of job insecurity experienced. The majority of studies that have investigated the relationship between well-being and job insecurity are based on self-reported health data, but there is also evidence indicating that insecurity is related to health indicators that are more physiological or biological in nature (Lindstrom, Lieno, Seitsamo & Torstila, 1997).

Mohr (2000) added reported that subjective job insecurity is both more strongly and more often related to mental health complaints as compared to the more physical and biological markers of health. However, the radical change from a traditionally secure working environment to a rapidly changing and insecure one could be expected to have an impact not only on the well- being of the individuals, but also on their work attitudes and behaviour, and in the long run, for the vitality of the organization (Sverke et al., 2006).

2.6.22 Social support supervisor

Social support supervisor refers to the support that is provided by one's supervisor (Van Der Doef & Maes, 1999). Some researchers have included supervisor support as an important determinant/ dimension of QWL. Boumans, Landeweerd and Visser (2004) mentioned the importance of social support from the supervisor. In a logistic analysis of 42 Texas dialysis facilities, Wai Chai Tai and Robinson (1998) found the impact of less supervisor support on turnover (Gellis & Chun Kim, 2004). Moore and

Mellor (2003) studying 201 hospital nurses found that support from supervisors contribute to nurses' health. According to Michie and Williams (2003) poor social support as well as long hours of work, work overload and other extrinsic factors are associated with psychological ill health.

Hawkins and Shohet (2000) also stated that a good supervisor can also help one to use one's resources better, manage one's workload and challenge inappropriate patterned ways of coping. Spence, Wilson, Kavanagh, Strong and Worrel (2001) maintain that the personal support aspect of supervision aims to optimize motivation, morale, commitment, and to minimize work – related stress, burnout and mental health problems of the employee. Scaife and Walsh (2001) also support the inclusion of this as a legitimate focus of supervision, describing how supervision can provide an opportunity for dealing with the effects of organizational climate and professional relationships.

Bakker, Demerouti, and Euwema (2005) found that social support at work is also a potential buffer against job stress, hence providing protection from pathological consequences of stressful experiences. In a study of higher education employees, Bakker et al. (2005) showed that the combination of high demands and low job resources in the workplace significantly added to the risk of burnout. Furthermore, work overload, emotional demands, physical demands, and work – home interference did not result in high levels of burnout if employees experienced autonomy, received feedback, had social support, or had a high quality relationship with their supervisor. These authors postulated that the aspects of the high-quality supervisor relationships provided important instrumental help and emotional support.

Behson (2005) found that men and women seem to differ with respect to the sources from which they receive social support, both nevertheless seem to experience social support to be effective in reducing work-family conflict. It appears that social support reduces work-family conflict either directly or through altering the impact of stressors that lead to work-family conflict, such as role conflict and role ambiguity. Van Daalen, Willemsen and Sanders (2006) found that social support from the work domain reduced work-family conflict through its impact on work role conflict, work time demands and work role ambiguity. Social support from the home domain reduced

the severity of family role conflict, family time demands and family role ambiguity. Thomas and Ganster (1995) found that support from the supervisor reduced work-family conflict directly, as well as indirectly, through the increased sense of control over areas of work and family.

Thompson, Kirk and Brown (2005) found that social support has consistently been shown to relate to increased well-being, with support for both buffering and direct effect models. Support from within the work environment impacts on employee well-being and reduces work-related outcomes for employees such as stress, mental health and job dissatisfaction. Potentially then, work-based support from supervisors and co-workers may ameliorate some of the negative effects of stress. In a study of 92 women police officers with partners and children, supervisor support was the only source of work-based support which impacted on emotional exhaustion.

2.6.23 Social support colleagues

Social support colleagues refer to instrumental and emotional support provided by colleagues (Van Der Doef & Maes, 1999). According to Jenkins and Elliot (2004) support can be emotional, such as the action of caring or listening sympathetically, or instrumental, involving tangible assistance such as help with a work task. High levels of support have been associated with low levels of burnout in a number of mental health nursing studies (Kilfedder, Power & Wells, 2001).

Two models have been proposed to explain the mechanism by which social support may have a beneficial effect on health outcomes such as burnout. According to the “main effects” model, social support is beneficial to well-being, regardless of the level of stressors to which individuals are exposed, by meeting important human needs for security, social contact, approval, belonging and affection. In contrast, the “buffering” hypothesis proposes that social support moderates the effects of stressors. Relationships between stressors and burnout will be stronger for people with low levels of support than for those with high levels (Kilfedder, Power & Wells, 2001).

Social support is a straightforward resource in that it is functional in achieving work goals (Bakker, Demerouti, &Euwema, 2005). Thus instrumental support from colleagues can help to get the work done in time and may therefore alleviate the impact of work overload on strain, including burnout (Van Der Doef & Maes, 1999). Furthermore, Howard (2008) found that better social support from colleagues was one of the factors identified by clinical psychologists as factors most likely to alleviate stress.

To summarize, QWL is viewed as wide ranging concept, of which the determinants/ dimensions include adequate and fair compensation, safe and health working conditions, social integration in the work organization that enables an individual to develop and use all his capacities, opportunity for continued growth and security, workers' rights, recognition for achievement, meaningfulness and significance of work, workload/ pressures and work, autonomy and control, enjoyment of work, creativity and innovation. These determinants/ dimensions emphasize the good feeling perceived from the interaction between the individuals and the work environment. In the next section the focus will be on the measurement of QWL.

2.7 Measurement/ assessment of Quality of Work Life

According to Kotze (2005) diversity in the definition of QWL generates widespread disagreement about its measurement and interpretation. The point of view from which the construct is defined will determine which determinants/ dimensions are relevant in its evaluation. This will then also have an effect on the way in which research on QWL will be approached, as well as the selection of appropriate data gathering instruments.

While working with their own definitions of QWL, researchers have decided on who would constitute an appropriate survey population. Subsequently, many scientific instruments and tools have been developed. Ellis (2002) (Kotze, 2005) is of the opinion that the approach taken to QWL measurement varies along a continuum from completely quantitative to completely qualitative methodologies, with many variations between.

Since a dominant theme of much of QWL research is the assumption that individuals' experiences of satisfaction or dissatisfaction define the quality of their work life (Wilcock & Wright, 1991) (Kotze, 2005), many QWL surveys typically measure the job – related perceptions and attitudes of individuals such as job satisfaction, job involvement, work commitment, and organizational commitment, of which job satisfaction is studied most often (Kerce & Booth-Kewley, 1993) (Kotze, 2005). This approach measures the overall job satisfaction an individual is experiencing, or specific facets of job satisfaction such as pay, benefits, working conditions, changes for advancement, job security, co workers, physical resources and equipment, chances to develop skills, supervision, opportunity for personal growth and development.

Gattinker and Howg (1990), Looij and Benders (1995) and Abo-Znadh (1999) (Kotze, 2005) is of the opinion that those who approach QWL from a socio technical systems theory (STS) perspective usually reduce the measurement of QWL to work content and job characteristics and the consequences that these have on internal labour relations. Characteristics such as skill variety, task identity, task significance, autonomy, speed of working and feedback are evaluated. Job characteristics measures differ from job satisfaction measures in that the former scales are primarily descriptive rather than evaluative. Therefore, instead of assessing respondents' reactions to their jobs, items assess the extent to which various characteristics are descriptive of their jobs.

According to Kerce and Booth-Kewley (1993) (Kotze, 2005), a QWL survey is distinguished from other standard surveys of employee satisfaction in that it is more comprehensive. A QWL survey should include, at a minimum, the measure of overall job satisfaction, job characteristics and job involvement. It might also include a dispositional measure, thus allowing individual dispositional characteristics such as differences in abilities, values, expectations, personality, perceptions and needs to be considered as a moderating variable (Coetzee, 2004; Cloete & Stuart, 2004; Annandale, Pienaar & Scholtz, 2004) (in Kotze, 2005). According to Looij and Benders (1995) (Kotze, 2005) subjective opinions such as perceptions held by an individual employee may play an important role in his/ her decision to enter, stay with or even leave an organization. It seems as if a long – standing debate has been

centered on this question of whether personal factors or structural factors (job characteristics) are the principal determinants of perceived QWL.

The basic assumption of the dispositional approach is that personal attributes such as dispositional tendencies, are the primary influence on QWL, while the structural approach assumes that situational variables, such as characteristics of the job, have the greatest effect on QWL (Kerce & Booth-Kewley, 1993) (Kotze, 2005). Advocates of the dispositional position argue that individuals tend to be consistent in their job attitudes over time and that enduring dispositional attributes exert as strong an influence on job attitudes as objective job characteristics. According to Kotze (2005) it is therefore suggested that dispositional variables probably have a greater impact and are more relevant for managers seeking to improve the QWL of their workers.

In the structural approach, high QWL is defined by the existence of a certain set of organizational conditions and practices. High QWL is assumed to occur when jobs are enriched, supervision is democratic, employees are involved in their jobs and the work environment is safe. According to Kerce and Booth-Kewley (1993) (Kotze, 2005) a third approach, based on expectancy theories, suggests the possibility that individuals come to the work place with different goals and needs that they seek to fulfill through work as well as different perceptions of job characteristics.

Although individuals' particular needs, values and dispositions shape their work attitudes, this approach recognize that a single, pervasive need structure cannot be assumed. Differences in needs are therefore assumed to account for variation in work attitudes among employees in the same jobs.

Those in favour of a more integrated approach, focus on the interaction of structural and personal influences, with QWL determined by the degree to which the full range of human needs are met (Kotze, 2005). This approach acknowledges aspects such as democratic decision-making and enriched jobs are not desirable or important to everyone. Individuals bring different needs to the workplace and are likely to experience the extent that these needs are satisfied (Kerce & Booth-Kewley, 1993) (Kotze, 2005). Therefore some researchers make use of the discrepancy theory of

satisfaction to explain their results (Wilcock & Wright, 1991; Rice, Pierce, Moyer & McFarlin, 1991) (Kotze, 2005).

Brooks and Gawel (2001) (Kotze, 2005) see the goals of QWL surveys as the study of workplace experiences, the work itself, and the world of work, in order to suggest aspects of the workplace or work that could be modified so that the employees and the organization reach their goals simultaneously. Lewis, Brazil, Krueger, Lohfeld and Tjam (2001) (Kotze, 2005) measure QWL in terms of extrinsic, intrinsic or prior traits. Extrinsic traits are salaries and other tangible benefits. Intrinsic traits include skill levels, authority and challenge, while prior traits are those of the individuals involved, such as their gender or employment status.

In terms of the development and construction of measuring instruments, some researchers base their development of their QWL survey instruments on general topic areas of QWL, as identified through a literature review, for example, co – worker and supervisor support, team work and communications, staff training and development and compensation and benefits (Lewis et al. 2001; Hausman, Nebeker, McCreary & Donaldson Jr, 2001; Consodine & Callus, 2002) (Kotze, 2005).

Others base the construction of their questionnaires on specific theoretical models such as occupational stress models or need satisfaction and spillover theories (Brooks & Gawel, 2001; Van der Doef & Maes, 1999; Sirgy et al., 2001) (Kotze, 2005). Often researchers design questionnaires by borrowing and combining items from different questionnaires, for example, job satisfaction, job characteristics, work involvement, work stress, wellness at work and other questionnaires (Cohen, Chang, Ledford (Jr) 1997; Peletier, Coutu & Lamonde, 1995; Carayon, Hoonakker, Marchand & Schwarz, 2003) (Kotze, 2005). Many other measures are being used to determine QWL, including the Michigan Quality of Work Program which measures various work related concerns (Seashore, Lawler, Mirvis & Cammann, 1983) (Kotze, 2005) and the Michigan Organizational Assessment Questionnaire (MOAQ) for measurement of group processes, supervisor behaviours, etcetera (Kerce & Booth-Kewley, 1993) (Kotze, 2005).

According to Carayon (1997) (Kotze, 2005), diary studies can be powerful in the examination of terms of technological stressors and certain temporal issues. Diary studies ask people to keep track of work-related events on a frequent basis. The frequency of measurement varies from hourly to daily to weekly, and can be used to examine fluctuations of work stressors.

Based on two leading models in occupational stress research, the Job Demand-Control-Support model and the Michigan model, a comprehensive quality of work questionnaire, was constructed, namely the Leiden Quality of Work Questionnaire. The factor structure of this questionnaire was assessed and cross-validated in two sub samples of 2000 men and women from a large sample of the Dutch working population.

The questionnaire was constructed to assess work characteristics from two influential occupational stress models, the Job Demand Control Support model (Johnson & Hall, 1988; Johnson, 1989; Karasek & Theorell, 1990) and the Michigan model (Caplan, Cobb, French, van Harrison & Pinneau, 1975).

This questionnaire measures the key components of the Job Demand- Control-Support model, namely, psychological demands, skill discretion, decision authority and social support from supervisor and coworkers. Furthermore, this questionnaire measures physical exertion, hazardous conditions and toxic exposure, job insecurity and the outcome variable of job satisfaction.

Items from the Questionnaire for Organizational Stress, version Doetinchem (Bergers, Marcelissen & de Wolff, 1986), which assess the key concepts of the Michigan model, were included in the item pool. This questionnaire includes items on the following work stressors: overload, role ambiguity, responsibility, role conflict, restrict place, lack of decision authority, lack of meaningfulness of the insecurity. Besides items on these work stressors, items on the moderators, support from supervisor and support from co workers and the outcome variable, lack of job satisfaction, were included. Items were derived from the Wellness at Work – interview content and organization of work (Maes, Kittel, Scholten & Verhoeven, 1989), a quantitative version of the Wellness at Work – method.

From the above-mentioned, it is evident that many attempts have been made to measure QWL. Definitions of what criteria are relevant differ from the point of view of individuals, organizations, or society at large. Needless to say, the measures to be included in a QWL index are not without controversy. In addition, there remain significant methodological challenges to overcome in constructing robust measures can operationalize the indicators effectively (Consodine & Callus, 2002) (Kotze, 2005).

2.8 The impact of QWL on the workplace

Concern for QWL preoccupied social scientists for the past several decades. QWL is a major issue for employees, and how organizations deal with this issue is of both academic and practical significance (Dolan, Garcia, Cabezas & Tzafrir, 2007). Therefore it is no wonder that thousands of studies revolved around the concept of job satisfaction, and stress as the core concept of it. QWL and its relationships with employee health and performance became an explicit objective for many of the human resource policies in modern organizations (Dolan et al., 2007). As organizations are struggling to survive and become more efficient, an accrued interest has evolved around the concept of professionals working life. An increasing body of evidence links what could be termed management related conditions of work with psychological stress and negative QWL and more specifically health outcomes.

2.8.1 Management-related conditions and Quality of Work Life

Management-related conditions of work that are linked with negative health include lack of control, autonomy, influence, participation or decision latitude (Dryer & Quine, 1998; Glass & McKnight, 1996), lack of supervisor support (Dolan et al., 1992), lack of perceived organizational and general support (Eisenberger, Jones, Aselage & Sucharski, 2004) and subjective unemployment as well as lack of skill utilization.

Nonetheless, among the reasons for the different findings pertaining to the understanding of the phenomena, scholars argue that the latter can be viewed from a contrasting societal perspectives (Burrell & Morgan, 1979), reinforced by qualitative research and the ambiguous and thus multi-interpretable definitions of QWL.

Others point out to the lack of an external framework supported by validated research instruments (Parker, 2003). As a result, the generic logic for studying the quality of work has become popular among managers, organizational consultants and social writers, but the vast majority of the latter were conducted in the private sector. Scientific studies that have examined the quality of working lives of professionals working in the public sector are less frequent and of those the one reported on the psychometric properties i. e. (construct validity) of the dimensions of QWL and its relationships with health and well-being are very scant.

Several large cross-sectional and longitudinal studies have focused on job components such as demands, control, rewards and support. The results indicated that the combination of high demands and low control at work have an impact on health and well-being. The European Agency for Safety and Health at Work (2000) examined the number of European employees that are exposed to risks or that have experienced illness. The European Agency for Safety and Health at Work (2000) observed that the main indicators for Occupational Safety and Health risks are the work pace which is determined by a high prevalence of repetitive movements and high speed work. This finding is parallel to the earlier research by Ng and Munro-Kua (1994) on health hazards among IT professionals in Malaysia.

Although the health and well-being of the workforce have improved due to the disappearance of harsh and hazardous work in the last century, the workforce is again at risk because of the nature of contemporary work. Therefore, job demands that cause strain can be detrimental to individual health, thus leading to psychological distress and health complaints (Cheng, Kawachi, Coakley Schwartz & Coldizt, 2000; De Jonge, Bosma, Peter & Siegest, 2000).

The number of people who endorse efforts to improve QWL because it is the right thing to do is apparently growing. It is more often the relationship between satisfaction and performance that motivates interest in QWL. In the following section, some of the QWL benefits for organizations and individuals are summarized.

2.8.2 Organizational benefits from QWL

QWL is assumed to affect job effort and performance, organizational identification, job satisfaction, job involvement, and personal alienation. The opportunity to fulfill higher order needs at work is the primary source of the motivation to work. The more the job and the organization can gratify the needs of workers, the more effort workers may invest at work, with commensurate improvements in productivity. Satisfaction of needs through organizational membership is associated with assertiveness and self-expression, while the failure to have needs satisfied may lead to alienation (Efraty & Sirgy, 1990; Kerce & Booth-Kewley, 1993).

2.8.2.1 Productivity and performance

For many years consultants and researchers assumed that improving QWL would inevitably heighten employee motivation and world thereby improve job performance and productivity. Today, it is recognized that enhancing QWL can improve performance under some, but not all conditions. It is likely that need satisfaction affects performance mainly through impact on motivation (Efraty & Sirgy, 1990). If QWL and productivity are causally related, then there is little question that QWL should be a high priority for organizations and that regular surveys should be conducted to assess the level of perceived QWL and the extent to which employee needs are being met.

It is not clear, however, that productivity is the outcome measure that should be of greatest concern to organizations. For many jobs, productivity is difficult to implement and measure. In addition, pressures to increase productivity can sometimes have unintended negative effects for organizations. For example, increases in job safety and security may raise costs without resulting in bottom line improvements to productivity or revenues. In the long run, it is probably more

beneficial for organizations to concentrate on developing a well-trained, loyal work force that is willing and able to adapt to changes than to focus only on productivity (Kerce & Booth-Kewley, 1993).

2.8.2.2 Absenteeism and turnover

People who are highly involved in their jobs are less likely to quit their jobs or be absent (Kerce & Booth-Kewley, 1993). Westly (1979) and Kerce and Booth-Kewley (1993) concluded that alienation and anomie are expressed as withdrawal or a lack of involvement, with the primary symptoms being absenteeism and turnover. Intuitively, it would seem that people who feel that it is all right to be absent do not find their work to be self – enhancing and do not feel any moral obligation to be at the workplace (Kerce & Booth-Kewley, 1993).

Motivation and satisfaction of needs, on the other hand, have consistently been shown to be associated with job involvement and organizational commitment as well as attendance and low turnover (Kerce & Booth-Kewley, 1993). Attendance has also been found to be related to the degree of congruence between workers' needs and the characteristics of the jobs (Furnham, 1991). Hackman, Pearce and Wolfe (1978) reported that the extent to which structural job changes (intended to improve QWL) affected absenteeism depended on the strength of the employee's growth needs.

2.8.2.3 Stress and its impact on QWL

Instability of employment, rapid change of demands and intensification of work pressure are widely prevalent consequences of economic globalization and technological change. Even in established sectors of industrial production, administration and services of advanced societies, experiences of downsizing, mergers and outsourcing are increasingly shared by employees. Chronic stressful experience at work can adversely affect physical and mental health.

Poor QWL and employment can be seen as a determinant of premature departure from working life. This has been observed in employees with physically or mentally demanding work, with monotonous, repetitive work, and other types of stressful experience (Siegrist, Wahrendorf, von dem Knesebeck, Jurges & Bo¨ rsch-Supan, 2006). Exposure to poor QWL was also shown to increase intentions to leave the organization and to reduce performance and motivation at earlier stages of employment trajectories (Elovainio, Forma & Kivimak, 2005)

It is important to define poor psychosocial QWL in terms of a theoretical model that allows for an identification of stressful aspects of work at a general level and, thus, can be applied to a wide range of different occupations. While several theoretical concepts of stressful work have been developed (Antoniou & Cooper, 2005), two models have received special attention recently: the demand-control model (Karasek & Theorell, 1990) and the effort–reward imbalance model (Siegrist, Starke & Chandola, 2004). The former model identifies stressful work by job task profiles that are characterized by high demand in combination with low control (low decision latitude), whereas the latter model claims that an imbalance between high efforts spent and low rewards received in turn (money, esteem, career prospects, and job security) adversely affect health. This is mainly due to the fact that a basic principle of social exchange, reciprocity, is violated under such conditions.

Stress, anxiety and depression have been recognized as important outcome measures in various work environments (Bennett, Williams, Page, Hood & Woollard, 2004). Plaisier, de Bruijn, de Graaf, Have, Beekman and Penninx (2006) suggested that poor working conditions may be an important precursor of stress and may, therefore, contribute to the development of depression or anxiety. There are abundant studies exploring the relationship between working conditions and stress, anxiety and depression (Rusli, Edimansyah & Naing, 2008). Karasek (1979) have shown that workers with jobs simultaneously low in job control and high in job demand reported exhaustion, nervousness, anxiety, and insomnia or disturbed sleep.

2.8.3 Individual benefits from improved QWL

Researchers have consistently found positive correlations between measures of QWL as a whole and QWL, that is, between job and life satisfaction. In addition, positive associations have been found between job satisfaction and mental health (Furnham & Schaeffer, 1984). For example, Adelmann (1987) found that both pay and job complexity is inversely related to anxiety.

According to Rethinam and Ismail (2008) health and well-being of QWL refer to the physical and psychological aspects of an individual in the work environment. Iacovides, Fountoulakis and Kaprins (2003) found that higher job demands lead to a higher strain work environment, hence it affects employees' health and well-being. An unstrained work environment ensures good health and psychological conditions which enables the employee to perform job and non-work related functions without inhibitions. Thus, it leads to an unstressful work environment providing a comfortable work life (Rethinam & Ismail, 2008).

Carayon, Smith and Haims (2001) revealed that stress arises in the process of interaction between a person and the work environment that threatens the individual's physical, psychological and physiological homeostasis. Physical illness and psychological disorders increase when pressure at work increases. Stress causes problems to the muscular system and circulation thus, increasing the risk of myocardial infarction which is well documented in psychosomatic studies. Carayon, Smith and Haims (2001) further reported that employee's who have been exposed for over two years in a high strain environment are associated with higher systolic blood pressure.

Depression and anxiety are also another form of stress that contributes towards the deterioration of health. Employees develop various symptoms of stress that can harm job performance, health and even threaten the ability to cope with the environment. In the past few decades, impressive developments of information technologies have taken place in the workplace. Routine work, badly designed instruments such as computers and furniture in the work environment have significantly increased work related disorders (Blatter & Bongers, 2002).

The relationship between job and life satisfaction also has implications for society as a whole. In his classic study of the relationship between work and nonwork domains, Kornhauser (1965) concluded that routine work is associated with narrow, routine leisure activities that do little to promote self-development, self-expression, or interest in larger social purposes. It has also been suggested that alienated work may cause an individual's frustrations to build until they find release through hostility, punitive family relations and so on.

While it is important to recognize that the nonwork life of an individual worker may become more or less fulfilling as a result of changes in the workplace (Rice, 1984), the effects of the job on the person and of the person on the job are probably reciprocal throughout the person's work life. The main process by which a job affects an individual's personality is thought to be one of simple generalization from lessons of the job to the person's nonwork life (Kohn & Schooler, 1982). For example, occupational self-direction (the use of initiative, thought, and independent judgment in work) was found by these authors to increase an individual's intellectual flexibility. In turn, intellectual flexibility and self - concept may have important consequences for the individual's place in the organizational hierarchy, determining the opportunity for doing substantively complex and self-directed work.

With mental health problems predicted to increase according to Millear, Liossis, Shochet and Biggs (2008), mental health researchers and professionals, as well as governments, are challenged to find ways to lessen the impact and prevalence of these problems. Universal prevention programs are necessary components in mental health planning and programs that are located in the workplace (Common Wealth of Australia, 2000).

2.8.3.1 Work climate

QWL implies that the work conditions are favourable and that management caters for all the needs of the people. The workplace is an important focus of an adult's life, through the time and commitment involved and the economic benefits that employment brings. The costs of mental health problems extends from the individual's lost working time, the costs on their family to provide care and support for

them, through to their employers, through lost productivity, and to the community, through greater healthcare costs (De Vries & Wilkerson, 2003; World Health Organization, 2001). The workplace can also provide conditions and relationships that increase wellbeing and mental health, through greater autonomy on the job, social support from colleagues and greater income (Greenhaus & Powell, 2006).

2.8.3.2 Resiliency

Previous research in children and older adults has identified the risk and protective factors 'around' and 'within' resilient people, finding that many of the factors are based on every day, normative personal resources and processes available to all individuals (Masten, 2001). By managing the ups and downs in life, resilient individuals can be more effective in managing the changing nature of the current workplace and finding a balance between work and personal lives (Luthans, 2002). Further, resilience is a multi-dimensional construct and the efforts to be resilient, such as adaptive strategies to manage demands, should be considered separately to resilient outcomes, such as better mental health or better relationships (Kumpfer, 1999). In this way, the efforts to be resilient can be targeted and normative adaptive processes can be enhanced through promoting competence in the appropriate contexts (Yates & Masten, 2004).

There is a convergence of research that highlights the common threads of feelings of competence to deal with life's setbacks, the expectations of future successes, an internal sense of control and emotional stability (Semmer, 2003). These include personal resources, such as core self-evaluations; defined as self-esteem, general self-efficacy, locus of control, and emotional stability (Judge, Locke, Durham, & Kluger 1998), positive organisational behaviour; defined as self-efficacy, optimistic expectations and positive reactions to stress (Luthans, 2002), and personal resilience: defined as self-esteem, dispositional optimism, and perceived control.

Interpersonal relationships and connections with other people are equally important to mental health and well-being. The lack of interpersonal skills can be influential in maintaining depressive symptoms, through seeking excessive reassurance and self-

consistent negative feedback from peers, which increase the likelihood of rejection by those same peers (Joiner & Metalsky, 2001). In the workplace where organisational support and recognition of effort was low, employees with better social skills were rated more highly on job performance by their supervisors as they had the skills to make use of the limited resources available to them. Good social skills allowed these workers to make the most of less than ideal working conditions, although these skills became less crucial to job performance as organizational support improved (Hochwarter, Witt, Treadway & Ferris, 2006).

Implicit in resilience research is positive psychology's focus on psychological strengths, positive emotions and outcomes, rather than on dysfunction and psycho - pathology (Seligman & Csikszentmihalyi, 2000). Actively using skills and resources to control and manage daily life increases the individual's wellbeing and mental health. Several therapies have been trialled that are based on positive psychological principles, such as targeting specific facets of psychological wellbeing (Fava & Ruini, 2003) and a strengths-base program delivered online (Seligman, Steen, Park & Peterson, 2005). These programs were found to provide increases in wellbeing and mental health. Positive behaviours reinforce and elicit positive reactions from others, improving personal relationships and mental health.

To date there has been limited research specifically focusing on adult resilience as many of the available work-based programs tend to have a narrow focus on one particular area, such as stress management, rather than broad life skills (Murphy, 2003; Quillian-Wolever & Wolever, 2003). The workplace is an important component of the mental health community and provides a suitable and practical location for the delivery of resilience enhancing programs.

2.8.3.3 Positive attitudes

Employees who enjoy their work and feel happy make a very positive judgement about their quality of work life. This enjoyment and or happiness, is the outcome of cognitive and affective evaluations of the flow experience (Diener, 2000). When

employees are intrinsically motivated, they will continuously be interested in the work they are involved in, therefore being fascinated by the tasks they perform.

2.8.3.4 Self-efficacy

There is considerable evidence regarding the positive effects of self-efficacy on work performance and well-being in different domains such as the workplace, school, and sports (Bandura, 2001). Research in the domain of work shows that high levels of efficacy beliefs beliefs have a positive impact on employee well-being (Grau, Salanova & Peiro, 2001) and work engagement (Salanova, Llorens, Cifre, Martinez & Schaufeli, 2003), and can buffer the negative impact of job demands on burnout. Efficacy beliefs influence the challenges people pursue, the effort they expend and their perseverance in the face of obstacles.

2.8.3.5 Self-actualization

Self-actualization, according to Maslow (1954), is the desire to become more and more from what one is to anything that one is capable of becoming. Promotion and career progress are important in that regard. Progressive companies have promotion-from-within programs (Messmer, 2004). This means that open positions are filled, whenever possible, by qualified candidates from within the company. Promotion from within programs serves to enhance the value of the work role identity and promotes multiple work role identities (e.g., specialist, team player, and supervisor/manager). Meeting the needs of more role identities and highly valued role increase the likelihood of experiencing positive self-evaluations at work, which in turn contribute significantly to subjective well-being.

2.9 Conclusion

The meaning and the significance of the QWL has been clearly spelt out in this chapter. The focus was on the introduction, origin and development of the concept, the definitions of QWL, the different models that relates to QWL, the determinants of QWL, the measurement/ assessment of QWL and the link between QOL, QWL and

mental health. Benefits associated with QWL from both an organizational and an individual perspective were also addressed. It was emphasized that organizations must improve their employees' work environment if their QWL is to be improved.

It is clear from the above discussion that QWL is a complex phenomenon. It reflects a philosophical commitment by employers and employees to work constructively to establish an interactive communication system that allows each to have an opportunity to influence the levels independence, autonomy, and self esteem realized through employment. QWL changes over time and must reflect the differences for individuals in their early, stable and retirement years.

Although QWL programs have traditionally focused on the attainment of outcomes for the individual worker, there are also benefits that accrue to organizations. Improving QWL can contribute directly to reducing turnover and absenteeism, lead to increases in productivity under some conditions, and help create a well-trained loyal work force that is willing and more able to adapt to change. Thus, by attending to those areas that enhances QWL, employees, industry and society all win.

Surveys are the mechanism by which organizations can best monitor QWL of the employees and determine the job characteristics that are valued by workers. The Leiden Quality of Life questionnaire seems to be appropriate for the purpose of this research. This questionnaire covers a broad range of specific QWL dimensions. Therefore, in the next section, namely, research methodology, more information is divulged concerning, nature and composition, reliability, validity and rationale for inclusion of the above-mentioned questionnaire.

CHAPTER 3

MENTAL HEALTH IN THE WORKPLACE

3.1 Introduction

According to Johnston (1991), normal behaviour is a complex balance between conscious and unconscious striving drives and feelings. The mind and the body are so united that when one is affected the other also shows change. Mental health can therefore be defined as the ability to adjust to new situations and to handle personal problems without marked distress and still have enough energy to be a constructive member of society.

The mentally healthy person must have those attributes that are needed to hold society together. He must be well integrated and stable and must be able to see not only himself, but also other people about him, as he and they really are. He should have positive qualities of idealism, understanding, honesty, courage, justice and morality (Johnston, 1991).

According to the International Labour Organization (2001) mental health problems, do not just affect the individual, they impact the entire community. The cost of excluding people with mental health difficulties from an active role in community life is high. Exclusion often leads to diminished productivity and losses in human potential.

Mental and emotional health problems take a heavy toll on the workplace in the form of absences and decreased productivity. For example, in 2001 mental health problems were identified as one of the principle causes of workplace absenteeism (Watson Wyatt Worldwide, 2000). In Canada, it has been estimated that these work-related productivity losses cost Canada 4, 5 billion dollars annually (Stephens & Joubert, 2001).

Employers may be able to improve productivity in the workplace by promoting the mental health of their employees. Indeed, research shows that employees with mental disorders have higher absenteeism and lower productivity than their colleagues, but that treatment can improve both measures (Berndt, Finkelstein, Greenberg, et. al., 1998; Mintz, Mintz, Arruda, et al., 1992; Simon, Katon, Rutter, et al., 1998).

Mental disorders are more prevalent than is commonly realized (Kessler, McGonagle, Zhao, et al., 1994). During any year, 30 percent of the noninstitutionalized civilian population age 15 to 54 has a mental disorder. Over their lifetime, 48 percent of the noninstitutionalized civilian population aged 15 to 54 has had at least one disorder, and 27 percent have had two or more disorders. The most common mental disorders among this age group are depression, anxiety, and substance abuse. Specifically, they include the following:

- Major depressive episodes occur in 10 percent of the population. Symptoms of depression can include decreased energy, fatigue, sleep disturbance, difficulty concentrating, indecision, daily feelings of worthlessness, and decreased pleasure or interest in activities.
- Panic disorder, the most debilitating anxiety disorder, affects 2 percent of the 15- to 54-year-old population. People with panic disorder have recurrent and unexpected panic attacks short periods of intense fear that can include choking, dizziness, and nausea.
- Generalized anxiety disorder excessive worry about many things occurs in 3 percent of the 15- to 54-year-old population. It lasts for about 6 months and is difficult to control. Symptoms can include difficulty concentrating, irritability, and sleep disturbance.
- Social phobia, which occurs in 8 percent of 15- to 54-year-olds, is excessive or unreasonable fear and anxiety about social or performance situations. For people with social phobia, avoiding or anticipating feared situations can significantly interfere with normal functioning in occupational settings, social activities, or relationships.

Despite the debilitating effects of mental disorders, a large share of the people affected is employed, though their performance on the job is probably not what it could be. Seventy-two percent of people with depression are part of the workforce. Employees with major depression and those with panic disorder are more likely to miss work than are other employees (Broadhead, Blazer, George, et al., 1990; Kouzis & Eaton, 1997). One study estimated that in 1990, absenteeism and reduced productivity resulting from depression accounted for $24 billion in financial losses to the economy (Greenberg, Stiglin, Finkelstein, et al., 1993). In the Global Burden of Disease study, Murray and Lopez (1996) found that major depression is second in disease burden, just behind ischemic heart disease, in established market economies. Furthermore, Conti and Burton (1994) found that depression accounts for 3 percent of short-term disability claims and that claimants for depression are more likely to return to short-term disability status within a year than are claimants for other health conditions.

Like depression, social phobia can interfere with productivity. Studies suggest that this disorder is associated with performing below one's full potential (Lader, 1998). In a postindustrial economy, where interpersonal skills are increasingly important to job performance, social phobia may hinder productivity by interfering with an employee's ability to speak at meetings or to interact successfully with coworkers and customers.

The stress of caring for a child with mental illness may reduce a parent's capacity to perform well in the workplace, but studies have not quantified the impact of this stress on performance (Tessler & Gamache, n.d.).

According to Warr (1987), work can have a significant impact on an individual’s mental and physical health. This impact can either be detrimental or enhancing. Most efforts in psychology has been directed at understanding ill-health and identifying a recognizable pattern or syndrome of patterns.

Because mental health forms an integral part of the study the aim of this chapter is to provide a systematic overview of the most important definitions of mental health, and also the different theoretical models of mental health. The environmental features that affect mental health, the contribution of environmental features to mental health, the components of mental health and the impact of mental health in the work place on the general functioning of the individual will also be addressed.

The next section will focus on the concepts related to mental health and the various components of mental health that may have an influence on a person's mental health.

3.2 Definitions of mental health

According to the World Health Organization (2005: 2), "mental health has been defined variously by scholars from different cultures. Concepts of mental health include subjective well-being, perceived self-efficacy, autonomy, competence, inter-generational dependence, and self-actualization of one's intellectual and emotional potential, among others". From a cross-cultural perspective, it is nearly impossible to define mental health comprehensively. It is, however sometimes used as a broader definition, and professionals generally agree that mental health is broader than a lack of mental disorders.

In addition to the above-mentioned definition, mental health refers to those conditions in a society leading to a situation where people in their individual capacities and in interaction with one another as members of groups and communities, are able to live lives of quality in all contexts of their existence and where the options for actualizing their potential are present (Möller, 1987).

The above-mentioned view is echoed by Gerber, Nel and van Dyk (1998). According to them mental health may be defined as a state in which an employee is well adjusted, has an accurate perception of reality and can adapt fairly well to the pressures and frustrations of life.

Houghton Mifflin (2003) agrees that mental health can also be regarded as a state of emotional and psychological well-being in which an individual is able to use his or her cognitive and emotional capabilities, function in society, and meet the ordinary demands of everyday life.

Houghton Mifflin (2003) adds that mental health can also be seen as a branch of medicine that deals with the achievement and maintenance of psychological well – being. In addition to the above definitions, they include a person’s overall emotional and psychological condition.

Mental health is a concept that refers to a human individual's emotional and psychological well-being. Merriam-Webster (2005:) defines mental health as "a state of emotional and psychological well-being in which an individual is able to use his or her cognitive and emotional capabilities, function in society, and meet the ordinary demands of everyday life." This definition is in agreement with the definition of Houghton Mifflin (2003).

One way to think about mental health is by looking at how effectively and successfully a person functions. Feeling capable and competent; being able to handle normal levels of stress, maintain satisfying relationships, and lead an independent life; and being able to "bounce back," or recover from difficult situations, are all signs of mental health.

The DSM-IV (2000) defines and attributes mental illnesses to 'chemical imbalances', for which neuropsychiatric drugs are now widely (and in the view of some board certified psychiatrists, wrongly) prescribed. This definition refers to mental health as mental illness.

According to Plug, Meyer, Louw and Gouws (1991), mental health is a condition of relative good adaptation which is accompanied by a feeling of satisfaction, a zest for life and the actualization of potential and skills as well as the absence of psychopathological conditions. This definition is in agreement with the definition of the World Health Organization's definition of mental health.

Jahoda (1958) refers to mental health as the absence of mental illness. This definition agrees with the definition of the DSM-IV.

Recently the Victoria Health Promotion Foundation proposed a new definition of mental health (VicHealth, 1999: 2) as: …"the embodiment of social, emotional and spiritual well-being. It provides individuals with the vitality necessary for active living, to achieve goals and to interact with one another in ways that are respectful and just".

Warr (1987) has proposed a definition of mental health comprising five major components: affective well-being, competence, autonomy, aspiration and integrated functioning. Warr (1987) extends his analysis by posting a distinction between 'context-free' and 'context-specific mental health. According to Warr (1987), context specific mental health refers explicitly to job-related mental health, i.e. those indices which reflect affective well-being and subjective competence in the workplace. According Warr (1990), there are many instruments available for job-specific or context-free application. A large number of measures of job-related affective well-being has already been developed. These cover specific facets of satisfaction, alienation from work, job attachment, job tension, depression, burnout, involvement and job morale (Cook, Hepworth, Wall & Warr, 1981). Context free measures are available to tap life satisfaction, happiness, positive effect, negative effect, anxiety, depression, general dysphoria, self-esteem and other types of feelings (Diener, 1984; Goldberg, 1972). The above-mentioned definition of mental health was decided upon for the purpose of this study.

Although divergent, it seems as if there is a common thread that moves through all these definitions. The common denominators are the following:

- Mental health refers to those conditions in a society where people can interact with one another and are able to live lives of quality in all contexts.
- It is also defined as a state of emotional and psychological well-being as well as a state in which the employee is adjusted and in which the employee is able to adapt to the unique daily circumstances of life.
- It is seen as part of general health, and as a comprehensive concept, might refer to signs or symptoms of health and illness, positive and negative behaviours, cognitions and feelings in individuals.

Though many elements of mental health may be identifiable, the term is not easy to define. The meaning of being mentally healthy is subject to many interpretations rooted in value judgments, which may vary across cultures. Mental health should not be seen as the absence of illness, but more with a form of subjective well-being, when individuals feel that they are coping, fairly in control of their lives, able to face challenges, and take on responsibility. Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity specific to the individual's culture.

3.3 The importance of mental health in the workplace

The influence of employee well-being at work has attracted increasing interest in recent years (Currie, 2001; Kersley Alpin, Forth, Bryson, Bewley, Dix & Oxenbridge, 2006; Warr, 2002). In the modern world where there are rising dependencies on global market forces, it places an ever-greater burden on those of working age in the delivery of products and services. This in turn has had a negative effect on the health and well being of workers. This resulted in issues of high cost to business and the public purse of employee absence, the spiraling number of incapacity benefit claims, increases in the prevalence of mental health conditions and stress and other mental health conditions now being the main causes of employee absence (Baptiste, 2008).

With this in mind, the issue of employee well-being at work is increasingly important as employment will continue to change. Concentration on problems such as absenteeism and accidental injury is giving way to a broader vision of what a healthier and happier more productive workforce can achieve in terms of higher performance and productivity (Economic & Social Research Council, 2006). The vision of health, work and well-being – caring for the future, has been embraced by cutting edge companies that have invested deeply in the well-being of their workforce are now reaping the benefits as it appears that well-being at work is increasingly being recognized as an important factor in determining organizational success (Baptiste, 2008).

The increasing interest in well-being at work has emerged against the backdrop of the general decline in nature of workplace ill health resulting from physical, psychosocial and personal factors. Tehrani, Humpage, Willmott, and Haslam (2007) points out that well-being in the workplace is steadily rising up the business agenda as more employers recognize the benefits and contribution that can be made by introducing workplace health and wellness policies.

Strategies, embraced by policy makers as well as organizations for tackling employees' ill health issues are through good employment practice. These strategies also include the effective return to work and rehabilitation, as well as through proactive employee well-being support by employers (Baptiste, 2008).

The concept of employee well-being at work promotes advantages to organizations of having a healthy workforce (Cooper & Robertson, 2001). Therefore, the dynamics of employee well-being at work is pivotal in the understanding of the different domains that affect the quality of life at work. According to Warr (2002) cognitive factors that affect the quality of life is likely to be linked to people's perception of their own level of well-being. Therefore effective well-being (psychological) emphasizes the centrality of feelings about life. Nevertheless, Currie (2001) views employee well-being at work, as, the physical and mental health of the workforce. That is, employees should be working in a stress – free and physically safe environment. Bakke (2005) supports this view and notes that well-being can be linked to promoting

an environment that make work exciting, rewarding, stimulating, enjoyable and proposes that joy – filled workplaces improve financial performance.

Personal well-being does not exist on its own or in the workplace but within a social context. Thus, individual lives are affected by social relations with organizational agents, lifestyle and employment changes (Guest, 1998). However, despite these shifts, Tehrani et al. (2007) suggest that people still have the same basic physical and mental needs for social support, physical safety, health, and a feeling that they are able to cope with life. With this in mind, employees are looking at employers to help them to achieve this since a large proportion of their lives are spent at work. In order for employers to assist employees with their personal well-being at work, they will need to create an environment to promote a state of contentment, which allows an employee to flourish and achieve their full potential for the benefit of themselves and their organization (Tehrani et al., 2007).

