

**Positive Emotionality as a fortigenic quality among people with  
thoracic spinal cord injury**

**By**

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Now it's time for me to go to my destiny, in Christ Jesus, Amen.

“Better is not good enough, the best is yet to come!”

By Prophet T. B. Joshua

## **SUMMARY**

### **Positive Emotionality as a fortigenic quality among people with thoracic spinal cord injury**

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1 Military Hospital offers health service to employees of the South African National Defence Force (SANDF), South African Army (SAA), South African Air Force (SAAF), South African Navy (SAN), and the South African Military Health Services (SAHMS). Most of the SANDF employees who suffer Thoracic Spinal Cord Injuries (TSCI) are injured during their term of service in the SANDF. Individuals with spinal cord injury experience challenges related to work, family, finances, loss of independence and societal attitudinal barriers (Crewe & Krause, 2002). Some individuals adjust well to these challenges and are able to move forward in a functional and productive manner (Livneh & Antonak, 1997; 1994). This research investigated how certain thoracic spinal cord injured (TSCI) individuals managed to adjust to their rehabilitation process. The research focused on the contribution of positive emotions to the rehabilitation process.

Positive psychology focuses attention on the sources of psychological wellness, such as positive emotions and positive experience. It also focuses on individual differences in human strengths and virtues, positive institutions and what makes

life worth living (Lyubomirsky & Abbe, 2005). The current study aimed to investigate how fortigenic qualities contribute to positive rehabilitation experiences for individuals with thoracic spinal cord injury.

A qualitative design using in-depth, face-to-face, semi-structured interviews was selected to explore the rehabilitation experiences of TSCI individuals. One of the basic tenets of qualitative research is the existence of multiple realities. An individual's reality is derived from factors such as age, sex, class, ethnicity, abilities and disabilities and the way in which these factors affect life experiences (Hammersley & Atkinson, 1998). A sample of 3 respondents was selected. The respondents were members of the South African National Defence Force. The respondents were males aged between 25 and 40 years old who had been living with disability for two to three years. The TSCI individuals were interviewed to gain a better understanding of their rehabilitation experiences. The ideas that emerged from this research interview conversations were analysed through the use of an interpretive thematic analysis

The findings indicate that positive emotional states facilitated positive behavioral practices such as taking initiative and adapting and coping with the challenges that come with the disability. The study demonstrated that participants' repertoire of positive emotions acts as a remedy for negative emotions. Thus, positive emotional states were shown to influence behavioral repertoires and impact on motivation to improve the self. These factors lead to a drive to rehabilitation. Positive qualities such as gratitude, humour, optimism and resilience impacted on the ways in which the respondents created meaning about life events. This resulted in broader behavioural repertoires that led to more explorative and adaptive behaviours.

**Key Words:** Positive psychology, Fortigenesis, Positive emotions, Thoracic spinal cord injury, Rehabilitation, thematic analysis, Gratitude, Humour and Laughter, Optimism, Resilience.



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## CHAPTER 1

### INTRODUCTION

#### 1.1 INTRODUCTION

Thoracic Spinal cord injury (TSCI) is a devastating event with far reaching physical, social and psychological effects. However, in the past insufficient attention has been paid to the importance of psychological adjustment following TSCI (Livneh & Antonak, 1997; 1994). In large portions of the literature the success of rehabilitation tends to be measured only in physical and functional terms. The literature also concentrates mostly on the acute phase in hospital, without longitudinal follow-ups to study long-term psychological outcome and adjustment to TSCI.

TSCI is often accompanied by a severe emotional reaction that threatens both psychological integration and security, and it is therefore important that attention be given to the long-term psychological adjustment of individuals following TSCI. Successful rehabilitation involves integration into the community and adjustment to a very different lifestyle. Rehabilitation also involves the re-establishment of satisfying relationships and roles as well as developing opportunities to express individual identity (Calhoun & Tedeschi, 2001). Experiencing a TSCI poses a huge challenge. An individual who experiences a TSCI must tap into his or her strengths and discover new physical and emotional ways of doing things. Different people have their own individual personality characteristics and coping styles. This research examined whether a specific pattern of emotion (i.e. a mixture of both positive and negative emotions) exists that contributes to coping with thoracic spinal cord injury (Davis, 2001).