A healthy organization is critical for survival in this competitive global environment in which people live, work and operates. Essential factors leading to organizational and personal well-being involves, open communication, team working and co-operation, flexibility, support, and balance between work and personal life (Kraybill, 2003). For organizations to be able to remain sustainable, it is inevitable that promoting the well-being of its employees is a necessary need to enhance performance, and thereby survival and further development of the organization (Currie, 2001).

Not all people are born mentally healthy or mentally ill, except perhaps in extreme cases of ill-health where there is a strong genetic component. But even here it is clear that environmental factors play some role in the course, which the illness takes (Newell, 1995). For the purpose of this study, the focus will be on the work environment which might affect the well- being or mental health of the adult employee.

Psychologists have thus sought to describe features of the environment which influence the development of the healthy person. In this context, much of research has been done to identify childhood experiences which inhibit or advance the development of a healthy adult. Less research has been carried out in this area, but

there is a growing literature which does identify features of the work environment which can have an impact (Newell, 1995).

3.4 Models of mental health in the workplace

Many attempts have been made to develop theories, perspectives and conceptual models that relate job characteristics with employee well-being (Khan & Byosiere, 1992). There is still tremendous disagreement among social scientists about the nature of optimal mental health, its source or sources, and how to experience it as a way of life (Kelly, 2005).

Although models supply a handy framework and thus a point of departure, Rimm and Somervill (1977) rightfully show that models used in psychopathology are symbolic or conceptual, and as such no perfect model exists.

Probably the most important criticism that can be brought against the use of models is that it can influence the user subjectively. That is to say that the person will indeed confirm what he/ she wants to confirm. The subjective, one-sided and often forced use of a specific model or paradigm can not only influence the definition and gathering of data, but also the interpretation thereof (Davison & Neale, 1990). That may hold very serious theoretical and practical implications. That can make that a person who does not earn the label abnormal, get it or important aspects are not brought into consideration. The result is that, for example, a person who needs a certain type of treatment may not get it.

In spite of the deficiencies of models, they do have a certain usefulness and value when they are used in a scientific way. The scientist must thus have a very thorough knowledge of the different models and know the deficiencies of each model, know his own preferences and prejudices, not be bound to the use of a single model, and be aware of a large number of factors that can influence his scientific judgment (Louw, 1989).

The most important models used currently, will be discussed next.

3.4.1 The subjective model

Because humans are subjectively involved with what is going on around them, they tend to compare the behaviour of others to their own. A further tendency is to see themselves as normal, and thus use themselves as a model when comparing the behaviour of others. Those that compare to his subjective model as normal, are considered as normal, and those that deviate from the given model, are seen as abnormal (Louw, 1989).

Thus a person with a drinking problem may not think that his behaviour is abnormal, while in comparison a person that molests his children sexually are seen as abnormal, because he would never do that. Because he sees his dependency on alcohol as a disease, he may in fact feel that those who see him as abnormal are in fact abnormal, because they do not have insight and empathy with him (Louw, 1989).

Although the subjective model is used by every person, it is in fact a very bad scientific model to use when determining normal and abnormal behaviour, because it excludes objectivity. It also implies, wrongly, that behaviour does not lie on a continuum, but is either normal, or abnormal (Louw, 1989).

3.4.2 The normative model

According to this model, ideal behaviour is determined, and normality and abnormality determined in terms of the degree that behaviour deviates from this ideal model. The closer to the ideal behaviour, the more normal the person is said to be (Kisker, 1972).

Although it is acceptable for people to strive towards ideals, it seems to be problematic to use ideal behaviour to judge normality or abnormality. Because the norms that are set are ideal, normality can only be obtained with perfection (Kisker, 1972). No person is perfect, thus the possibility to be normal is virtually impossible. Attempts to reach the ideal are thus in vain. Most or all people, according to this model, would then be considered to be abnormal (Sue, Sue & Sue, 1997).

Frequently the ideal is associated with important figures such as Christ, Mohammed and Buddha. Very few people, if any, are able to attain the ideal that these figures personify. If Christ is used as the norm, the individual has to attain godliness before being classified as normal. This means that the ideal has very little value for the judgement of human behaviour. It also frequently happens that what is considered to be ideal behaviour, is a regular person that has distinguished himself in one or other terrain. That one person would not be universally accepted as the norm. It is, for example, very seriously doubted if the same percentage of South Africans as Iranians would accept the Ayatollah Khomeini as the ideal, and accept his behaviour as the norm.

This model seriously lacks, in that which is seen as ideal behaviour, is constantly changing. Behaviour that is acceptable at one stage is totally unacceptable at another. Just think about the changes with respect to certain values, for example divorce, and sex before marriage (Kisker, 1972).

The most important criticism brought against this model, is that it is based on the ideal, or at least what the ideal should be, and not on reality (Kisker, 1972).

3.4.3 The cultural model

This model, sometimes also called the normative model, rests upon the fact that behaviour is accepted by the majority of a certain cultural group or community. Abnormal behaviour is thus that which is not accepted by the majority of the cultural group or community. As Price and Lynn (1986, p. 6) state: “Each culture is unique, and the practices of each must be understood on its own terms”.

The biggest value of this model lies therein that it supplies information to the cultural, social and ethical values as strived to by a specific cultural group. This knowledge also contributes to let the scientist realize that what is normal within one culture, is not necessarily normal within another culture. It would seem that, in Zulu culture it is normal for a man to have more than one wife, seeing that the number of wives is directly proportional to his wealth and virility. In contrast to this, a white South African male's behaviour would be seen as highly abnormal if he is married to more than one wife at the same time. It is also punishable by law. In the same sense, committing suicide, in South Africa is seen as abnormal, which is not necessarily the case in other countries (Price & Lynn, 1986).

However, culture is dynamic, which means that behaviour which may be accepted as normal at one time, may, at another time, be labeled as abnormal. In ancient Greece, homosexual behaviour was normal and accepted. In the seventies of the twentieth century, this diagnostic label was scrapped by the American Psychiatric Association. The same views held equal for attitudes towards sexual relations between black and white South Africans that underwent dramatic changes in a relatively short period of time (Price & Lynn, 1986).

Carson and Butcher (1992) sees this model as insufficient, because it implies that everything that happens within a culture which is approved as normal has to be accepted as good. The acceptance of this model would thus mean that the psychiatrist and psychologist do not have aid to the individual as main aim, but the maintenance of cultural norms. The possibility also exists that a culture can be "sick", and that the expectations that this culture sets, is unacceptable to certain people. Those who then rebel against the cultural expectations are seen as abnormal, whether it is true or not. The behaviour of an officer in Nazi Germany who, for example, would be against the wiping out of Jews, would be seen as abnormal (in Nazi Germany), in spite of being seen as normal or even ideal in the rest of the world.

3.4.4 The statistical model

This model is a mathematical model that equates normal behaviour to “average behaviour”, that is to say behaviour that is accepted by the most people. Abnormal behaviour thus deviates from the average (majority) and is seen less frequently (Duke & Nowicki, 1986).

Although the statistical model in certain cases is advantageous (for example the determination of an IQ-ratio in mentally disabled patients), it also has certain disadvantages. Take for example the use of IQ-ratio to determine whether or not a person is intellectually normal: an IQ-ratio of 50 can rightfully be seen as abnormal (if the normal IQ is 100, more specifically between 90 and 109), but can a person with an IQ of 150 also be classified as abnormal? The danger this model thus holds is that exceptional-but noteworthy-behaviour, for example talents in various fields, can also be seen as abnormal (Schumer, 1983). It must also be taken into consideration, that it is extremely difficult, if not impossible, to take certain personality traits into consideration such as a feeling of belonging and dependency in terms of statistical criteria (Duke & Nowicki, 1986). The statistical model can also be difficult to separate from the cultural model. It is however unacceptable to accept “sick” behaviour in a community as normal, just because the majority does just that. The fact that the majority of men in a community or culture beat their wives does not make it normal (Duke & Nowicki, 1986).

Mahoney (1980) also shows that the passage of time can change the perception that something that was acceptable at a certain period in time, can be seen as unacceptable in the current time-frame, and cannot be seen as average or abnormal. If a young girl wears a bathing costume similar to the fashion worn in the early 1900’s, she deviates from the current norm, and will be seen as strange by the majority of bathers on the beach. What is seen as average is also determined by the situation which the behaviour occurs in. Average behaviour between the players of a rugby team, will be largely different to the average behaviour that prevails in a group of social workers.

Furthermore it is very difficult to determine how far will have to be deviated from the average, before one can talk of abnormal behaviour. If it is accepted, for example, that a person with an IQ of 90 is normal, and a person with an IQ of 89 is abnormal, the question has to be answered as to which unique feature makes the person with the lower IQ abnormal. In the most cases, such answers cannot be given, and the cut-off points have to be determined on an arbitrary basis. Coles (1982) is also of the opinion that the definition of mental disturbance in terms of statistical occurrence thereof, causes behaviour to be compartmentalized, and that continuation thereof is denied.

3.4.5 The clinical model

This model uses the individual's effective or ineffective handling of his/ her environment as criteria for the determination of normal or abnormal behaviour. More specifically: if the person's behaviour is such that it detracts either from himself or his environment, it is abnormal (Carson & Butcher, 1992)

Carson and Butcher (1992) is of the opinion that this model is the most suitable to describe abnormal behaviour. Cultural demands and deviations from the average do not count. All that is important is whether the behaviour promotes the well-being of the individual as well as those around him. With this criterion not only maintenance or survival is implied, but also growth and fulfillment, that is to say the realization of potential. According to this criterion even confirmative behaviour can be abnormal if it brings about maladjustment, or it can hamper functioning or growth.

With the concepts of growth, fulfillment and self-actualization being difficult to define, it is important to note that this model can be in conflict with the cultural model. All people are part of a certain culture, and that behaviour that goes against the cultural norms, are usually very strongly disapproved of (Adams, 1981). Somebody who, for example, does not want to do military and border duty because of his home-country's political standpoint, can apply to become a citizen of another country. According the maladjustment model, he is behaving in a very well-adjusted manner.

According to the cultural and statistical models, his behaviour is not a picture of being well-adjusted either.

From the above, it is clear that abnormal behaviour can be defined in different and varied ways. Not one of these criteria is above criticism either, with the result that different psychologists use different criteria, depending on their specific orientation and experience. It also happens that the different models are used in combination before a final verdict is given. Apart from the attempt to describe abnormal behaviour by using different models, abnormal behaviour can also be identified by contrasting it with normal behaviour.

Other models in this category include the psychodynamic model, for example, which tends to view mental health as a successful resolution of psychosocial and psychosexual issues through the balancing of personality components. Humanistic psychology typically defines mental health as the natural human drive toward personal fulfillment, self actualization, and being in the here and now. Gestalt psychology generally views healthy functioning as the ability to be in the immediate presence of thoughts, feelings, and sensations and to accept responsibility for one's behaviour (Kelly 2005).

The behaviourist perspective according to Kelly (2005) sees health as learning adaptive behaviours and functional problem-solving through appropriate reinforcement schedules. The cognitive model defines health as the ability to distinguish and challenge irrational beliefs and schemas leading to more rational thinking as decision-making. Transpersonal psychology typically views health as the psycho-spiritual integration of personality (Craighead & Nemeroff, 2001; Mutsakova-Possardt, 2002).

The emerging field of positive psychology according to Seligman and Csikszentmihalyi (2000) has developed diverse models to explain optimal mental health, linking it to evolutionary influences (Buss, 2000), mature adaptive defenses such as ultruism and humor (Vaillant, 2000) and positive life events and intimate social contacts (Salovey, Rothman, Detweiler & Stewart, 2000; Myers, 2000).

While each of these perspectives may point to essential pieces of the mental health puzzle, none appears to offer an explanation of psychological health fundamental enough to embrace all of its dimensions. The Health Realization model, Antonovsky's salutogenic model of health, Keyes' Psychosocial Continuum and Warr's (1987) vitamin model will be discussed in the next section.

Recently, however, a unique principle-based psychology commonly referred to as health realization (HR) has offered an explanation of optimal mental health that appears to surpass all others in logic, simplicity and clarity.

3.4.6 The health realization model (HR)

Research leading to the principles behind the health realization model began as part of a NIMH demonstration grant on primary prevention at the University of Oregon (1974 – 1979). The pioneering work on this paradigm was done by psychologists, Roger Mills (1990, 1992, 1995, 1997) and George Pransky (1990, 1997a). This research was general facilitated by the personal realization of these principles by philosopher, Sydney Banks (1983, 1989, 1998, 2001).

In the early 1970s, Banks suggested that a deeper understanding of human experience could be achieved by looking beyond the realm of form in which psychology had typically restricted its domain of enquiry. Banks asserted that there were spiritual processes that operated to create form and offered the time-honoured principles of mind, consciousness and thought to represent these processes. Banks viewed these principles as inseparable and inter-related trinity that provided a connection between formless life force and the world of form. Interestingly, such a view of the life experience a dynamic, continuous merging of the formless life force and form is consistent with current perspectives in both quantum physics and neurophysiology (Mustakova-Possardt, 2002; Talbot, 1991).

While reflecting on the principles behind HR, it would be helpful for readers to step back from the logical positivist perspective which may have them view these principles as metaphysical and beyond proof, and consider instead the value of these ideas in terms of a possible deeper convergent explanatory power. Today, many social scientists (Fox & Prilletensky, 1997; Miller & Thorese, 2003) are

questioning the validity and consequences of insisting on objective methods, and dismissing the approaches of philosophy and religion as too subjective.

More and more scholars are suggesting that the insistence of conventional research methods which objectify behaviour prevent one from pursuing issues of profound human importance such as those associated with religion, spirituality, and human reasoning (Maslow, 1971; Sorokin, 1959). The health realization model is based on four principles namely, the principle of mind, consciousness, thoughtfulness and innate mental health.

3.4.6.1 The principle of mind

At the formless level, HR defines the principle of mind as the purest life force, the source or energy of life itself, the universal, creative intelligence within and behind life, humans, and the natural world. Historically, mind has been referred to by many different names, including divine ground, absolute, universal intelligence, and God. On the level of form, this life force is continually manifested in, and flows through, personal mind, the individual mind of living things (Banks, 1998).

3.4.6.2 The principle of consciousness

At the formless level, consciousness provides the spiritual connection with mind. It is the neutral energy of mind that allows people to be aware, to be cognizant of the moment in a sensate and knowing way. At the realm of form, consciousness transform though, or mental activity, into subjective experience through the physical senses. As people's thinking agency generates mental images, these images appear real to them as they merge with the faculty of consciousness and register as sensory experience (Banks, 2001).

Put another way, HR proposes that consciousness is the ongoing sensory experience of thought as reality. Also, the faculty of consciousness allows people to recognize the fact that they are continually using their thinking agency to create their moment – to – moment experience from the inside-out. Finally, consciousness embodies the human ability to survey life from a compassionate, impersonal or objective stance, a perspective that HR calls wisdom (Banks, 2001).

3.4.6.3 The principle of thought

At the formless level, thought is the creative agent, the capacity to give form to to formless life energy, the link between the source and the form one's experience is taking in the moment. On the level of form, HR defines thought as the mental imaging ability of human beings, continuous moment-to-moment thinking, the continuous creation of life experience via mental activity. Thus, HR views thought and consciousness as two sides of the same process of experiencing life, consciousness allowing the recognition of form, form being the product of thought (Banks, 2001).

To summarize, according to HR, all human experiences is produced by the mind-powered combustion of thought and consciousness, and is the only experience of which human which human beings are capable. Thus, each person's mental life is the moment-to-moment product of their thinking transformed into experience by their consciousness. Furthermore, according to HR, all human behaviour unfolds, in perfect synchronization with the moment- to-moment thought plus consciousness reality that occurs for each individual (Banks, 2001).

3.4.6.4 The principle of innate mental health

HR proposes that human beings are born with an innate capacity for optimal mental health, the natural inborn synchronization or alignment of mind with mind. Health realization asserts that at birth, personal mind is uncontaminated by personal thinking and naturally aligned with mind. According to HR, following birth, whenever personal mind becomes quiet or clear, it automatically realigns with mind and instantly receives natural, intelligent thought process that is unfailingly responsive to the moment. Health realization views this generic, natural thought process as the primary source of psychological health, effortlessly producing the non-contingent experiences of well being, contentment, compassion, self-esteem, exhilaration, and common sense (Banks, 2001).

Regardless of their current mental status or prior socialization, HR asserts that all people have the same built-in source of psychological health, and will exhibit its attributes to the degree that personal mind is in sync with mind, allowing this natural thinking process to emerge.

HR proposes that the natural design for human beings is to live predominantly in the experience of psychological health produced by natural thinking. For most, however, this does not occur because most people not only underutilize this generic thinking process-most do not know it exists. What most people view as the preeminent, if not exclusive, thinking process, is personal thinking (analysis or processing). In the HR model, the overuse or misuse of personal thinking is seen as the primary source of mental dysfunction, or losing one's psychological bearings by drifting from their innate, natural thinking process. Mental health is seen as returning to natural thinking and regaining one's emotional bearing. The degree of mental dysfunction is gauged by how far a person has moved away from his or her natural thought process (Banks, 2001).

According to HR, in moments of mental health a person's thinking takes on a balanced movement back and forth between a spontaneous reliance on the wisdom inherent in natural thinking, and the occasional implementation of personal thought when appropriate, without getting stuck in the personal mode (Pransky, 1997). Antonovsky's salutogenic model of health will be discussed in the next section.

3.4.7 Antonovsky's salutogenic model of health (SOC)

In Antonovsky's model, good health is promoted through 'generalized resistance resources'. It is when resistance resources are inadequate to restore health balance, or manage stress, that an organism breaks down (Antonovsky, 1972). These resistance resources are represented by the concept of Sense of Coherence (SOC), which consists of three components: comprehensibility, manageability and meaningfulness (Antonovsky, 1987, 1993), and are defined as follows: a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable (comprehensibility); (2) the resources are available to one to meet the

demands posed by the stimuli (manageability); and (3) these demands are challenges, worthy of investment and engagement (meaningfulness) (Antonovsky, 1987).

The first of these components represents the cognitive, the second the instrumental, and the third, the motivational aspect of SOC (Antonovsky, 1987). These three components of SOC are strongly interrelated, and therefore, Antonovsky (1987, 1993) has stressed that they should not be measured as distinct constructs.

Although the strength of the SOC is largely shaped by life experiences in childhood and adolescence, it is capable of modification, however, by the nature of the current working environment (Antonovsky, 1987, 1991). Therefore, the SOC concept according to Antonovsky (1987) provides a theoretical model for the analysis of working conditions, through which SOC, and thus the ability to cope with stressors, may also be shaped in a stronger or weaker direction in later adulthood. The psychosocial work characteristics such as, influence at work, job insecurity, organizational climate and leadership relations, include elements that Antonovsky (1987) considers to be important in shaping an individual's level of SOC.

In the work, as in other life contexts, consistent experiences help provide a basis for comprehensibility, a good load-balance for manageability, and participation in decision-making for meaningfulness (Antonovsky, 1987, 1991). Thus the influence at work is essential to an individual's sense of meaningfulness. Furthermore, taking part in collective decision-making strengthens an individual's manageability, because perceived social resources, such as the support and advice of colleagues or managers, have an important instrumental function to an individual (Antonovsky, 1987, 1991). In addition, comprehensibility at work is strengthened considerably when the work environment enables an employee to see the entire spectrum and his or her place in it, fosters confidence and feelings of security, and supports communicability in social relations (Antonovsky, 1987).

When the level of an individual's SOC is shaped by the nature of the current working environment, it can be assumed that SOC, in turn, is a major determinant of an individual's state of health and well-being (Antonovsky, 1979, 1987, 1992). This central hypothesis of SOC theory, that the stronger the SOC the better the location

on the health continuum (Antonovsky, 1987), has also been supported by several empirical studies. It has been found, for example, that a strong SOC is negatively associated with perceived work stress (Ryland & Greefeld, 1991), emotional exhaustion at work (Feldt, 1997) and burnout (Baker, North & Smith, 1997; Gilbar, 1998) and positively associated with life satisfaction (Kalimo & Vuori, 1991), general well being (Ryland & Greefeld, 1991), functional status (Langius & Bjorvell, 1993), and psychological and physical health (Dalbokova, Tzenova & Ognjanova, 1995; Feldt, 1997; Sagy & Antonovsky, 1990). Furhtermore, a weak SOC has been found to be associated with depression and anxiety (Bowman, 1996; Carmel & Bernstein, 1989; Hart, Hittner & Paras, 1991).

Although SOC has been stated to be a relatively stable health source in adulthood, Antonovsky (1987) stresses that SOC is not rigidly fixed, but on the contrary, may fluctuate around a mean level of SOC. For example, radical and major changes in working conditions may, even for older individuals, substantially change the strength of SOC (Antonovsky, 1987). Such modifications, in turn, can have tangible effects on an Individual's health fate. For example, comprehensibility, manageability, and meaningfulness at work may decrease in the face of fear of losing one's job. So far, the effects of changes in psychosocial work characteristics on well-being through SOC have not been investigated (Feldt, Kinnunen & Mauno, 2000).

Overall, SOC is seen as a relatively stable dispositional personality orientation, which develops early in one's work experiences (Feldt, 2004). Having a good SOC has been found to be positively related to well-being and negatively related to stress and burnout (Hakanen, 2004). Although the research findings are still not conclusive there is evidence that SOC may (1) directly be associated with health and (2) mediate the effects of working conditions on health and (3) moderate the relationship between perceived work characteristics and health (Hakanen, 2004).

3.4.8 Keyes' psychological health continuum

Health has been valued as one of the highest goods in life that permits individuals, organizations and society to thrive (Keyes & Grzywacz, 2005). Keyes and Grzywacz (2005) indicated that within organizations physical and mental health are considered vital forms of human capital that are clearly linked to individual and economic performance. They further stated that an individual's or an organization's competitive advantage links to how healthy the individual is. Keyes and Grzywacz (2004) defined optimum health as, characterized by the absence of disease and the presence of both physical and mental health.

In the past decade mental health has moved from being viewed as the absence of psychosocial pathology, focusing on the negative, to being viewed as two continua, one representing mental ill-health and mental health as the other (Keyes, 2002; Keyes & Grzywacz, 2002). However, how healthy an employee is in an organization, depends on his or her varying levels of affect (positive or negative) and psychological well being. Harrington and Loffredo (2007) described the latter as self acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth in the workplace.

Individuals can be classified along a continuum as having varying levels of emotional, psychological or social well being, namely, flourishing, struggling, floundering and languishing (Keyes, 2002). Keyes (2003) represents these concepts as the Psychosocial Health Continuum, which stretches between flourishing and languishing. Keyes defined mental health as the absence of diagnosable mental disorders and the presence of flourishing (Keyes, 2003). Languishing is a condition described by Keyes (2002) where adults are without mental illness but have low levels of well- being.

In contrast, adults high in levels of emotional, psychological and social well being are described by Keyes (2002) as flourishing. Keyes and Lopez (2005) describe adults as floundering when they have low levels of emotional, psychological and social well being coupled with a recent mental illness. In Keyes' Psychosocial Health Continuum this is seen as Languishing and Depressed (Keyes, 2003). Keyes and Haidt (2003) describe adults as in a state of struggling with life when they have a mental illness

but who also may be filled with moderate or high levels of emotional, psychological and social well – being. In Keyes' Psychosocial Health Continuum this is seen as having a pure episode of mental illness (Keyes, 2003). Keyes' Psychosocial Health Continuum is presented in Figure 3.1.

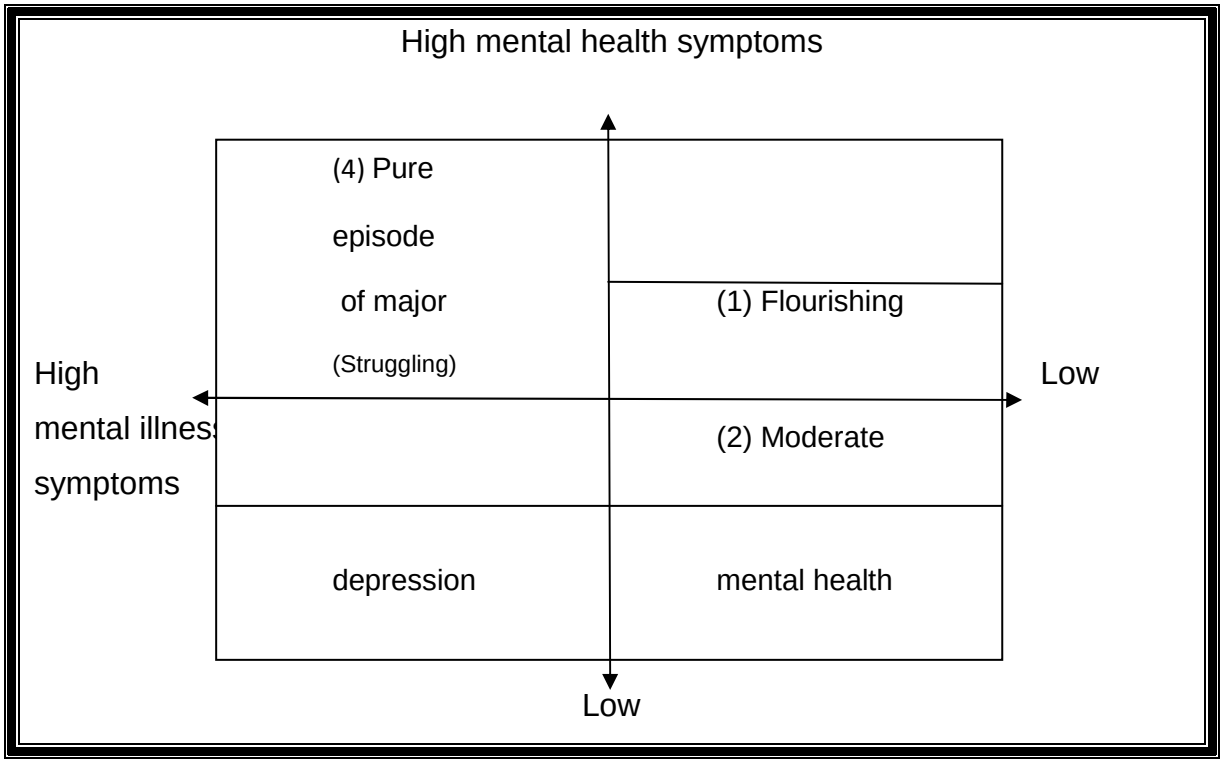

Figure 3.1 The complete mental health model and diagnostic categories (adapted from Keyes, 2003).

To flourish means to live within an optimal range of human functioning, one that connotes goodness, generatively, growth and resilience. This definition builds on path-breaking work that measures mental health in positive terms rather than by the absence of mental illness (Keyes & Grzywacz, 2002). Flourishing contrasts not just with pathology but also with languishing, a condition at the bottom of the mental health continuum. People who experience themselves as languishing describe their lives as "hollow", "empty" and "stagnant" (Keyes, 2002). Keyes (2003) further stated that individuals diagnosed as flourishing have excellent emotional health, miss fewer days of work, cut back on work on fewer days, and have fewer physical limitations in their daily lives. On the other hand, individuals who are diagnosed as languishing are "devoid of positive emotion toward life" and are not "functioning well psychologically

or socially", this can be extrapolated to not functioning efficiently and productively at work either.

3.4.9 The Vitamin model (Warr, 1987, 1994)

Essentially, the vitamin model holds that mental health is affected by environmental psychological features such as job characteristics. In a way that is analogous to the non - linear effects that vitamins are supposed to have on one's physical health. In addition to this central assumption of non-linearity, the vitamin model builds on two main features (Warr, 1990).

Warr's (1987) Vitamen model (VM) challenges the popular belief of linear relationships. Essentially, the vitamin model holds that mental health is affected by environmental psychological features such as job characteristics in a way that is analogous to the non linear effects that vitamins are supposed to have on one's physical health. First, job characteristics are grouped into nine categories that relate differently with mental health outcomes according to the type of 'vitamin' they represent.

Vitamins exert a particular influence on the human body. That is, vitamin deficiency produces bodily impairment and, consequently, may lead to physical illness ('deficiency disease'). Generally, vitamin intake initially improves health and physical functioning, but beyond a particular level of intake no further improvement is observed. Continued intake of vitamins may lead to two different kinds of effects, as shown in Figure 3.2 (Warr, 1990).

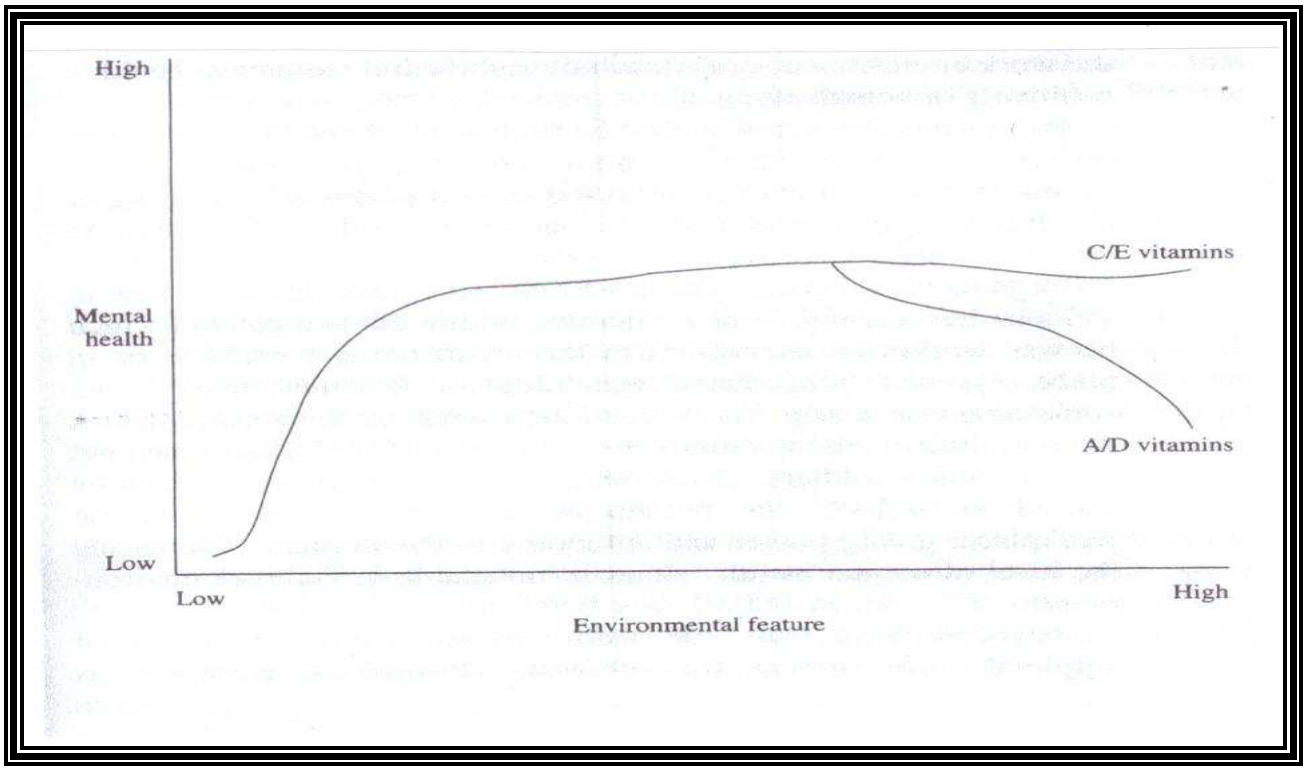

Figure 3.2 Contribution of environmental factors to mental health (Warr, 1987)

First, a so-called constant effect might occur: health neither improves, nor noxious consequences are observed that impair the individual's physical health. According to Warr (1987, 1994), vitamins C and E have a suchlike effect on the human body. Therefore, the label CE ("Constant Effect') is used to denote this particular relationship. Second, an overdose of vitamins leads to a toxic concentration in the body ('hypervitaminosis'), which causes poor bodily functioning and ill - health. Among others, vitamins A and D are known to be toxic, when taken in large quantities. For that reason Warr has used the label AD ('Additional Decrement') to denote the inverted U - shaped curvilinear relationship as depicted in Figure 3.2 Warr (1987) argues that the effects of job characteristics upon mental health parallel the ways in which vitamins act upon the human body. Following this line of reasoning one could refer to Warr's vitamins as 'work vitamins' (Warr, 1987).

According to Warr (1987), the presence of job characteristics initially has a beneficial effect on employee mental health, whereas, their absence impairs mental health (segment A). Beyond a certain required level, vitamin intake has no positive effect anymore: a plateau has been reached and the level of mental health remains

constant (segment B). Further increase of job characteristics (segment C) may either produce a constant effect (analogously to the vitamins C and E) or may be harmful and impair mental health, analogously to the vitamins A and D. The type of effect depends on the job characteristic under consideration. Moreover, Warr (1994) maintains that the curvilinear AD pattern is likely to vary across different kinds of mental health outcomes.

A less pronounced mid - range plateau is expected for job - related well - being and an inverted U-shape relationship is postulated. Finally, it seems plausible that the particular shape of a curve depends upon the particular kind of variable being studied. For example, an inverted U-shape pattern is expected in case of job autonomy and job satisfaction, whereas, a U-shaped curve is expected in case of job autonomy and emotional exhaustion.

Warr (1987, 1994) assumes that categories of the six job characteristics (i.e., job autonomy, job demands social support, skill utilization, skill variety and task feedback) have similar effects to vitamin A and D. The remaining three job characteristics (i.e. salary, safety, and task significance) are supposed to follow the CE pattern. It is important to know that the vitamin model postulates that job characteristics influence mental health, rather than the process being initiated in the reverse sequence (Warr, 1994). Job autonomy, for instance is assumed to follow the inverted U - shape or AD patter: very high levels of job autonomy are potentially harmful for the employee's level of mental health since it implies uncertainty, difficulty in decision making and high responsibility on the job (Warr, 1987).

A complex three - axial model of affective well - being, a core aspect of mental health, is postulated by Warr (1990). Below the three key features of the vitamin model are explained in greater detail (Warr, 1990).

Following similar frameworks of Russell (1980) and Watson and Tellegen (1985), this job - related affective well-being is made up of two orthogonal dimensions of pleasure and arousal (see Figure 3.3). In addition, two separate axes were located diagonally: anxious - comfortable and depressed - actively pleased.

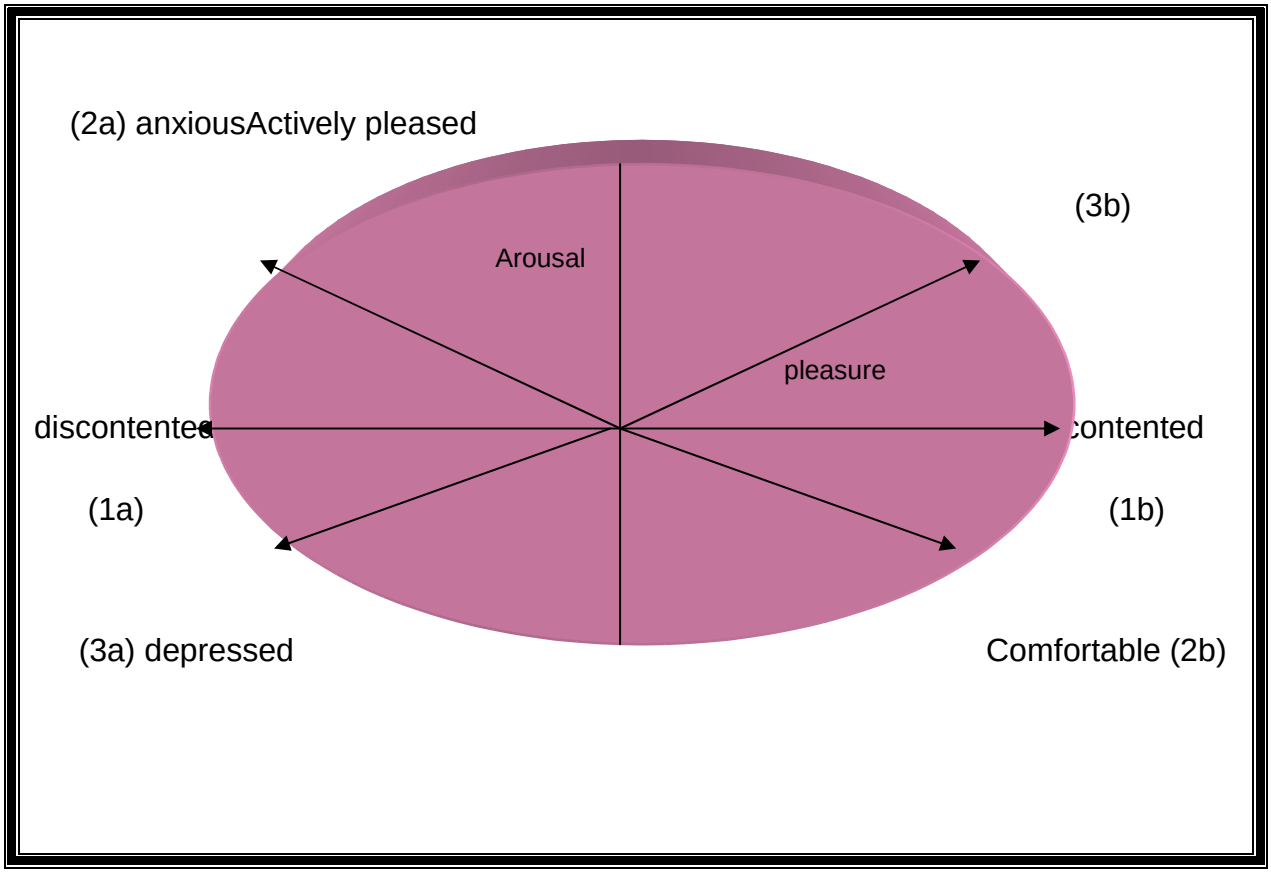

Figure 3.3 Three principle axes of affective well - being (Peter Warr, 1987, p. 41)

In order to measure affective well-being empirically three axes are used: (1) discontented-contented; (2) anxious-comfortable; (3) depressed-actively pleased. The vertical arousal dimension is not considered to be an empirical indicator of well - being and is therefore not labeled. Negative aspects of affective well-being are shown on the left - hand side of Figure 3.3, where positive aspects are depicted on the right-hand side. The elongated shape of Figure 3.3 suggests that the pleasure dimension is more important than the arousal dimension in constituting affective well-being.

Warr (1990a) has developed measurement scales of all aspects of mental health, including job-related effective well-being. The scales for job-related affective well-being cover the full range of the two principle axes (numbers 2 and 3 in Figure 3.3), and seem to be psychometrically quite acceptable.

Consistent with the position of the axes in Figure 3.3, the scores on the dimensions of affective well - being are expected to be positively correlated; that is the angles between the axes are less than 90 degrees.

Measures of self-reported well-being have been developed in respect of each of the three principal axes. They may be considered in turn, starting with context-free measures concerned with life in general. Along the first axis (from discontented to contented) are scales which index degree of pleasure with specific reference to level of arousal. In some measures arousal is assumed to be at a moderate level, close to the horizontal axis; these may be referred to as narrow-band measures. Items in other procedures cover a broader range of arousal values, including features from several distances above and below the horizontal axis. In these broad-band measures, axis one is treated as a composite of axes two and three (Warr, 1987).

The simplest measures in respect of the first axis are self-ratings of happiness. Bradburn and Caplovitz (1965) set out to assess overall sense of well-being through the question: “Taking all things together, how would you say are things these days? Would you say you are very happy, pretty happy, or not too happy?” A single item of that kind has also been used by Andrews and Withey (1974), Brenner (1975) and many others. Multi-items measures of happiness, yielding average or total scores across items, have been described by Bryant and Veroff (1982, 1984), Fordyce (1985), Kamman and Flett (1983) and others. Examples of both single and multi-item measures have been reviewed by Diener (1984) and Veenhoven and Jonkers (1984).

Those forms of assessment are through ‘narrow-band’ measures defined above. A narrow band approach has also been taken to the measurement of satisfaction with present life, through adjectival checklists or responses to descriptive or evaluative statements (Andrews & Withey, 1974; Warr, 1987). Reported happiness and satisfaction are typically intercorrelated to a high degree, but, as suggested in the figure above, they are ideally viewed as vectors with slightly different angles in respect of the primary pleasure axis. Campbell, Converse and Rogers (1976) have drawn attention to a differing association with age; at least in cross-sectional studies

there is a tendency of happiness to decline with age while life satisfaction increases beyond the middle years (Herzog, Rogers & Woodworth, 1982).

The first dimension of affective well-being has also been studied through broad-band instruments, in the form of self-completion inventories which cover a wide range of levels of arousal. Beckman's (1981) measure of 'general psychological well-being' contains items drawn from other scales covering life satisfaction, depression, morale, and social isolation.

A second example is Goldberg's (1972,) General Health Questionnaire. This was constructed in order to distinguish empirically between patients identified by medical practitioners as suffering from minor psychiatric disorders and those considered to be free of such disorder. The General Health Questionnaire covers a range of symptoms located in the left – hand side of the above figure, both above and below the horizontal axis. Illustrative questions ask about sleep loss through worry, feelings of strain, finding life a struggle, being unable to face up to problems, feeling depressed, worthless and hopeless, and thinking that life is not worth living. Other wide-ranging measures of negative affect have been described by Dohrenwend, Shrout, Egri & Mendelsohn (1980), Heady, Holstrom & Wearing (1984), Kellner and Sheffield (1973), Langner (1962) and others.

Self-report inventories have also been constructed to assess affective well-being on the two diagonal axis of the above figure, from anxious to comfortable, and from depressed to actively pleased. Measures of context free anxiety have been published by among, others, Spielberger, Gorsuch and Lushene (1970), Warr, Cook and Wall (1979) and Zung (1971). Depression inventories include those by Beck, Ward, Mendelson, Mock & Erbaugh (1961), Lubin (1965), Radloff (1977) and Zung (1965). A related measure aims to assess 'tedium', defined as the experience of physical, emotional, and mental exhaustion (Pines & Kafry, 1981). Within the California Psychological Inventory (Gough, 1975), the sense of well-being sub-scale appears to emphasize feelings along the third axis, from depressed to actively pleased. High scores are described as energetic, enterprising, alert, ambitious, versatile, productive, active, and valuing work and effort for its own sake.