There is nothing predictable about the psychological outcomes of TSCI. According to McMillen and Cook (2003) individual's responses are mediated by both pre-morbid individual characteristics and external factors. For most people, TSCI induces a severe emotional reaction, although this is not always evident initially. The majority of people do not have disabling emotional, behavioral or cognitive symptoms following TSCI. The researcher wondered how positive emotions such as humor, optimism, gratitude and resilience contribute to coping with thoracic spinal cord injury. The study thus aimed to investigate the extent to which fortigenesis contributes to coping with thoracic spinal cord injury.

## **1.2. POSITIVE PSYCHOLOGY**

This research falls within the field of positive psychology. According to Seligman and Csikszentmihalyi (2000) the aim of positive psychology is to catalyze a change in psychology, shifting from preoccupations with repairing the worst things in life to building the best qualities in life. At the subjective level the field of positive psychology is about subjective experiences such as well-being, satisfaction, joy, pleasure, happiness, future optimism, hope and faith (Seligman & Csikszentmihalyi, 2000). The positive psychology paradigm was used to focus on factors that contribute towards the optimal functioning of the TSCI individual.

## **1.3. FORTIGENESIS**

Fortigenesis asks: 'what are the qualities that push a person towards either one or the other end of the health or disease continuum?' This study aligns itself with the positive psychology concept of fortology as it relates to an understanding of the effect of positive emotions on the rehabilitation of thoracic spinal cord injured patients in the military. The focus of the research was to determine whether positive emotions push TSCI individuals towards healthier outcomes and, if so, determine how this occurs. The concept of fortigenesis is explored further in chapter three.

## 1.4. POSITIVE EMOTIONS

Frederickson (2002) defines positive emotions as consciously accessible, long-lasting feelings, which are often free-floating or objectless and are present within emotions but also exist within physical sensations, moods and attitudes. Positive emotions facilitate approach behaviour and prompt individuals to engage with their environments. Positive emotions also broaden and build and open people's mindsets, enabling creative and flexible thinking. Finding positive meaning in adverse circumstances is an example of positive emotions undoing negative emotions, which helps build resilience to future adversities (Fredrickson, 2001).

The **core concepts** relative to the study include an understanding of thoracic spinal cord injury, rehabilitation, positive psychology, fortigenesis and positive emotions. The main aims of the study were to determine:

1. How positive emotions contribute to improved rehabilitation of individuals with thoracic spinal cord injury.
2. How positive emotions as fortigenic qualities broaden the TSCI patient behavioural repertoire to more explorative and adaptive behaviours.

The research project used a qualitative research design in order to ensure that the subjective accounts and meanings were prioritised (Van der Riet, Hough, & Killian, 2005). The study drew on a relatively small convenience sample. Data was collected through the use of a semi-structured interview.

## 1.5. CHAPTER OUTLINE

**Chapter two** reviews literature on spinal cord injury (SCI). It also examines the psychological challenges faced by SCI patients.

**Chapter three** focuses on the theoretical assumptions of the study. It explains the development of positive psychology as a change from traditional approaches.

The concept of fortigenesis and its relation to positive psychology is explained. The concept of positive emotions is explored.

**Chapter four** outlines the research process that was followed. Data collection and the method of data analysis are discussed.

**Chapter five** provides an analysis of data.

**Chapter six** provides a discussion of the results. The results are also compared to existing literature. Recommendations and suggestion for further research in the field of fortology and spinal cord injury are provided.

## **CHAPTER TWO**

### **LITERATURE**

#### **2.1. RESEARCH PROBLEM**

1 Military Hospital offers health service to employees of the South African National Defence Force (SANDF), South African Army (SAA), South African Air Force (SAAF), South African Navy (SAN) and the South African Military Health Services (SAHMS). Most of the employees who have suffered thoracic spinal cord injuries (TSCIs) have been injured during their term of service in the SANDF. Individuals with spinal cord injury experience challenges related to work, family, finances, loss of independence and societal attitudinal barriers (Crewe & Krause, 2002). Some individuals adjust to these challenges better than others and are able to move forward in a functional and productive manner (Livneh & Antonak, 1997; 1994). The researcher wondered how certain TSCI patients managed to adjust better than others during their rehabilitation process. It seemed possible that positive emotions contributed to faster and better rehabilitation for these individuals.