There is widespread agreement about the content of principal forms of low well-being, so that items are very similar from scale to scale. However, are some variations in the degree to which scale content extends from thoughts and feelings into physiological processes. Characteristic forms of the latter are central to specific types of low affective well-being, so that comprehensive assessment of anxiety and depression should include evidence about bodily symptoms, such as muscular tension, stomach problems, and insomnia. Self-reports of these are in practice more common in measures designed primarily for clinical than for community occupational use, in that the former concentrate to a greater extent upon states of ill-health.

In occupational settings, the first axis (i.e. discontented-contented) has mostly been operationalized through measure of job satisfaction, but measures of job attachment and organizational commitment have been used as well (Warr, 1987). The second axis (i.e. anxious-comfortable) is usually tapped through measures of job-related anxiety, job-related tension and job related strain. Finally, the third axis (i.e. depressed-actively pleased) is assessed by such measures as occupational burnout, job-related depression, job boredom and fatigue.

This is the most general aspect of mental health and relates to ones overall feeling – feeling good or feeling bad. Warr (1987) considers that it is more useful to think of two independent dimensions of affect rather than just one. On the basis of previous research, Warr (1987) separates arousal and pleasure, each viewed as a continuum from positive to negative. For example, feelings of depression are characterized by low levels of arousal and pleasure. The feeling of anxiousness would be described as low on pleasure but high on arousal. The feeling of being relaxed relates to high levels of pleasure and low feelings of arousal. Feeling cheerful and happy indicates high levels of both arousal and pleasure.

While good mental health is usually associated with quadrants 1 and 2, mentally healthy people will also experience effects in quadrants 3 and 4. The distinguishing feature between the mentally healthy and unhealthy is the length of time which they spend in the various quadrants. The mentally healthy person may experience tension and gloom, but these feelings typically will not last a long time. The person

with poor mental health is likely to experience the majority of his/her time in the negative states (Warr, 1987).

Affective well-being is somewhat a malleable concept which is to do with people's feelings about their everyday life activities (Bradburn, 1969; Warr & Wall, 1975; Campbell, 1976). Such feelings may range from negative mental states (dissatisfaction, unhappiness, worry, etc.) through a more positive outlook which extends beyond the mere absence of dissatisfaction into a state which has sometimes been identified as positive mental health (Jahoda, 1958; Herberg, 1966; Berg, 1975). The definition of positive mental health is especially difficult, since the concept is both multidimensional and value-laden, but it is usually considered to include features as favourable self-evaluation, growth and learning from new experience, a realistic freedom from constraints and some degree of personal success in valued pursuits. According to Warr, (1987) there are also nine environmental characteristics of mental health.

In the next section the focus will be on the nine environmental characteristics of mental health identified by Warr, and then their impact on mental health.

3.5 Determinants of mental health in the work place

Nine categories of determinants can be distinguished, namely, opportunity for control, opportunity for skill use, externally generated goals, variety, environmental clarity, availability of money, physical security, opportunity for interpersonal contact, valued social position and QWL (Newell, 1995). Evidence for the psychological significance of the nine environmental characteristics has been summarized by Warr (1987, 1994, & 1999). Any environment may be examined in terms of the following features, which are known in general to be associated with subjective well-being.

3.5.1 Opportunity for control

The first determinant of mental health is assumed to lie in the opportunities provided by an environment for a person to control activities and events. Such opportunities may be of a very restricted kind, giving rise to limited decisions about one's own actions, or they may extend into major discretion over other people's lives (Warr, 1987, 2004).

Mental health is expected to be enhanced by situations which promote personal control. Although the amount of control exercised by a particular individual is partly determined by his or her motivation relative to a given situation (Langer, 1983), it is clear that physical environments and roles within social institutions vary in the extent to which they constrain or provide opportunities for decision-making and influence. In Employment settings, for instance, jobs differ considerably in the freedom they provide for workers to choose their objectives, to schedule their tasks, and to determine the ways in which work should be undertaken (Warr, 1987, 2004).

The opportunity for control has two main elements: the opportunity to decide and act in one's chosen way, and the potential to predict the consequences of action. The former is of particular importance, and will receive primary attention under this heading. Absence of the second element gives rise to a specific form of uncontrollability, when a person has freedom of decision and action but cannot predict the outcomes of these. Not knowing the consequences of behaviour, one cannot control what will happen (Seligman, 1975). That particular part of low control opportunity in the absence of information will be considered later, as a form of low environmental clarity.

Opportunity for control is introduced first among the assumed foundations of mental health for an explicit reason. If the remaining eight environmental features have substantial impact upon mental health, it may be that it is through influencing the level of those that a person can most directly affect his or her mental health. Opportunity for control may thus be important in determining the level of other features as well as contributing to mental health in its own right (Warr, 1987, 2004).

Jobs vary in the degree to which they enable the individual to control activities and events. Some jobs give the worker the freedom to schedule tasks, set objectives and decide how to achieve those objectives. Other jobs allow the worker very little input in any way of these decisions (Kanter, 1993). A lack of control was also considered to be a form of stress, so that one can expect that jobs which do not allow the worker much, or any, control over what to do and/ or which do not allow the outcome of actions to be predicted will be detrimental to mental health. Conversely, where the job differ a lot of opportunity for control mental health will be enhanced.

According to Warr, Butcher, Robertson and Callinan (2004), opportunity for control use is sometimes identified as opportunity for discretion, decision latitude or self determination. This aspect of a situation is important as its own right and also because it permits influence over other features.

3.5.2 Opportunity for skill use

A related determinant is the degree to which the environment inhibits or encourages the utilization and development of skills. Skilled performance is satisfying in its smooth and familiar aspects and for permitting effective responses to novel or complex stimuli. It is also psychologically important in assisting people to achieve targets, or to produce something useful or attractive. Restrictions on skill use may be of two kinds. First are those which prevent people from using skills which they already possess, permitting instead only behaviours which are well within routine capability. Second are restrictions on the acquisition of new skills, requiring people to remain at low levels of skilled performance despite their potential for extending into more complex activity (Warr, 1987, 2004).

Warr's (1987, 2004) second environmental determinant is often associated with the previous one, in that skill use typically implies environment control. However, control can sometimes be present in conjunction with a low level of skill, when a person can influence the environment in ways which are simple and unskilled but nevertheless of great personal importance (Warr, 1987, 2004).

The opportunity both to use the skills one already has and to develop new ones is assumed to have a positive impact on well-being. Such opportunity enables one to achieve one's goals and aspirations which are seen to be important in mental health. According to Kanter (1993), where a job provides little opportunity to use and develop skills, it is likely to be detrimental to health. According to Nakamura and Csikszentmihalyi (2002) opportunity for skill use permits the achievement of challenging goals and the validation of oneself as an effective person.

3.5.3 Externally generated goals

According to Warr (1987, 2004), a third determinant assumed to underlie mental health is the presence or absence of goals generated by the environment. Such goals arise partly through physical deficits in the environment (for example, the absence of food in one's current location but its known presence elsewhere), but also through obligations and targets deriving from roles within formal and informal institutions. Those roles introduce normative requirements to behave in certain ways, to follow certain routines, and to be in specified locations at certain times (Biddle, 1979).

These environmental characteristics are here to suggested to yield 'goals', rather than 'demands', 'requirements', 'prescriptions', or similar terms, in order to recognize that targets arising from the environment vary in the degree to which they are imposed or voluntarily accepted. In the former case the imposed targets might be referred to as environmental 'demands' (Warr, 1987, 2004).

Miller, Galanter and Pribram (1960) have illustrated how goals give rise to plans, which structure the pattern of behaviour. People test the environment by seeking feedback in relation to their progress towards a goal, and discrepancies between the contemporary environment and a target give rise to further goals. Goals and plans are thus viewed as being generated by the nature of an environment as well as through motivational characteristics of people themselves. This perspective falls within 'action theory', a broad perspective which takes goal-oriented action to be the fundamental unit of psychology (Frese & Sabini, 1985).

An environment which makes no demands upon a person sets up no objectives and encourages no activity of achievement. Conversely, a setting which gives rise to the establishment and pursuit of goals is assumed to lead to activities which both intrinsically and through their consequences may have a positive impact on their mental health. One may of course envisage situations which generate too many goals or goals which are too difficult, as well as cases in which a person chooses not to act in relation to a perceived demand (Warr, 1987, 2004).

People in work occupy roles and associated with these roles are a set of normative expectations about how the role occupant should behave in different situations. The requirements of a role provide structure to the activities and allow the person to focus on the attainment of goals. This is likely to have a positive impact on mental health (Kanter, 1993).

Externally generated goals have been found to be curvilinearly associated with subjective well-being. Both very high and very low demands from the environment are associated with reduced well-being (De Jonge & Schaufeli, 1998). This environmental determinant is sometimes studied under labels such as ‘workload’, ‘role demands’ or ‘responsibilities’.

3.5.4 Variety

It sometimes happens that externally generated goals and associated actions are repetitive and invariant. Required activity of a repetitive kind seems unlikely to contribute to mental health and to the same degree as more diverse requirements, which introduce novelty and break up uniformity of activity and location. Hence it is important to include environmental variety as an additional feature (Warr, 1987, 2004).

According to Warr (1987), a low variety environment may be viewed as one which constrains a person in physical location and in role-related activities. Variety is increased in relation to the number of roles available, but in addition some roles carry with them greater heterogeneity than others do. For example, the job activities of a senior manager are notably more diverse than those of a worker on an assembly line. Low variety within a role or within a set of roles is here assumed in general to have a negative impact upon mental health (Warr, 1987, 2004).

In some jobs the task requirements are repetitive and the person stays in one place doing the same thing over and over again. This is unlikely to promote mental health. According to Kanter (1993), where the job involves a wider variety of tasks in various locations this is likely to stimulate more interest and hence promote mental health.
Variety is also typically associated with greater well-being, in that low variation in demands and opportunities is psychologically disadvantageous (Warr, 1987, 2004).

3.5.5 Environmental clarity

The fifth determinant thought to underlie mental health concerns the degree to which a person's environment is clear or opaque. Three aspects of this seem to be of particular significance. First is the availability of feedback about the consequences of one's actions. Low predictability of these outcomes was introduced earlier as the source of one type of uncontrollability. Second is the degree to which other people and systems in the environment are predictable, so that one can foresee likely responses to one's own actions and, in the longer term, develop a conception of a likely life course. Third is the clarity of role requirements and normative expectations about behaviour, the degree to which standards are explicit and generally accepted within one's environment (Warr, 1987, 2004).

According to Warr (1987, 2004) it is assumed that environments which are unclear in these three respects are likely to impair mental health. Associated with this possibility is the significance of rate of change within an environment. Rapid changes may affect a range of contingencies and outcomes and in doing so they can markedly reduce clarity of the kinds suggested here.

This refers to the degree to which the job environment provides feedback to the individual about his performance. Feedback enables a person to know the consequences of actions taken, to predict outcomes in advance and to take steps to avert negative consequences. Also, environmental clarity relates to the degree to which role expectations are explicit and generally accepted by those in a person's role set (Kanter, 1993). It is expected that where there is clarity, mental health will be improved and where this clarity is lacking, mental health will suffer.

3.5.6 Availability of money

Money is often ignored in discussions of mental health, yet its absence can give rise to extensive psychological problems. When personal and family requirements exceed the financial resources available, small changes in either requirements or resources become particularly significant (Ashley, 1983). Poverty is in several ways self-perpetuating. More generally, shortage of money means that payment of some bills is only possible if others are left unpaid. Wilson and Herbert (1978) describe

unresolved problems such as the toilet out of action for six weeks or water dripping from the ceiling for months. Entertainment requiring expenditure is not possible, psychological threats are increased, and life is impoverished in many senses beyond the merely financial.

In general, however, it seems clear that severely restricted access to money can give rise to many processes likely to impair mental health. That is not to suggest that each increase in income will increase mental health (Warr, 1987, 2004).

Jobs differ in their financial rewards. This in itself may not affect mental health, but the absence of money is likely to restrict a person in many ways which will affect mental health and physical health. For example, having to worry about how the next bill will be paid is likely to be stressful, and not having money to pursue hobbies is likely to be inhibiting and frustrating (Warr, 1987; Kanter, 1993). Availability of money affects subjective well-being through the potential to purchase goods and services that meets one's needs and provides pleasure (Warr et. al., 2004).

3.5.7 Physical security

A seventh determinant within the present framework is a physically secure living environment. Environments need to protect a person against physical threat and to provide an adequate level of physical security. They also need to be reasonably permanent, providing security of tenure in the sense that occupants can look forward to their continued presence or can predict moving to other adequate settings (Warr, 1987). This feature tends in practice to be associated with the previous one, availability of money.

According to Kanter (1993) and Warr (1987) job environments that involve adverse physical conditions such as cold, danger and the lack of space, and/or psychological insecurity because they are not permanent, are likely to pose a threat to the individual, which in turn can affect mental health. Jobs where the environment is comfortable and permanent are consequently assumed to promote feelings of well-being. Physical security concerns the adequacy of living and working conditions, such that a person feels secure in his her environment (Warr, 1987, 2004)

3.5.8 Opportunity for interpersonal contact

Environments also differ in the opportunity they provide for contact with other people. This is important for at least four reasons. First, such contact meets the needs of friendship and reduces feelings of loneliness. The desirability of this is clear from everyday experience, and it has been incorporated in many theoretical frameworks. Existential psychologists such as Binswanger (1963) and May (1967) have emphasized people's attempts through personal choice and commitment to bridge the distance between themselves and others. Early drive and motivation theorists such as McDougall (1932) and Murray (1938) regularly included social drives within their expositions of human psychology.

Second, it is clear that interpersonal contact can provide help of many kinds. These have been referred to generically as social support (Thoits, 1982), with the suggestion that support may be emotional (contributing primarily to well – being through emotional inputs) or instrumental (contributing to the resolution of problems through practical help and advice). Also important is motivational support, whereby people are encouraged to persist in their efforts at problem-solution, and reassured that their endeavours will ultimately be successful (Wills, 1985).

A third function is in terms of social comparison. Festinger's (1954) theory asserted that people are motivated to compare their opinions and abilities with those of other people, in order to better interpret and appraise themselves. In some cases they can obtain fairly objective information about their position, but in most areas they have to rely on more uncertain knowledge arising from social encounters. These encounters provide opportunities for comparisons between one self and others, and in part they are steered by participants with this in mind (Warr, 1987).

A fourth important aspect of interpersonal contact arises from the fact that many goals can be achieved only through interdependent efforts of several people. Membership of formal or informal groups makes possible the establishment and attainment of goals which could not be realized by an individual alone. In this way the opportunity for interpersonal contact provided by an environment can be seen to link those features in the present account which are concerned with goals, variety, control and skill use (Warr, 1987).

Thus according to Kanter (1993) and Warr (1987), it is assumed that where job environments restrict access to interpersonal contact, mental health is likely to be adversely affected. Opportunity for interpersonal contact may be examined in terms of either quantity or quality of interaction. Quantity is sometimes viewed as frequency of interaction or as social density and quality may be examined in terms of social support or valued friendship (Warr, 1987; 2004).

3.5.9 Valued social position

The ninth determinant considered to be important is a position within a social structure which carries some esteem from others. In practice, a person may be a member of several social structures, so that he or she has the possibility of esteem from several positions (Warr, 1987, 2004).

Esteem within a social structure is generated primarily through the value attached to activities inherent in a role and the contribution these make to the institution in question. Role incumbency also provides public evidence that one has certain abilities, conforms to certain norms, and meets certain social obligations. In turn, membership of an institution may carry with it high or low esteem in the wider community. Particular role activities may of course be considered important to different degrees by different people, and external indicators of social esteem do not always coincide with the value which a person accords to his or her own contributions (Warr, 1987, 2004).

This determinant according to Warr (1987, 2004) is also associated with several of the others. For example, a position and its role activities provide opportunities for social comparison, may enhance predictability and environmental clarity, and impose goals and behavioural traction. More valued positions in wider society may also carry with them larger incomes than those accorded lower status.

If one is concerned to change environments in order to enhance mental health, then the model implies that the nine categories are also levers which might be pulled to generate beneficial change. In addition, longitudinal studies of environmental change and mental health might use the nine features as principal dimensions of comparison between previous and present settings. The impact of a transition is often thought to

be a function of the magnitude of the difference between two environments and therefore such differences may usefully be characterized in these nine terms.

Positions or jobs exist within social structures. Jobs will have differing amounts of status attached to them depending on the value attributed to activities associated with the role. This is the result of a social construction. Those who hold a valued social position may be able to maintain higher levels of self-esteem and confidence, which is an important aspect of mental health (Kanter, 1993; Warr, 1987).

Valued social position has also been found to be correlated with well-being. It may be measured in terms of social rank or status in society or through the contributions a person makes to other people (Warr, et al., 2004). Particular aspects of these environmental features may be explored in detail, or overall indicators of each might be applied as part of a more comprehensive investigation.

Clearly, these nine determinants overlap to a considerable degree, but Warr (1987) argues that including them all provides a more comprehensive treatment of the environment. There is also a clear overlap with Jahoda's (1958) latent and manifest functions of work, with the vitamin model explaining some of these functions. The importance of such models is that they provide a starting point for considering the impact of a job on a person's mental health. The vitamin model suggests that a job which contains limited vitamins (amounts of the nine environmental features) will have an adverse impact on mental health. By definition, to improve mental health in work, it will be necessary to improve the extent to which a job incorporates these determinants (Warr, 1987).

3.5.10 Quality of work life

Work organizational research suggests that adverse work conditions result in negative health outcomes (Karasek & Theorell, 1990). Previous studies have shown that low work control, or having little influence over decision latitude, is often associated with depression (Mausner-Dorsch & Eaton, 2000), anxiety (Griffin, Fuhrer, Stansfeld & Marmot, 2002), and poor physical health (Wickrama, Lorenz, Fang, Abraham & Elder, 2005). Several decades ago, work socialization research

documented that work control contributes to increased psychological resources such as personal control (Kohn & Schooler, 1973). In health psychological research, an increasing number of studies have documented that personal control contributes to better mental and physical health (Haidt & Rodin, 1999). Thus far no study has empirically investigated the dynamic associations among work control, personal control, and health together as a continuous process in which personal control mediates the association between work control and health over time.

Karasek and Theorell (1990) defined work control as having latitude over one's work decisions and the possibility for use and further development of one's skills (i.e., skill discretion). Thus, the combination of work authority and skill discretion indicators adequately captures work control (Griffin et al., 2002; Karasek & Theorell, 1990). Although early research on work and health has documented the adverse multiplicative effect of low work control and high psychological demand on health (Karasek & Theorell, 1990), an increasing number of studies have provided supporting evidence for additive effects of work control alone on mental and physical health outcomes (Mausner-Dorsch & Eaton, 2000; Wickrama et al., 2005).

The work socialization perspective contends that work control is associated with positive work qualities such as occupational self-directiveness, substantive complexity, and non-routine work. These positive work characteristics contribute to intellectual and cognitive abilities and habits such as intellectual flexibility and a flexible orientation toward the self and society (Kohn & Slomczynski, 1990; Kramer, Bherer, Colombe, Dong & Greenough, 2004). In turn, these individual characteristics shape one's general beliefs, attitudes, and values related to personal control (Kohn & Schooler, 1973; Kohn & Slomczynski, 1990). Personal control beliefs (referred to as *personal control* hereafter) concern the extent to which one feels able to control or influence outcomes or believes that one controls his or her life rather than being at the mercy of powerful others and outside forces (Lachman & Weaver, 1998; Lorenz, Conger, Montague & Wickrama, 1993).

Previous research has documented that strong personal control is linked to better mental health (Haidt & Rodin, 1999) and physical health (Marmot et al., 1998). In fact, the relationship between personal control and health grows stronger with age

(Rodin & Timko, 1992). Previous research suggests that personal control influences mental and physical health directly and indirectly through several pathways.

People with a high level of personal control are more likely to initiate preventive behaviors such as getting regular check-ups; adhere to health behaviors such as maintaining balanced diets and exercising (Tedesco, Keffer & Fleck-Kandath, 1991); and quit risky behaviors such as smoking, excessive drinking, and substance use (Seeman & Seeman, 1983). Consistent with a life-span perspective (Baltes & Baltes, 1990), these behavioral adaptations may be important for the selective optimization processes that compensate for diminishing biological robustness among men during the middle years. Warr (1987, 1994) distinguishes five characteristics/ components of mental health, namely, affective well-being, competence, autonomy, aspiration and integrated functioning. These will be discussed in the next section.

3.6. Characteristics/ components of mental health

Psychological research mainly focuses on affective well-being as an indicator of job-related mental health. Warr (1987) extends his analysis by posting a distinction between 'context-free' and 'context-specific' mental health. According to Warr (1987), context specific mental health refers explicitly to job-related mental health, i.e. those indices which reflect affective well-being and subjective competence in the workplace. In contrast, context-free mental health is a more global construct which is not tied to a particular setting or context.

The medical profession has developed and routinely applies criteria which serve to designate individuals as either mentally ill or not ill. Decisions of this kind can in particular cases be complex and difficult, but three general issues are likely to be involved in each case. The first conventional criterion of ill-health is that a person feels unwell. Second, he or she has one or more impaired functions – psychological, social, and/or personal.

Thirdly, is the presence of a recognizable pattern or syndrome of symptoms, whether or not these are known to the person. Application of these three medical criteria does not remove all conceptual or diagnostic criteria (Warr, 1987).

Ill-health and health are thus both viewed in the same primary terms, although, it is recognized that specific syndromes of illness may yield patterns which sometimes appear qualitatively different from those which are typical in the population. In the same way, one might seek to identify specific syndromes of outstandingly good health, which appear to set certain very healthy individuals apart from the rest (Warr, 1987).

It seems appropriate to assume a normal frequency distribution, with most people falling in the middle range of the health/ ill-health continuum and only a few at each extreme. A minority of people fall below a threshold of illness, and a similarly small number of particularly fit people at the opposite end of the distribution may be described as extremely healthy (Warr, 1987).

Within this perspective one may identify a number of major components of mental health, each of which may itself be treated overall as a continuum. The present description contains five such components namely, affective well-being, competence, autonomy, aspiration and integrated functioning.

The first component, affective well-being, is similar to the primary medical criterion introduced above. Components two, three and four cover aspects of a person's behaviour in relation to the environment, and may be suggested to be important in three different ways. In the fifth component, statements about integrated functioning are of a more macroscopic kind, being concerned with multiple relationships between the other four components and covering issues of overall structures.

3.6.1 Affective well-being

The first feature is often viewed in overall terms along a single dimension, roughly from feeling good to feeling bad. However, it is preferable, on conceptual and empirical grounds, to identify two separate dimensions of affective well-being, which may be referred to as pleasure and arousal. They can be treated as independent of each other in the manner shown in figure 3.4 below.

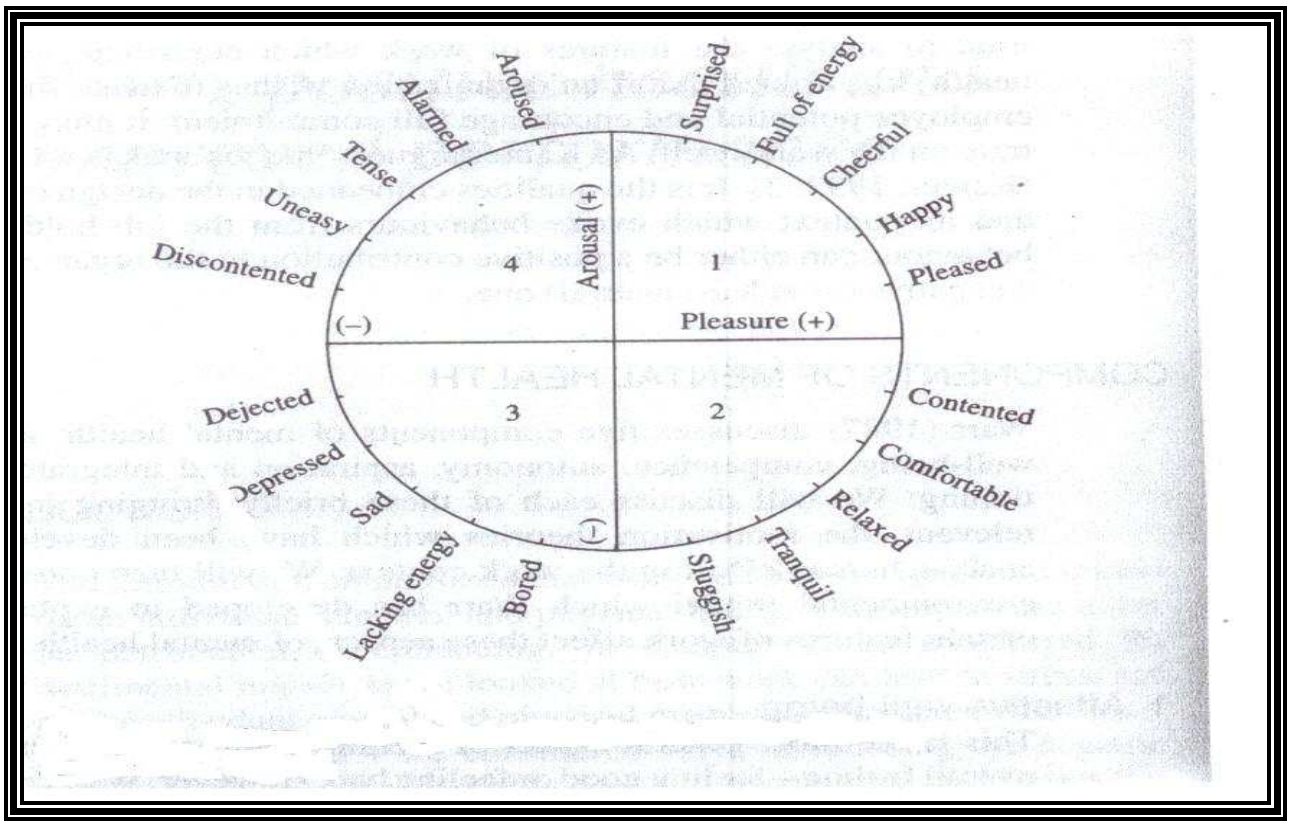

Figure 3.4 A two – dimensional view of affective well-being (Warr, 1987, p. 27)

The diagram provides a schematic representation of a model which has been empirically substantiated in many different settings (Russell, 1979, 1980, 1983; Russell & Ridgeway, 1983). One may view any affective state in terms of its location on the separate dimensions of pleasure and arousal (Mackay, 1980; Watson & Tellegen, 1985; Zevon & Tellegen, 1982).

A particular level of pleasure may be accompanied by high or low levels of arousal, and a particular level of arousal may be either pleasurable or unpleasurable. The specific quality of affect derives from both dimensions and may be summarized in terms of location relative to the midpoint of the figure. For example, depressed feelings are characterized by low scores on each dimension (being located in the bottom left-hand sector) and anxiety may be described in terms of a low score on pleasure and a high score on arousal (in the top left-hand quadrant) (Warr, 1987).

This perspective also includes the possibility of degrees of each affect. For instance, although anxiety is set at a particular angle from the center of the figure, different amounts of anxiety may be defined in terms of their distance from the center. Feelings of this kind set out in the figure are usually focused upon particular issues or objects. Thus one may be pleased about a certain family activity or depressed about being unemployed. Affective foci vary in their specificity, ranging from single events localized in time and space through continuing and diffuse circumstances involving numerous people and occurrences (Warr, 1987).

Therefore according to Warr (1987), there are thus strong interconnections between affective well-being in general and self-esteem in particular, the latter being viewed in terms of pleasure-and-arousal feelings about the self and subjective assessments of one’s competency, autonomy, and aspiration.

Although higher levels of affective well-being are in general associated with the right-hand side of the figure, mentally healthy people can also experience feelings located in the left-hand sectors. A person as it were moves about in the two-dimensional affective space. This suggests the possibility of adding a third dimension to the figure, concerned with time, and ranging from relatively transient or momentary feelings to more permanent, enduring states. More generally, one can describe a person’s affective well- being over a given period of time which he or she spends in each of the four principal sectors (Warr, 1987).

Warr (1987) is of the opinion that time spent in the top-left hand quadrant is particularly important in this form of interpretation, since tension is often a necessary prelude to affects located to the right-hand side of the figure. Movement between these quadrants may be gradual or sudden.

Affective conditions may be physiological or psychological. This is particularly clear in respect of low well-being, where, for example, anxiety may be reflected in muscular tension, rapid heart-rate, and increased perspiration, and depressed mood is often accompanied by sleep disturbance, fatigue, and loss of appetite. However, many positive effects are also linked to bodily states, as illustrated through terms as excited, full of energy, relaxed and drowsy to the right-hand side of the figure (Warr, 1987).

3.6.2 Competence

The second component of mental health, here referred to as competence (Smith, 1968), has been widely discussed in the literature. Jahoda (1958) wrote in terms of environmental mastery, viewing good mental health partly in terms of an acceptable degree of success in different spheres - interpersonal relations, problem-solving, paid employment, and so on. Bradburn (1969) covered similar issues in his consideration of people's ability to cope with and transcend their difficulties in living. Vaillant (1977) argued that good mental health becomes apparent only when a person faces adversity.

The competent person is one who has adequate psychological resources to deal with experienced pressures. In part this is a question of having appropriate cognitive, problem-solving, or psychomotor skills, and in part it is a reflection of emotional features, such as appropriate limits upon affect-based distortion of perception, and a willingness to test out beliefs and feelings against reality. In some settings, physical resources may also be important in determining level of competence, at least in the sense that frailty can impair a person's ability to cope with his or her daily problems (Warr, 1987).

As noted above, competence may be viewed as objective (what a person can actually do) or subjective (his or her sense of competence). Bandura (1977) described the latter in terms of beliefs about self-efficacy, expectations about personal mastery. White (1959) considered that feelings of efficacy arise from successful activity driven by effectance motivation. Levels of objective and subjective competence are likely to be positively inter–correlated, but they do of course sometimes differ.

It would be wrong to view all types of competence as evidence of low mental health. Everyone is incompetent in some respects. Two themes are important here, associated with the types of value attached to competence, autonomy, and aspiration which were introduced in the earlier section. First, it may be suggested that a key factor in deciding whether level of competence reflects level of mental health is its positive causal impact upon affective well-being; low competence which is not linked to negative affect would often be viewed as having no bearing upon mental health. Within this link one should include the contribution of subjective competence to level of self-esteem, itself a specific aspect of affective well-being (Warr, 1987).

The second theme values competence in its own right, irrespective of its link with affective well-being. On this basis, successful transactions with the environment and maintenance of effective behaviour are valued for their own sake, both in respect of contemporary demands and as a reflection of an enduring characteristic which is widely viewed as desirable. Effective individual performance is often also considered important at a societal level, increasing the prospect of a society's continuity or progress (Lazarus, 1975).

Therefore professional competence and skills are constantly developed and shaped in daily work. Although it is an obvious necessity in many companies to keep up with the changing demands for competence, previous research has shown that opportunities for competence development can be impaired in a multi task setting (Zika-Viktorsson, 2002). In such settings, there is an obvious risk that time for long term development and training is not sufficiently prioritized in relation to short term

task delivery. At the same time, it may be difficult to obtain time to reflect over and analyze daily work in a manner that generates new insights, knowledge and professional skills (Zika-Viktorsson, Sundström & Engwall, 2006).

Results showed that at each level of competence, as measured by the IQ tests (high, medium and low), students who believed that they were more competent (high self efficacy beliefs) did better than students who had a low opinion of their competence (low self efficacy beliefs). Bandura (1977) explains this in terms of the effect of self efficacy beliefs on a person's motivation. That is, the higher ones belief in ones own competence, the more efforts one will put into ensuring success. This can be explained in the two dimensions which underpin process theories of motivation. Process theories seek to identify the relationship among the variables that contribute to the level of effort (i.e. motivation) an individual expends in a given situation (Warr, 1987).

3.6.3 Autonomy

Similar points apply to the third component in the present framework, referred to as autonomy. Many western writers have stressed the importance of a person's ability to resist environmental influences and to determine his or her own opinions and actions. Angyal (1965) argued that the tendency to strive for independence and self-regulation was a fundamental characteristic of the healthy organism. Angyal (1965) viewed mental illness as a halt or regression in this autonomous trend. In a similar vein, Loevinger (1980) included in her account of personal development a high-level autonomous stage.

Other writers have viewed this aspect of mental health in terms of internal locus of control, a general tendency to feel and act on the assumption that one is influential rather than helpless in the face of life's difficulties (Lefcourt, 1982; Rotter, 1966; Seligman, 1975).

Numerous scholars have suggested that autonomy has multiple facets with unique predictive qualities (Morgeson & Humphrey, 2006). Jackson and colleagues (1983) argued that autonomy can be conceptualized as work scheduling autonomy (i.e. the freedom to control the scheduling and timing of work) and work methods autonomy

(i.e. the freedom to control which methods and procedures are utilized). Additional research has suggested that decision-making autonomy (i.e. the freedom to make decisions at work) is also an important component of autonomy.

Although each of these three facets of autonomy was expected to relate to work outcomes, there was reason to suspect differences in their impact. For example, as compared to work scheduling autonomy, job incumbents with high levels of work methods autonomy should perceive that they have greater influence on how a task is accomplished. That is, work methods autonomy allows job incumbents the opportunity to influence the specific behaviours on the job, whereas work scheduling autonomy just suggests that an incumbent can influence how the behaviours are ordered (Humphrey, Nahrgang & Morgeson, 2007).

However, too much autonomy as well as too little is often seen as undesirable. Many writers have pointed out that it is successful interdependence, rather than extreme dependence, which is a sign of good mental health (Warr, 1987). It thus seems appropriate to envisage a dimension of autonomy ranging from extreme dependence to extreme counter dependence, between which are located both interdependence and independence. It is a combination of the latter two locations on the continuum which reflects good mental health of this kind. Statements about autonomy in this setting thus cover two features.

Firstly, the extent to which a person is an independent agent, acting upon the environment, relying upon his or her own judgements, and feeling responsible for his or her actions. Secondly, is the degree to which the person is interdependent with other people in that environment, contributing to their interests as well as seeking his or her own satisfaction. In general, independence appears to be given a greater value relative to interdependence in Western than Eastern societies.

Autonomy is linked with competence and aspiration in several ways. For example, it is often through actions to master the environment (striving to be competent) that a person gains independence and increased autonomy often requires that an individual is personally competent to handle life's problems (Warr, 1987).

3.6.4 Aspiration

The mentally healthy person is often viewed as someone who has an interest in, and engages with, the environment. He or she establishes goals and makes active efforts to attain them. A raised aspiration level is reflected in motivational behaviour, alertness to new opportunities, and efforts to meet challenges that are personally significant. Conversely, low levels of aspiration are exhibited in reduced activity, and an acceptance of the present state no matter how unsatisfactory that appears to others.

Csikszentmihalyi (1975), in a review of positive experiences in a wide range of settings, has emphasized the importance of endeavours in which involve a going beyond the known, a stretching of one's self toward new dimensions of skill and competence. Kornhauser (1965) was particularly concerned with mental health of people in jobs, arguing that motivational level may sometimes be too high as well as too low.

Herzberg (1966) suggested that mental health requires two kinds of development, both an adjustment to the environment so that negative states are minimized and also the occurrence of and potential for psychological growth. A key feature of psychological growth was seen as the continuing motivation to expose oneself to situations which are unfamiliar and novel.

A related theme is in terms of self-realization, striving to fulfil ones own ideal nature in the face of environmental and personal constraints. Maslow (1943, 1973) elaborated the concept of self-actualizations by distinguishing between becoming and being. The process of movement towards ones full potential, towards the actualization of what one might be, is one of becoming, and one is closer on some occasions than others to being true to oneself (Maslow, 1943, 1973).

Personal effort in that direction was viewed as an important as of the healthy personality. The importance of raised aspiration as a feature of mental health re-emphasizes the fact that the mentally healthy person is not always free from tension and anxiety. In striving to achieve personal goals one may well face stressful

situation, indeed one may create them through identifying and pursuing difficult targets (Warr, 1987).

The importance of raised aspiration level to good mental health is particularly clear in circumstances adverse to the individual, where the desire for change is likely to be viewed as central to a healthy response. However, in a problem-free setting, the identification of high aspiration with high mental health is more a matter of personal value orientation. Contentment without perceiving a need for change might in these circumstances be viewed as healthy, but some observers are likely to see an absence of motivation as shading into apathetic ill-health (Warr, 1987).

It is clear that people can have wants which are unrealistic in relation to their competence or to constraints in their environment. Aspirations which are extremely high in this sense can give rise to chronic distress, as actions lead to fail to failaure. The contribution of aspiration to mental health is thus probably curvilinear: moderately high motivation, especially in a problematic environment, tends to exemplify better mental health than does either extreme. Emphasis in this fourth component is placed on the attainment as well as the establishment of goals. This is in part a reflection of the second component (competence), in that the healthy person is also viewed as having adequate resources for goal attainment. Several aspects of mental health thus come together in the effective performance of tasks directed toward personally valued goals (Warr, 1987).

3.6.5 Integrated functioning of mental health

The final component of mental health, here referred to as integrated functioning, is qualitatively different from the previous features. Statements about integrated functioning refer to the person as a whole, often in respect of multiple interrelationships between the other four components. Structural issues are thus of prime concern. The importance of this component arises from the fact that people who are psychologically healthy exhibit several forms of balance, harmony, and inner relatedness. Indeed, the original meaning of health was wholeness, with to heal meaning to make whole (Warr, 1987).

The notion of integrated functioning is multifaceted and difficult to define. Writers tend to develop their account within the framework of a preferred theoretical approach. For example, some have written in psychoanalytic terms, examining the relationship between ego, superego, and id, and others have emphasized consistency of character, a unifying outlook on life, or the successful acceptance or resolution of mental conflicts (Jahoda, 1958).

Assessments may be made by an observer, or be subjective, through reports from the focal person. In the latter case integrated functioning includes viewing oneself and one's experiences as a coherent pattern of processes and states, which come together to yield a sense of identity and individuality (Erikson, 1950). Smooth interdependence between the three previous components to yield predominantly high levels of affective well-being would also illustrate integrated functioning.

Another approach to this component is in relation to three broad areas of social role functioning, sometimes referred to as love, work, and play. These cover family relations, paid employment, and leisure, and it is clear that the healthy person is someone who balances the importance of these three areas, avoiding for example 'workaholic' behaviour to the detriment of his or her family life (Vaillant, 1977).

According to Chen, Powell and Greehaus (2009) significant societal changes in the division of labour and allocation of family responsibilities have occurred over the past three decades. As the proportion of women in the labour force has increased in virtually every nation, adherence to the traditional family structure of a male breadwinner and female homemaker has declined and the representation of dual-career partnerships, single-parent households, and other nontraditional family structures has increased. A considerable literature has emerged to examine the implications of such changes for individuals' experiences of the work-family interface (Eby, Casper, Lockwood, Bordeaux & Brinley, 2005; Frone, 2003). Two primary perspectives have been offered in this literature on the interdependencies between individuals' work and family domains. One perspective, which focuses on negative interdependencies, suggests that individuals may experience conflict between their work and family roles due to limited time, high levels of stress and competing behavioural expectations (Eby et al., 2005; Greenhaus & Beutell, 1985).

What has been loosely called “boundary theory” (Ashforth, Kreiner & Fugate, 2000; Kreiner, 2006; Nippert-Eng, 1996) suggests a possible answer to this question. According to boundary theory, cognitive, physical, and/ or behavioural boundaries (“fences”) may exist between individuals’ work and family domains. These boundaries may be sharpened, which leads to role segmentation, or blurred, which allows for role integration; segmentation and integration are regarded as positive ends of the same continuum (Ashforth et al., 2000; Kreiner, 2006). Individuals vary in the degree to which they prefer to segment work and home life (Rothbard, Phillips & Dumas, 2005).

Furthermore, work places vary in the degree to which they “supply” the conditions or resources that enable individuals to segment work and home life (Kreiner, 2006). Employers that provide a work place environment that is congruent with employees’ segmentation preferences could contribute to reduced work-family conflict and increased work-family positive spillover among employees.

Integrated functioning may also be considered across time, either in terms of a balance between accepting strain during difficult phases of goal attainment and relaxation during intervening periods, or in terms of a development of the self through stages of life. In the latter case the suggestion is usually made that progression through certain defined stages leads to a mature integration which is otherwise lacking. However, the postulated nature of developmental stages varies somewhat between theorists (Lazarus, 1975).

The converse of this aspect of good mental health is disintegration and structural breakdown. For instance, in certain forms of neurotic disorder a person not only experiences very low affective well-being, but also shows marked impairment in all other respects. Such a generalized collapse is accompanied by a loss of previously established coherence and mutual support between elements (Warr, 1987).

This component refers to the person as a whole and considers the interrelationships between the first four components, namely, affective well-being, competence, autonomy and aspiration. It is difficult to define, but suggests a person who is ‘balanced’ and in ‘harmony’. Jahoda (1958) emphasized that a mentally healthy person was someone who was consistent in character, had a unified outlook on life

and was able to successfully accept mental conflicts. It is also sometimes considered in relation to the balance a person finds between the different aspects of life, love, work and play.

A mentally healthy person is considered to have found a balance between the importance of family relations, paid employment and leisure. Therefore, the 'workaholic' who can only find time for work, is not considered to exhibit good metal health. This last point illustrates how the concept of mental health is socially constructed (Kanter, 1993).

According to Kanter (1993), the components of mental health considered above are deemed to define the healthy person in Western society in the twentieth century. At other periods in history, and in other cultures, a very different concept of mental health may exist. For example, independence and autonomy are to be considered positive features in society, whereas in other cultures, and periods of history these same features would be used to suggest that the person was unhealthy or even ill, the healthy person being the one who exhibited strong dependence on others. Even until recently, women in Western societies were not expected to be too independent. Herriot (1992) was of the opinion that it was considered "correct" for the woman to remain dependent first on her biological family and then on her husband. As another example, Muslim tradition dictates that women are not expected to want to have any autonomy in the choice of a marriage partner. Therefore, the concept of mental health must always be situated within a particular context and seen as a manifestation of cultural or societal norms.

The "fuzziness" of the concept needs to be borne in mind as one turns to consider factors in the work environment which are thought to influence the development of positive mental health in society. One will argue that it is important for organizations to provide work environments which promote positive mental health because mentally healthy employees have precisely those attributes which are necessary to the survival of organizations in the twentieth century (Koopman, 1991).

Other important components of mental health that is included in this study are general health, positive mental health and satisfaction with life.

3.6.5.1 General health

General health focuses on two main classes of phenomena, namely the inability to carry out one's normal "healthy" functions, and the emergence of new phenomena that are distressing (Goldberg & Williams, 1988). Furthermore it also looks at psychological components of ill-health associated with breaks in normal function rather than lifelong traits. A number of different versions of the instrument exists, ranging in size from 12 to 60 items, each of which is scored on a 4 point Likert-type scale of severity. As well as the global score, there are four subscales consisting of 7 items in each case which are labeled, somatic symptoms, anxiety and insomnia, social dysfunction and severe depression (Goldberg & Williams, 1988). These dimensions are discussed in detail in the research methodology chapter.

Depression is the leading cause of disability in individuals aged 18–44 years, and it will be the second leading cause of disease-related disability in people of all ages by 2020. Adding to the already substantial symptom profile and role impairment associated with depression is the fact that medical illnesses such as chronic pain conditions are a major risk factor for depression, and they often co-occur (Munce, Weller, Blackmore, Heinmaa, Katz & Stewart, 2006). In fact, the prevalence of depression in chronic pain samples has been estimated at 31–100%, significantly higher than the rate of 5–8% found in the general population. However, this link is not surprising given the physiological and psychological overlaps between pain and emotion and/or mood.

Psychological stress has also been shown to interact with pain and depression (Munce et al., 2006). Most studies have indicated that a higher number of stressful life events are associated with increased pain sensitivity and the subsequent higher prevalence of (chronic) pain states. The response can then lead to maladaptive coping strategies, especially in the depressed individual, which in turn, lead to more pain.

According to Twenge and Campbell (2008) the number of people being treated for depression more than tripled in the ten-year period from 1987 to 1997., jumping from 1,8 million to 6,3 million. A total of 8,5% of Americans took an antidepressant at some time during 2002 alone, up from 5,6 % just five years before in 1997. This does not mean more people are receiving treatment, or that more people are anxious and depressed in the first place.

The available evidence suggests that anxiety and depression are now more common even apart from more diagnosis and treatment. Only 1 to 2 percent of Americans born before 1915 experienced a major depressive episode during their lifetimes, even though they lived through the Great Depression and two world wars. Today, the lifetime rate of major depression is ten times higher, between 15 percent and 20 percent. In one 1990s study, 21 percent of teens aged 15 to 17 had already experienced major depression. Anxiety increased so much that the average college student in the 1990s was more anxious than 85 percent of students in the 1950s and 71 percent of students in the 1970s (Twenge, 2000). The trend for children was even more striking: Children as young as nine years old were markedly more anxious than kids had been in the 1950s. The change was so large that normal schoolchildren in the 1980s reported higher levels of anxiety than child psychiatric patients in the 1950s. A recent analysis shows increases in psychopathology in college students 1938-2007 on every clinical subscale of the Minnesota Multiphasic Personality Inventory (Twenge & Campbell, 2008).

Many of the data on anxiety are based on college student and child samples, and thus people not yet in the workforce. However, the studies documenting an increase in depression have been conducted with adult samples. In fact, depression affects about 6 percent of American workers each year, costing companies more than $30 billion in lost productivity every year. This suggests that the problem does not go away after young adulthood, and that workplace issues may play a part. The modern workplace presents several psychological hazards. The pace of work demands is extremely fast and the demand for productivity has grown so significantly that no one feels they are doing enough; almost everyone looks at the undone workload and

feels inadequate. Job security is at an all-time low, compounding the feelings of stress. Given these pressures in the workplace, there are many models of stress that incorporate factors specific to organizational stress or burnout (Halbesleben & Buckley, 2004).

Difficulties in initiating or maintaining sleep are common symptoms in the population. In the adult population of the United Kingdom, 29 percent report sleep problems over the past week (Singleton, Bumpstead & O' Brein, 2001). A diagnosis of insomnia is less common, but several studies show that approximately 10 percent of the adult population in Western societies suffers from chronic insomnia (Pallsen, Nordhus & Nielsen, 2001), as specified in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV). Impaired sleep may be secondary to both physical and mental disorders (Roth and Roehrs, 2003), but about 25 percent of chronic insomniacs are assumed to suffer from primary insomnia (Bixler, Vgontzas & Lin, 2002).

The adverse individual consequences of insomnia are well documented. Poor sleep is associated with cognitive and intellectual impairment, current and subsequent affective disorders and reduced immune function (Savard, Laroche & Simard, 2003). Moreover, patients suffering from insomnia commonly report a significant reduction in quality of life and impaired coping abilities (Morin, Rodrigue, & Ivers, 2003; Sadeh, Keinan & Daon, 2004). The economic costs resulting from sleep-related accidents and lost productivity are estimated to be $92– $107 billion annually in the United States alone, including such government-financed expenses as medical treatment and drugs.

Ploubidis, Abbott, Huppert, Kuh, Wadsworth, and Croudace (2007) view social functioning as a dimension of social well-being, and wish to identify groups who reported improvements in the recent past. According to Keyes (1998), as adults age they encounter tasks that force them to choose and adapt within a social environment, which is a major life change with distinct consequences for judging a life well lived. Social well-being can therefore be conceptualized as the appraisal of

one's circumstances and functioning in society (Keyes, 1998), or through personal evaluation of task performance.

Furthermore, from a clinical perspective, deterioration in social functioning is often a characteristic of impending common mental disorders such as depression or anxiety, or more severe illnesses such as bipolar disorder, schizophrenia or other psychoses (DSM-IV-TR; American Psychiatric Association, 2000). Consequently, a dynamic assessment of social functioning such as the positive change in social functioning emphasised here, may be a useful complement to any clinical assessment battery applied by researchers in clinical or consulting settings, especially in interventions that have been designed to improve social functioning as a component of mental health.

Social functioning has become recognised as an increasingly important element of mental health assessment. Although there are many rating instruments to assess it (Tyrer & Casey, 1993), it is only in the last ten years that burgeoning interest has developed largely because of greater awareness that the handicap created by poor social functioning is at least as important as that created by symptoms (Kager, Langer & Berghofer, 2000). However, despite this recognition social functioning is recorded much less often than mental state ratings in research studies, and this may be because there are no published measures that are brief.

Symptoms are common in patients with depression and are included in the diagnostic criteria of major depressive disorder (MDD) (Hung, Wang & 2009). Patients with depression in primary care settings of ten present with somatic symptoms (Kirmayer, Groleau, Looper & Dao, 2004; Kroenke, 2003). A number of studies found demands and resources in the job setting to be the most important predictors of adverse health outcomes such as burnout and psychosomatic health complaints (Demerouti, Bakker, Nachreiner & Schaufeli, 2001).

3.6.5.2 Positive mental health

Furthermore, according to Tennant, Joseph and Stewart-Brown (2007), there is an increasing international interest in the concept of positive mental health and its contribution to all aspects of human life. The World Health Organization (2004) defined positive mental health as state which allows individuals to realize their abilities, cope with the normal stresses of daily life, work productively and fruitfully, and make a contribution to their community. The capacity for mutually satisfying and enduring relationships is another important aspect of positive mental health (WHO, 2002).

The term positive mental health is often used, in both policy and academic literature, interchangeably with the term mental well-being, and mental well-being may be represented simply as well-being. Mental well-being is a complex construct, covering both experience and functioning with two distinct perspectives: the hedonic perspective which focuses on the subjective experience of happiness and life satisfaction and the eudaimonic perspective favoured by the positive psychologists, focusing on psychological functioning and self realization (Ryan & Deci, 2001).

These perspectives which have informed distinct bodies of research in positive mental health, are less obvious in the literature relating to poor mental health where items measuring affect (feeling happy/sad) are often combined with items measuring positive functioning (playing a useful part in things, making decisions (Goldberg & Williams, 1998), in the same scales, suggesting that poor mental health at least is accepted as involving limitations in both eudaimonic and hedonic well-being.

Some researchers with an interest in positive mental health have proposed that this construct is independent of mental illness. They observe that people with mental illness have vatying levels of both subjective well-being and psychological functioning, and that sizeable proportions of a population who do not have mental illness lack well-being (Keyes, 2005). Whilst few studies have shown positive and negative aspects of mental health to be entirely independent, they may represent

separate but correlated dimensions of health (Keyes, 2005). As a result there is increasing interest in the measurement of positive mental health.

Historically, mental health measurement tools have focused on psychiatric morbidity, dividing the population into those who meet the criteria for diagnosis of mental illness and those who are normal. These tools are not well-suited to measuring mental health at a population level as they show ceiling effects with most people scoring the maximum possible score. They are therefore unable to distinguish average from good mental health (Stewart-Brown, 2002).

A recent review of measures covering aspects of positive mental health identified one – the Affectometer 2 that appeared to relate well to the World Health Organization's definition of mental health (WHO, 2004, 2001). This measure according Kamman and Flett (1983) covers a range of aspects of positive mental health including subjective well-being, psychological functioning and relationships.

It includes many items not covered in scales of negative mental health (feeling loved and trusted, thinking clearly and creatively, problem solving) and, also unlike the latter, has equal numbers of items relating to the positive as negative end of the spectrum of health (Tennant, Joseph & Stewart-Brown, 2007).

According to the developers of the Affectometer 2, it was developed to measure well-being, which they defined as the overall balance between good and bad feelings or emotions. It has been described as a general tool to measure happiness. The underlying theoretical principle of the scale is that an individual's mental health status is determined by the degree to which positive feelings, attitudes and beliefs outweigh negative ones (Kamman & Flett, 1983). These dimensions include confluence, optimism, self esteem, self efficacy, social support, social interest, freedom, energy, cheerfulness and thought clarity. All these dimensions are discussed in detail in the research methodology chapter.

3.6.5.3 Satisfaction with life (SWL)

The last important component of mental health that was used in this study was satisfaction with life. Life satisfaction refers to a cognitive, judgmental process. Shin and Johnson (1978) define life satisfaction as a global assessment of a person's quality of life according to his chosen criteria. Judgments about satisfaction are determined upon a comparison of one's circumstances with what is thought to be an appropriate standard. It is important to point out that the judgment of how satisfied people are with their present state of affairs is based on a comparison with a standard with which each individual sets for him or herself. It is not externally imposed.

It is a hallmark of the subjective well-being area that it centers on the person's own judgments, not upon some criterion which is judged to be important by the researcher (Diener, 1984). For example, although health, energy, and so forth may be desirable, particular individuals may place different values on them. It is for this reason that one needs to ask the person for their overall evaluation of their life, rather than summing across their satisfaction with specific domains, to obtain a measure of overall life satisfaction. The dimensions that are covered by satisfaction with life include health and material wealth and these are discussed in detail in the research methodology chapter.

Poor mental health is a growing hazard worldwide, especially in developing nations. This is particularly true with depression, which was the fifth leading cause of disease burden in the world in 1999, when both fatal and non-fatal consequences were measured (Rogers, Wilson, Bungay, Cynn & Adler, 2001). Thus, improving the ability and validity of screening for depression is important. Among the variables that have been postulated as contributory factors to poor mental health include life satisfaction, loneliness and poor health behavior.

Life dissatisfaction, even when reported by health populations and measured with simple scales, is strongly related with poor mental health, including depressive symptoms. It has been conceptualized as an assessment of life as a whole on the

basis of the fit between personal goals and achievements. Thus, life satisfaction is a broad and non-specific subjective perception comparable to self-rated health (another of its correlates). Longitudinally, life dissatisfaction predicts suicide (Koivumaa-Honkanen, Honkanen, Viinamaki, Heikkila, Kaprio & Koskenvuo, 2001) as well as work disability due to both psychiatric as well as somatic causes. Most studies have only examined this relationship in the elderly and in psychiatric patients (Koivumaa-Honkanen, Honkanen, Viinamaki, Heikkila, Kaprio & Koskenvuo, 2001).

Given the meaning work has in people's lives, employees and organizational well-being contributes to the health of societies and countries. Psychological health should be an important criterion for employee and organizational performance, and should at least be emphasized (Louw & Edwards, 1993). Work dysfunctions are often influenced by psychological disorders or the emotional, behavioural and cognitive symptoms of such disorders. Louw and Edwards (1993) defines work dysfunctions as psychological conditions in which there is a significant impairment in the capacity to work caused either by characteristics of the person or by an interaction between personal characteristics and working conditions. However, psychologists in the work context also need to be informed about the nature and manifestations of psychological disorders in order to provide some help or at least execute a reference function to other experts.

More recently, according to Bergh and Theron (2006) a renewed emphasis by positive psychology is on the development of healthiness or wellness in people, which raises the issue of the paradigm from which to approach the study of psychological health. As an umbrella concept, psychological or mental health includes both health and illness or adjustment and maladjustment.

Psychological or mental health is also not easy to define, and is often used with the same meaning as psychological disorders or psychopathology. Mental health is seen as part of general health, and, as a comprehensive concept, might refer to particular signs or symptoms of health and illness, positive and negative behaviours, cognitions and feelings in individuals. All these components of psychological health, in the context of what is deemed realistic and acceptable, and in people's social

settings or cultural or related norms, will characterize their psychological well-being or maladjustment in their various life roles (Bergh & Theron, 2006)

3.6.6. Positive attitudes toward the self

This criterion addresses ideas such as self acceptance, self confidence or self-reliance. There are four main subcategories: (1) adequate self-awareness, (2) accurate self-concept, (3) self-acceptance, and (4) a positive and globally benevolent view of the self (Compton, 2005).

3.6.7 Growth, development and self-actualization

Jahoda (1958) associated mental health with striving toward goals in the future including efforts to realize potential. This involved (1) the ability to accept challenges and tension in the present in the interest of future goals and (2) investment in living or an extension of the self through involvement in different pursuits, a concern for other people and a desire to help others and be of service (Compton, 2005).

3.6.8 Perception of reality

This aspect refers to an ability to see the world and self accurately. According to Jahoda (1958), it involves two aspects, namely, (1) the ability to see self and others without one's own needs distorting perception of other people or situations and (2) empathy social sensitivity. Jahoda (1958) suggests that if people are free from need distortion, then they are better able to see others clearly and honestly and are thus more able to empathize with them.

3.6.9 Environmental mastery

This criterion refers to successful adaptation to situational demands and expectations. It includes six different subcategories, namely, (1) the ability to love, (2) the ability to work and play, (3) good interpersonal relations, (4) the ability to meet the demands of situations with a sense of mastery and self-efficacy, (5) the ability to

balance efforts to change one's own psychological world and (6) the ability to use adequate problem-solving strategies (Compton, 2005).

The above-mentioned on positive mental health presets a picture of a person who is able to balance a number of personality factors. For instance, the person is able to balance independence with dependence, self-concern for others, and honest self-awareness with healthy self-enhancements. Because of this balance the person can form healthy relationships with others and has the capacity to reach desired goals in life.

3.7 The impact of quality of work life on mental health

According to Faragher, Cass and Cooper (2005) epidemiologists have long been aware that social and environmental factors can contribute to the incidence of many human diseases. Predictably, as the single activity occupying most people's waking time is work, pressures, strains, and stresses within the workplace have been identified as being a potentially important health factor. Numerous theories now exist, developed from a wide range of perspectives, postulating a direct link between organisational/ workplace stress and well-being.

3.7.1 Employment conditions impacting on QWL

There is growing evidence that current trends in employment conditions may be eroding levels of job satisfaction-and directly damaging the physical and mental health of employees (Kenny, Carlson & McGuigan, 2000). New working practices and rapid technological advances are changing the nature of many jobs. Employees are regularly being required to work well beyond their contracted hours, often unwillingly, as organisations struggle to meet tight deadlines and targets. Work practices are becoming more automated and inflexible, leaving employees with less and less control over their workload. Many organisations are reducing their permanent workforce and converting to a culture of short term contracts or ''out-sourcing'', increasing feelings of job insecurity.

Both high work demands and job insecurity have been shown to predict poor health (D'Souza, Strazdins, Broom, Rodgers & Berry, 2006) and, in some instances, increase sickness absence. High workloads predict mental health problems such as irritability, anxiety, listlessness, difficulty concentrating (Petterson, Hertting, Hagberg, & Theorell, 2005) and absenteeism (Vahtera, Kivimaki, Pentti & Theorell, 2000). High work demands may also prolong sickness absences, possibly because of employees' concerns that heavy demands would exacerbate illness or slow their recovery (Janssen, van den Heuvel & Beurskens, 2003).

Although job insecurity is consistently associated with poorer mental and physical health, findings vary regarding the relationship with sickness absence. Some studies show that during and after downsizing, sickness absences and long-term absences become more frequent among staff who kept their jobs (Kivimaki, Vahtera, Pentti & Ferrie, 2000) although it is not clear if this is caused by insecurity or to extra work demands. Other studies have found lower sickness absence in temporary jobs, probably because there is no paid sick leave and employees may be concerned that missing work could jeopardise their job (Ferrie, Martikainen & Shipley, 2001).

Control over workloads, flexible work times, and involvement in decision-making are associated with fewer absences, perhaps because they moderate the negative impact on mental and physical health of insecurity and high workloads (D'Souza, Strazdins, Broom, Rodgers & Berry, 2006).

According to Diedieff and Rubin (2007) roles in organizations are generally defined as the patterns of behaviours that are perceived by organizational members to be expected or required. More definitively, work roles encompass the expectations pertaining to the perceived responsibilities or requirements associated with enacting specific jobs. Enactment of work roles can vary greatly across individuals, even those within similar jobs. Broadly speaking, the clarity with which individuals perceive their work roles has been linked to several important organizational outcomes, including job performance, organizational commitment and job satisfaction (Tubre & Collins, 2000).

Work role ambiguity may result from unclear articulations of expected role activities, performance contingencies and work methods. A logical extension is that increased ambiguity is very likely to impact perceptions of the specific requirements necessary for successfully enacting one's work role (Diedieff & Rubin, 2007). The above finding is supported by Tubre and Collins (2000) who found that a condition of high ambiguity is associated with a lack of knowledge regarding what role activities are critical to the job. Therefore an ambiguous role would make it more difficult for an individual to judge exactly what is important or central to his or her job, and how often he or she may perform a particular activity (Diedieff & Rubin, 2007).

Furthermore, Khan, Wolfe, Quinn, Snoek and Rosenthal (1964) who found in their study that men who suffered from role ambiguity experienced lower job satisfaction, higher job related tension, greater futility and lower self-confidence. French and Caplan (1970) found that at one of NASA's bases, in a sample of 205 volunteer engineers, scientists and administrators, that role ambiguity was significantly related to low job satisfaction and to feelings of job – related threat to one's mental and physical well – being. This also related to indicators of physical strain such as increased blood pressure and pulse rate. Mongolis, Kroes and Quinn (1974) also found a number of significant relationships between symptoms or indicators of physical and mental ill – health with role ambiguity in their representative national sample. These indicators related to role ambiguity were depressed mood, lowered self-esteem, life dissatisfaction, low motivation to work and intention to leave the job.

Today, workers are being required to perform multiple tasks, learn new skills and self – manage in order to meet the competitive demands of the modern job. According to Kendall, Murphy, O' Neill and Burnsnall (2000) this has lead to jobs that are more fluid (Cooper, Dewe & O' Driscoll, 2001), possibly exacerbating role ambiguity and role conflict and leading in turn to work stress and illness (Dunnette, 1998).

More recently, Li and Bagger (2008) stated that role ambiguity reduces the quality of the information that can be used to make an accurate assessment of one's ability to perform a task. According to the social cognitive theory (Bandura, 1977), to have a high self-efficacy, a person must be able to visualize effective performance in a given situation. While role ambiguity is high, the ability to visualize one's performance is

impaired, thereby reducing one's confidence in his or her ability to perform effectively (Li & Bagger, 2008).

According to Khan et al., (1964), the relationship between role ambiguity and its related variables tend to be moderated by three broad categories of variables, namely, organizational, interpersonal and personality processes. A potential moderator, namely goal orientation has also been discovered (Khan et al., 1964).

3.7.2 The different goal orientations impacting on QWL

VandeWalle, Cron and Slocum (2001) suggested that there are two different dispositional goal orientations, namely, performance goal and learning goal orientation Performance-orientated individuals tend to conceive their ability as a fixed entity. As such, they seek to prove their competence on a task. Learning-oriented individuals, however, tend to view their abilities as malleable. For this reason, they tend to focus on improving their task performance. A refinement of the bifurcated performance goal orientation into two separate dimensions, namely, proving goal orientation, that focuses on demonstrating one's abilities and avoiding goal orientation that focuses on avoiding negative comments on one's competence (VandeWalle et al., 2001).

Previous research has shown that individuals tend to view a challenging situation as an opportunity to advance their abilities. Instead of withdrawing themselves from the challenge, they confront it head-on, becoming intrinsically involved in the task, developing effective task strategies, expending additional effort and intensifying their attention on task related activities (Elliot & Thrash, 2002; Van Yperen & Janssen, 2002). These arguments suggest that learning-oriented individuals may proactively scout for information that can be used to reduce role ambiguity. Even if they fail to perform adequately as a result of role ambiguity, they draw on these experiences to enhance their abilities. These characteristics enable them to remain resilient and see the positive side even in a dire situation, as well as allow them to acquire the competence to overcome role ambiguity and to perform effectively at work (Li & Bagger, 2008).

Therefore according to Hall (2008) a lack of role clarity is likely to make individuals believe they are helpless and thus reduce the impact they have in their work area. In contrast, individuals who understand their work roles are more likely to take actions and decisions that influence decisions and results in their work area. Prior research results suggest that higher levels of role ambiguity are related to lower levels of psychological empowerment (Hall, 2008).

3.7.3 The role of social support in QWL

Hawkins and Shohet (2000) also supported the above-mentioned and stated that a good supervisor can also help one to use one's resources better, manage one's workload and challenge inappropriate patterned ways of coping. Spence, Wilson, Kavanagh, Strong and Worrel (2001) maintain that that the personal support aspect of supervision aims to optimize motivation, morale, commitment, and to minimize work-related stress, burnout and mental health problems of the employee. Scaife and Walsh (2001) also support the inclusion of this as a legitimate focus of supervision, describing how supervision can provide an opportunity for dealing with the effects of organizational climate and professional relationships.

Bakker, Demerouti, and Euwema (2005) found that social support at work is also a potential buffer against job stress, hence providing protection from pathological consequences of stressful experiences. In a study of higher education employees, Bakker et al. (2005) showed that the combination of high demands and low job resources in the workplace significantly added to the risk of burnout. Furthermore, work overload, emotional demands, physical demands, and work-home interference did not result in high levels of burnout if employees experienced autonomy, received feedback, had social support, or had a high quality relationship with their supervisor. These authors postulated that the aspects of the high-quality supervisor relationships provided important instrumental help and emotional support.

3.7.4 Work overload and its impact on QWL

Research into work and overload has received substantial empirical attention. French and Caplan (1974) have differentiated overload in terms of quantitative and qualitative overload. Quantitative refers to having “too much to do”, while qualitative means work is too difficult. French and Caplan (1974) found that overload in most systems leads to breakdown, whether one is dealing with single biological cells or individuals in organizations. French and Caplan (1970) found that objective quantitative overload was strongly linked to cigarette smoking, an important risk factor or symptom of coronary heart disease.

Persons with more phone calls, office visits and meetings per given unit of work time were found to smoke significantly more cigarettes than persons with fewer such engagements. In a study of 100 young coronary patients, Russek and Zohman (1958) found that 25 percent had been working at two jobs and an additional 45 percent had worked at jobs which required, due to work overload, 60 or more hours per week.

A positive association between nursing staff participation in continuing education activities and ratings of work satisfaction has been reported (Sung, Chang & Tsai, 2005). In a study of nurse self-assessed competence, Tzeng (2004) suggested that opportunities for learning would contribute to organizational commitment among nursing staff. Several studies have found that staff competence is not in agreement with work tasks (Brulin, Winkvist & Langendoen, 2000). In addition competence development at work (Alaby, 2005) and training in new tasks is often limited. Insufficient competence regarding work tasks has been shown to be a source of strain and stress for nursing personnel (Morgan, Semchuk, Stewart & D’Arcy, 2002).

Furthermore, Brulin et al., (2000) and Morgan et. al, (2002) have reported that heavier workloads have lead to increased time pressure among nursing staff, resulting in higher stress levels. In a study by Shaver and Lacy (2003), registered nurses and practical nurses’ perceptions of higher patient loads were inversely related to work satisfaction. Karsh, Bookse and Sainfort (2005) found positive staff

perceptions of their work environment and low pressure were significantly related to great satisfaction and work commitment.

According to Engwall and Jerbrant (2003) sharing time between several work tasks at an individual level may result in a perception of work as disrupted and fragmented, in elevated levels of time pressure and fewer opportunities for recuperation between periods of intense and strenuous work.

Other negative consequences of sharing time between many work tasks are decreased competence development and less improvement in work routines (Zika-Viktorsson, 2002). Switching from one task to another can result in a considerable amount of set - up time (Anavi-Isakow & Golany, 2003). On the other hand, there are also indications that multiple work task settings can provide for increased learning and rich work content (Noboeka, 1995; Lindkvist, 2001).

From a health perspective, it is important to have enough time to recuperate between work tasks or intensive periods of work. Time pressure in general must not be intrinsically regarded as detrimental to health. However, previous research in other areas has shown that there is a relationship between tenure, on the one hand and high level of time pressure and health problems on the other (Frankenhaeuser & Johansson, 1981; Karasek & Theorell, 1990).

Therefore professional competence and skills are constantly developed and shaped in daily work. Although it is an obvious necessity in many companies to keep up with the changing demands for competence, previous research has shown that opportunities for competence development can be impaired in a multi task setting (Zika – Viktorsson, 2002). In such settings, there is an obvious risk that time for long term development and training is not sufficiently prioritized in relation to short term task delivery. At the same time, it may be difficult to obtain time to reflect over and analyze daily work in a manner that generates new insights, knowledge and professional skills (Zika-Viktorsson, 2002; Sundström & Engwall, 2006).

3.7.5 Mental health problems in the workplace and QWL

According to Gabriel and Liimatamaien (2000), the incidence of mental health problems in the workplace is increasing with consequent high costs for employees, employers and governments. Globalization and regional economic imperatives have no doubt led to modern work environments increasingly characterized by 'too much work', 'not enough work' and 'no work' rather than optimal 'healthy-productive' work. Besides negative implications for national economies, there is a strong belief that mental health problems and stress – related disorders are the biggest premature cause of death (WHO 2001; Levi, 2002). Income inequality arising from such desperate work states seems to have negative health consequences for all members of society as social cohesion that characterizes healthy egalitarian societies progressively breaks down (Wilkinson, 1996).

Technological changes have also led to an increasing amount of poor quality work- 'work not fit for machine to do' – that is unsatisfying, offering low pay, low job security and unreliable hours. Under the pressure of economic rationalism, workforce numbers have been reduced although the amount of work done often has not. Over-employment means that many workers in full-time jobs are experiencing increased pressure and faster pace (Bousfield, 1999), increased workload (Townley, 2000), longer shifts and longer hours (Heiler, 1998; Winefield et al., 2002), as well as demands for high organizational performance (Kendall, Murphy, O' Neill & Bursnall, 2000).

A great deal of work has been done linking the working conditions of a particular job and its relationship to physical/mental health. Kornhauser (1965) found for example that poor mental health was directly related to unpleasant work conditions, the necessity to work fast and to expend a lot of physical effort, and to excessive and inconvenient hours. There is increasing evidence according to Marcson (1970) and Shepard (1971), that physical health too is adversely affected by repetitive and dehumanizing environments.

Occupational mental health is a sub-discipline focused on psychological illness, injury and disability and the role of work as a causal or contributing factor to this, but work is also an area in which the consequences of mental ill-health might be expressed (WHO, 2003). Building on this model, it is obvious that there are at least two different ways in which the relationship between work and mental health can be made manifest:

Firstly, work might be a cause of mental ill-health or a contributing factor in its development. There is much evidence that for those in work, stressful jobs or tasks can challenge mental health (Cox, 1993; Cox, Griffiths & Rial-Gonzalez, 2000; Gabriel & Liimatainen, 2000; Karasek & Theorell, 1990; Siegrist, 1996). Indeed work can be used as a form of therapy (Keough & Huebner, 2000).

Secondly, for those in work, mental health can be a determinant or correlate of poor organizational behaviour such as absenteeism and of other health risk behaviours such as smoking and drinking (Cox, 1993; Cox, Griffiths & Rial-Gonzalez, 2000; Vasse, Nijhuis & Kok, 1998). It may also impair or prevent the return to work after periods of absence due to other reasons. Workers are now being required to perform multiple tasks, learn new skills and self-manage to meet competitive demands. According to Kendall et al., (2000), this has led to jobs that are more fluid (Cooper, Dewe & O' Driscoll, 2001), possibly exacerbating role ambiguity and role conflict and leading in turn to work stress and illness (Dunnette, 1998).

For many workers the amount and scope of work has diminished with technological advances leading to *under employment* (Cooper et al., 2001) and this can also be risky. Researchers has found that those working less than 6 hours per day have three times the risk of heart attack than those working an 8 – hour day (Sikejima & Kagamimori, 1998). Winefield et al., (2002), however, point out that those working less hours may have been doing so because they were already suffering from the stress of too high a workload.

3.8 Conclusion

In this chapter the focus was on what is meant by good mental health and also the features of the work environment. Experiences outside the work environment can also contribute to mental health problems for employees. The important point is that the work environment can contribute significantly to mental health, positively or negatively. Employee commitment is of importance for successful businesses.

The aim of this chapter was to provide a systematic overview of the most important definitions of mental health, and also the different theoretical models of mental health. The environmental features that affect mental health, the contribution of environmental features to mental health, the components of mental health and the impact of mental health in the work place on the general functioning of the individual were also addressed.

The influence of employee well-being at work has attracted increasing interest in recent years. The issue of employee well-being at work is increasingly important as employment will continue to change. Concentration on problems such as absenteeism and accidental injury is giving way to a broader vision of what a healthier and happier more productive workforce can achieve in terms of higher performance and productivity. The dynamics of employee well-being at work is pivotal in the understanding of the different domains that affect the quality of life at work. With this in mind, employees will be looking at employers to help them to achieve this since a large proportion of their lives are spent at work. In order for employers to assist employees with their personal well-being at work, they will need to create an environment to promote a state of contentment, which allows an employee to flourish and achieve their full potential for the benefit of themselves and their organization.

This can be considered important in its own right from a moral point of view. To enhance the environment of work in the ways described in the above-mentioned chapter will contribute to the mental health or well-being of employees. More importantly, while it is more difficult actually to prove, healthy employees are likely to provide the crucial element for organizational success.

Surveys are the mechanism by which organizations can best monitor the mental health of the employees and determine the job characteristics that are valued by workers. Warr's mental health measures, the General health questionnaire, the Satisfaction with Life Scale and the Affectometer 2 seems to be appropriate for the purpose of this research. These questionnaires, covers a broad range of specific mental health dimensions. Therefore, in the next section, namely, research methodology, more information is divulged concerning, nature and composition, reliability, validity and rationale for inclusion of the above-mentioned questionnaires.

CHAPTER 4

RESEARCH METHODOLOGY

In this section the focus is on the research methodology that was used during this study. Specific emphasis is on the research design which included the selection of test persons, data gathering and a discussion of the statistical methods that were used.

4.1 Research design

The approach in this study is that of survey research. It is an approach that involves the methodical collecting of information to describe people's beliefs, knowledge, attitudes, values and behavior (Fink, 1995; Sommer & Sommer, 1986). Advantages of adopting the survey method of research are that it allows the researcher to get closer to the real variables, and they develop a rich understanding of people at low cost (Bourque & Fiedler, 1995; Simon, 1978).

In addition, surveys (questionnaires) can be distributed to large numbers of people, they can provide concrete, specific and unambiguous questions, and allow for statistical analysis to take place (Fowler, 1993; Halonen & Santrock, 1999). Furthermore, survey research is useful for prediction and description (Dane, 1990).

4.2 Selection of the sample

Employees working in a service organization in the Free State were selected for the purpose of the research. Therefore it was decided to make use of non-probability sampling and more specifically convenience or accidental sampling. Non-probability sampling refers to the case where the probability of including each element in a sample is unknown (Bless, Higson-Smith & Kagee, 2006). It is not possible to determine the likelihood of the inclusion of all representative elements of the population into the sample. Some elements might even have no chance of being included in the sample. It is thus difficult to estimate how well the sample represents the population and this makes generalization highly questionable.

Out of 400 questionnaires sent out, a total of 142 usable questionnaires were returned, representing an overall response rate of 35, 5 % (n = 142). The sample was made up of both males and females, from all the race groups within the organization. The disadvantage of the above-mentioned is that the sample is not representative of the total population, which in turn makes generalization to the total population not possible.

4.3 Biographical characteristics of the respondents

A description of the biographical characteristics of the sample in terms of age, gender, length of service, marital status, qualifications, language, levels of management and culture will follow.

The following research information was collected from the research participants.

4.3.1 Age

Figure 4.1 displays a graphical representation of the ages of the respondents.

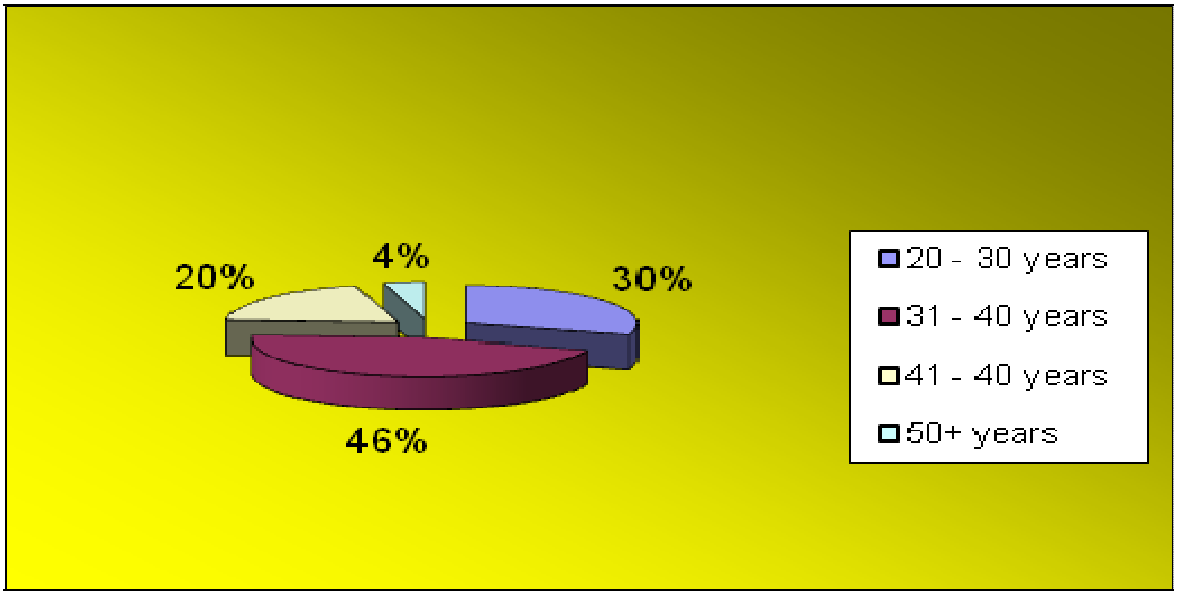

Figure 4.1: Distribution of the respondents in terms of age

In figure 4.1, it can be deduced that a large percentage of the sample (76%) is younger than 41 years old, from which 46% is between the ages of 31 – 40 years. Only 4% of the sample is older than 50 years.

4.3.2 Gender

Figure 4.2 provides a graphical representation regarding the gender composition of the respondents.

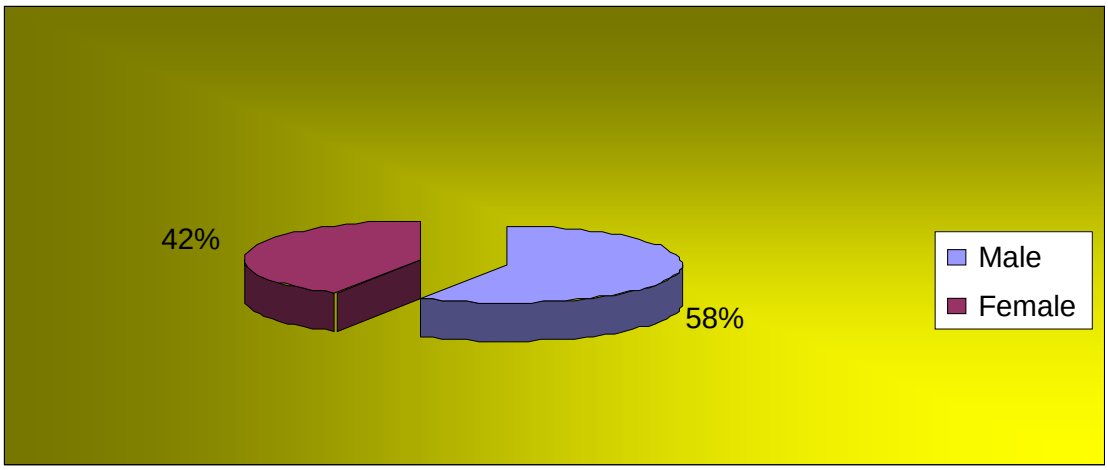

Figure 4.2: Distribution of the respondents in terms of gender

In figure 4.2 it is clear that there were more male respondents (58%) than female (42%) respondents.

4.3.3 Length of service

Figure 4.3 displays a graphical representation of the length of service regarding the respondents.

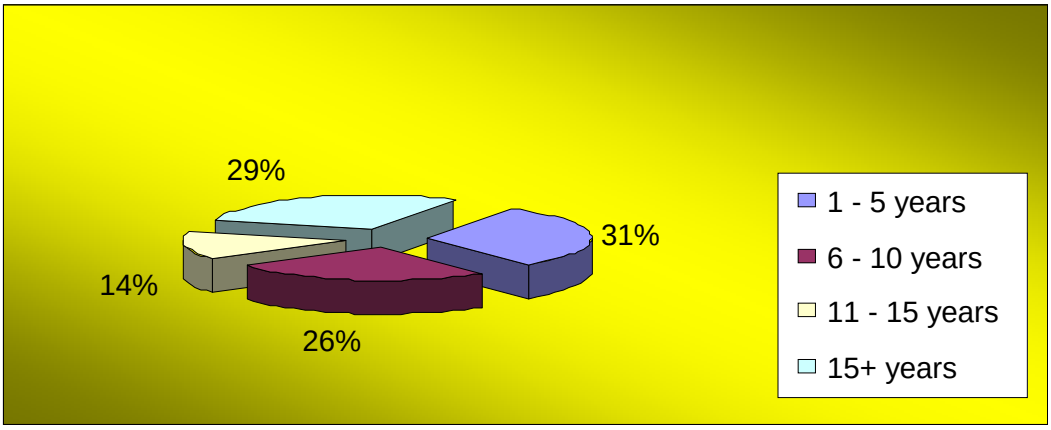

Figure 4.3: Distribution of the respondents in terms of length of service

Figure 4.3 provides a graphical illustration of the length of service of the respondents. From figure 4.3, it can be concluded that 69% of the respondents are employed for more than 5 years. From the 69%, 26% has a service period of between 6 – 10 years, 14% has a service period of between 11 – 15 years and 29% has a service period of more than 15 years.

4.4.4 Marital status

Figure 4.4 provides a graphical representation regarding the marital status of the respondents.

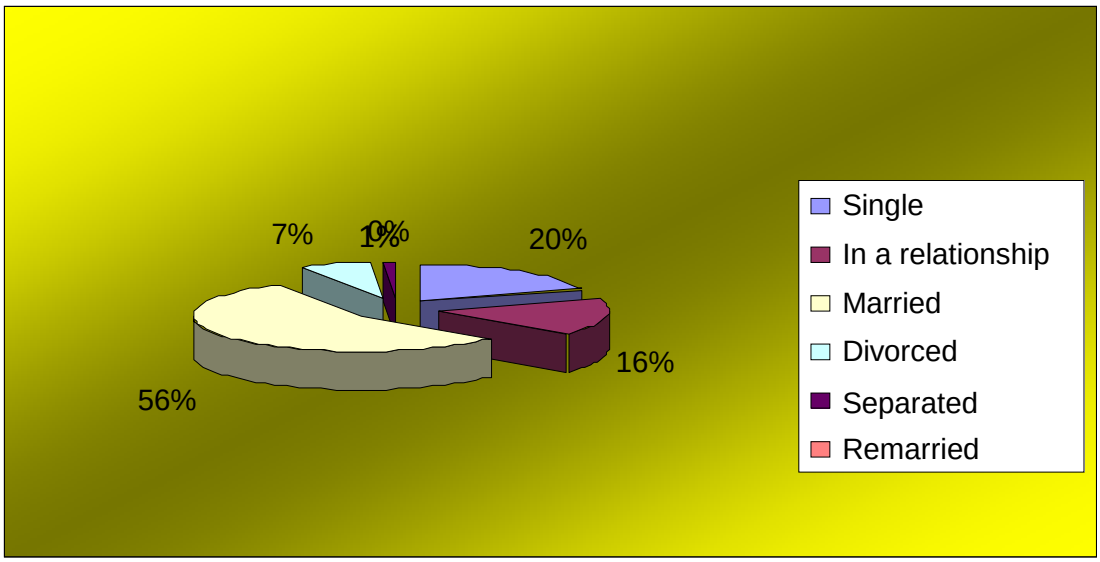

Figure 4.4: Distribution of the respondents in terms of marital status

From figure 4.4, it is clear that the majority of the respondents (56%) are married, 20% are single, 16% are in a relationship, 7% are divorced and 10% are separated.

4.3.5 Qualifications

Figure 4.5 provides a graphical representation regarding the qualifications of the respondents.