#### **2.2. LITERATURE REVIEW**

##### **2.2.1. Physiological Effects of Spinal Cord Injury**

The spinal cord consists of various nerves that link the brain to the skin, organs and muscles of the body. For example, when a leg needs to be moved a message is passed from the brain, through the spinal cord and through a nerve to the leg and the leg then moves. An injury to the spinal cord means that

messages cannot pass the level of injury. The brain is therefore not in contact with body parts below the level of injury (Madd, 2005).

The level of spinal cord injury determines the body parts that experience paralysis and loss of function. The injury level refers to the lowest point on the spinal cord where there is a decrease or absence of motor and/or sensory function. The higher the spinal cord injury (SCI) the more effect the injury has on movement and feeling (Madd, 2005). Spinal cord injuries are classified as either complete or incomplete. An incomplete injury means that the spinal cords ability to convey messages to or from the brain is not completely lost. Individuals with incomplete injuries retain some motor or sensory function below the injury. A complete injury is characterised by a total lack of sensory and motor function below the level of injury (Nesathurai, 2000).

The backbone consists of twenty-four vertebrae that are ring-shaped with a bony frontal structure. The upper seven vertebrae are called the cervical (neck) vertebrae and are numbered from one to seven beginning at the top of the spine. The following vertebrae are referred to as the thoracic vertebrae and form the thorax or rib cage. These vertebrae are labeled T1 to T12. The five lumbar vertebrae are the most mobile and are located beneath the thoracic vertebrae. The lower part of the backbone consists of five sacrum vertebrae that are attached to each other. The backbone terminates in a final vertebra known as the coccyx or tailbone. The vertebrae are all bound together by strong ligaments. Discs that serve as bumpers to protect against the jars of everyday life lie between the vertebrae (Madd, 2005).

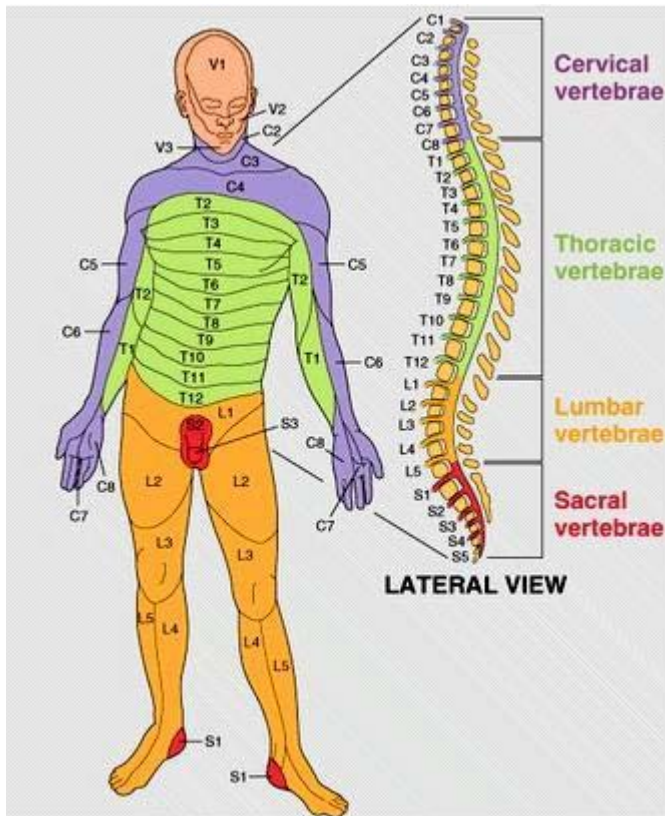


Figure 1: The vertebrae. From [www.sci-recovery.org/sci.htm](http://www.sci-recovery.org/sci.htm) 07 Sep 2009

## 2.2.2. Levels of Spinal Cord

Cervical spinal cord injury is an injury of the cervical spinal cord (C1-C8) and causes quadriplegia (also known as tetraplegia). Quadriplegia involves paralysis or weakness of both arms and legs. Lumbar spinal cord injury involves an injury of the lumbar spinal cord (L1-L5) and results in paraplegia. In paraplegia upper body functions are not affected (Madd, 2005). Sacral spinal cord injury is an injury of the sacral spinal cord (S1-S4). Some sacral injuries result in weakness or paralysis of the hips and legs (Madd, 2005).