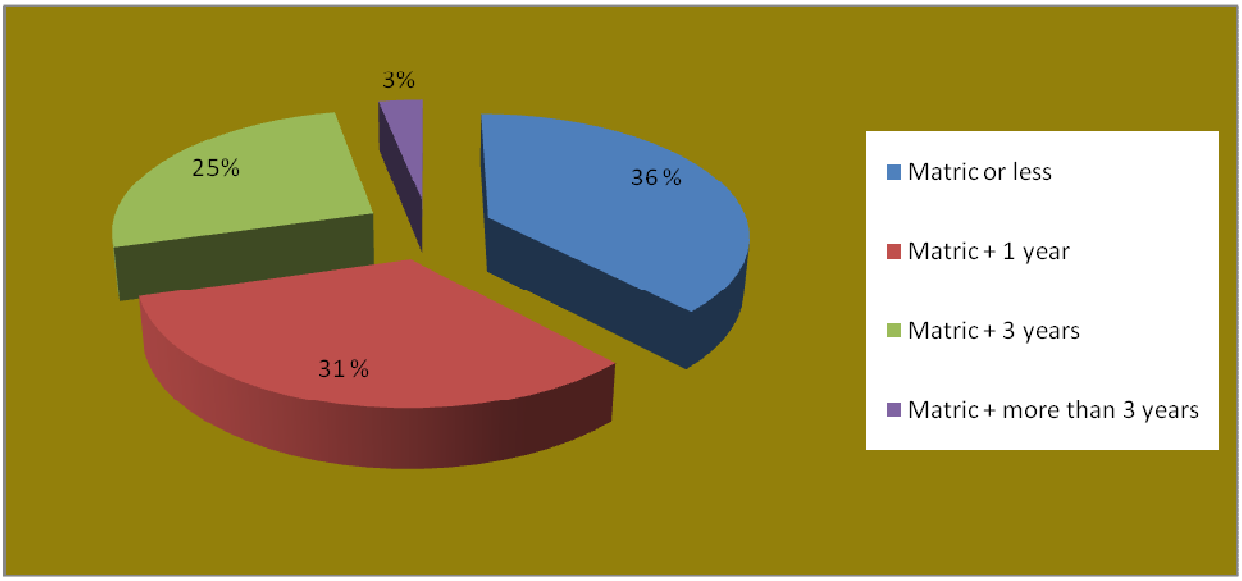

Figure 4.5: Distribution of the respondents in terms of qualifications

From figure 4.5 it is clear that the majority (36%) of the respondents has a matriculation qualification. Only 8% of the respondents have a post matric qualification (matric + more than 3 years).

4.3.6 Language

Figure 4.6 provides a graphical representation regarding the language preferences of the respondents.

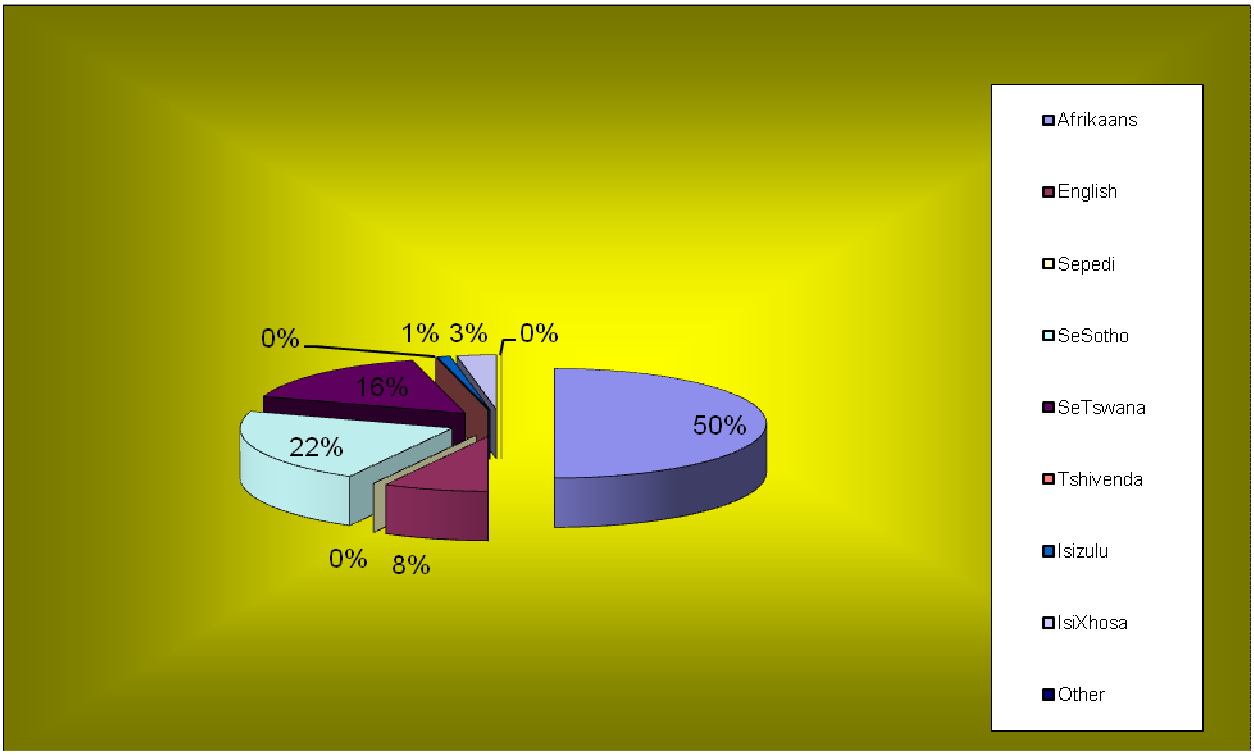

Figure 4.6: Distribution of the respondents in terms of language

From figure 4.6, it is clear that the majority of the respondents (50%) were Afrikaans speaking, 22% were SeSotho speaking, 16% were SeTswana speaking, while only 8% were English speaking.

4.3.7 Levels of management

Figure 4.7 provides a graphical representation regarding the levels of management of the respondents.

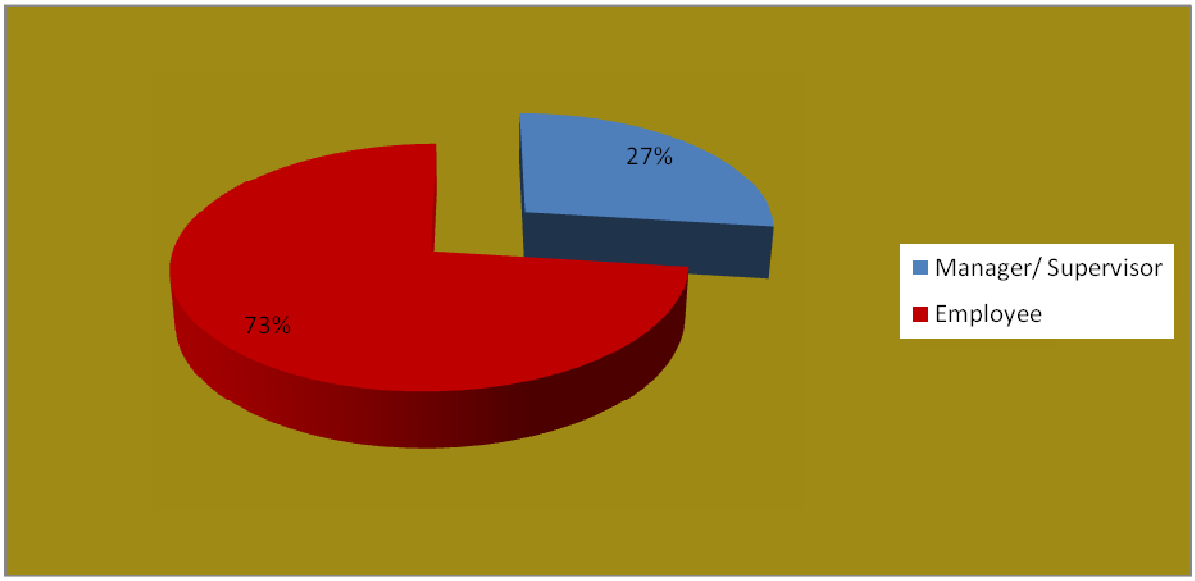

Figure 4.7: Distribution of the respondents in terms of levels of management

From figure 4.7, it can be deduced that 27% of the respondents were in management positions while the remainder of the respondents (73%) were employees.

4.3.8 Culture

Figure 4.8 provides a graphical representation regarding the cultural composition of the respondents.

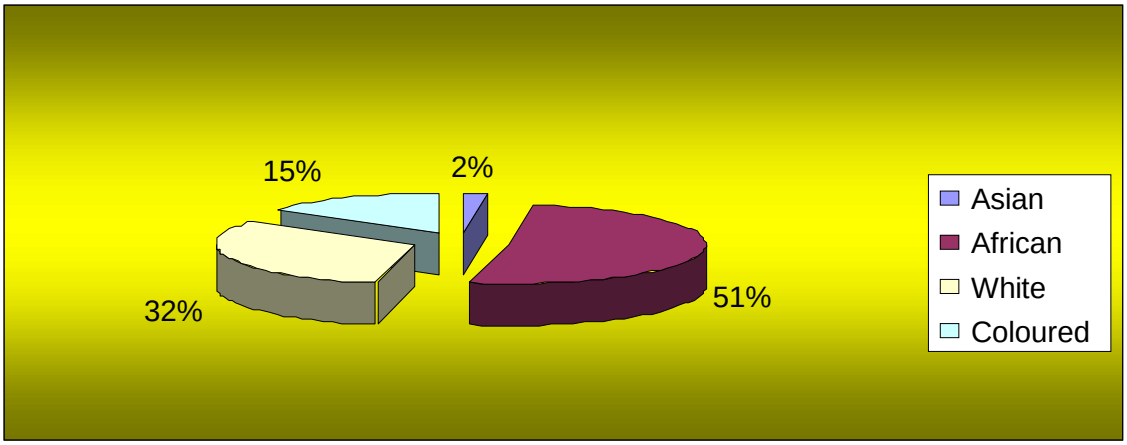

Figure 4.8: Distribution of the respondents in terms of culture group

From figure 4.8, it is clear that the majority of the respondents (51%) were African, 32% were white, 15% were coloured and only 2% were Asian.

From the biographical information that was gathered it can be concluded that 69% of the respondents were employed for more than 5 years. From the 69%, 26% had a service period of between 6-10 years, 14% had a service period of between 11-15 years and 29% had service period of more than 15 years. Furthermore it can be deduced that a large percentage of the sample (76%) was younger than 41 years old, from which 46% were between the ages of 31-40 years. Only 4% of the sample was older than 50 years.

There were more male respondents (58%) than female (42%) respondents. The majority of the respondents (56%) were married, 20% were single, 16% were in a relationship, 7% were divorced and 10% were separated. It is also clear that the majority (36%) of the respondents had a matriculation qualification. Only 8% of the respondents had a post matric qualification (matric + more than 3 years).

The majority of the respondents (50%) were Afrikaans speaking, 22% were SeSotho speaking, 16% were SeTswana speaking, while only 8% were English speaking. It was also deduced that 27% of the respondents were in management positions while the remainder of the respondents (73%) were employees. The majority of the respondents (51%) were African, 32% were white, 15% were coloured and only 2% were Asian.

4.4 Data gathering

4.4.1 Data gathering process

The complete set of data for the study was attained via self-administered questionnaires, which consisted of written questions or statements on a topic about which participants' opinions and judgments were sought. Importantly, the participants completed the surveys or questionnaires themselves.

The administering of the questionnaires took place in the following way. The researcher spent four sessions with the participants where they were given the opportunity to complete the questionnaires.

Prior to final completion of the questionnaires, a letter was sent to the service organization outlining the research topic. In this letter, the nature of the research, including its duration, confidentiality, and privacy, as well as issues relating to the survey instrument, were discussed.

Participation in this study was entirely voluntary, and participants were free to refuse participation and participants could discontinue their participation at any time without being prejudiced. Participants were also allowed to ask questions concerning the study at any time. The investigator attempted to keep all information collected in this study strictly confidential. Participants were also guaranteed that if any publication results from this research, that they would not be identified by name. However, the researcher made every effort to minimize their discomfort in this regard. The respondents were told they would not benefit directly from the study except when

attending the individual group interventions that would be conducted as a result of the study.

4.4.2 Measuring instruments

Five different questionnaires, the Leiden Quality of Work Questionnaire, Warr's Mental Health Measures, the Satisfaction with Life Questionnaire, the Affectometer 2, and the General Health Questionnaire-28 were used. A Biographical Questionnaire was also used during this study. The nature and composition, validity, reliability and rationale for inclusion of these instruments will be discussed briefly.

4.4.2.1 The Leiden Quality of Work Life Questionnaire (LQWLQ)

In the next section the focus will be on the discussion of the nature and composition, reliability, validity and rationale for inclusion of the Leiden Quality of Work Life Questionnaire.

4.4.2.1.1 Nature and composition

The aim of the questionnaire was to create a reliable measure of work characteristics considered relevant from a theoretical perspective. The questionnaire was constructed to assess work characteristics from two influential occupational stress models, the Job Demand Control Support model (Johnson & Hall, 1988; Johnson, 1989; Karasek & Theorell, 1990) and the Michigan model (Caplan, Cobb, French, van Harrison & Pinneau, 1975). It measures 12 work characteristics, namely, skill discretion, decision authority, task control, work and time pressure, role ambiguity, physical exertion, hazardous exposure, job insecurity, lack of meaningfulness, social support from supervisor and social support from coworkers and the outcome variable of job satisfaction.

Items from the Questionnaire for Organizational Stress, version Doetinchem (Bergers, Marcelissen & de Wolff, 1986), which assess the key concepts of the Michigan model, were included in the item pool. This questionnaire includes items on the following work stressors: overload, role ambiguity, responsibility, role conflict,

restrict place, lack of decision authority, lack of meaningfulness and job insecurity. All the items were rephrased as statements with four answer categories (disagree completely, disagree, agree and agree completely), which resulted in a 64-item pool with a standard format. Although the Leiden Quality of Work Life Questionnaire consists of 12 work characteristics or dimensions, for this research it was only decided to use the first eleven. This was because job satisafaction is considered to be an outcome variable of QWL.

These characteristics according to Van der Doef and Maes (1999) include:

- **Skill discretion**

Skill discretion refers to task variety and the extent to which the job challenges one's skills. The items related to skill discretion are indicated in table 4.1.

- **Decision authority**

Decision authority refers to the freedom of decision-making over one's work. The items related to decision authority are indicated in table 4.1.

- **Task control**

Task control refers to the flexibility that one has in ones work. The items related to task control are indicated in table 4.1.

- **Work and time pressure**

Work and time pressure refers to ones workload and time pressure. The items related to work and time pressure are indicated in table 4.1.

- **Role ambiguity**

Role ambiguity refers to not knowing what ones tasks are and also not knowing what is expected from oneself. The items related to role ambiguity are indicated in table 4.1.

- **Physical exertion**

Physical exertion refers to the extent that one's work requires physical effort. The items related to physical exertion are indicated in table 4.1.

- **Hazardous exposure**

Hazardous exposure refers to the extent that one is being exposed to dangerous tools, equipment and machinery. The items related to hazardous exposure are indicated in table 4.1.

- **Job insecurity**

Job insecurity refers to uncertainty about one's job. The items related to job security are indicated in table 4.1.

- **Lack of meaningfulness**

Lack of meaningfulness refers to whether one's work is worthwhile doing. The items related to lack of meaningfulness are indicated in table 4.1.

- **Social support supervisor**

Social support supervisor refers to the support that is provided by ones supervisor. The items related to social support supervisor are indicated in table 4.1.

- **Social support colleagues**

Social support colleagues refer to instrumental and emotional support provided by colleagues. The items related to social support colleagues are indicated in table 4.1.

Table 4.1 The dimensions and items of the Leiden Quality of Work Life Questionnaire

Dimension	Item
Skill discretion	1, 15, 28, 40, 47, 51, 55, 57
Decision authority	2, 16, 29, 41
Task control	3, 17, 30, 42
Work and time pressure	4, 18, 31
Role ambiguity	5, 6, 19, 20, 32, 33
Physical exertion	7, 8, 21
Hazardous exposure	9, 22, 34, 43, 52, 56, 58
Job insecurity	10, 23, 35
Lack of meaningfulness	11, 24, 36
Social support supervisor	12, 25, 37, 44, 59
Social support colleagues	13, 26, 38, 45, 49, 53

4.4.2.1.2 Validity

The correlations between the scales indicated that some scales were very strongly related to one another. The results of the confirmatory factor analysis, however, and the different correlations of the control concepts with the other work characteristics, gave good reason to view them as separate, though related concepts. The equal between factor correlations was .87 to .88. The validity of the questionnaire can thus be seen as satisfactory (Van der Doef & Maes, 2002).

It would have been advisable to conduct a factor analysis to determine the factor structure of the Leiden quality of work life questionnaire in the context of the current study. Due to the limited number of respondents that participated in the study, it was not feasible to achieve this objective.

4.4.2.1.3 Reliability

The internal reliability of the scales was assessed by means of Cronbach alpha. The model includes 59 items, measuring 12 factors. Although the Goodness of Fix Index (GFI) and the Nonnormed Fit Index (NNFI) were still somewhat below the recommended criterion (.90), the RMSEA indicates a good fit of the model.

The alpha coefficient of QWL as measured by the LQWLQ was .86. It was decided to rather determine the alpha coefficients of the respective dimensions of the construct for purposes of this study. These alpha coefficients as determined in this study are reported in table 4.2.

Table 4.2 The dimensions and alpha coefficients of the LQWLQ

Dimension	Alpha coefficient
Skill discretion	.61
Decision authority	.12
Task control	.40
Work and time pressure	.14
Role ambiguity	.70
Physical exertion	.86
Hazardous exposure	.93
Job insecurity	-.17
Lack of meaningfulness	.59

Social support supervisor	.86
Social support colleagues	.81

4.4.2.1.4 Rationale for inclusion

Currently there is no South African questionnaire available that can measure QWL. Analysis of the questionnaire indicated that the questionnaire measures 11 work characteristics. Furthermore the reliability of the questionnaire can be regarded as satisfactory.

4.4.2.2 Warr's Mental Health Measures

In the next section the focus will be on the discussion of the nature and composition, reliability, validity and rationale for inclusion of Warr's Mental Health Measures.

4.4.2.2.1 Nature and composition

Warr's mental health measures make provision for 16 items consisting of three dimensions, namely, work competence, work aspiration and negative work transfer.

Although the above-mentioned factors are related to affective well-being, these are conceptually distinct from well-being. These variables are measured on a five-point scale ranging from 1 'strongly disagree' to five 'strongly agree'. The dimensions of Warr's mental health measures entail the following:

- **Work competence**

Work competence, according to Warr (1990) relates to an individual's ability to deal sufficiently with life's problems. The items that relate to work competence are indicated in table 4.3.

- **Work aspiration**

Work aspiration is the propensity to establish realist goals, and to engage in goal – directed activity aimed at achieving challenges, which are seen as personally meaningful (Warr, 1990). The items that relate to work aspiration are indicated in table 4.3.

Negative job carry - over

The third dimension, negative job carry-over refers to the spill-over effect of work into leisure and family life, and its dysfunctional consequences. The items that relate to negative job carry-over are indicated in table 4.3.

Table 4. 3 The dimensions and items of Warr's mental health measures

Dimension	Item
Work competence	1, 4, 5, 7, 11 and 12
Work aspiration	2, 3, 6, 8, 9, and 10
Negative job carry - over	3, 14, 15 and 16

4.4.2.2.2 Validity

Evidence for construct validity of well-being and mental health scales was based on the association with job characteristics. The findings are consistent with previous cited research which suggested a causal link between mental health and certain job characteristics. The questionnaire yields a validity of 0.74 (Warr, 1990).

It would have been advisable to conduct a factor analysis to determine the factor structure of Warr's mental health measures in the context of the current study. Due to the limited number of respondents that participated in the study, it was not feasible to achieve this objective.

4.4.2.2.3 Reliability

Warr (1990) reported the following alpha-coefficients: work competence (.54), work aspiration (.50) and negative job carry- over (.91).

It was decided to rather determine the alpha coefficients of the respective dimensions of the construct for purposes of this study. The alpha coefficient of mental health as measured by Warr's mental health measures was .66. The alpha coefficients of the respective dimensions as found in this study are reported in table 4.4.

Table 4.4 The dimensions and alpha coefficients of Warr's mental health measures

Dimension	Alpha coefficient
Work competence	.55
Work aspiration	.37
Negative job carry - over	.74

4.4.2.2.4 Rationale for inclusion

The reason for the inclusion of Warr's Mental Health Measures was to determine the mental health states of the respondents. The instrument discriminates well across different samples and is therefore suitable for use in organizational settings (Warr, 1990). The questionnaire measures of affective well-being and other aspects of

mental health appear to be psychometrically acceptable and easy for job-holders at all levels to complete.

Mental health is assessed by means of three principal components: competence (a construct similar to self-efficacy), aspiration (a concept related to psychological growth, or self-actualization), and negative job carry-over (the extent to which job worries carry over into non-working life). Warr (1987) argued that these elements collectively define a person's occupational mental health, and provided measurement support for this theoretical framework via a set of standard measuring instruments for these psychological outcomes, along with evidence as to their reliability and construct validity.

4.4.2.3 The General Health Questionnaire-28 (GHQ-28)

In the next section the focus will be on the discussion of the nature and composition, reliability, validity and rationale for inclusion of the GHQ-28.

4.4.2.3.1 Nature and composition

The late 70s saw the emergence of an approach which relied on standardised methods of diagnosis, and which Dohrenwend and Dohrenwend (1982) termed "third-generation studies". At this point in time, coinciding with the introduction of two-phase sampling methodology for psychiatric epidemiological research, the first structured interview, the Clinical Interview Schedule (CIS) (Goldberg et al., 1970), and the first non-symptomatic "psychiatric case" detection scale, purposefully-designed as a screening instrument, the General Health Questionnaire (GHQ) (Goldberg, 1972), were both published.

The first of these two instruments, were designed to detect symptoms or signs in the population capable of rendering a case potentially suspect, while the second was designed to arrive at an accurate and reliable diagnosis after clinical examination. In the first phase, the study population is classified (usually by means of a survey) in terms of the probability of the presence or absence of psychiatric morbidity. In the

second, a variable proportion of probable cases and non-cases must be simultaneously examined by a psychiatrist in order to assess the definitive diagnosis.

At present, the GHQ-28 is the most widely used instrument for detecting non-psychotic psychiatric "cases", whether in the general population or among patients attending a given general practitioner's practice. This questionnaire exists both as a 60-item version and in the form of shorter versions (comprising 30, 28 and 12 items). In terms of validity, reliability and prediction coefficient, the 60-item version has outperformed its shorter counterparts (Goldberg, 1972), yet thanks to their brevity, the 12- and, above all, the 30-item versions have seen wide use in general population studies.

The 28-item version (GHQ-28) developed by Goldberg and Hillier (1979) is constructed on a basis unlike that of the other versions. Whereas the 30- and 12-item versions contain a selection of items that retain a similar discriminative power, the GHQ-28 is based on an analysis of the principal components of the GHQ-60, with 28 items then being chosen and grouped under four subscales. Each subscale consists of 7 items: subscale A for somatic symptoms, subscale B for anxiety and insomnia, subscale C for social dysfunction and subscale D for severe depression.

Over the last ten years, the use of the GHQ-28 has come to assume growing importance in epidemiological studies, a trend reflected in the increasing interest in adapting this instrument to different populations and languages. It is succinct, simple to use and yields comparable results in general population and primary-care settings. Furthermore, as mentioned above, it derives from an approach totally different to that of the remaining General Health Questionnaire versions, and apart from providing an overall assessment, also contains four scales that furnish additional information with a breakdown by symptom area.

The 28-items of the scaled version of the GHQ-28 makes provision for four dimensions, namely, somatic symptoms, anxiety and insomnia, social dysfunction and severe depression (Goldberg & Hillier, 1979).

- **Somatic symptoms**

Somatic symptoms refer to the person being either in good health, being ill or in need of a tonic. It also refers to aches and pains or feelings of tightness and pressure in one's head. The items that relate to somatic symptoms are indicated in table 4.5.

- **Anxiety and insomnia**

Anxiety and insomnia refer to worry, being under constant strain and also being nervous and strung-up all the time. The items that relate to anxiety and insomnia are indicated in table 4.5.

- **Social dysfunction**

Social dysfunction refers to being pre-occupied with yourself and your daily activities. The items that relate to social dysfunction are indicated in table 4.5.

- **Severe depression**

Severe depression refers to feelings of worthlessness, hopelessness, and being suicidal. The items that relate to severe depression are indicated in table 4.5.

Table 4. 5 The dimensions and items of the 28 - item General Health Questionnaire (GHQ-28)

Dimension	Item
Somatic symptoms	1, 2, 3, 4, 5, 6, 7
Anxiety and insomnia	8, 9, 10, 11, 12, 13, 14
Social dysfunction	15, 16, 17, 18, 19, 20, 21
Severe depression	22, 23, 24, 25, 26, 27, 28

4.3.2.3.2 Validity

There have been many validity studies of the GHQ-28 conducted in both clinic and community settings (Goldberg & Hillier, 1979, Rabins & Brooks, 1981; Medina-More, Padilla, Campillo-Serrano, Mas, Ezban, Caraveo & Corona, 1983; Banks, 1983, Lobo, Perez-Echeverria & Artal, 1986; Bridges & Goldberg, 1986; Goldberg & Bridges, 1987; Romans-Clarkson, Walton & Mullen, 1989). Most of these reports suggest that the instrument has good sensitivity and specificity, and median values of 86% and 82% respectively.

It would have been advisable to conduct a factor analysis to determine the factor structure of the GHQ-28. This objective was not feasible due to the limited number of respondents that participated in this study.

4.3.2.3.3 Reliability

Goldberg and Hillier (1979) reported internal consistency coefficients of 0,69 to 0,90. Goldberg, Grater, Satorius, Usten, Piccinelli, Gureje and Rutter (1997) reported acceptable reliability and validity indices of the GHQ-28 across different cultures. In South Africa, Isaksson and Johansson (2000) obtained a Cronbach alpha coefficient of 0,86 and Oosthuizen (2001) obtained a reliability coefficient of 0.89 for the GHQ, which make the use of this instrument applicable for the use in a South African context.

The alpha coefficient of mental health as measured by the GHQ-28 was .89. It was decided to determine the alpha coefficients of the respective dimensions of the construct for purposes of this study. The alpha coefficients for the respective dimensions of the GHQ-28 as determined in this study are reported in table 4.6.

Table 4.6 The dimensions and alpha coefficients of the GHQ-28

Dimension	Alpha coefficient
Somatic symptoms	.69
Anxiety and insomnia	.90
Social dysfunction	.70
Severe depression	.89

4.4.2.3.4 Rationale for inclusion

It was decided to use this questionnaire due to the fact that it was easy to understand and also easy to complete by the respondents. Furthermore the reliability and validity of the questionnaire can be regarded as satisfactory. The questionnaire focuses on two main classes of phenomena: inability to carry out one's normal "healthy" functions, and the emergence of new phenomena that are distressing (Goldberg & Williams, 1988). As such it detects psychological components of ill-health associated with breaks in normal functioning rather than lifelong traits. In other cases, the GHQ-28 has been used as a more general measure of psychiatric well-being, particularly when shorter versions of the questionnaire have been used as part of a larger social survey (Banks & Jackson, 1982; Winefield, Goldney, Winefield & Tiggermann, 1989).

4.4.2.4 The Affectometer 2

In the next section the focus will be on the discussion of the nature and composition, reliability, validity and rationale for inclusion of the Affectometer 2. The Affectometer 2 is a measure of General happiness based on the balance of positive and negative feelings in recent experience (Kammann & Flett, 1983).

4.4.2.4.1 Nature and composition

A recent review of measures covering aspects of positive mental health identified the Affectometer 2 – that appeared to relate well to the World Health Organization's definition of mental health (WHO, 2004; WHO, 2001). This measure according to Kamman and Flett (1983) was developed in New Zealand and covers a range of aspects of positive mental health including subjective well-being, psychological functioning and relationships.

According to Kamman and Flett (1983) it was developed to measure well-being, which they defined as the overall balance between good and bad feelings or emotions. It has been described as a general tool to measure happiness. The underlying theoretical principle of the scale is that an individual's mental health status is determined by the degree to which positive feelings, attitudes and beliefs outweigh negative ones. It was intended for use in collecting anonymous population data to determine statistical relationships between well-being and other relevant variables, such as gender, health status and age.

The scale was developed from the scrutiny of 435 adjectives and sentences derived from a review of the literature relating to well-being. An initial measure (Affectometer 1) comprised of 96 – items was tested in a general population sample and reduced to the 40 – item Affectometer 2. Respondents are asked "Thinking about the past few weeks, how often, if ever, have you felt …" and are given five response categories (not at all, occasionally, some of the time, often, all of the time) followed by 20 positive items each split into ten sentences and 10 adjectives. The scale is scored by subtracting the sum of all negative items from the sum of all positive items, so that the total score has a potential range of – 80 to + 80. The following dimensions have been identified:

- **Confluence**

Confluence includes statements such as “My life is on the right track”; “I wish I could change some part of my life” and also whether the person is satisfied or discontented. The items that relate to confluence are indicated in table 4.7.

- **Optimism**

Optimism includes statements such as “My future looks good”; “I feel as if the best years of my life are over” and also the following adjectives, namely, optimistic and hopeless. The items that relate to optimism are indicated in table 4.7.

- **Self-esteem**

Self-esteem refers to statements such as “I like myself”; “I feel there must be something wrong with me” and also the following adjectives, namely, useful and insignificant. The items that relate to self-esteem are indicated in table 4.7.

- **Self efficacy**

Self-efficacy refers to statements such as “I can handle any problems that come up”; “I feel like a failure” and also the following adjectives like, confident and helpless. The items that relate to self efficacy are indicated in table 4.7.

- **Social support**

Social support includes statements such as “I feel loved and trusted”; “I seem to be left alone when I don’t want to be” and adjectives, like, understood and being lonely. The items that relate to social support are indicated in table 4.7.

- **Social interest**

Social interest refers to statements such as “I feel close to people around me”; “I have lost interest in other people and don’t care about them” and adjectives like, loving and withdrawn. The items that relate to social interest are indicated in table 4.7.

- **Freedom**

Freedom includes statements such as “I feel I can do whatever I want”; “My life seems stuck in a rut” and adjectives like, free-and-easy and tense. The items that relate to freedom are indicated in table 4.7.

- **Energy**

Energy refers to statements such as “I have energy to spare”; “I can’t be bothered doing anything” and adjectives like, enthusiastic and depressed. The items that relate to energy are indicated in table 4.7.

- **Cheerfulness**

Cheerfulness includes statements such as “I smile and laugh a lot”; “Nothing seems very much fun anymore” and adjectives like, good-natured and impatient. The items that relate to cheerfulness are indicated in table 4.7.

- **Thought clarity**

Thought clarity refers to statements such as “I think clearly and creatively”; “My thoughts go around in useless circles” and adjectives like, clear-headed and confused. The items that relate to thought clarity are indicated in table 4.7.

Table 4. 7 The dimensions and items of the Affectometer 2

Dimension	Item
Confluence	1, 2, 21, 31
Optimism	3, 4, 22, 32
Self esteem	7, 8, 24, 34
Self efficacy	5, 6, 23, 33
Social support	9, 10, 25, 35
Social interest	11, 12, 26, 36
Freedom	13, 14, 27, 37
Energy	15, 16, 28, 38
Cheerfulness	17, 18, 29, 39
Thought clarity	19, 20, 30, 40

4.3.2.4.2 Validity

The following validity coefficients have been identified by (Kamman & Flett, 1983).

- *Convergent Validity*

The Affectometer 2 correlated -0, 84 with the Beck Depression Inventory (BDI) and as predicted, the negative items correlated more highly with the BDI than the positive items. The earlier Affectometer 1 correlated between 0.63 and 0.75 with several measures of happiness and neuroticism and loaded highest (0.88) on the strong first factor emerging from factor analysis (Kamman & Flett, 1983).

Discriminant Validity

Although no data on discriminant validity were reported for the present inventory, Affectometer 1 scores were found to correlate between 0.22 and 0.37 with the three measures of response set (Kamman & Flett, 1983).

4.4.2.4.3 Reliability

The following reliability coefficients have been identified by (Kamman & Flett, 1983):

- *Internal consistency*

A coefficient of 0.95 is reported, with a median item-total correlation of 0.57 (Kammann & Flett, 1983).

- *Test-retest reliability*

Estimated test-retest reliability (based on Affectometer 1 studies) was 0.80 for a 2 week period; and over an 8 month period it was estimated at 0.53 (Kamman & Flett, 1983).

It would have been advisable to conduct a factor analysis to determine the factor structure of the Affectometer 2 in the context of the current study. This objective was not feasible due to the limited number of respondents that participated in this study. It was therefore decided to determine the alpha coefficients of the respective dimensions of the construct for purposes of this study. The alpha coefficients are reported in table 4.8. The alpha coefficient of mental health as measured by the Affectometer 2 questionnaire was .78. These alpha coefficients therefore compare satisfactorily to those of the original questionnaire coeffecients. The alpha coefficients of the respective dimensions are reported in table 4.8.

Table 4. 8 The dimensions and alpha coefficients of the Affectometer 2

Dimension	Item
Confluence	.63
Optimism	.59
Self esteem	.71
Self efficacy	.62
Social support	.63
Social interest	.71
Freedom	.61
Energy	.49
Cheerfulness	.59
Thought clarity	.68

4.4.2.4.4 Rationale for inclusion

The Affectometer 2 is a measure of general happiness based on the balance of positive and negative feelings in recent experience (Kammann & Flett, 1983). It was intended for use in collecting anonymous population data to determine statistical relationships between well-being and other relevant variables, such as gender, health status and age.

The questionnaire includes many items not covered in scales of negative mental health (feeling loved and trusted, thinking clearly and creatively, problem solving) and, also unlike the latter, has equal numbers of items relating to the positive as well as the negative end of the spectrum of health.

4.4.2.5 The Satisfaction with Life Scale (SWLS)

In the next section the focus will be on the discussion of nature and composition, reliability, validity and rationale for inclusion of the SWLS.

4.4.2.5.1 Nature and composition

Recent years have seen an increase in research on subjective well-being (Diener, 1984). Three separate components of subjective well-being have been identified, namely, positive effect, negative effect and life satisfaction (Andrews & Whithey, 1976). The first two components refer to the affective emotional aspects of the construct while the latter refer to the cognitive-judgmental aspects. Although several scales for the assessment of affect exist (Bradburn, 1969; Kamman & Flett, 1983; Kozma & Stones, 1980), the measurement of general life satisfaction has received less attention.

Life satisfaction refers to a cognitive, judgmental process. Shin and Johnson (1978) define life satisfaction as a global assessment of a person's quality of life according to his chosen criteria. Judgments about satisfaction are determined upon a comparison of one's circumstances with what is thought to be an appropriate standard. It is important to point out that the judgment of how satisfied people are with their present state of affairs is based on a comparison with a standard with which each individual sets for him or herself. It is not externally imposed.

It is a hallmark of the subjective well-being area that it centers on the person's own judgments, not upon some criterion which is judged to be important by the researcher (Diener, 1984). For example, although health, energy, and so forth may be desirable, particular individuals may place different values on them. It is for this reason that one needs to ask the person for their overall evaluation of their life, rather than a summary of satisfaction with specific domains, to obtain a measure of overall life satisfaction.

Scales of general life satisfaction have been developed. Unfortunately, many of these scales consist only of a single item. Such single item scales have a number of problems associated with them (Diener, 1984). Also many of the existing scales have been designed and are appropriate only for geriatric populations, such as Neugarten, Havighurst, and Tobin's (1961), Life Satisfaction Index and Lawton's (1975), and the Philadelphia Geriatric Center Morale Scale. Furthermore many of these scales do not appear to be tapping solely the judgmental quality of life satisfaction. For example, the Life Satisfaction Index, despite its name, includes a factor of zest versus apathy (Neugarten et al., 1961). Thus, these scales are not, strictly speaking, measures only of life satisfaction.

A need for a multi-item scale to measure life satisfaction as a cognitive-judgmental process existed. The scale is designed around the idea that one must ask subjects for an overall judgment of their life in order to measure the concept of life satisfaction. In the initial phase of scale construction, a list of 48 self-report items were generated. These consisted primarily of questions related to satisfaction with one's life. However, some positive and negative affect items were included. Initial factor analysis resulted in three factors namely, positive affect, negative affect and satisfaction.

The affect items were eliminated, as were the items from the satisfaction factor that had loadings less than 0.60 and 10 items were left. Because of the high semantic similarity of several of those items, five were dropped, resulting in a five - item scale, the SWLS.

According to Diener et al., (1985) analysis of the questionnaire indicated that the questionnaire measures two work characteristics. These characteristics will be discussed briefly.

4.4.2.5.1.1 Dimensions measured by the SWLS

The SWLS consists of two dimensions, namely, health and material health.

- **Health**

Health refers to judgments about satisfaction which are determined upon a comparison of one's circumstances with what is thought to be an appropriate standard. It is important to point out that the judgment of how satisfied people are with their present state of affairs is based on a comparison with a standard with which each individual sets for him or herself. The items that relate to health are indicated in table 4.9

- **Material wealth**

Material wealth refers to the extent that the individual has gathered the important material possessions according to him. The items that relate to material wealth are indicated in table 4.9.

Table 4. 9 The dimensions and items of the Satisfaction with Life Scale

Dimension	Item
Health	1,2,3
Material wealth	4,5

4.4.2.5.2 Validity

Future research needs to establish the discriminant validity of the scale, and should also explore in more depth the relationship between affect and life satisfaction, as well as the relationship between life satisfaction and domain satisfaction.

It would have been advisable to conduct a factor analysis to determine the factor structure of the Satisfaction with Life scale in the context of the current study. Due to the limited number of respondents that participated in the study, it was not feasible to achieve this objective.

4.4.2.5.3 Reliability

The mean score on the SWLS was 23,5 with a standard deviation of 6.43. Each item is scored from 1-7, so the possible range of scores on the questionnaire is from 5 (low satisfaction) to 35 (high satisfaction) (Diener, Emmons, Larson & Griffen, 1985).

The two-month test-retest correlation coefficient was 0.82 and coefficient alpha was 0.87. The inter-item correlation matrix was factor analyzed, using principle axis factor analysis. The number of factors to be extracted was determined by an inspection of the scree plot of eigenvalues. Using this criterion, a single factor emerged, accounting for 66% of the variance (Diener, Emmons, Larson & Griffen, 1985).

The alpha coefficient of mental health as measured by the SWLS was .80. It was decided to rather determine the alpha coefficients of the respective dimensions of the construct for purposes of this study. The alpha coefficients as determined in this study are reported in table 4.10.

Table 4. 10 The dimensions and alpha coefficients of the SWLS

Dimension	Item
Health	.82
Material wealth	.65

4.4.2.5.4 Rationale for Inclusion

The Satisfaction of Life Scale measures global life satisfaction. The scale is designed around the idea that one must ask subjects for an overall judgment of their life in order to measure the concept of life satisfaction. Judgments about satisfaction are determined upon a comparison of one's circumstances with what is thought to be an appropriate standard. It is important to point out that the judgment of how satisfied people are with their present state of affairs is based on a comparison with a standard with which each individual sets for him or herself. It is not externally imposed.

It is a hallmark of the subjective well-being area that it centers on the person's own judgments, not upon some criterion which is judged to be important by the researcher (Diener, 1984).

Unlike other scales, the SWLS leaves the respondent free to weight various domains (e.g., health or material wealth) and various feeling states (e.g., loneliness) in what ever way he or she chooses.

4.5 Statistical methods

The different types of statistics that were used during this study included descriptive statistics and inferential statistics.

4.5.1 Descriptive statistics

The first stage of the statistical analysis involved performing descriptive statistics upon the demographic variables included in the survey. Descriptive statistics do not make any inferences, but simply provide a description of the sample data (Bailey, 1987). The analyses, which are most suitable for descriptive purposes, are generally called summary or exploratory statistics, and include the use of frequency tables, and pie charts. Consequently, pie charts were used for analyzing the biographical information of the study. The means and standard deviations of each of the scales were also calculated.

4.5.2 Inferential Statistics

A stepwise multiple regression analysis and the analysis of variance by means of a standard SPSS computer program were conducted to determine the impact of the selected intrapsychic variables as potential predictors of quality of work life.

4.5.2.1 The stepwise multiple regression analysis

The stepwise multiple stepwise regression analysis was used to determine whether QWL could predict the mental health of employees in the workplace. In multiple stepwise regression, one is interested in predicting a criterion variable from a set of predictors. The regression procedure provides five methods to select predictor variables. They are forward selection, backward elimination, stepwise selection, forced entry, and forced removal (www.visualstatistics.net).

Forward selection begins with no predictors in the regression equation. The predictor variable that has the highest correlation with the criterion variable is entered into the equation first. The rest variables are entered into the equation depending on the contribution of each predictor.

Backward elimination begins with all predictor variables in the regression equation and sequentially removes them. Two removal criteria are available.

Stepwise selection is a combination of forward and backward procedures.

Step 1

The first predictor variable is selected in the same way as in forward selection. If the probability associated with the test of significance is less than or equal to the default .05, the predictor variable with the largest correlation with the criterion variable enters the equation first.

Step 2

The second variable is selected based on the highest partial correlation. If it can pass the entry requirement (PIN=.05), it also enters the equation.

Step 3

From this point, stepwise selection differs from forward selection: the variables already in the equation are examined for removal according to the removal criterion (POUT=.10) as in backward elimination.

Step 4

Variables not in the equation are examined for entry. Variable selection ends when no more variables meet entry and removal criteria.

4.6 Conclusion

In this chapter the focus was on the research design that was used during this study. Emphasis was placed on the selection of respondents, the gathering of the data as well as the statistical methods that were used during this study. With regards to the gathering of the data, emphasis was on the questionnaires that were taken down on the respondents and specific reference was made to their reliability, validity and rationale for inclusion of each questionnaire.

In conclusion, the focus was also on the statistical methods used namely, descriptive statistics, which included frequencies, measures of central tendency and dispersion, as well as the inferential statistics which included the multiple step wise regression analysis. The multiple step wise regression analysis was used to answer the question about quality of work life as a predictor of mental health.

In the next section the focus will be on the results and the discussion of the results as well as the conclusions that can be drawn from the recommendations.

CHAPTER 5

RESULTS AND DISCUSSION OF RESULTS

5.1 Introduction

In this section the focus will be on the statistics regarding the dimensions of mental health and the dimensions of QWL as measured by the various questionnaires that were used in this study. Emphasis will also be on the different QWL variables that predicted employees' mental health. Focus will also be placed on the discussion of the results as well as the overall conclusions with specific reference to the literature study, research methodology and the results of the study. In closing, recommendations will be made for future research.

5.2 Levels of respondents' mental health and QWL

Prior to the aforementioned discussion an exposition of the means and standard deviations of the dimensions of QWL and mental health will be provided.

5.2.1 Employees' level of quality of work life

In table 5.1 the means and standard deviations of each dimension of QWL is presented.

Table 5.1: Employees' level of quality of work life

Quality of work life dimensions	N	X	Standard deviation	Kurtosis
Skill discretion	142	23.01 (e)	3.23	.35
Decision authority	142	10.37 (e)	1.91	2.68
Task control	142	10.55 (e)	2.22	-.28
Work and time pressure	142	8.32 (a)	1.51	-.11
Role ambiguity	142	17.57 (e)	2.93	1.62
Physical exertion	142	7.75 (a)	2.88	-1.09
Hazardous exposure	142	15.37 (e)	6.69	-1.21
Job insecurity	142	5.97 (a)	1.36	.14
Lack of meaningfulness	142	9.63 (a)	1.65	2.59
Social support supervisor	142	13.30 (e)	3.61	-.17
Social support colleague	142	16.67 (e)	3.28	.95

(a) very low (b) low (c) average (d) high (e) very high

It is evident from table 5.1 that the mean scores displayed for all the dimensions of quality of work life are very high except for work and time pressure, physical exertion, job insecurity and lack of meaningfulness. According to Van der Doef and Maes (1999), a high score indicates a more favourable situation, while a low score indicates an unfavourable situation.

5.2.2 Employees' level of mental health

In table 5.2 the means and standard deviations of each dimension of mental health are represented.

Table 5.2 Employees level of mental health

Mental health dimensions	N	X	Standard deviation	Kurtosis
Mental health total	142	37.92 (e)	4.78	-.33
Work competence	142	14.43 (c)	2.35	-.32
Work aspiration	142	15.34 (c)	1.98	-.33
Negative work transfer	142	8.15 (a)	2.56	-.99
General health total	142	59.03 (e)	13.59	.12
Somatic symptoms	142	15.39 (b)	4.10	-.49
Anxiety and insomnia	142	13.98 (b)	5.78	-.99
Social dysfunction	142	18.43 (b)	3.98	-.08
Severe depression	142	11.23 (a)	5.17	1.86
Satisfaction with life total	142	23.19 (e)	6.69	-.33
Health	142	14.65 (c)	4.44	-.29
Material wealth	142	8.54 (b)	3.25	-.91

Affectometer total	142	117.73 (e)	14.73	7.77
Confluence	142	12.35 (a)	2.45	2.29
Optimism	142	10.57 (a)	2.35	.45
Self-esteem	142	11.48 (a)	1.97	3.37
Self-efficacy	142	12.31 (a)	2.13	2.73
Social support	142	11.55 (a)	2.28	2.74
Social interest	142	11.62 (a)	1.98	1.39
Freedom	142	11.56 (a)	2.34	1.19
Energy	142	11.66 (a)	2.27	.25
Cheerfulness	142	12.73 (a)	2.19	2.59
Thought clarity	142	11.91 (a)	2.03	1.81

(a) very low (b) low (c) average (d) high (e) very high

It is evident from table 5.2 that the mean score for total mental health is 37.92, while the standard deviation is 4.78. The sample scored 37.92 on mental health, therefore it can be deduced that a high score indicates positive mental health (Warr, 1990). According to the above results, the mean scores displayed for competence and aspiration are average, while the mean score displayed for negative job carry-over was low.

It is evident from table 5.2 that the total mean scores recorded for general health is 59.03 while the standard deviation is 13.59. All the dimensions of general health are low except for severe depression which was very low. According to Goldberg and Huxley (1992) the general health questionnaire is a dimensional indicator of common mental disorder from which a high score indicates poor mental health while a low score indicates good mental health.

Furthermore, table 5.2 also indicates the mean scores recorded for satisfaction with life dimensions which are 23.5 with a standard deviation of 6.43. The dimensions of satisfaction with life, namely, health, displayed an average mean while the mean for material wealth was recorded as low.

It is evident from table 5.2 that the total Affectometer mean scores is 117.73 while the standard deviation is 14.73 Therefore, according to the above results, the mean scores displayed for all the dimensions, namely, confluence, optimism, self-esteem, self-efficacy, social support, social interest, freedom, energy, cheerfulness and thought clarity are very low.

5.3.1 The prediction of employees' mental health by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' mental health by means of their quality of work life. The results are indicated in table 5.3

Table 5.3 The prediction of employees' mental health by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p - value
1	Lack of meaningfulness	4.60	.28	.08	11.90	.001**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.3 lack of meaningfulness explained 8% of the variance of the mental health of the respondents. The distribution of lack of meaningfulness was statistically significant at the 0.1% level. The other dimensions of quality of work life did not contribute significantly to the variance explained. Further research should be conducted to explain the large proportion of the variance that was not explained by the predictor variables.

5.3.2 The prediction of employees' work competence by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' work competence by means of their quality of work life. Work competence, according to Warr (1990) relates to an individual's ability to deal sufficiently with life's problems. The results are indicated in table 5.4.

Table 5.4 The prediction of employees' work competence by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	2.32	.19	.04	5.17	.024*
2	Social support supervisor	2.27	.29	.08	6.33	.002**
3	Work and time pressure	2.23	.34	.12	6.17	.001**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.4 shows that role ambiguity explained 4% of the variance of the mental health of the respondents. Social support supervisor increased the variance explained by 8% and work and time pressure raised the variance explained to 12%. The contribution of role ambiguity was statistically significant at the 0.5% level, while that of social support supervisor and work and time pressure were statistically significant on the 0.1% level. Further investigation is required to explain the large proportion of the variance not explained by these three variables.

5.3.3 The prediction of employees' work aspirations by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' work aspirations by means of their quality of work life. Work aspiration is the propensity to establish realistic goals, and to engage in goal-directed activity aimed at achieving challenges, which are seen as personally meaningful (Warr, 1990). The results are indicated in table 5.5.

Table 5.5 The prediction of employees' work aspirations by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Lack of meaningfulness	1.83	.38	.15	24.23	.000**
2	Work and time pressure	1.81	.42	.17	14.58	.000**
3	Social support colleague	1.78	.46	.21	12.14	.000**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.5 lack of meaningfulness explained 15% of the variance of the mental health of the respondents. Work and time pressure increased the variance explained to 17% while social support supervisor raised the total variance explained to 21%. The contribution of lack of meaningfulness, work and time pressure and social support colleague were all significant on the 0.1% level. The other dimensions of quality of work life did not contribute significantly to the variance explained. Further research should be conducted to determine the large proportion of the variance that was not explained by the predictor variables.

5.3.4 The prediction of employees' negative work transfer by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' negative work transfer by means of their quality of work life. Negative job carry-over refers to the spill-over effect of work into leisure and family life, and its dysfunctional consequences. The results are indicated in table 5.6.

Table 5.6 The prediction of employees' negative work transfer by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Social support supervisor	2.49	.24	.06	8.32	.005**
2	Skill discretion	2.44	.32	.10	7.89	.001**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.6 shows that social support explained 6% of the variance of the mental health of the respondents. Skill discretion increased the variance explained to 10%. The contribution of social support supervisor and skill discretion were statistically significant at the .01% level. Further investigation is required to explain the large proportion of the variance not explained by these three variables.

5.3.5 The prediction of employees' general health by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' general health by means of their quality of work life. The results are indicated in table 5.7

Table 5.7 The prediction of employees' general health by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Work and time pressure	13.35	.21	.04	6.37	.013*
2	Skill discretion	13.12	.29	.08	6.19	.003**
3	Role ambiguity	12.96	.33	.11	5.71	.001**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.7 work and time pressure explained 4% of the variance of the mental health of the respondents. Skill discretion increased the variance to 8% and role ambiguity raised the total variance explained to 11%. The contribution of work and time pressure was statistically significant at the 0.5% level, while that of skill discretion and role ambiguity were statistically significant at the 0.1% level. Further research should be conducted to determine the proportion of the variance that was not explained by the predictor variables.

5.3.6 The prediction of employees' somatic symptoms by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' somatic symptoms by means of their quality of work life. Somatic symptoms refer to the person being either in good health, being ill or in need of a tonic. It also refers to aches and pains or feelings of tightness and pressure in one's head. The results are indicated in table 5.8

Table 5.8 The prediction of employees' somatic symptoms by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Hazardous exposure	3.97	.27	.07	10.71	.001**
2	Job insecurity	3.81	.39	.16	7.60	.000**
3	Skill discretion	3.77	.43	.18	7.60	.000**
4	Role ambiguity	3.68	.48	.23	7.91	.000**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.8 shows that hazardous exposure explained 7% of the variance of the mental health of the respondents. Job insecurity further increased the variance explained to 16%. Skill discretion further increased the variance explained to 18% and role ambiguity raised the total variance explained to 23%.The contribution of hazardous exposure, job insecurity, skill discretion and role ambiguity were all statistically significant at the 0.1% level. Further investigation is required to explain the large proportion of the variance not explained by these five variables.

5.3.7 The prediction of employees' anxiety and insomnia by means of their quality of work life

Multiple stepwise regression analisys was conducted to predict employees' anxiety and insomnia by means of their quality of work life. Anxiety and insomnia refer to worry, being under constant strain and also being nervous and strung – up all the time. The results are indicated in table 5.9.

Table 5.9 The prediction of employees' anxiety and insomnia by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	5.59	.27	.07	10.69	.001**
2	Skill discretion	5.42	.37	.13	10.76	.000**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.9 role ambiguity explained 7% of the variance of the mental health of the respondents. Skill discretion raised the total variance explained to 13. The contribution of both role ambiguity and skill discretion were statistically significant at the 0.1% level. Further research should be conducted to determine the large proportion of the variance that was not explained by the predictor variables.

5.3.8 The prediction of employees' social dysfunction by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' social dysfunction by means of their quality of work life. Social dysfunction refers to being pre – occupied with yourself and your daily activities. The results are indicated in table 5.10

Table 5.10 The prediction of employees' social dysfunction by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Social support colleague	3.84	.27	.08	11.53	.001**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.10 shows that social support colleague explained 8% of the variance of the mental health of the respondents. The contribution of social support colleague was statistically significant on the 0.1% level. Further investigation is required to explain the large proportion of the variance not explained by social support supervisor.

5.3.9 The prediction of employees' severe depression by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' severe depression by means of their quality of work life. Severe depression refers to feelings of worthlessness, hopelessness, and being suicidal. The results are indicated in table 5.11.

Table 5.11 The prediction of employees' severe depression by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	5.03	.24	.06	8.72	.004**
2	Skill discretion	4.92	.33	.11	8.29	.000**
3	Lack of meaningfulness	4.85	.37	.14	7.29	.000**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.11 role ambiguity explained 6% of the variance of the mental health of the respondents. Skill discretion increased the variance explained to 11% and lack of meaningfulness raised the total variance explained to 14%. The contribution of role ambiguity, skill discretion and lack of meaningfulness were statistically significant on the 0.1% level. Further research should be conducted to determine the large proportion of the variance that was not explained by these three variables.

5.3.10 The prediction of employees' satisfaction with life by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' satisfaction with life by means of their quality of work life. Shin and Johnson (1978) define satisfaction with life as a global assessment of a person's quality of life according to his chosen criteria. The results are indicated in table 5.12.

Table 5.12 The prediction of employees' satisfaction with life by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	6.23	.38	.14	22.84	.000**
2	Lack of meaningfulness	6.16	.41	.16	13.63	.000**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.12 shows that role ambiguity explained 14% of the variance of the mental health of the respondents. Lack of meaningfulness raised the total variance explained to 16%. The contribution of both role ambiguity and lack of meaningfulness were statistically significant at the 0.1% level. Further investigation is required to explain the large proportion of the variance not explained by these two variables.

5.3.11 The prediction of employees' health by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' health by means of their quality of work life. Health refers to judgments about satisfaction which are determined upon a comparison of one's circumstances with what is thought to be an appropriate standard. It is important to point out that the judgment of how satisfied people are with their present state of affairs is based on a comparison with a standard with which each individual sets for him or herself. The results are indicated in table 5.13

Table 5.13 The prediction of employees' health by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	4.05	.42	.18	29.76	.000**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.13 role ambiguity explained 18% of the variance of the mental health of the respondents. The contribution of role ambiguity was statistically significant at the 0.1% level. The other dimensions of quality of work life did not contribute significantly to the variance explained. Further research should be conducted to determine the large proportion of the variance that was not explained by the predictor variables.

5.3.12 The prediction of employees' material wealth by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' material wealth by means of their quality of work life. Material wealth refers to the extent that the individual has gathered the important material possessions according to him. The results are indicated in table 5.14

Table 5.14 The prediction of employees' material wealth by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Lack of meaningfulness	3.18	.23	.05	7.50	.007**
2	Skill discretion	3.13	.29	.08	6.21	.003**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.14 shows that lack of meaningfulness explained 5% of the variance of the mental health of the respondents. Skill discretion increased the total variance explained to 8%. The contribution of both lack of meaningfulness and skill discretion were statistically significant at the 0.1% level. Further investigation is required to explain the large proportion of the variance not explained by these two variables.

5.3.13 The prediction of employees' general measure of happiness scores by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' Affectometer scores by means of their quality of work life. Affectometer was developed in New Zealand and covers a range of aspects of positive mental health including subjective well-being, psychological functioning and relationships (Kamman & Flett, 1983). The results are indicated in table 5.15.

Table 5.15 The prediction of employees' Affectometer scores by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	22.87	.47	.22	38.98	.000**
2	Skill discretion	22.36	.51	.26	24.11	.000**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.15 role ambiguity explained 22% of the variance of the mental health of the respondents. Skill discretion increased the total variance to 26%. The contribution of both role ambiguity and skill discretion were statistically significant at the 0.1% level. The other dimensions of quality of life did not contribute significantly to the variance explained. Further research should be conducted to determine the large proportion of the variance that was not explained by the predictor variables.

5.3.14 The prediction of employees' confluence by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' confluence by means of their quality of work life. Confluence includes statements such as my life is on the right track; I wish I could change some part of my life and also whether the person is satisfied or discontented. The results are indicated in table 5.16.

Table 5.16 The prediction of employees' confluence by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	2.98	.30	.09	14.31	.000**
2	Skill discretion	2.86	.41	.17	14.66	.000**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.16 shows that role ambiguity explained 9% of the variance of the mental health of the respondents. Skill discretion raised the total variance explained to 17%. The contribution of both role ambiguity and skill discretion were statistically significant at the 0.1% level. Further investigation is required to explain the large proportion of the variance not explained by these two variables.

5.3.15 The prediction of employees optimism bymeans of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' optimism by means of their quality of work life. Optimism includes statements such as "My future looks good", I feel as if the best years of my life are over". The results are indicated in table 5.17.

Table 5.17 The prediction of employees' optimism by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	2.92	.34	.11	17.68	.000**
2	Skill discretion	2.86	.39	.16	12.76	.000**
3	Lack of meaningful work	2.82	.43	.19	10.51	.000**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.17 role ambiguity explained 11% of the variance of the mental health of the respondents. Skill discretion increased the variance to 16% and lack of meaningful work raised the total variance explained to 19%. The contribution of role ambiguity, skill discretion and lack of meaningful work were all statistically significant at the 0.1% level. The other dimensions of quality of work life did not contribute significantly to the variance explained. Further research should be conducted to determine the large proportion of the variance that was not explained by the predictor variables.

5.3.16 The prediction of employees' self-esteem by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' self-esteem by means of their quality of work life. Self-esteem includes statements such as "I like myself", "I feel there must be something wrong with me". The results are indicated in table 5.18.

Table 5.18 The prediction of employees' self-esteem by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	2.93	.37	.13	21.57	.000**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.18 role ambiguity explained 13% of the variance of the mental health of the respondents.The contribution of role ambiguity was statistically significant at the 0.1% level. The other dimensions of quality of work life did not contribute significantly to the variance explained. Further research should be conducted to determine the large proportion of the variance that was not explained by the predictor variables.

5.3.17 The prediction of employees' self-efficacy by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' self-efficacy by means of their quality of work life. Self efficacy refers to statements such as I can handle any problems that come up; I feel like a failure and also whether the person is confident or helpless. The results are indicated in table 5.19.

Table 5.19 The prediction of employees' self - efficacy by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	2.89	.33	.11	17.61	.000**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.19 role ambiguity explained 11% of the variance of the mental health of the respondents. The contribution of role ambiguity was statistically significant at the 0.1 % level. The other dimensions of quality of work life did not contribute significantly to the variance explained. Further research should be conducted to determine the large proportion of the variance that was not explained by the predictor variables.

5.3.18 The prediction of employees' social support by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' social support by means of their quality of work life. Social support includes statements such as "I feel loved and trusted"; "I seem to be left alone when I don't want to be" and whether the person is being understood or being lonely. The results are indicated in table 5.20.

Table 5.20 The prediction of employees' social support by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	2.84	.47	.22	38.79	.000**
2	Job insecurity	2.81	.49	.24	21,82	.000**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.20 shows that role ambiguity explained 22% of the variance of the mental health of the respondents. Job insecurity raised the variance explained to 24%. The contribution of both role ambiguity and job insecurity were statistically significant at the 0.1% level. Further investigation is required to explain the large proportion of the variance that was not explained by these two variables.

5.3.19 The prediction of employees' social interest by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' social interest by means of their quality of work life. Social interest refers to statements such as "I feel close to people around me", "I have lost interest in other people and don't care about them". The results are indicated in table 5.21.

Table 5.21 The prediction of employees' social interest by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	2.88	.46	.21	37.35	000**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.21 shows that role ambiguity explained 21% of the variance of the mental health of the respondents. The contribution of role ambiguity was statistically significant at the 0.1% level. The other dimensions of quality of work life did not contribute significantly to the variance explained. Further investigation is required to explain the large proportion of the variance that was not explained by thevariables.

5.3.20 The prediction of employees's freedom by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' freedom by means of their quality of work life. Freedom includes statements such as "I feel I can do whatever I want", "My life seems stuck in a rut". The results are indicated in table 5.22.

Table 5.22 The prediction of employees' freedom by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	3.01	.43	.18	30.92	000**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.22 shows that role ambiguity explained 18% of the variance of the mental health of the respondents. The contribution of role ambiguity was statistically significant at the 0.1% level. The other dimensions of quality of work life did not contribute significantly to the variance explained. Further investigation is required to explain the large proportion of the variance that was not explained by thevariables.

5.3.21 The prediction of employees' energy by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' energy by means of their quality of work life. Energy refers to statements such as "I have energy to spare", "I can't be bothered doing anything and whether the person is enthusiastic or depressed". The results are indicated in table 5.23.

Table 5.23 The prediction of employees' energy by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	2.79	.33	.11	17.31	.000**
2	Skill discretion	2.74	.38	.15	11.93	.000**
3	Social support colleague	2.71	.41	.17	9.47	.000**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.23 role ambiguity explained 11% of the variance of the mental health of the respondents. Skill discretion increased the variance explained to 15% and social support colleague rasied the total variance explained to 17%. The contribution of role ambiguity, skill discretion and social support colleague were statistically significant at the 0.1% level. Further research should be conducted to determine the large proportion of the variance that was not explained by these three predictor variables.

5.3.22 The prediction of employees' cheerfulness by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' cheerfulness by means of their quality of work life. Cheerfulness includes statements such as "I smile and laugh a lot", "Nothing seems very much fun anymore". The results are indicated in table 5.24.

Table 5.24The prediction of employees' cheerfulness by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	2.80	.39	.16	26.40	.000**
2	Lack of meaningful work	2.76	.43	.19	15.99	.000**

*p < 0.05 significant

** p < 0.01 highly significant

According to table 5.24 role ambiguity explained 16% of the variance of the mental health of the respondents. Lack of meaningful work increased the variance explained to 19%. The contribution of role ambiguity and lack of meaningful work were statistically significant at the 0.1% level. Further research should be conducted to determine the large proportion of the variance that was not explained by the predictor variables.

5.3.23 The prediction of employees' thought clarity by means of their quality of work life

Multiple stepwise regression analysis was conducted to predict employees' thought clarity by means of their quality of work life. Thought clarity refers to statements such as I think clearly and creatively", "My thoughts go around in useless circles and whether the person is clear-headed or confused". The results are indicated in table 5.25.

Table 5.25 The prediction of employees' thought clarity by means of their quality of work life.

Step	Variable	Standard error of the estimate	Multiple R	R square	F – value	p – value
1	Role ambiguity	2.94	.41	.17	27.78	.000**
2	Skill discretion	2.86	.46	.21	18.77	.000**

*p < 0.05 significant

** p < 0.01 highly significant

Table 5.25 shows that role ambiguity explained 17% of the variance of the mental health of the respondents. Skill discretion raised the total variance explained to 21%. The contribution of both role ambiguity and skill discretion, were statistically significant at the 0.1% level. Further investigation is required to explain the large proportion of the variance not explained by these two variables.

5.4 Discussion of results

A short discussion of the results obtained regarding quality of work life as a predictor of mental health follows.

5.4.1 The prediction of employees' mental health by means of their quality of work life

From table 5.3 it is evident that quality of work life variables, and more specifically lack of meaningfulness, is a predictor of employees' mental health. Therefore, on the basis of the above result, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected. Lack of meaningfulness according to Van Der Doef and Maes (1999) refers to whether the work that one does, is worthwhile doing. According to Wrezesniewski, Dutton and Debebe (2003), the meaning people make of their work is tied to their attitudes about the work they do and their overall well-being.

From the literature it is evident that research regarding meaningful work has increased in recent years (Chalofsky, 2003; Dolet, 2003) and the growing interest in the academic field parallels with the interest and concern in the world of work (Grady & McCarthy, 2008). Meaning according to Chalofsky (2003) is found to be more deeply intrinsic than values and suggests that it amounts to three levels of satisfaction, namely, extrinsic, intrinsic and something even deeper. Csikszeentmihalyi (1990) in his attempt to define meaning, proposes that any definition of the term would undoubtedly be circular, indicating a three sphere approach including purpose, the intentions one holds and clarifying the term in context. Thomas (2000), highlighting the role of meaningfulness identifies the four critical intrinsic reward motivators as a sense of meaning and purpose, a sense of choice, a sense of competence and a sense of progress.

According to Chalofsky (2003) meaning and work may present an even greater challenge to define and purports that meaning at work implies that there is a relationship between the individual and the organization in terms of commitment, loyalty and dedication. Furthermore, Chalofsky (2003) advocates that meaning in work, also termed meaningful work, is the way one expresses the meaning and purpose of one's life through work activities although work is just one area of an individual's life. In essence, meaningful work is that which gives real substance to what one does, which brings a sense of fulfillment to one's life and contributes significantly to one's purpose in life. Chalofsky (2003) identifies three themes which determine meaningful work, namely, a sense of self, the work itself, and the sense of balance which overlap and intertwine and are reflected in the term integrated wholeness or meaningful work.

Therefore according to Grady and McCarthy (2008) meaningful work is influenced by an inclusiveness of all the aspects of one's life beyond that of paid employment which can lead to an integrated wholeness for the individual. However to attain a state of meaningful work, it is critical that no one sphere is so dominant that it adversely impacts the value gained from the other spheres. In conclusion, meaningful work is not just about the paid work that one does, but about the manner in which one lives one's life, incorporating one's values and principles and doing so with honesty.

Task routinization in particular, has demonstrated strong negative relationships with overall job satisfaction, as routine tasks generally reflect a high degree of repetitiveness in the job and therefore fail to generate enthusiasm in employees (Iverson & Maguire, 2000). Furthermore Farh, Podsakoff and Organ (1990) suggested that task characteristics may influence helpful behaviours by creating a sense of responsibility and rendering work more psychologically meaningful or satisfying. Thus enhanced satisfaction and enjoyment in the task could foster a sense of helpful behavior in employees by enabling them to appreciate the overall importance of the job in relationship to the global functioning of the organization, thus supporting the earlier work of Hackman and Oldham (1976, 1980).

The job characteristics model of Hackman and Oldham (1980) supports to the above finding and predicts that jobs higher in skill variety, task identity, task significance, autonomy and feedback will create a greater experience of meaning, responsibility and knowledge of results. Increases in these latter three variables, the critical psychological states, are in turn predicted to result in greater job satisfaction, higher internal work motivation, better work performance, lower level of absence and labour turnover.

Hackman and Oldham (1976) stated that when an individual understands that the results of his/her work may have a significant effect on his/her well-being the meaningfulness of that work is usually enhanced. Thus, employees who maintain commercial aircraft may perceive their work as more meaningful than employees who repair small engines. Furthermore, Hackman and Oldham (1980) have looked at job meaning in terms of skill variety applied to the job, the level of control employees have over completion of the task (task identity), and the impact of the job on others (task significance) contribute to the meaning that employees give to the job. The meaning that is inferred from these job elements involves the overall value or worth of the job in organizational context. In fact, job design researchers have argued that people implicitly seek to understand the meaningfulness of their work in terms of whether it is broadly worthwhile and valuable (Wrezesniewski, Dutton & Debebe, 2003).

The above finding is also supported by Hakanen (2004) who stated that having a good Sense of Coherence has been found to be positively related to well-being and negatively related to stress and burnout. Furthermore, although the research findings are still not conclusive there is evidence that SOC may (1) directly be associated with health and (2) mediate the effects of working conditions on health and (3) moderate the relationship between perceived work characteristics and health (Hakanen, 2004).

5.4.2 The prediction of employees' work competence by means of their quality of work life

From table 5.4 it is evident that quality of work life variables, and more specifically role ambiguity, social support and work and time pressure are predictors of employees' work competence. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

Role ambiguity refers to not knowing what one's tasks are and also not knowing what is expected from oneself (Van Der Doef & Maes, 1999; Kleynhans, Markham, Meyer & Van Aswegen (2006).This may lead to stress when the individual does not do certain tasks as the employer expects or when he or she does tasks that are part of another person's job. All of the above-mentioned will then result in poor mental health. In addition, pressure demands via role ambiguity were found to cause a significant increase in systolic blood pressure (Pollard, 2001).

According to Diedieff and Rubin (2007) roles in organizations are generally defined as the patterns of behaviours that are perceived by organizational members to be expected or required. More definitively, work roles encompass the expectations pertaining to the perceived responsibilities or requirements associated with enacting specific jobs. Enactment of work roles can vary greatly across individuals, even those within similar jobs. Broadly speaking, the clarity with which individuals perceive their work roles has been linked to several important organizational outcomes, including job performance, organizational commitment and job satisfaction (Tubre & Collins, 2000).

Work role ambiguity may result from unclear articulations of expected role activities, performance contingencies and work methods. A logical extension is that increased ambiguity is very likely to impact perceptions of the specific requirements necessary for successfully enacting one's work role (Diedieff & Rubin, 2007). The above finding is supported by Tubre and Collins (2000) who found that a condition of high ambiguity is associated with a lack of knowledge regarding what role activities are critical to the job. Therefore an ambiguous role would make it more difficult for an

individual to judge exactly what is important or central to his or her job, and how often he or she may perform a particular activity (Diedieff & Rubin, 2007).

Further support for the above finding originates from the work of Khan, Wolfe, Quinn, Snoek and Rosenthal (1964) who found in their study that men who suffered from role ambiguity experienced lower job satisfaction, higher job related tension, greater futility and lower self-confidence. French and Caplan (1970) found that at one of NASA's bases, in a sample of 205 volunteer engineers, scientists and administrators, that role ambiguity was significantly related to low job satisfaction and to feelings of job-related threat to one's mental and physical well-being. This also related to indicators of physical strain such as increased blood pressure and pulse rate. Mongolis, Kroes and Quinn (1974) also found a number of significant relationships between symptoms or indicators of physical and mental ill-health with role ambiguity in their representative national sample. These indicators related to role ambiguity were depressed mood, lowered self-esteem, life dissatisfaction, low motivation to work and intention to leave the job.

Today, workers are being required to perform multiple tasks, learn new skills and self-manage in order to meet the competitive demands of the modern job. According to Kendall, Murphy, O' Neill and Burnsnall (2000) this has lead to jobs that are more fluid (Cooper, Dewe & O' Driscoll, 2001), possibly exacerbating role ambiguity and role conflict and leading in turn to work stress and illness (Dunnette, 1998).

More recently, Li and Bagger (2008) stated that role ambiguity reduces the quality of the information that can be used to make an accurate assessment of one's ability to perform a task. According to social cognitive theory (Bandura, 1977), to have a high self-efficacy, a person must be able to visualize effective performance in a given situation. While role ambiguity is high, the ability to visualize one's performance is impaired, thereby reducing one's confidence in his or her ability to perform effectively (Li & Bagger, 2008).

According to Khan et al. (1964), the relationship between role ambiguity and its related variables tend to be moderated by three broad categories of variables, namely, organizational, interpersonal and personality processes. A potential moderator, namely goal orientation has also been discovered (Khan et.al., 1964).

Further support for the above finding was found by VandeWalle, Cron and Slocum, (2001) who suggested that there are two different dispositional goal orientations, namely, performance goal and learning goal orientation. Performance-orientated individuals tend to conceive their ability as a fixed entity. As such, they seek to prove their competence on a task. Learning – oriented individuals, however, tend to view their abilities as malleable. For this reason, they tend to focus on improving their task performance. A refinement of the bifurcated performance goal orientation into two separate dimensions, namely, proving goal orientation, that focuses on demonstrating one's abilities and avoiding goal orientation that focuses on avoiding negative comments on one's competence (VandeWalle et al., 2001).

In support of the above findings, previous research has shown that individuals tend to view a challenging situation as an opportunity to advance their abilities. Instead of withdrawing themselves from the challenge, they confront it head-on, becoming intrinsically involved in the task, developing effective task strategies, expending additional effort and intensifying their attention on task related activities (Elliot & Thrash, 2002; Van Yperen & Janssen, 2002). These arguments suggest that learning – oriented individuals may proactively scout for information that can be used to reduce role ambiguity. Even if they fail to perform adequately as a result of role ambiguity, they draw on these experiences to enhance their abilities. These characteristics enable them to remain resilient and see the positive side even in a dire situation, as well as allow them to acquire the competence to overcome role ambiguity and to perform effectively at work (Li & Bagger, 2008).

Therefore, according to Hall (2008) a lack of role clarity is likely to make individuals believe they are helpless and thus reduce the impact they have in their work area. In contrast, individuals who understand their work roles are more likely to take actions and decisions that influence decisions and results in their work area. Prior research

results suggest that higher levels of role ambiguity are related to lower levels of psychological empowerment (Hall, 2008).

Some researchers have included supervisor support as an important component of quality of work life. This finding was supported by Boumans, Landeweerd and Visser (2004) who mentioned the importance of social support from the supervisor. In a logistic analysis of 42 Texas dialysis facilities, Wai Chai Tai and Robinson (1998) found the impact of less supervisor support on turnover (Gellis & Chun Kim, 2004). Moore and Mellor (2003) studying 201 hospital nurses found that support from supervisors contribute to nurses' health. According to Michie and Williams (2003) poor social support as well as long hours of work, work overload and other extrinsic factors are associated with psychological ill health.

Hawkins and Shohet (2000) also supported the above finding and stated that a good supervisor can also help one to use one's resources better, manage one's workload and challenge inappropriate patterned ways of coping. Spence, Wilson, Kavanagh, Strong and Worrel (2001) maintained that the personal support aspect of supervision aims to optimize motivation, morale, commitment, and to minimize work-related stress, burnout and mental health problems of the employee. Scaife and Walsh (2001) also support the inclusion of this as a legitimate focus of supervision, describing how supervision can provide an opportunity for dealing with the effects of organizational climate and professional relationships.

Bakker, Demerouti, and Euwema (2005) found that social support at work is also a potential buffer against job stress, hence providing protection from pathological consequences of stressful experiences. In a study of higher education employees, Bakker et al. (2005) showed that the combination of high demands and low job resources in the workplace significantly added to the risk of burnout. Furthermore, work overload, emotional demands, physical demands, and work-home interference did not result in high levels of burnout if employees experienced autonomy, received feedback, had social support, or had a high quality relationship with their supervisor. These authors postulated that the aspects of the high-quality supervisor relationships provided important instrumental help and emotional support.

Research into work and overload has received substantial empirical attention. French and Caplan (1974) have differentiated overload in terms of quantitative and qualitative overload. Quantitative refers to having “too much to do”, while qualitative means work is too difficult. Miller (1960) has theorized, and Terryberry (1968) has found that overload in most systems leads to breakdown, whether one is dealing with single biological cells or individuals in organizations. French and Caplan (1970) found that objective quantitative overload was strongly linked to cigarette smoking, an important risk factor or symptom of coronary heart disease.

Persons with more phone calls, office visits and meetings per given unit of work time were found to smoke significantly more cigarettes than persons with fewer such engagements. In a study of 100 young coronary patients, Russek and Zohman (1958) found that 25 percent had been working at two jobs and an additional 45 percent had worked at jobs which required, due to work overload, 60 or more hours per week.

A positive association between nursing staff participation in continuing education activities and ratings of work satisfaction has been reported (Sung, Chang & Tsai, 2005). In a study of nurse self-assessed competence, Tzeng (2004) suggested that opportunities for learning would contribute to organizational commitment among nursing staff. Several studies have found that staff competence is not in agreement with work tasks (Brulin, Winkvist & Langendoen, 2000). In addition competence development at work (Alaby, 2005) and training in new tasks is often limited. Insufficient competence regarding work tasks has been shown to be a source of strain and stress for nursing personnel (Morgan, Semchuk, Stewart & D’Arcy, 2002).

Furthermore, Brulin et al., (2000) and Morgan et al., (2002) have reported that heavier workloads have lead to increased time pressure among nursing staff, resulting in higher stress levels. In a study by Shaver and Lacy (2003), registered nurses and practical nurses’ perceptions of higher patient loads were inversely related to work satisfaction. Karsh, Bookse and Sainfort (2005) found positive staff perceptions of their work environment and low pressure were significantly related to great satisfaction and work commitment.

According to Engwall and Jerbrant (2003) sharing time between several work tasks at an individual level may result in a perception of work as disrupted and fragmented, in elevated levels of time pressure and fewer opportunities for recuperation between periods of intense and strenuous work.

Other negative consequences of sharing time between many work tasks are decreased competence development and less improvement in work routines (Zika-Viktorsson, 2002). Switching from one task to another can result in a considerable amount of set - up time. On the other hand, there are also indications that multiple work task settings can provide for increased learning and rich work content (Noboeka, 1995; Lindkvist, 2001).

From a health perspective, it is of importance to have enough time to recuperate between work tasks or intensive periods of work. Time pressure in general must not be intrinsically regarded as detrimental to health. However, previous research in other areas has shown that there is a relationship between tenure, on the one hand and high level of time pressure and health problems on the other (Frankenhaeuser & Johansson, 1981; Karasek & Theorell, 1990).

Therefore professional competence and skills are constantly developed and shaped in daily work. Although it is an obvious necessity in many companies to keep up with the changing demands for competence, previous research has shown that opportunities for competence development can be impaired in a multi task setting (Zika-Viktorsson, 2002). In such settings, there is an obvious risk that time for long term development and training is not sufficiently prioritized in relation to short term task delivery. At the same time, it may be difficult to obtain time to reflect over and analyze daily work in a manner that generates new insights, knowledge and professional skills (Zika-Viktorsson, Sundström & Engwall, 2006).

5.4.3 The prediction of employees' work aspiration by means of their quality of work life

From table 5.5 it is evident that quality of work life variables, more specifically lack of meaningfulness, work and time pressure and social support supervisor, are predictors of employees' work aspiration. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

The above results are supported by Duchon and Plowman (2005) who stated that meaning finding at work can be difficult because the workplace has changed. Vaill (1998) argues that workers may have traditionally been able to find meaning in the fact that their employment is secure, that their organizations have noble missions, or that their leaders are of the character which inspire employee commitment. Contrary to the above results and despite the challenges faced by the modern workplace, the need for meaning is still present in employees (Duchon & Plowman, 2005).

Duchon and Plowman (2005) remind one of what social psychologists have long argued, that is that work has meaning for people far beyond the material rewards commonly associated with work. When a sample of people who were employed either full or part - time were asked in a poll whether or not they would continue working if they won $10 million in the lottery, 59% of those people polled said they would continue to work. Other studies indicate that workers want their day-to-day jobs to seem connected to a larger purpose in life. Pfeffer (2003) stated that many people see not only competence and mastery in their work but also to do work that has social meaning or social value. Fry (2003) refers to this as giving people a sense of calling through meaning, in particular, meaning at work.

Further support for the above finding is that Hackman and Oldham (1980), in particular, have argued that meaningful work is one of the key features of a productive work environment. One of the core psychological states of their Job Characteristics model is term "Experienced Meaningfulness". That is the employee must perceive his or her work as worthwhile or important by some system of values he or she accepts. Individuals experience meaningful work to the extent that they

have an opportunity to perform activities that challenge their skills and use diverse abilities (skill variety), are able to complete a “whole” or identifiable piece of work (task identity), and the extent to which the job is seen to have a substantial impact on the lives of others (task significance).

More recently Cameron, Dutton and Quinn (2003) speak directly to the idea of meaningful work. Wrzesniewski and Dutton (2001) point out that the meaning of work historically has been argued to be the product of three forces. Firstly, the work environment affects how individuals derive meaning from work, secondly, individual attributes and characteristics affect the kinds of meanings assigned to work and thirdly, the social environment helps people interpret the meaning of their jobs. Wrzesniewski and Dutton (2001) contend that individuals play an active role in creating the meaning of their work, through job crafting, that is, small changes they make in task, relational and cognitive boundaries of the work. Pratt and Ashforth (2003) argue that meaningfulness is fostered by meaning in work (attributes of the job) and meaning at work (membership and belonging).

Furthermore, according to Antonovsky (1987), a person with a high sense of coherence is able to mobilize different external, psychosocial resources as needed and is able to experience in each new situation something comprehensible, manageable and meaningful. Moreover, the element of meaningfulness plays an important part also in the flow concept. According to Csikszentmihalyi (1990), flow and the development of the self depend on the work goals coinciding with personal goals.

Employees need to find work inherently meaningful in order to find flow and consequent personal growth in it. Based on the review above, comprehensible, manageable, and meaningful work contributes to individuals’ personal and professional development and supports their sustainable coping with the challenges they meet in the future (Kira, 2003).

The above result, work and time pressure as a predictor of mental health is supported by Nordqvist, Hovmark and Zika-Viktorsson (2004) who found that deadlines and time pressures are important regulators for how work is planned and practiced. Deadlines regulate and help structure the work through the breakdown of projects into interim goals, different courses of action and time anchoring. Activities and tasks are given a certain time frame, and the existence of a deadline motivates workers to start working on the task. The motivation intensifies as the deadline approaches and the workers increase their activity when they feel the time pressure because of a forthcoming deadline. Absence of time pressure can lead to attention straying to activities outside the task or to indifference (Gevers, Van Eerde & Rutte, 2001).

Van Eerd (2000) also mentioned that having high levels of time pressure can endanger the loss of enthusiasm and an ability to act. High levels of time pressure produce stress, which in turn lead to passivity and avoidance may occur. This can have negative effects on workers' health and performance. Previous research emphasizes the importance of having a clear direction that specifies workers' purpose and orientates them towards its objectives. A well formulated and established goal enhances motivation and improves effectiveness (Nordqvist, Hovmark & Zika-Viktorsson, 2004).

Further, Waller, Conte, Gibson and Carpenter, (2001) stated it becomes more common that workers are expected to achieve high levels of performance under extreme time pressure situations. In general, time pressure has a number of different consequences. At the individual level, time pressure leads to (1) faster performance rates, (2) lower performance quality and (3) more heuristic information processing, meaning, people stop considering multiple alternatives, engage in shallow rather than thorough and systematic processing of information and refrain from critical probing of a given seemingly adequate solution or judgement (De Dreu, 2003; Durham, Locke, Poon & McLoed, 2000; Kelly & Loving, 2004). Under high time pressure workers see task completion as their main objective and complete the task as quickly as possible, but at the sacrifice of quality (Kleij, Lijkwn, Rasker & De Dreu, 2008).

The third predictor variable, social support colleague is supported by Van Der Doef and Maes (1999) who found social support to probably be the most well-known situational variable that has been proposed as a potential buffer against job stress. Other characteristics of the work situation that may act as moderators are the extent to which the onset of a stressor is predictable, the extent to which the reasons for the presence of a stressor are understandable (e.g. through the information provided by supervisors), and the extent to which aspects of the stressor are controllable by the person who must experience it.

Another issue that was raised by Diener and Fujita (1995) was that because people's strivings often differ, the most important resource are likely to vary across individuals because different resources are most relevant to obtaining different goals. Social support is a straightforward resource in that it is functional in achieving work goals.

5.4.4 The prediction of employees' negative job carry-over by means of their quality of work life

From table 5.6 it is evident that quality of work life variables, more specifically social support supervisor and skill discretion are predictors of employees' negative job carry-over. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

The finding that social support supervisor is a predictor of employees' negative job carry-over is supported by Behson (2005) who found that men and women seem to differ with respect to the sources from which they receive social support. Both nevertheless seem to experience social support to be effective in reducing work-family conflict. It appears that social support reduces work-family conflict either directly or through altering the impact of stressors that lead to work-family conflict, such as role conflict and role ambiguity. Daalen, Willemsen and Sanders (2006) found that social support from the work domain reduced work-family conflict through its impact on work role conflict, work time demands and work role ambiguity. Social support from the home domain reduced the severity of family role conflict, family time demands and family role ambiguity. Thomas and Ganster (1995) found that support

from the supervisor reduced work-family conflict directly, as well as indirectly, through the increased sense of control over areas of work and family.

Thompson, Kirk and Brown (2005) found that social support has consistently been shown to relate to increased well-being, with support for both buffering and direct effect models. Support from within the work environment impacts on employee well-being and reduces work-related outcomes for employees such as stress, mental health and job dissatisfaction. Potentially then, work-based support from supervisors and co-workers may ameliorate some of the negative effects of stress. In a study of 92 women police officers with partners and children, supervisor support was the only source of work-based support which impacted on emotional exhaustion. These findings confirm suggestions that different types of work-based support may have different functions with respect to role stressors.

The finding that skill discretion is a predictor of employees' negative job carry-over is supported by the Oomens, Geurts and Scheepers (2007) who found that people suffer more from mental illness when they have demanding jobs, experience higher job pressure and lower skill variety.

5.4.5 The prediction of employees' general health by means of their quality of work life

From table 5.7 it is evident that qualities of work life variables, more specifically work and time pressure, skill discretion and role ambiguity are predictors of employees' general health. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

The finding that work and time pressure is a predictor of employees' general health is supported by Mattingly and Sayer (2006) who added that understanding why time pressures have increased is a critical social question because of the association between time pressures and negative physical and psychological outcomes (Rogers & Amato, 2000; Schieman, 1999). Two explanations for the increase in subjective levels of time pressure have been advanced. On the one hand, the objective

explanation posits that greater numbers of people feel rushed because economic and demographic changes in workplaces and families have increased obligatory market and household responsibilities and reduced discretionary free time. The growth of dual-earner and single-parent families means that both women and men are spending more time in paid and unpaid work activities (Jacobs & Gerson, 2004). The increased pace and volume of work associated with global competition and the growth of nonstandard evening and weekend work hours are also related to increased time pressures (Presser, 2003; Schor, 1998). On the other hand, the cultural explanation posits that the amount of free time has little association with subjective levels of time pressure.

Instead, cultural discourses that value action packed lives coupled with high levels of consumption are to blame for upward spiraling perceptions of feeling rushed (Bourdieu, 1984; Robinson & Godbey, 1999; Schor, 1998). Whereas at the turn of the 20th century, the conspicuous consumption of leisure indicated an upper-class social position (Veblen, 1967). Today it is conspicuous devotion to time-intensive productive activities that signifies high social status (Gershuny, 2005). Individuals are also enmeshed in a work-to-spend culture, with long work hours fueling the time and money demanding quest to experience the latest activity or product (Schor, 1998). Normative changes in ideals about good parenting have also ratcheted up pressures on parents to devote unlimited time and resources to their children, thus heightening parental worries that children never get enough time (Milkie, Mattingly, Nomaguchi, Bianchi & Robinson, 2004). The changing cultural contexts of work, leisure, and parenthood all suggest that objective indicators of time use are increasingly decoupled from subjective feelings of time pressure.

The second predictor variable, namely skill discretion is supported by Munce, Weller, Robertson-Blackmore, Heinmaa, Katz and Stewart (2006) who added that stress contributes to the development, exacerbation, and maintenance of pain. Work stress, specifically, has been associated with an increased number of somatic symptoms such as neck and shoulder pain. Work stress is commonly conceptualized by Karasek's Job Demand–Control (JDC) model of job strain. The "strain" hypothesis states that a "high-strain" job, with high psychological demands and low decision

latitude (comprising skill discretion and decision authority), will yield the most detrimental reactions in terms of psychological stress and physical illness. High levels of decision latitude have been shown to be protective of mental health outcomes in both cross-sectional (Warr, 1990) and longitudinal studies. In one epidemiological study, lack of decision authority, specifically, rather than deficits in skill discretion, was the strongest predictor of depression (Mausner-Dorsch & Eaton, 2000).

The finding role ambiguity is a predictor of mental health is supported by Sverke, Hellgren and Naswall (2006) who added that experiences of uncertainty concerning one's future employment are likely to have severe consequences for an employee's overall life situation in that economic and other highly valued aspects of life will be perceived as threatened. Furthermore, the individual's evaluation of work is also shaped by a strong desire for stability (Schabracq & Cooper, 2000), and losing the job would mean losing this structure and stability as well. Individuals who feel that these important features of life are threatened and are uncertain as to how to protect them will be frustrated and experience stress.

One of the most prominent features of job insecurity is the aspect of uncertainty and ambiguity. According to stress theories, not knowing how to counteract the threat to something valued will lead to stress experiences (Lazarus & Folkman, 1984). The experience of uncertainty concerning the future of employment prohibits the individual to cope with the threat adequately and diminishes the opportunities for reducing the level of stress experienced.

In terms of health-related consequences, many studies have documented that job insecurity is negatively related to employee well-being. Physical health complaints, mental diseases, and work-to-leisure carry-over tend to increase with the level of job insecurity experienced. The majority of studies that have investigated the relationship between well-being and job insecurity are based on self-reported health data, but there is also evidence indicating that insecurity is related to health indicators that are more physiological or biological in nature (Lindstrom, Lieno, Seitsamo & Torstila, 1997).

In addition, it has been shown that subjective job insecurity is both more strongly and more often related to mental health complaints as compared to the more physical and biological markers of health (Mohr, 2000). However, the radical change from a traditionally secure working environment to a rapidly changing and insecure one could be expected to have an impact not only on the well-being of the individuals, but also on their work attitudes and behaviour, and in the long run, for the vitality of the organization (Sverke et al., 2006).

5.4.6 The prediction of employees' somatic symptoms by means of their quality of work life

From table 5.8 it is evident that quality of work life variables, more specifically hazardous exposure, job insecurity, skill discretion and role ambiguity are predictors of employees' somatic symptoms. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

Hazardous exposure refers to the extent to which one is being exposed to dangerous tools, equipment, substances and machinery (Van Der Doef & Maes, 1999). The above-mentioned research results are supported by Cherrie, Semple, Christopher, Saleem, Hughson and Phillips (2006) who indicated for hazardous substances to have a toxic effect on the body, they must first pass across a functional barrier separating the environment from the internal organs. The common route of entry into the body are, inhalation with the barrier being lung surface, dermal absorption with the stratum corneum as the barrier and ingestion with the wall of the gastrointestinal tract as the barrier (Dinman & Dinman, 2000). In occupational settings inhalation exposure is most often singled out as the most important route in terms of potential toxicity, followed by dermal contact with chemicals and then ingestion. The basics approach to protect workers is either to eliminate the use of the material or to control exposure to a level where the risk is acceptably small, where the maximum exposure level that is considered acceptable is usually defined by an Occupational Exposure Limit (OEL) (Cherrie, 2009).

Sen, Wolfson and Dilworth (2002) and Enander, Cohen and Gute (2004) added that in occupational settings, metals are one of the few categories of materials where the ingestion route has received some attention. For example, removal of lead paint has the potential to cause significant ingestion exposure via hand-to- mouth contact and food contamination. The effect of transfer by hand-to-mouth contact while eating in the workplace is exemplified in a comparative study between Chinese and Malay workers in a lead battery production plant. The increased lead in blood levels in the Malay workers was attributed to their cultural tendency to eat food using their hands (Hwanf & Chen, 2000).

The finding that job insecurity is a predictor of mental health is supported by Siegrist, Starke, Chandola, Godin, Marmot, Niedhammer and Peter (2004) who added that given the variety of functions fulfilled by employment in advanced societies, employment continues to play an important role in the health and well-being of adults The perception that the current job might be lost reduces well-being, since, in one's society, work constitutes the key to social participation and recognition (De Witte, 1999).

Besides those employees anticipating potential job loss, job insecurity also relates to those who retained their positions ("survivors") after having undergone a redundancy or downsizing programme. According to Baruch and Hind (1999), "survivors" experience the adverse effects of change as profoundly as those who have left. Numerous negative effects of "survivor syndrome" have been covered in the literature, including burnout, low morale, decreased commitment, reduced loyalty, inefficiency, reduced performance, resignation and cynicism (Baruch & Hind, 1999). Support for the above result was undertaken by De Witte (1999) who confirmed that job insecurity was as harmful to the well-being of individuals as unemployment itself. Job insecurity is likely to contribute to burnout and lower work engagement, because it erodes the notion of reciprocity – which is crucial in maintaining well-being (Maslach, Schaufeli & Leiter, 2001). Previous research pointed toward the significant role that cognitive appraisal plays in the stress-strain link, with some researchers (Parkes, 1994) arguing that those who exhibit negative affectivity are prone to react

more adversely to perceived stress than those with low negative affectivity (Mak & Mueller, 2001).

Further support for the above finding was confirmed by Boya, Demiral, Ergor, Akvardar and De Witte (2008) who added that the increase of inappropriate employment conditions, including job insecurity, has increased the importance of psychosocial factors. Job insecurity is shown to have a negative impact on mental and physical health (Pelfrene, Vlerick, Moreau, Mak, Kornitzer & De Backer, 2003). Studies have also shown that higher job insecurity is associated with sleep disorders, anxiety, depression, psycho-somatic complaints related with stress, problems in family relations and diminishing of motivation, poor health, fatigue and job dissatisfaction.

The workplace, particularly the psychosocial work environment, is increasingly being considered by policy-makers as an important intervention point at which health can be improved and health inequalities reduced (Bambra, Egan, Thomas, Petticrew & Whitehead, 2007). The demand-control-support model of the role of stressful psychosocial work environments on the health of employees has dominated the research literature (although it has not been without criticism, not least from advocates of the effort–reward imbalance model). Karasek (1979) initially developed a two-dimensional concept of work-related stress in which the culmination of high psychological work demands and low job task control (low level of decision authority and low level of skill utilisation) increased work-related stress, subsequently producing higher rates of psychological and physical morbidity. Support from colleagues and supervisors have been suggested as a possible mediating factor in the relationship between high work demands, low job control and work-related stress.

Epidemiological research, especially from the Whitehall studies, has suggested a relationship between the psychosocial work environment, work-related stress and inequalities in health status. Adverse health outcomes, including increased risk of heart disease, musculoskeletal pain and poor mental health, and increased sickness

absence, have been associated with high work demands and low job control (Bambra, Egan, Thomas, Petticrew & Whitehead, 2009).

The finding that role ambiguity is a predictor of employees' mental health is supported by Diedieff and Rubin (2007) who added that work role ambiguity may result from unclear articulations of expected role activities, performance contingencies and work methods. A logical extension is that increased ambiguity is very likely to impact on perceptions of the specific requirements necessary for successfully enacting one's work role. Tubre and Collins (2000) found that a condition of high ambiguity is associated with a lack of knowledge regarding what role activities are critical to the job. Therefore an ambiguous role would make it more difficult for an individual to judge exactly what is important or central to his or her job, and how often he or she may perform a particular activity (Diedieff & Rubin, 2007).

Khan, Wolfe, Quinn, Snoek and Rosenthal (1964) found in their study that men who suffered from role ambiguity experienced lower job satisfaction, higher job related tension, greater futility and lower self-confidence. French and Caplan (1970) found that at one of NASA's bases, in a sample of 205 volunteer engineers, scientists and administrators, that role ambiguity was significantly related to low job satisfaction and to feelings of job – related threat to one's mental and physical well-being. This also related to indicators of physical strain such as increased blood pressure and pulse rate. Furthermore, Mongolis, Kroes and Quinn (1974) also found a number of significant relationships between symptoms or indicators of physical and mental ill-health with role ambiguity in their representative national sample.

Therefore according to Hall (2008) a lack of role clarity is likely to make individuals believe they are helpless and thus reduce the impact they have in their work area. In contrast, individuals who understand their work roles are more likely to take actions and decisions that influence decisions and results in their work area. Prior research results suggest that higher levels of role ambiguity are related to lower levels of psychological empowerment (Hall, 2008).

The finding that skill discretion is a predictor of mental health is supported by D' Souza, Strazdins, Lim, Broom and Rogers (2003) who states that the lack of job control, low decision authority, low skill discretion and job strain are associated with the risk of depression, anxiety, distress, fatigue, job dissatisfaction, burn-out and sick absence.

5.4.7 The prediction of employees' anxiety and insomnia by means of their quality of work life

From table 5.9 it is evident that quality of work life variables, more specifically skill discretion and role ambiguity are predictors of employees' anxiety and insomnia. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

Support for the finding that skill discretion is a predictor of anxiety and insomnia was confirmed by Orpen, (1981) and Walton (1973) who added that the feature of skill variety allows employees the opportunity to use and develop their human capacities through exercise of their competencies, skills and abilities rather than the reception of limited, narrow skills. Oomens, Geurts and Scheepers (2007) found that people suffer more from mental illness when they have demanding jobs, experience higher job pressure and lower skill variety. The structural approach suggested by Herman and Hulin (1972) and Loscocco (1990) hints towards the necessity of jobs to contain variety. Stein (1983) refers to the component of progress and development which implies that the development of skills and competencies are an important contributing factor for QWL to be high. Hackman and Oldham (1980) proposed that jobs which require the use of multiple talents are experienced as more meaningful and therefore more intrinsically motivating than jobs that require only the use of one or two types of skills.

Pinder (1984) and Ramlall (2004) pointed out that the inclusion of task variety as an element of job design is consistent with the concept of growth need satisfaction, as well as with more psychological approaches taken by activation theory. It is not

consistent, however, with Herzberg's approach, which refers to the simple addition of tasks as horizontal job loading or as job enlargement.

The finding that role ambiguity is a predictor of mental health is supported by Ree and Harvey, (2006) who added that despite the rise of interest in the role of cognitive processes in insomnia, the existence of an interpretive bias, a cognitive process highlighted as important in the anxiety literature, has been little discussed. A tendency to make biased interpretations of disorder- congruent stimuli is characteristic of several psychological disorders and has been implicated in their maintenance (Harvey, Watkins, Mansell & Shafran, 2004). An insomnia-linked interpretive bias would be evident if individuals with insomnia were found to interpret ambiguous information in an insomnia-consistent manner. If insomnia is associated with an interpretive bias, it would be expected that an individual with insomnia would be more likely to interpret such ambiguous material in an insomnia consistent manner (i.e., the example above would be interpreted as Melinda worrying about her sleep) than would a good sleeper.

The first systematic investigation of interpretive biases in anxiety was carried out by Butler and Matthews (1983). These investigators presented participants with a series of ambiguous situations, each followed by a set of possible interpretations. Anxious patients, relative to controls, were found to be more likely to select threatening interpretations. This finding is consistent with the proposal that anxiety is characterized by an interpretive bias. Successful replication of these findings includes studies that have recruited patients with agoraphobia and social phobia (Stopa & Clark, 2000).

5.4.8 The prediction of employees' social dysfunction by means of their quality of work life

From table 5.10 it is evident that the quality of work life variable, social support colleague is a predictor of employees' social dysfunction. Therefore, on the basis of the above results, the null hypothsis, quality of work life variables are not significant

predictors of employees' mental health in a service organization in the Free State, is rejected.

Social support colleagues refer to instrumental and emotional support provided by colleagues (Van Der Doef & Maes, 1999). According to Jenkins and Elliot (2004) support can be emotional, such as the action of caring or listening sympathetically, or instrumental, involving tangible assistance such as help with a work task. High levels of support have been associated with low levels of burnout in a number of mental health nursing studies (Kilfedder, Power & Wells, 2001).

Two models have been proposed to explain the mechanism by which social support may have a beneficial effect on health outcomes such as burnout. According to the "main effects" model, social support is beneficial to well-being, regardless of the level of stressors to which individuals are exposed, by meeting important human needs for security, social contact, approval, belonging and affection. In contrast, the "buffering" hypothesis proposes that social support moderates the effects of stressors. Relationships between stressors and burnout will be stronger for people with low levels of support than for those with high levels (Kilfedder, Power & Wells, 2001).

Social support is a straightforward resource in that it is functional in achieving work goals (Bakker, Demerouti & Euwema, 2005). Thus, instrumental support from colleagues can help to get the work done in time and may therefore alleviate the impact of work overload on strain, including burnout (Van Der Doef & Maes, 1999). Furthermore, Howard (2008) found that better social support from colleagues was one of the factors identified by clinical psychologists as factors most likely to alleviate stress.

5.4.9 The prediction of employees' severe depression by means of their quality of work life

From table 5.11 it is evident that quality of work life variables, more specifically role ambiguity, skill discretion and lack of meaningfulness are predictors of employees' severe depression. Therefore, on the basis of the above results, the null hypothesis,

quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

From the literature it is evident that work role ambiguity may result from unclear articulations of expected role activities, performance contingencies and work methods. A logical extension is that increased ambiguity is very likely to impact on perceptions of the specific requirements necessary for successfully enacting one's work role (Diedieff & Rubin, 2007). Tubre and Collins (2000) found that a condition of high ambiguity is associated with a lack of knowledge regarding what role activities are critical to the job. Therefore an ambiguous role would make it more difficult for an individual to judge exactly what is important or central to his or her job, and how often he or she may perform a particular activity (Diedieff & Rubin, 2007).

Khan, Wolfe, Quinn, Snoek and Rosenthal (1964) found in their study that men who suffered from role ambiguity experienced lower job satisfaction, higher job related tension, greater futility and lower self – confidence. French and Caplan (1970) found that at one of NASA's bases, in a sample of 205 volunteer engineers, scientists and administrators, that role ambiguity was significantly related to low job satisfaction and to feelings of job – related threat to one's mental and physical well-being. This also related to indicators of physical strain such as increased blood pressure and pulse rate. Furthermore Mongolis, Kroes and Quinn (1974) also found a number of significant relationships between symptoms or indicators of physical and mental ill-health with role ambiguity in their representative national sample.

These indicators related to role ambiguity were depressed mood, lowered self-esteem, life dissatisfaction, low motivation to work and intention to leave the job. Today, workers are being required to perform multiple tasks, learn new skills and self-manage in order to meet the competitive demands of the modern job.

According to Kendall, Murphy, O' Neill and Burnsnall (2000) this has lead to jobs that are more fluid (Cooper, Dewe & O' Driscoll, 2001), possibly exacerbating role ambiguity and role conflict and leading in turn to work stress and illness (Dunnette, 1998).

The jobs considered to be the most stressful are often referred to as “high strain” jobs (Karasek, 1979). This means that demands are high, yet workers have few opportunities to use their skills and make decisions. In 2002, female workers were consistently more likely than male workers to have high job strain scores, indicating that the demands of the job outweighed their freedom to make decisions or to apply their skills. Men, on the other hand, were more likely to have lower scores, meaning that their decision latitude exceeded demands (Shields, 2006).

For workers of both sexes, high stress, on and off the job, was associated with depression, a result consistent with other studies (Williams, Barefoot & Blumenthal, 1997). Men in high strain jobs were 2.5 times more likely and women 1.6 times more likely than their counterparts in low strain jobs to have experienced depression (Shields, 2006). Male and female workers who considered most days to be quite a bit or extremely stressful were over 3 times more likely to have suffered a major depressive episode, compared with those who reported low levels of general stress.

Contrary to the finding regarding lack of meaningfulness as a predictor of mental, Chalofsky (2003) advocates that meaning in work, also termed meaningful work, which is the way one expresses the meaning and purpose of one’s life through work activities although work is just one area of an individual’s life. In essence, meaningful work is that which gives real substance to what one does, which brings a sense of fulfillment to one’s life and contributes significantly to one’s purpose in life.

Therefore according to Grady and McCarthy (2008) meaningful work is influenced by an inclusiveness of all the aspects of one’s life beyond that of paid employment which can lead to an integrated wholeness for the individual. However to attain a state of meaningful work, it is critical that no one sphere is so dominant that it adversely impacts the value gained from the other spheres.

According to Wrezesniewski, Dutton and Debebe (2003), the meaning people make of their work is tied to their attitudes about the work they do and their overall well-being. Task routinization in particular, has demonstrated strong negative

relationships with overall job satisfaction, as routine tasks generally reflect a high degree of repetitiveness in the job and therefore fail to generate enthusiasm in employees (Iverson & Maguire, 2000). The job characteristics model of Hackman and Oldham (1980) also predicts that jobs higher in skill variety, task identity, task significance, autonomy and feedback will create a greater experience of meaning, responsibility and knowledge of results.

Hackman and Oldham (1976) stated that when an individual understands that the results of his/her work may have a significant effect on his well-being the meaningfulness of that work is usually enhanced. Furthermore, Hackman and Oldham (1980) have looked at job meaning in terms of skill variety applied to the job, the level of control employees have over completion of the task (task identity), and the impact of the job on others (task significance).

Furthermore, management-related conditions of work that are linked with negative health include lack of control, autonomy, influence, participation or decision latitude (Dryer & Quine, 1998; Glass & McKnight, 1996), lack of supervisor support (Dolan et al., 1992), lack of perceived organizational and general support (Eisenberger, Jones, Aselage & Sucharski, 2004; Rhodes & Eisenberger, 2002) and subjective unemployment as well as lack of skill utilization.

5.4.10 The prediction of employees' satisfaction with life by means of their quality of work life

From table 5.12 it is evident that quality of work life variables, more specifically role ambiguity, and lack of meaningfulness are predictors of employees' satisfaction with life. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organizations in the Free State, is rejected.

Work role ambiguity may result from unclear articulations of expected role activities, performance contingencies and work methods. Khan, Wolfe, Quinn, Snoek and Rosenthal (1964) found in their study that men who suffered from role ambiguity

experienced lower job satisfaction, higher job related tension, greater futility and lower self-confidence, which in turn affects life satisfaction. Contrary to satisfaction with life, life dissatisfaction, even when reported by health populations and measured with simple scales, is strongly related with poor mental health, including depressive symptoms.

It has been conceptualized as an assessment of life as a whole on the basis of the fit between personal goals and achievements (Koivumaa-Honkanen, Honkanen, Viinama¨ki, Heikkila¨, Kaprio & Koskenvuo, 2001). Thus, life satisfaction is a broad and non-specific subjective perception comparable to self-rated health (another of its correlates).

Therefore according to Grady and McCarthy (2008) meaningful work is influenced by an inclusiveness of all the aspects of one's life beyond that of paid employment which can lead to an integrated wholeness for the individual. However to attain a state of meaningful work, it is critical that no one sphere is so dominant that it adversely impacts the value gained from the other spheres. In conclusion, meaningful work is not just about the paid work that one does, but about the manner in which one lives one life, incorporating one's values and principles and doing so with honesty.

According to Wrezesniewski, Dutton and Debebe (2003), the meaning people make of their work is tied to their attitudes about the work they do and their overall well-being. It is evident that research regarding meaningful work has increased in recent years (Chalofsky, 2003; Dolet, 2003) and the growing interest in the academic field parallels with the interest and concern in the world of work (Grady & McCarthy, 2008).

5.4.11 The prediction of employees' health by means of their quality of work life

From table 5.13 it is evident that quality of work life variables, more specifically role ambiguity is a predictor of employees' health scores. Therefore, on the basis of the

above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

Role ambiguity is another aspect that affects employee health in the workplace. According to Beehr et al. (1976), Cordes and Dougherty (1993), Cooper (1991), Dyer and Quine (1998) and Ursprung (1986) role ambiguity exists when an individual lacks information about the requirements of his or her role, how those role requirements are to be met, and the evaluative procedures available to ensure that the role is being performed successfully. Jackson and Schuler (1985) and Muchinsky (1997) studies found role ambiguity to lead to such negative outcomes as reducing confidence, a sense of hopelessness, anxiety, and depression.

5.4.12 The prediction of employees' material wealth by means of their quality of work life

From table 5.14 it is evident that quality of work life variables, more specifically lack of meaningfulness and skill discretion are predictors of employees' material wealth scores. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

The meaning that is inferred from these job elements involves the overall value or worth of the job in organizational context. In fact, job design researchers have argued that people implicitly seek to understand the meaningfulness of their work in terms of whether it is broadly worthwhile and valuable (Wrezesniewski, Dutton & Debebe, 2003).

Furthermore, the concept of meaningful work, an important element in self-identity and self-worth, also reflects the growing interest in the field of positive psychology which emphasizes the need to focus on actively developing the positive aspects of life and work rather than just attempting to identify and address the negative aspects (Seligman, 2002). Importantly, Seligman (2002) differentiates between living a

pleasant life, a good life and a meaningful life. Seligman (2002) regards the pleasant life, which is reflected in sensual pleasures (e.g. material wealth) as the lowest state of happiness, closely followed by the good life, associated with enjoying something we are good at, with a meaningful life providing the highest level of attainment and most lasting form of happiness. According to Seligman (2002), a meaningful life is concerned with doing something one believes in (e.g. has meaning and value).

In general, however, it seems clear that severely restricted access to money can give rise to many processes likely to impair mental health. That is not to suggest that each increase in income will increase mental health (Warr, 1987, 2004). Jobs differ in their financial rewards. This in itself may not affect mental health, but the absence of money is likely to restrict a person in many ways which will affect mental health and physical health. For example, having to worry about how the next bill will be paid is likely to be stressful, and not having money to pursue hobbies is likely to be inhibiting and frustrating (Warr, 1987; Kanter, 1993). Availability of money affects subjective well-being through the potential to purchase goods and services that meets one's needs and provides pleasure (Warr et al., 2004).

There is no research evidence that links skill discretion with material wealth.

5.4.13 The prediction of employees' general happiness scores by means of their quality of work life

From table 5.15 it is evident that quality of work life variables, more specifically role ambiguity and skill discretion are predictors of employees' general happiness scores. Therefore, on the basis of the above results, the research hypothesis, quality of work life variables are significant predictors of employees' mental health in service organizations in the Free State, is rejected.

In early research on the topic, Kahn (1987) identified a number of categories of work-related stressors that can be helpful in understanding work-related stress. The first category was work deprivation, which includes both the loss of a job and job insecurity. The second and third categories pertained to properties of the job itself,

including occupational characteristics such as sitting for long periods of time or heavy lifting, and properties intrinsic to the work itself such as safety or complexity, repetitiveness, and lack of autonomy. The fourth category of work-related sources of stress was role characteristics, which include role conflict, role ambiguity, and role overload.

According to Rothmann and Strijdom (2002) general factors ascribed to the occurrence of mental ill-health may vary from work environmental factors, external environmental factors to dispositional factors, and personal characteristics. Psychological well-being and dispositional psychological strengths (viewed as healthy, positive, and pro-social), such as an internal locus of control and positive affect could be expected to counter occupational strain (seen as unhealthy, negative, and asocial) (Botha & Pienaar, 2006).

Locus of control can be depicted as internal and external constructs that pertain to generalized expectancy, relating behavior to reinforcements in diverse situations (Lefcourt, 1992). The internal pole of locus of control refers to the individual's beliefs that outcomes are the consequences of one's own ability, initiative, and striving. On the other hand, the external pole refers to the individual's beliefs that outcomes are independent of their own behavior (Rotter, 1966). Locus of control is thus a personality variable that denotes the degree to which individuals perceive that they control or are controlled by their environment.

Positive affectivity refers to an individual's disposition to be happy across a relatively broad time span and a variety of situations, whereas negative affectivity is an individual's disposition to experience discomfort across similar time spans and situations (Chiu & Kosinski, 1999). Previous research measuring positive and negative affect with prototype versions of the affectometer found high correlations with depression (close to .70) and neuroticism, anxiety, and somatic complaints with a sum of life domain satisfactions (close to .80) (Kamman & Flett, 1983).

Antonovsky (1979) showed that psychological strength factors increasingly become important with a higher stress load, because they unlock coping-possibilities in

individuals. With regard to low levels of psychological strengths and consequential maladaptive coping with stress, individuals might develop dysfunctional work attitudes. Inversely, this finding confirmed previous research indicating that the well-being of individuals was related to factors such as positive affect and an internal locus of control (Kamman & Flett, 1983; Rothmann & Strijdom, 2002; Rothmann & Van Rensburg, 2001).

There are no research findings that link skill discretion and the Affectometer.

5.4.14 The prediction of employees' confluence by means of their quality of work life

From table 5.16 it is evident that quality of work life variables, more specifically role ambiguity and skill discretion are predictors of employees' confluence. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organizations in the Free State, is rejected.

Since the seminal study on organizational stress in role dynamics, role stress has attained substantial research attention (Ortqvist & Wincent, 2006). Conceptually, role stress is thought to be derived from incompatible expectations (role conflict) as well as from vague expectations (role ambiguity) for individuals working in an organization. Numerous studies using role theory have demonstrated counterproductive consequences of role stress, which include low satisfaction, high turnover intentions, low commitment and poor performance (Ortqvist & Wincent, 2006).

According to Kim, Murrmann and Lee (2009) stress in the workplace has been of growing concern for researchers and practitioners alike. Considering the amount of time that is spent and the fact that financial security and career success are contingent on work performance, the workplace may be a major source of stress for individuals. Managing work-related stress is important since counterproductive consequences (e.g., job dissatisfaction, absenteeism) may occur when it remains unresolved. Kahn et al., 1964) conceptualized role stress as a composite construct

comprised of two major role stressors: role conflict and role ambiguity. Role conflict is ‘‘the degree of incongruity or incompatibility of expectations associated with a role (Kim et al., 2009: p.613), while role ambiguity reflects an employee’s uncertainty about others’ expectation of the employee’s job due to lack of information.

In addition, meta-analytic studies have been conducted to examine the relationship between role stress (conflict/ambiguity) and job satisfaction (Ortqvist & Wincent, 2006; Tubre & Collins, 2000). They revealed that both role conflict and ambiguity have negative influences on job satisfaction.

Early empirical work by Hamner and Tosi (1974) argued that role ambiguity had a deteriorating effect on job satisfaction but role conflict was not associated with job dissatisfaction among managerial employees.

Managers may have a higher standard regarding their role than other non-managerial workers. However, using meta-analysis, Fisher and Gitelson (1983) showed a stronger negative relationship between role conflict and job satisfaction in management jobs than in lower level jobs and a stronger negative association between role ambiguity and job satisfaction in lower level jobs than in management jobs. One explanation put forth for this moderating role is that employees in higher positions tend to manage their role ambiguity well since they have affluent resources (e.g., power, autonomy, decision latitude) to cope with unclear situations, while the other explanation is that the adverse effect of role conflict may be more salient for managers since they have higher expectations on their work-role involvement.

There is no research evidence that links skill discretion with confluence.

5.4.15 The prediction of employees' optimism by means of their quality of work life

From table 5.17 it is evident that quality of work life variables, more specifically role ambiguity, skill discretion and lack of meaningfulness are predictors of employees' optimism. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

Positive psychology research suggests optimism has the potential for a strong, positive influence in the workplace (Luthans, 2002), particularly in the presence of role stressors. Service providers often experience stress due to their boundary-spanning roles (Singh, 2000). This felt stress results from role stressors (i.e., role conflict and role ambiguity) that arise as service providers balance their obligations to the organization and to the customer (Kahn et al., 1964).

According to Folkman and Lazarus (1980) individuals differ in their ability to cope with stressors, stemming largely from the different coping strategies employed when individuals encounter stressors. Individuals may employ active, problem-focused coping strategies or passive, emotion-focused coping strategies. Problem-focused coping aims to eliminate or circumvent the source of adversity, whereas emotion-focused coping aims to avoid the emotional distress associated with the source of adversity (Crosno, Rinaldo, Black & Kelly, 2009). The type of coping strategies employed is determined in large part by the individual's level of optimism (Nes & Segerstrom, 2006). Additionally, the individual's level of optimism influences the appraisal of stressors (Chang 1998) and the development of social support structures (Brisette, Scheier, & Carver, 2002) - both of which assist in coping with stressors.

Role conflict refers to “the degree of incongruity or incompatibility of expectations associated with the role” (Crosno et al., 2009: p.296). Hence, role conflict occurs when two different members of an employee’s role set (e.g., managers and customers) have conflicting demands. Role ambiguity, in contrast, refers to “lack of clarity and predictability of the outcomes of one’s behavior” (Crosno et al., 2009: p.296). According to Kahn et al., (1964), role ambiguity is a function of the discrepancy between the information available and the information needed for adequate performance.

Dispositional optimism, defined as the general expectation of positive or favorable outcomes in life’s events (Chang 2001), is expected to alleviate resource loss and facilitate coping with role stressors. Extant research shows that optimists are “psychologically and physically better adjusted than their pessimistic counterparts”. Moreover, they perform better when tasks are challenging and require persistence to overcome obstacles (Schulman, 1999; Seligman, 1998).

Seligman (1998), for example, found that optimistic insurance sales agents sold 37% more insurance on average in their first 2 years of work than pessimistic agents. Similarly, Rich (1999) found that optimistic salespeople achieved higher levels of in-role performance. More recently, Dixon and Schertzer (2005) found that optimistic salespeople plan to work harder following failed sales calls than their pessimistic counterparts. Optimistic individuals are also more likely to use active coping strategies aimed at resolving the source of adversity (Nes & Segerstrom, 2006). Strutton and Lumpkin (1993) found that optimistic salespeople used more problem-focused coping strategies that aim to eliminate or circumvent the source of adversity.

Pessimistic salespeople, in contrast, used more emotion-focused coping strategies with the goal of reducing the emotional consequences associated with the adversity encountered. More recent research found that optimistic individuals use various coping strategies, and they adjust their coping strategies to resolve the specific stressors being faced (Nes & Segerstrom, 2006). Pessimists, in contrast, tended to rely on avoidance coping strategies (i.e., avoiding or ignoring the stressor) (Nes & Segerstrom, 2006). These findings suggest optimists will cope more effectively with stressors, which again will minimize prolonged exposure to felt stress and consequently minimize burnout.

Research suggests optimists develop more extensive and supportive social networks that enable them to deal more effectively with stressors (Brisette, Scheier, & Carver 2002). A social support network enables individuals to manage stressors by providing information germane to the stressors, providing tangible aid or assistance in dealing with the stressors, and/or providing emotional support.

As mentioned, optimists differ from pessimists in their primary appraisals of stressors (Tuten & Neidermeyer, 2004), with optimists perceiving stressors as less threatening than pessimists. The level of perceived threat influences the reactions, with a lower level of perceived threat facilitating action to reduce or minimize the threat and a higher level of perceived threat impeding action. Due to their tendency to perceive stressors as less threatening, optimists are expected to spring into action once a stressor is perceived. Supporting this contention, Chang (1998) finds that optimists are more likely to contemplate their options for dealing with stressors than pessimists.

There is no research evidence that links skill discretion with optimism.

The third predictor variable, namely lack of meaningfulness is supported by Cartwright and Holmes (2006: p.206), who stated that organizations need to address and understand the deeper needs of employees in order to retain them and keep them motivated as “talented people demand meaningful work….deny it, they leave”. Whereas there is no widely agreed definition of meaning in the workplace, Baumeister and Vohs (2002) state that the essence of meaning is “connection” and is linked to positive outcomes for both the individual and the organization including improvements in organizational performance, retention of key employees, effective management of change, and greater organizational commitment and employee engagement (Holbeche & Springett, 2004; Milliman, Czapleurski & Furguson, 2003). In contrast a lack of experienced meaning in the workplace has been linked to negative outcomes, in particular employee cynicism (Holbeche & Springett, 2004). Whereas life is characterized by ongoing change and anxiety, meaning is regarded as a tool for imposing stability.

Whilst work may satisfy some of employees' needs, it often fails to offer people a reliable and convincing set of values. Chalofsky (2003) has developed a construct of meaningful work that focuses on the alignment between an individual's competencies, values and purpose and is closely linked to the concept of intrinsic motivation. His construct consists of three themes relating to a sense of self, the work itself and a sense of balance which contribute to create an "integrated wholeness"

Emotions are a central element to the notion of self and are strongly linked to motivation, behavior (Stanley & Burrows, 2005) and psychological health (Slaski & Cartwright, 2003). Following more than 70 years of research into the workplace correlates of job satisfaction, evidence has consistently shown that the link between performance and satisfaction is rather weak. Renewed interest in the role of emotions and affect at work has highlighted that how people feel about themselves, about their work, and others around them may also be important to their work performance. Meaning represents the inter-relationship between the internal world of the individual and the external context of the workplace.

The concept of meaningful work, an important element in self-identity and self-worth, also reflects the growing interest in the field of positive psychology which emphasizes the need to focus on actively developing the positive aspects of life and work rather than just attempting to identify and address the negative aspects (Seligman, 2002).

Importantly, Seligman (2002) differentiates between living a pleasant life, a good life and a meaningful life. He regards the pleasant life, which is reflected in sensual pleasures (e.g. material wealth) as the lowest state of happiness, closely followed by the good life, associated with enjoying something we are good at, with a meaningful life providing the highest level of attainment and most lasting form of happiness. According to Seligman (2002), a meaningful life is concerned with doing something one believes in (e.g. has meaning and value). Such ideas date back to Aristotle and the notion of eudemonia, a form of happiness achieved by living virtuously and attaining goals that have intrinsic merit.

Chalofsky (2003) emphasizes the centrality of the job itself as a source of meaning in the workplace and so reinforces the continuing importance of traditional theories of work motivation (Hertzberg, 1966), job design (Hackman & Oldham, 1976, 1980) and the work environment (Warr, 1987). Turner, Barling and Zacharatios (2002) have similarly stressed the relevance of designing jobs which encourage employees to actively engage in their tasks and work environments in order to gain meaningfulness from their work.

Hackman and Oldham (1976, 1980) emphasize that jobs should be designed which provide skill variety, task identity, task significance, autonomy and feedback on results. Warr's Vitamin Model (Warr, 1987) outlines the key features of the work environment associated with employee well-being. As well as opportunities to exercise personal control, use skills, variety, money, goals, supportive supervision and physical security, Warr considers that employees need to have environmental clarity, opportunity for interpersonal clarity and a valued social position.

5.4.16 The prediction of employees' self-esteem by means of their quality of work life

From table 5.18 it is evident that quality of work life variables, more specifically role ambiguity is a predictor of employees' self-esteem. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

Belongingness theory according to Ferris, Brown and Heller (2009) suggests that one of the primary human drives is the need to belong, or to form strong positive interpersonal relationships. The need to belong is a powerful, fundamental human need that individuals constantly strive to satisfy; when one's sense of belonging is thwarted (i.e., lower than desired), this can result in adverse reactions (Thau, Aquino, & Poortvliet, 2007). The need to belong is posited to exist across cultures, owing to the evolutionary advantages membership in groups confer (Williams, 2007). It represents a pervasive concern for individuals, who are highly sensitive to indicators of acceptance within a group.

In an organizational context, perceived organizational support (POS) and leader-member exchenge relationship (LMX) can be conceptualized as sources of acceptance and belonging within the organization. POS is indicative of the approval and respect of the organization (Rhoades & Eisenberger, 2002), while high levels of LMX has been conceptualized as being part of the ‘‘in-group”. Within belongingness theory, self-esteem has been proposed to play a special role as an indicator of one’s satisfaction of the need to belong. That is, self-esteem levels rise and fall in accordance with one’s acceptance and rejection from a group (Williams, 2007). Consistently low levels of acceptance result in low levels of self-esteem. In the workplace, self-esteem is assessed with measures of organization-based self-esteem (OBSE), defined as the extent to which individuals believe they are capable, significant, and worthy at work.

Empirically, OBSE has been linked to POS and LMX in cross-sectional studies (Pierce & Gardner, 2004). Consistent with belongingness theory, these results suggest POS and LMX signal to the employee the extent to which the organization values him or her, and whether the employee is included or excluded at work (Pierce & Gardner, 2004).

While individuals strive to maintain high self-esteem (Crocker & Park, 2004), the interpersonal environment can sometimes frustrate belonging and self-esteem goals by failing to provide support, which communicates to the individual that they are not valued (Leary, Twenge & Quinlivan, 2006). Such a lack of support represents an identity threat or actions by others ‘‘that challenges, calls into question, or diminishes a person’s sense of competence, dignity, or selfworth” (Aquino & Douglas, 2003: p.196). By thwarting belonging and self-esteem goals, identity threats promote a sense of exclusion, and consequently, individuals experience lowered self-esteem. Individuals with low trait self-esteem feel as though they have been devalued by others and expect they will continue to experience rejection, with needs to belong and experience positive self-worth remaining unfulfilled (Anthony, Wood & Holmes, 2007). Such feelings of exclusion as indicated by lowered self-esteem impair self-regulatory ability by impeding self-awareness (Baumeister, DeWall, Ciarocco & Twenge, 2005; Heimpel, Elliot & Wood, 2006), or one’s ability to modify one’s

behaviors to comply with social standards or achieve goals. Impaired self-regulatory ability is also one of the main causes of deviant behaviors (Marcus & Schuler, 2004). In an organizational context, this suggests that low OBSE levels represent an ongoing thwarting of belonging and esteem needs which, in turn, can result in deviant behaviors (Thau et al., 2007). When the identity threat is organizationally based, such as low levels of organizational support, individuals may engage in organizational deviance as a result.

5.4.17 The prediction of employees' self-efficacy by means of their quality of work life

From table 5.19 it is evident that quality of work life variables, more specifically role ambiguity is a predictor of employees' self-efficacy. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

The construct of role ambiguity, defined as 'employees' perceptions of uncertainty concerning various aspects of their jobs" (Li & Bagger, 2008: p.368), has generated persistent research interest. Among the many variables that have been found to be related to role ambiguity, one receiving increased research attention is self-efficacy (Beauchamp, Bray, Eys, & Carron, 2002; Chen & Bliese, 2002). Self-efficacy refers to ''people's beliefs about their capabilities to exercise control over events that affect their lives".

There are two reasons to believe that role ambiguity may be negatively related to self-efficacy. First, role ambiguity reduces the quality of the information that can be used to make an accurate assessment of one's ability to perform a task. Second, according to social cognitive theory (Bandura, 1977), to have a high level of self-efficacy, a person must be able to visualize effective performance in a given situation. When role ambiguity is high, the ability to visualize one's performance is impaired, thereby reducing one's confidence in his/her ability to perform effectively. Consistent with these arguments, Gist and Mitchell (1992: p.184) suggested that one way to increase self-efficacy is to give an individual ''a more thorough understanding

of the task attributes, complexity, task environment, and the way in which these factors can be controlled".

However, there has been mixed empirical evidence on the negative relationship between role ambiguity and self-efficacy. While a negative relationship has been found in some studies (Beauchamp et al., 2002; Bray & Brawley, 2002), no such effects have been observed in others. Such inconsistent findings suggest the presence of moderating variables. According to Kahn et al., 1964), the relationships between role ambiguity and its related variables tend to be moderated by three broad categories of variables: organizational, interpersonal, and personality processes.

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According to Li and Bagger (2008) goal orientation may provide a mechanism to explain the inconsistent relationship between role ambiguity and self-efficacy. Although Li and Bagger (2008) suggests that role ambiguity may represent a considerable challenge to employees and may be negatively related to their self-efficacy, this effect may be less pernicious for individuals who are high on a learning goal orientation. Previous research has shown that these individuals tend to view a challenging situation as an opportunity to advance their abilities. Instead of withdrawing themselves from the challenge, they confront it head-on, becoming intrinsically involved in the task, developing effective task strategies, expending additional effort, and intensifying their attention on task-related activities (Elliot & Thrash, 2002; Van Yperen & Janssen, 2002). These arguments suggest that learning-oriented individuals may proactively scout for information that can be used to reduce role ambiguity. Even if they fail to perform adequately— as a result of role ambiguity—they draw on these experiences to enhance their abilities. These characteristics enable them to remain resilient and see the positive side even in a dire situation, as well as allow them to acquire the competence to overcome role ambiguity and to perform effectively at work.

5.4.18 The prediction of employees' social support by means of their quality of work life

From table 5.20 it is evident that quality of work life variables, more specifically job insecurity and role ambiguity are predictors of employees' social support. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

Working conditions and social support represent two domains of environmental factors (Piccinelli & Wilkinson, 2000; Wilhelm, Kovess, Rios-Seidel & Finch, 2004). Working can be disadvantageous as well as beneficial for mental health depending, among other things, on the quality of working conditions (Harnois & Gabriel, 2000). One important aspect of working conditions is the security of the worker's position: uncertainty about the employment position causes stress (Siegrist, 1996). Research on downsizing suggests that the turbulence and uncertainty associated with major programs of job cuts tend, by and large, to have a negative effect on employee work attitudes and behaviour (Luthans & Sommer, 1999; Mone, 1994; Wagar, 1998). Employees who are unsure of their future in the organization may, in fact, find it more difficult than employees who enjoy a greater sense of job security to form a clear view not only of the extent to which the organization does indeed care for their well-being, but also of the reasons why they may be receiving preferential treatment, and whether this treatment is likely to continue in the future (Luthans & Sommer, 1999; Mone, 1994).

Employees who face greater job insecurity and, therefore, a more uncertain future in the organization, tend, on the whole, to be in a weaker position vis-a`-vis the organization than employees whose jobs are more secure. As a result, employees whose jobs are more insecure are likely to ascribe greater importance to any additional signs of support they receive from the organization than are employees who enjoy greater security of employment. They are also likely to be more ready to reciprocate any act of goodwill from the organization as a basis for improving their employment chances and reducing their uncertainty. Consequently, employees who

are more insecure in their jobs are likely to react more positively to positive treatment by the organization than employees who enjoy a more secure position (Lee & Peccei, 2007).

One of the most prominent features of job insecurity is the aspect of uncertainty and ambiguity. According to stress theories, not knowing how to counteract the threat to something valued will lead to stress experiences (Lazarus & Folkman, 1984). The experience of uncertainty concerning the future of employment prohibits the individual to cope with the threat adequately and diminishes the opportunities for reducing the level of stress experienced.

Work role ambiguity as a predictor of mental halth may result from unclear articulations of expected role activities, performance contingencies and work methods. A logical extension is that increased ambiguity is very likely to impact on perceptions of the specific requirements necessary for successfully enacting one's work role (Diedieff & Rubin, 2007). Tubre and Collins (2000) found that a condition of high ambiguity is associated with a lack of knowledge regarding what role activities are critical to the job. Therefore an ambiguous role would make it more difficult for an individual to judge exactly what is important or central to his or her job, and how often he or she may perform a particular activity (Diedieff & Rubin, 2007). More recently, Li and Bagger (2008) stated that role ambiguity reduces the quality of the information that can be used to make an accurate assessment of one's ability to perform a task.

According to Hall (2008) a lack of role clarity is likely to make individuals believe they are helpless and thus reduce the impact they have in their work area. In contrast, individuals who understand their work roles are more likely to take actions and decisions that influence decisions and results in their work area. Prior research results suggest that higher levels of role ambiguity are related to lower levels of psychological empowerment (Hall, 2008). Bakker, Demerouti, and Euwema (2005) found that social support at work is also a potential buffer against job stress, hence providing protection from pathological consequences of stressful experiences. In a study of higher education employees, Bakker et al. (2005) showed that the

combination of high demands and low job resources in the workplace significantly added to the risk of burnout. Furthermore, work overload, emotional demands, physical demands, and work – home interference did not result in high levels of burnout if employees experienced autonomy, received feedback, had social support, or had a high quality relationship with their supervisor. Behson (2005) found that men and women seem to differ with respect to the sources from which they receive social support.

Thompson, Kirk and Brown (2005) found that social support has consistently been shown to relate to increased well-being. Support from within the work environment impacts on employee well-being and reduces work-related outcomes for employees such as stress, mental health and job dissatisfaction. Potentially then, work-based support from supervisors and co-workers may ameliorate some of the negative effects of stress.

5.4.19 The prediction of employees' social interest by means of their quality of work life

From table 5.21 it is evident that quality of work life variables, more specifically role ambiguity is a predictor of employees' social interest. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

The process of comparing oneself to other people is a basic aspect of human experience, one that helps to reduce uncertainty and create meaning (Suls & Wheeler, 2000: p.4). In fact, social comparisons may be an "almost inevitable element of social interaction". Extensive prior basic research has shown that when engaging in social comparisons individuals can either compare themselves to someone who is better off (i.e., upward social comparison) or to someone who is worse off (i.e., downward social comparison). Although everyone engages in both upward and downward comparisons over time, individual variability in the relative frequency of these directional social comparisons may have implications for understanding relevant organizational outcomes.

To date, directional social comparisons have garnered considerable interest in social psychology, yet little is known about the possible antecedents and consequences of these comparison processes within an employment context (Buunk, Zurriaga, Peiro, Nauta & Gosalvez, 2005). This is despite the fact that the work context represents both a source of uncertainty, which motivates social comparisons, and is also a competitive environment (Kay, Wheeler, Bargh & Ross, 2004), which may have distinct implications for how social comparisons unfold (Collins, 2000; Stapel & Koomen, 2005).

Because humans possess a fundamental need to feel certain about their worlds and their place in it, ambiguity/uncertainty is typically experienced as an aversive state that individuals attempt to manage by seeking out information (Strube & Yost, 1993). In fact, uncertainty has been shown to increase the value of both feedback and feedback seeking behaviors in the workplace.

Conceptually, role ambiguity is the extent to which employees understand supervisory evaluations of their work, the scope of their responsibilities, and the expectations that others have for them. In essence, role ambiguity indexes the level of uncertainty that an individual experience's in his/her organizational role (Brown, Ferris, Heller & Keeping, 2007). Given that ambiguity is potentially a noxious state, it is not surprising that prior reviews have shown that role ambiguity leads to diminished job satisfaction, job performance, and organizational tenure.

5.4.20 The prediction of employees' freedom by means of their quality of work life

From table 5.12 it is evident that quality of work life variables, more specifically role ambiguity is a predictor of employees' freedom. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

Autonomy refers to the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in

determining the procedures to be used in carrying it out (Hackman and Oldham, 1976). Autonomy is generally a requirement where work cannot be easily standardised. Autonomy is considered to be a key variable and an important motivational job characteristic that influences job design and helps in improving service quality by providing role clarity (Wu & Norman, 2006).

Role clarity refers to the degree to which required information is provided about how the employee is expected to perform his/her job. Role clarity is the extent to which an individual receives and understands information required to do the job. Role clarity perceived by the frontline employees is not only desirable in terms of customer satisfaction, but is also linked with employee's job satisfaction, organizational commitment and improved performance (de Ruyter, Wetzels & Feinberg, 2001). A lack of role clarity has a negative impact on job performance.

The effect of role clarity on its performance consequences can be explained by two cognitive theories from organizational behaviour literature: expectancy theory of motivation and attribution theory. Expectancy theory of motivation would suggest that a service employee's expectancy estimate, the belief concerning the likelihood that focusing a given amount of effort on a particular dimension of service, will result in an increased level of performance on that dimension. Role clarity would enable employees to develop the desired focus. Also, self-perceived performance of frontline employees is moderated by attribution processes, which in turn is related to role clarity. Attribution theorists suggest that employees are motivated not only to maximize their rewards, but also to “attain a cognitive mastery of the causal structure of their environment”. Role clarity helps in providing that structure. Hence, from literature, one can derive three important consequences of role clarity – job satisfaction, organizational commitment and job performance (de Ruyter et al., 2001).

In contrast to role clarity, Wu and Norman (2006) indicates that the existence of role ambiguity and role conflict in complex organizations influences member satisfaction and propensity to leave the organization, which in turn result in dysfunctional individual and organizational consequences. Wu and Norman (2006) define role

ambiguity as unclear job obligations, and role conflict refers to inconsistent job obligations or the degree to which work demands from two or more people are incompatible, according to role theory. Furthermore, role conflict and ambiguity are major sources of job stress, which is, in turn, related to high turnover.

5.4.21 The prediction of employees' energy by means of their quality of work life

From table 5.23 it is evident that quality of work life variables, more specifically role ambiguity, skill discretion and social support colleague are predictors of employees' energy scores. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

Research has shown that stressors encountered at the job have a negative effect on employees' mental and physical health (Sonnentag & Kruel, 2006). Particularly during the past decade researchers became increasingly interested in the question of how employees use their off-job time to recover and unwind from stressful work.

Studies on recovery processes showed that employee well-being improves during off-job time (Strauss-Blasche, Ekmekcioglu & Marktl, 2000; Westman & Etzion, 2001). Moreover, recovery experiences were found to be positively related to subsequent on-the-job behaviour (Sonnentag, 2003). In addition, studies illustrated that recovery issues are closely linked to features of the work situation. Particularly, employees who face highly stressful work situations express a high need for recovery (Sluiter, Frings-Dresen, van der Beek & Meijman, 2001). This high need for recovery is experienced as the desire for being—temporarily—relieved from demands in order to replenish one's resources. Research suggests that psychological detachment from work during off-job time is highly relevant for recovery to occur (Sonnentag & Bayer, 2005). Individual well-being benefits more from off-job time when individuals are able to mentally ‘‘switch off ’’.

One experience that is important for recovery to occur is psychological detachment from work during off-job time. Sonnentag and Kruel (2006) referred to psychological detachment as ‘‘sense of detachment from work routine’’ and defined it as ‘‘the

individual's sense of being away from the work situation''. Psychological detachment implies that one is not occupied by work-related duties. For psychological detachment to occur it is necessary to disengage oneself psychologically from work. One job stressor that is particularly detrimental to detachment is high workload.

However, high workload is not the only stressor encountered at the workplace. Role stress theory argues that role ambiguity and role conflict are also relevant stressors in work situations (Katz & Kahn, 1978). Role ambiguity refers to unclear role information and unclear role expectations. In work situations with high role ambiguity, individuals do not know exactly what is expected from them and where to put their priorities while working. Individuals who experience role ambiguity report more negative affective reactions to their jobs.

Individuals who lack information about their roles and the associated expectations cannot be completely sure about which tasks to accomplish and how to proceed. For example, in situations of high role ambiguity individuals do not get unequivocal answers to their (implicit) questions about which tasks to pursue. As a consequence, it is more likely that individuals will continue to ponder these questions during off-job time. In cases of low role ambiguity, however, individuals will know what to do and how to do it; there will be no need to be mentally preoccupied with one's job when away from the workplace (Sonnentag & Kruel, 2006).

The second predictor variable, namely skill discretion is supported by Oomens, Geurts and Scheepers (2007) who stated that apart from work schedules, the content of one's job may also be demanding. Several work characteristics have been studied to determine how they may affect one's mental health. In the several theoretical approaches to the study of job design and well-being, three characteristics take on a central place: autonomy or decision latitude (the degree to which an individual has potential control over the tasks he or she is performing), skill variety (refers to the degree to which a job shows variety and requires the use of different skills and abilities), and what has been called job demands (refers to job pressure or workload of a certain job) (Kompier, 2003).

Job pressure and decision latitude have been the focus of study of work and mental health. Both job characteristics were found to be related to psychiatric disorder among the Dutch working population (Laitinen-Krispijn & Bijl, 2002). De Lange, Taris, Kompier, Houtman and Bongers (2003) found good evidence for causal effects of work characteristics on self-reported health and well-being after reviewing 45 high-quality longitudinal studies. Other studies reported that it was not necessarily high job pressure or low decisional control, but the combination of high job pressure and limited decision latitude that was associated with lower general psychological well-being, distress and burnout (Karasek, 1979; van der Doef & Maes, 1999).

Third predictor variable, namely, social support colleague, is supported by previous studies who have consistently shown that job resources such as social support from colleagues and supervisors, performance feedback, skill variety, autonomy, and learning opportunities are positively associated with work (Bakker & Demerouti, 2008; Schaufeli & Salanova, 2007). Job resources refer to those physical, social, or organizational aspects of the job that may: (1) reduce job demands and the associated physiological and psychological costs; (2) be functional in achieving work goals; or (3) stimulate personal growth, learning, and development (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004).

Job resources either play an intrinsic motivational role because they foster employees' growth, learning, and development, or they play an extrinsic motivational role because they are instrumental in achieving work goals. In the former case, job resources fulfil basic human needs, such as the needs for autonomy, relatedness, and competence (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). For instance, proper feedback fosters learning, thereby increasing job competence, whereas decision latitude and social support satisfy the need for autonomy and the need to belong, respectively.

5.3.22 The prediction of employees' cheerfulness by means of their quality of work life

From table 5.24 it is evident that quality of work life variables, more specifically role ambiguity and lack of meaningfulness are predictors of employees' cheerfulness. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

Happy individuals act differently from others, and this can lead to activities and reactions from people that in turn encourage more happiness. Aspects of happiness and unhappiness have long been primary targets of occupational investigation, and the nature, sources and consequences of worker happiness are becoming defined (Judge Thoresen, Bono & Patton, 2001; Kinicki, Mc-Kee-Ryan, Schriesheim & Carson, 2002; Warr, 2007). Given that people and their mental processes are similar across different kinds of settings, occupational research themes are widely applicable in other fields of psychology.

Happiness might be studied through positive states, such as cheerfulness, enthusiasm, joy, pleasure, satisfaction or contentment; the perspective might be more negative – on anxiety, depression, dissatisfaction, stress (role conflict and role ambiguity), strain or tension; or broader constructs, labelled for instance as affect or well-being, might be examined (Warr, 2007).

The second predictor variable, namely lack of meaningfulness is supported by Lips-Wiersma and Morris (2009) who stated that the basic dilemmas of managerial and work life revolve, in one way or another, around the meaning of work. More specifically, meaningfulness is defined as 'the value of a work goal or purposes, judged to the individual's own ideals or standards' (May, Gilson & Harter, 2004). 'Meaningfulness refers to the degree to which life makes emotional sense and that the demands confronted by them are perceived as being worth of energy investment and commitment' (Korotkov, 1998).

When someone experiences his or her life as meaningful, this is a subjective experience of the existential significance or purpose of life. When someone experiences his or her life as meaningless, this is a subjective experience of the purposefulness or existential significance of one's life being diminished. Meaningless work is often associated with apathy and detachment from one's work (May et al., 2004).

Michaelson (2008) finds that meaningful work is discussed in relation to subjective concerns such as self-esteem as well as objective concerns such as the social contribution of one's work, and working conditions for the powerless. Similarly, Ayers, Miller-Dyce and Carlone (2008) relate meaningful work to objective concerns such as security and dignity as well as subjective concerns such as caring relationships. In one of the few recent examples of empirical studies on meaningful work, May et al. (2004) studied meaningfulness in relation to employee engagement. They study the notion of 'psychological meaningfulness' which is a combination of job enrichment, work-role fit (in relation to the fit of values and beliefs) and co-worker relations. Their findings show that a combination of meaningfulness, psychological safety (the ability to show one's self without fear or negative consequences) and availability (the individual's belief that they have the resources to engage the self in work) are important in determining one's engagement in work, with meaningfulness having the strongest effect on engagement.

Meaninglessness on the other hand arises when meaning is substituted or controlled, as in both these cases, it is no longer authentic. Sievers (1994) in 'Work, Death and Meaning Itself' writes: 'As meaning gets lost (and with it the ability or quality of meaning as a coordinating and integrating source for one's own actions as well as for the interactions with others) motivation has to be invented. Through motivation the lack of meaning of work becomes substituted or converted into the question 'how does one get people to act and produce under conditions in which they normally would not be 'motivated'' to work'?'

Meaninglessness in this literature is experienced as the result of a number of negative consequences for worker dignity in the current economic climate such as short-term employment structures, illusory teamwork, changing and specializing work patterns, rapid redundancies of both new and old skills, collapse of company loyalty and the uncertain social world of those moving from job to job (Sennett, 1998). Sennett (1998) argues that, as a result of such patterns, workers are in danger of losing their ability to place themselves in a narrative and to see continuity in their lives.

5.4.23 The prediction of employees' thought clarity by means of their quality of work life

From table 5.25 it is evident that quality of work life variables, more specifically role ambiguity and skill discretion are predictors of employees' thought clarity scores. Therefore, on the basis of the above results, the null hypothesis, quality of work life variables are not significant predictors of employees' mental health in a service organizations in the Free State, is rejected.

There have been no studies that have applied the job demands–control model to the social nature of work demands, that is, job challenges arising from managing interdependencies with other people in the workplace. Task interdependency is the degree to which the accomplishment of a work assignment is determined, influenced, and/or controlled by another entity such as a person, organizational unit, or firm.

Managing task interdependency is at the heart of a manager's job, as evidenced by the significant portion of time a manager spends in communicating and coordinating information to people internal and external to the firm. If managers perceive their interdependencies as high in volume and low in clarity, then one may expect them to experience heightened levels of role stress. Hence, extending Karasek's model to examine task interdependency, Wong, DeSanctis and Staudenmayer (2007) proposed that perceived amount of and clarity of interdependence are likely to affect managers' perceptions of role conflict and role ambiguity.

Clarity of interdependency is defined as the degree to which an individual is certain about whom he or she is reliant on and for what purpose(s). Managers who confront low clarity of interdependency in their work are more likely to experience high stress. Clarity of interdependency presents a very different type of job challenge. When managers are unsure about with whom and what to coordinate, they are likely to experience ambiguity about the expectations of their role and how to fulfill their role responsibilities in the organization. Certainty about how to carry out one's role is likely to require high clarity in one's task requirements. To the extent that there are uncertainties about one's job interdependencies (i.e. low clarity of interdependence), one is likely to perceive greater uncertainty about how to perform one's role (i.e. higher role ambiguity).

According to Karasek and Theorell (1990) healthy work conditions may be obtained by organizational reconstruction emphasizing opportunities for taking responsibility through participative decision-making. Decision authority, skill discretion and learning opportunities may be mutually reinforcing aspects of work (Mikkelsen, Saksvik, Eriksen & Ursin, 1999). An ideal work environment would facilitate an active approach towards learning new behavior patterns or solving problems. In this type of environment, demands may be seen as challenges and opportunities for growth and learning rather than as burdens. According to the active learning hypothesis (Karasek & Theorell, 1990), most learning should take place in demanding and challenging situations and especially when the individual is able to exercise his or her decision-making capabilities. Given sufficient decision authority the individual is then free to choose the best way to cope with a new problem. The new behaviour response, if effective, is more likely to be stored (learned) and incorporated in the repertoire of coping strategies.

In the demands-control model according to Mikkelsen, Saksvik, Eriksen and Ursin (1999) decision authority and learning opportunity are part of the control concept, and the relationship between demands, control and social support is emphasized. High levels of decision authority and high levels of learning opportunities make an individual feel that he or she has control over the learning process (Cell 2, figure 2.1). Low levels of decision authority and low levels of learning opportunities (Cell 3, figure 2.1) should result in a work situation characterized by routine work, low task

variety and no influences on how and when to do the job. In situations with high learning opportunities and low levels of decision authority (Cell 4, figure 2.1), the employees are trained, but there is still management control over the learning process. Finally, when decision authority is high, and the opportunities to learn are low (Cell 1, figure 2.1), the situation may be characterized by a lack of challenge and boredom as a possible consequence. Referring to the conceptualization in the above figure, the least amount of health problems are expected when people have high levels of decision authority and learning opportunities (Cell 2) and the highest amount of problems when they have low decision authority and low learning opportunities (Cell 3) (Mikkelsen, Saksvik, Eriksen & Ursin, 1999).

Decision authority refers to the freedom of decision-making over one's work (Van Der Doef and Maes, 1999). Health depends not only on the work load, but also on whether an individual feels that he or she is in control of the situation. When this is the case, health may be preserved even in difficult and even taxing situations (Levine & Ursin, 1991). In a monograph on healthy work, Karasek and Theorell (1990) formulated the relationship between these two factors in their demands-control model. Their control concept also referred to as decision latitude, consists of the authority to make decisions (decision authority) and the opportunities to use skills that the individual has acquired (skill discretion).

5.5 General conclusions

The following general conclusions were made with regards to results obtained from this empirical research.

5.5.1 Literature review

From the literature, it is evident that QWL is a wide ranging construct. Although the term has been discussed and debated by various authors and the business world, the definition remains vague. There is also a lack of clarity regarding the construct QWL. The term was first described as a variable or outcome, which focused on the satisfaction that people derived from their jobs. Later it was developed into an approach where the focus was on the implementation of different methods and programs. It then evolved into a movement where emphasis was placed on participative management and union involvement. The recent focus is on the employees' experience of his/ her work in terms of the fulfillment of their needs. Despite the many definitions of QWL, there are also different models that are related to QWL, namely, the integration model, the transfer model (or spillover effect), the compensation model, the segmentation model and the accommodation model. QWL further consists of a number of dimensions which emphasize the good feeling perceived from the interaction between the individuals and the work environment. It was also evident from the literature that many attempts have been made to measure QWL.

From the literature regarding mental health, it is evident that although divergent, it seems as if there is a common thread that moves through all the definitions of mental health. Different models of mental health were discussed in this study. Emphasis was placed on Warr's vitamin model which holds that mental health is affected by environmental features such as job characteristics. The vitamin model further suggests that a job which contains limited vitamins will have an adverse impact on employees' mental health. It is therefore important for organizations to provide work environments which promote mental health because mentally healthy employees have precisely those attributes which are necessary for the survival of organizations in the twenty first century.

To date very little research regarding QWL as a predictor of employees' mental health in a service organization has been conducted.

5.5.2 Research Methodology

Due to the fact that accidental sampling was used, the results of this study could not be generalized. The nature of the work environment of this specific sample could have influenced the results to a certain degree.

5.5.3 Results of the study

The following conclusions were made with regards to the statistical analysis and the results of the research:

The respondents exhibited a very high level of QWL, except for the specific dimensions, namely, work and time pressure, physical exertion, job insecurity and lack of meaningfulness. This could be attributed to the fact that due to the economic recession, many people were losing their jobs because companies were facing financial constraints. This resulted in lesser people having to do more work leading to work overload.

The respondents exhibited a high level of mental health. According to the above results, the mean scores displayed for competence and aspiration are average, while the mean score displayed for negative job carry-over was low. Although it is an obvious necessity in many companies to keep up with the changing demands for competence, previous research has shown that opportunities for competence development can be impaired in a multi task setting. In such settings, there is an obvious risk that time for long term development and training is not sufficiently prioritized in relation to short term task delivery. Furthermore, because people's strivings or aspirations often differ, the most important resources are likely to vary across individuals because different resources are most relevant to obtaining different goals. Social support is a straightforward resource in that it is functional in achieving work goals. A possible explanation for the low negative job carry-over

score could be that men and women seem to differ with respect to the sources from which they receive social support.

The level of general health in terms of all the dimensions varied from low to very low. A possible explanation for the low severe depression score could be high stress, on and off the job. Men in high strain jobs were 2.5 times more likely and women 1.6 times more likely than their counterparts in low strain jobs to have experienced depression.

The respondents displayed a low level of satisfaction with life especially satisfaction with material wealth. A possible explanation could be that severely restricted access to money can give rise to many processes likely to impair mental health. This in itself may not affect mental health, but the absence of money is likely to restrict a person in many ways which will affect mental health and physical health.

The level of general happiness (all the respective dimensions) is very low. The lack of confidence an individual has in her or his ability to cope with difficult tasks or problem may be an obstacle for some employees. Furthermore, employees who view their jobs as insecure are likely to ascribe greater importance to any additional signs of support they receive from the organization than are employees who enjoy greater security of employment. A further explanation could be that these employees are being exposed to job tasks that are very demanding mentally and physically.

The QWL variables which are predictors of employees' mental health include, lack of meaningfulness, role ambiguity, social support supervisor, work and time pressure, social support colleague, skill discretion, hazardous exposure, job insecurity, physical exertion and decision authority. The QWL variables that were significant throughout the study were role ambiguity, skill discretion, job insecurity and lack of meaningfulness. Therefore, on the basis of the above results, the null hypothesis, QWL variables are not significant predictors of employees' mental health in a service organization in the Free State, is rejected.

5.5.4 Limitations of the study

The following limitations of the study were identified.

- The sample only included employees from one service organization in the Free State. Since only one service organization in the Free State was used, other service organizations and industries may not benefit from this research.

- For the purpose of this study one hundred and forty two (142) respondents were included in the sample. This sample is not representative of service organizations in general, therefore the results of the study could not be generalized to the population at large.

- A further limitation of the study was that no South African questionnaire that measures QWL was available. The Leiden Quality of Work Life Questionnaire, Warr's Mental Health Measures, the General Health Questionnaire-28 (GHQ-28), the Affectometer 2 and the Satisfaction with Life Questionnaire were used during this study. These questionnaires have not been standardized for the South African context.

- It would have been advisable to conduct a factor analysis to determine the factor structure of the respective questionnaires in the context of the current study. Due to the limited number of respondents that participated in the study, it was not feasible to achieve this objective. It was therefore decided to rather determine the alpha coefficients of the respective dimensions of each questionnaire for purposes of this study.

5.5.5 Value of the research

The value of this study is that specific QWL variables have been identified which impact on employees' mental health in a service organization. It is therefore important that employers in this service organization in the Free State take cognizance of the QWL variables that has an impact on employees' mental health. Improving QWL can contribute directly to reducing turnover and absenteeism, lead to increases in productivity under some conditions, and help create a well-trained loyal work force that is willing and more able to adapt to change. Thus, by attending to those areas that enhances QWL, employees, industry and society all win. Another value of the study was that the alpha coefficients of all the questionnaires that were used for this study were determined.

5.5.6 Recommendations

The following recommendations are suggested for future research:

- Further research regarding QWL as a predictor of mental health should be conducted since there were very few studies done in this regard.
- Since the sample consisted only of employees in one service organization, it is recommended that future studies be expanded to other service organizations as well as other spheres of the working environment. Future research should include a more representative sample consisting of a broader range of work environments.
- Standardized questionnaires that measures QWL and mental health should be developed for the South African context, since the questionnaires that were used during this study were internationally-based and developed.

- QWL and its relationships with employee health and performance must become an explicit objective for many of the human resource policies in modern organizations. An unstrained work environment ensures good health and psychological conditions which enables the employee to perform job and non-work related functions without inhibitions. Thus, it leads to an unstressful work environment providing a comfortable work life.

5.5.8 SUMMARY

In this chapter an exposition of the research findings derived from the empirical research undertaken was provided. Furthermore, focus was placed on an exposition and discussion of results derived from the inferential statistical analysis. Focus was also placed on the overall conclusions with specific reference to the literature study, research methodology as well as the results of the study. In closing, recommendations were made for future research on this topic as well as in light of the achieved results within an organization context.

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APPENDIX A

BIOGRAPHICAL QUESTIONNAIRE

BIOGRAPHICAL DETAILS

1. HOW LONG HAVE YOU BEEN WITH THE COMPANY?

1-5 Years	
6 – 10 Years	
11-15 Years	
More than 15 years	

2. AGE:

20 – 30 Years	
31 - 40 Years	
41 - 50 Years	
More than 50 years	

3. GENDER:

Male	
Female	

4. MARITAL STATUS

Single	
In a relationship	
Married	
Divorced	
Separate	
Remarried	

5. EDUCATIONAL LEVEL:

Matric or less	
Matric + 1 year	
Matric + 3 years	
Matric + more than three years	

6. LANGUAGE

Afrikaans	
English	
Sepedi	
SeSotho	
SeTswana	
TshiVenda	
IsiZulu	
IsiXhosa	
Other	

7. LEVELS OF MANAGEMENT

Manager/Supervisor	
Employee	

OFFICE USE ONLY	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

8. CULTURE GROUP

ASIAN	
AFRICAN	
WHITE	
COLORED	

APPENDIX B

LEIDEN QUALITY OF WORK LIFE QUESTIONNAIRE (LQWQ)

LEIDEN QUALITY OF WORK LIFE QUESTIONNAIRE

INSTRUCTIONS

Please read each of the following items carefully and indicate the extent to which you tend to exhibit each of the following behaviours. Please answer each one of the items objectively based on your own experiences. There is no right or wrong answer.

DIASGREE COMPLTELY 1	DISAGREE 2	AGREE 3	AGREE COMPLETELY 4

ITEM	FACTOR LOADINGS				OFFICE USE ONLY
1.My job requires me to be creative	1	2	3	4	
2. I have a lot to say about what happens on my job					
3. .If I want to I can leave my workplace for a short while					
4. I am not asked to do an excessive amount of work					
5 I know exactly which are my tasks					
6. I know exactly my responsibilities					
7. I am often required to move or lift very heavy loads on my job					
8. My job requires lots of physical effort					
9. I am exposed to dangerous tools, machinery or equipment					
10. I expect to lose my job within the next five years					
11. My work is worthwhile					
12. My supervisor pays attention to what I am saying					
13. People I work with are helpful in getting the job done					
14. If I had the choice, I would take this job again					

15. I have a lot of responsibility in my job					
16. My job allows me to make a lot of decisions on my own					
17. I can determine my work pace					
18. My job requires working very hard					
19. I know exactly what others are expecting of me in my job					
20. I know exactly what my colleagues think about my achievements					
21. I am often required to work for long periods with my body in physical awkward positions					
22. On my job I am exposed to things placed or stored dangerously					
23. During the past year I was in a situation where I was faced with job loss or layoff					
24. I feel committed to my work					
25. I feel appreciated by my supervisor					
26. People I work with take personal interest in me					
27. I would like to change jobs					
28. I have an opportunity to develop my own special abilities					
29. On my job , I have very little freedom to decide how I do my job					
30. I can determine the order in which I do my work					
31. I have enough time to get the job done					
32. I know exactly what my supervisor thinks about my achievements					
33. I am fee from conflicting demands that others make					
34. On my job I am using dangerous work methods					
35. My job security id good					
36. The work I do is useful					
36. My supervisor is successful in getting people to work together					
38. I feel appreciated by my colleagues					

39. I am satisfied with my job				
40. My work is boring and monotonous				
41 I continuously have to do others tell me to do				
42. I can have a chat during my work				
43. I run the risk of getting burns or electric shocks				
44. My supervisor is helpful in getting the job done				
45. If I have problems in my job, I can ask others to help me				
46. I would advise a friend to take this job				
47. I get to do a variety of different things on my job				
48. On my job I am exposed to air pollution(e.g. dust ,smoke, gas, fumes, or fibres)				
49. People I work with are friendly				
50. This job is what I wanted when I applied for it				
51. My job requires a high level of skill				
52. At my workplace I am exposed to dirty or badly maintained areas				
53. People I work with are competent in doing their jobs				
54. I often have to do work that I would rather not do				
55. My job often requires that I learn new things				
56. On my job I am exposed to dangerous chemicals				
57, My job involves a lot of repetitive work				
58. I run the risk of catching diseases on my job				
59. My supervisor is concerned about the welfare of those under him				

APPENDIX C

WARR'S MENTAL HEALTH MEASURES

WARR'S MENTAL HEALTH MEASURES

INSTRUCTIONS

Complete the following questionnaire by marking the response next to each item that reflects your feeling the best.

		1 I am not sure	2 I am moderately sure	3 I am quite sure
1	I can do my job well			
2.	In my job, I make a special effort to keep trying when things seem difficult			
3.	I am not very interested in my job			
4	I find my job quite difficult			
5.	In my job I often have trouble coping			
6.	I enjoy doing new things in my job			
7	I sometimes think I am not very competent at my job			
8.	In my job I like to set myself challenging targets			
9.	I prefer to avoid difficult activities in my job			
10.	I am not very concerned how things turn out in my job			
11.	I can deal with just about any problem in my job			

12.	I feel I am better than most people at tackling job difficulties			
13.	After I leave my work. I keep worrying about job problems			
14.	I find it difficult to unwind at the end of a workday			
15.	I feel used up at the end of a workday			
16.	My job makes me feel quite exhausted at the end of a workday			

APPENDIX D

GENERAL HEALTH-28 (GHQ-28)

GENERAL HEALTH-28 (GHQ-28)

HAVE YOU RECENTLY

	1 Not at all	2 No more than usual	3 Rather more than usual	4 Much more than usual
1. Been feeling perfectly well and in good health?				
2. Been feeling in need of a good tonic?				
3. Been feeling run down and out of sorts?				
4. Felt that you are ill?				
5. Been getting any pains in your head?				
6. Been getting a feeling of tightness or pressure in your head?				
7. Been having hot or cold spells?				
8. Lost much sleep over worry?				
9. Had difficulty in staying asleep once you off?				
10. Felt constantly under strain?				
11. Been getting edgy and bad-tempered?				
12. Been getting scared or panicky for no good reason?				
13. Found everything getting on top of you?				
14. Been feeling nervous and strung-up all the time?				
15. Been managing to keep yourself busy and occupied?				
16. Been taking longer over the things you?				

17. Felt on the whole you were doing things well?				
18. Been satisfied with way you've carried out your task?				
19. Felt that you are playing a useful part in things?				
20. Felt capable of making decisions about things?				
21. Been able to enjoy your normal day-to-day activities?				
22. Been thinking of yourself as worthless person?				
23. Felt that life is entirely hopeless?				
24. Felt that life isn't worth living?				
25. Thought of the possibility that you might make away with yourself?				
26. Found at times you couldn't do anything because your nerves were too bad?				
27. Found yourself wishing you were dead and away from it all?				
28. Found that the idea of taking your own life kept coming into your mind?				

APPENDIX E

SATISFACTION WITH LIFE SCALE (SWLS)

SATISFACTION WITH LIFE SCALE (SWLS)

INSTRUCTIONS

Below are five statements with which you may agree or disagree. Using the 1-7 point scale below, indicate your agreement or disagreement with each item by crossing out the appropriate number. Please be open and honest in your response.

1. In most ways my life is close to ideal.

1 Strongly disagree	2 Disagree	3 Slightly disagree	4 Neither agree nor disagree	5 Slightly Agree	6 Agree	7 Strongly agree

2. The conditions of my life are excellent.

1 Strongly disagree	2 Disagree	3 Slightly disagree	4 Neither agree nor disagree	5 Slightly agree	6 Agree	7 Strongly agree

3. I am satisfied with my life

1 Strongly disagree	2 Disagree	3 Slightly Disagree	4 Neither agree nor disagree	5 Slightly agree	6 Agree	7 Strongly agree

4. So far I have gotten the important things I want in life

1 Strongly disagree	2 Disagree	3 Slightly Disagree	4 Neither agree nor disagree	5 Slightly agree	6 Agree	7 Strongly agree

5. If I could live my life over, I would change almost nothing.

1 Strongly disagree	2 Disagree	3 Slightly Disagree	4 Neither agree nor disagree	5 Slightly agree	6 Agree	7 Strongly agree

APPENDIX F

AFFECTOMETER 2

AFFECTOMETER 2

INSTRUCTIONS

Below are statements and adjectives with which you may agree or disagree. Using the 1-5 point scale below, indicate your agreement with each item by crossing out the appropriate number. Please be open and honest in your responses.

1.My life is on the right track.

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

2. I wish I could change some part of my life

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

3. My future looks good

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

4. I feel as though the best years of my life are over

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

5. I like myself

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

6. I feel there must be something wrong with me

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

7. I can handle any problems that come up.

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

8. I feel like a failure

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

9. I feel loved and trusted

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

10. I seem to be left alone when I don't want to be

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

11. I feel close to people around me

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

12. I have lost interest in other people and don't care about them

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

13. I feel I can do whatever I want

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

14. My life seems stuck in a rut

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

15. I have energy to spare

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

16. I can't be bothered doing anything

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

17 I smile and laugh a lot

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

18. Nothing seems very much fun anymore

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

19. I think clearly and creatively

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

20. My thoughts go around in useless circles

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

Adjective items

Positive (+)

21. I am satisfied

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

22. I am optimistic

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

23. I am useful

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

24. I am confident

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

25. I am understood

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

26. I am loving

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

27. I am free and easy

NOT AT ALL 1	OCCASIONALLY 2	SOME OF THE TIME 3	OFTEN 4	ALL OF THE TIME 5

28. I am enthusiastic

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

29. I am good-natured

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

30. I am clear-headed

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

Negative items (-)

31. I am discontented

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

32. I am hopeless

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

33. I am insignificant

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

34. I am helpless

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

35. I am lonely

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

36. I am withdrawn

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

37. I am tense

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

38. I am depressed

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

39. I am impatient

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

40. I am confused

NOT AT ALL	OCCASIONALLY	SOME OF THE TIME	OFTEN	ALL OF THE TIME
1	2	3	4	5

ABSTRACT

QWL is a major issue for employees, and how organizations deal with this issue is of both academic and practical significance. QWL and its relationships with employees' mental health and performance became an explicit objective for many of the human resource policies in modern organizations. Although there is no formal definition of QWL, industrial psychologists and management scholars agree in general that QWL is a construct that deals with the well-being of employees and that QWL differs from job satisfaction.

QWL variables are excellent indicators of whether or not employees are coping well with the stressors they are confronted with. Employees in the workplace should experience and exhibit high levels of mental health in order to ensure they cope effectively with the stressors they are being exposed to. According to the literature, QWL can produce a favourable work environment which is beneficial for developing and maintaining a good mental health. If this is the case, it could be assumed that QWL could be an important determinant and predictor of mental health. It would be of value to investigate which QWL variables play a significant role in determining mental health especially in service organizations where demands are high.

The aim of the research was to determine whether QWL variables are predictors of employees' mental health in a service organization in the Free State. For the purpose of this study, one-hundred and forty two (142) employees working in a service organization in the Free State were selected. QWL was measured by the Leiden Quality of Work Life Questionnaire while mental health was measured by Warr's Mental Health Measures, the General Health Questionnaire-28 (GHQ-28), the Satisfaction with Life Questionnaire and the Affectometer 2, which is a measure of general happiness. The multiple stepwise regression was used to predict which QWL variables affect employees' mental health in a service organization in the Free State. Due to the fact that non-probability sampling and more specifically accidental sampling was used, the results of this study could not be generalized.

The sample of respondents consisted of more white respondents of which 58% were male respondents, which were married and having at least a matriculation qualification. The respondents exhibited a very high level of QWL except for work and time pressure, physical exertion, job insecurity and lack of meaningfulness. A high level of mental health was also exhibited by the respondents. The level of general health in terms of all the dimensions varied from low to very low. Furthermore, the respondents displayed a low level of satisfaction with life especially with material wealth. The respondents' level of general happiness (all the respective dimensions) was very low. Lack of meaningfulness, role ambiguity, social support (supervisor), work and time pressure, social support (colleague), skill discretion, hazardous exposure, job insecurity, physical exertion and decision latitude were identified as valid predictors of employees' mental health in the service organization. Further research regarding QWL as a predictor of mental health should be conducted since there were very few studies done in this regard.

Based on the study a clear idea can be obtained as to which QWL variables are predictors of employees' mental health. The importance of acknowledging these factors aimed at improving employees' QWL and mental health in service organizations becomes apparent.

OPSOMMING

Gehalte van werkslewe is ’n belangrike kwessie vir werknemers en die wyse waarvolgens organisasies hierdie kwessie hanteer, is van akademiese en praktiese belang. Gehalte van werkslewe sowel as die invloed daarvan op werknemers se geestesgesondheid en prestasie het ‘n belangrike doelwit van menige menslike hulpbronbeleide in moderne organisasies geraak. Alhoewel daar geen formele definisie vir gehalte van werkslewe bestaan nie, is bedryfsielkundiges en bestuurskundiges dit eens dat gehalte van werkslewe ‘n konstruk is wat fokus op die welsyn van wernemers en dat dit verskil van werkstevredenheid.

Gehalte van werkslewe veranderlikes is uitstekende indikators van of werknemers die stressors waarmee hulle gekonfronteer word goed hanteer, al dan nie. Werknemers in die werksplek moet hoë vlakke van geestesgesondheid ervaar en toon, ten einde te verseker dat hulle die stressors waaraan hulle blootgestel word, effektief hanteer. Volgens die literatuur kan gehalte van werkslewe ‘n gunstige werksomgewing skep wat voordelig is vir die ontwikkeling en instandhouding van ‘n goeie geestesgesondheid. Indien dit die geval is, kan aangeneem word dat gehalte van werkslewe ‘n belangrike determinant en voorspeller van geestesgesondheid is. Dit sal van waarde wees om ondersoek in te stel aangaande watter gehalte van werkslewe veranderlikes ‘n beduidende rol speel in die bepaling van werknemers se geestesgesondheid in spesifiek diensorganisasies, waar die eise hoog is.

Die doelwit van die navorsing was om te bepaal of gehalte van werkslewe veranderlikes voorspellers is van werknemers se geestesgesondheid in ‘n diensorganisasies in die Vrystaat. Vir die doel van hierdie studie is honderd-twee-en-veertig (142) werknemers wat werksaam was in ‘n diensorganisasie in die Vrystaat, geselekteer. Gehalte van werkslewe is gemeet deur die Leiden Gehalte van Werkslewe-Vraelys terwyl geestesgesondheid gemeet is deur Warr se Geestesgesondheidsvraelys, die Algemene Gesondheidsvraelys-28, die Werkstevredenheidsvraelys en die Affektometer 2 wat ‘n meting van algemene geluk verskaf. Meervoudige stapsgewyse regressie is gebruik om te voorspel watter gehalte van werkslewe veranderlikes werknemers in ‘n diensorganisasie in die Vrystaat se geestesgesondheid beïnvloed. Aangesien nie-waarskynlikheid-

steekproeftrekking, en spesifiek toevallige steekproeftrekking, gebruik is, kon die resultate van die studie nie veralgemeen word nie.

Die meerderheid van die steekproef het bestaan uit wit manlike respondente (58%) wat getroud was en oor minstens ‘n graad 12-kwalifikasie beskik het. Behalwe vir werks- en tydsdruk, fisiese inspanning, werksonsekerheid en ‘n verlies aan betekenisvolheid, het die respondente ‘n baie hoë vlak van gehalte van werkslewe getoon. Verder het die respondente ook oor ‘n hoë vlak van geestesgesondheid beskik. Die vlak van algemene gesondheid in terme van al die dimensies het gevarieer van laag tot baie laag. Verder het die respondente ‘n lae vlak van lewenstevredenheid getoon en spesifiek ten opsigte van materiële rykdom. Die respondente se vlakke van algemene geluk (met betrekking tot al die dimensies) was baie laag. ‘n Verlies aan betekenisvolheid, roldubbelsinnigheid, sosiale ondersteuning (toesighouer), werks- en tydsdruk, sosiale ondersteuning (kollegas), oordeelkundige benutting van vaardighede, blootstelling aan gevare, werksonsekerheid, fisiese inspanning en vryheid ten opsigte van besluitneming is as waardevolle voorspellers van werknemers se geestesgesondheid in die diensorganisasie geïdentifiseer. Verdere navorsing aangaande gehalte van werkslewe as ‘n voorspeller van geestesgesondheid moet uitgevoer word aangesien daar baie min studies in die verband bestaan.

Vanuit die studie kan ‘n duidelike beeld verkry word aangaande watter gehalte van werkslewe veranderlikes voorspellers van werknemers se geestesgesondheid is. Die belangrikheid om hierdie faktore in ag te neem wanneer gefokus word op die verbetering van werknemers se gehalte van werkslewe en geestesgesondheid binne diensorganisasies, kom duidelik na vore.