### 2.2.2.1. Thoracic Spinal Cord Injury (TSCI)

An injury of the thoracic spinal cord (T1-T12) causes paraplegia, defined as paralysis or weakness in the legs. These injuries may also result in loss of sensation, loss of bladder and bowel control and sexual impairments (Madd, 2005). This study chose to focus on thoracic spinal cord injury due to the availability of the participants and the limited

scope of the study. Thoracic spinal cord injury also excludes other variables that may explain the success or 'level' of rehabilitation in higher level spinal cord injuries. These variables include aspects such as pain and respiratory difficulty, which may lead to a different emotional experience of rehabilitation (Tennen & Affleck, 2002).

Injuries at the T-1 to T-8 level most often result in control of the hands, but poor trunk control as the result of lack of abdominal muscle control. Lower T-injuries (T-9 to T-12) allow good trunk control and good abdominal muscle control. Individuals with these injuries often have good sitting balance. Lumbar and sacral injuries yield decreasing control of the hip flexors and legs (Madd, 2005).

TSCI is a complex disability and poses significant challenges to rehabilitation. It affects not only the person's ability to walk but also impacts virtually every bodily system with profound psychological and social implications (Crewe, 2005). The primary causes of TSCI in the defence force include motor vehicle accidents, gunshot wounds, falls, acts of violence and sporting injuries.

### **2.2.3. Lived Experiences of TSCI Individuals**

Spinal cord injury victims are often unconscious or in shock when they reach the hospital. They are often unaware of the seriousness of their injuries. The first few days following the injury are usually confusing for the patient (Madd, 2005).

SCI patients experience a whole range of emotions. These emotions are necessary for rehabilitation and development of coping strategies. Although many patients experience these emotions in stages no set pattern exists as each patient's experience differs (Nesathurai, 2000). Hicken, Putzke, Novack, Sherer and Richards (2002) highlight the extreme importance of the body as a performer of various necessary functions and also as an individual's most intimate point of reference. It is through the body that individual's exhibit behavior on intrapersonal and interpersonal levels. Body image is a complex product of an individual's entire perceptual development and may be interpreted collectively as a person's

psychological experience, feelings and attitudes towards the body (Hicken et al., 2002). An individual experiences different demands at different stages of illness or physical injury. Some individuals experience first an acute phase. During this phase the primary concern of both patient and medical personnel is survival. From moment to moment the individual's chances of survival depend upon the immediate measures taken to deal with the physical trauma or disease. Intervention is initially provided within moments of arrival at the hospital and the effectiveness of that intervention can determine both immediate and long-term survival (Duggan & Dijkers, 2001). In other acute cases short-term survival (months or even years) may be relatively certain. However, beyond the short-term the length and quality of the individual's life will depend upon appropriate and timely treatment and rehabilitation. Thus, the choices that are made in the acute stage of illness or injury have a lasting impact on the individual's long-term survival and on the quality of his or her future life. It is therefore important that professionals make the correct diagnostic and treatment decisions. Patients' often experience pain, confusion and fear during the acute phase of care. These emotions may influence patients' decisions regarding treatment. Emotions sometimes threaten the patient's decision to undergo treatment.

During the rehabilitation phase a person who has been bedridden and passively cared for by medical professionals must work toward achieving as high a level of health and independent functioning as his/her condition makes possible. Tremendous efforts may be required to perform basic tasks such as eating and dressing. A rehabilitation patient must learn to adjust to these limitations and to come to terms with an altered self-image. Specialists in medical rehabilitation can help the patient to maximize his or her remaining potential (Studer, 2007).

Adjustment to illness and disability can be strongly influenced by the resources available. Social support is particularly important and includes both physical assistance (tangible aids such as going grocery shopping and driving the children to school) and psychological or emotional support (such as providing acceptance and encouragement and listening to expressions of frustration) (Hale, Hannum &



Espelager, 2005). Although there has been no experimental research regarding the importance of social support a considerable body of research has focused on naturally occurring social support and the outcomes of illness and injury. Generally, researchers have found that people who receive both tangible and emotional support from friends and extended family tend to cope better than those who do not receive this support (Hale et al., 2005).

It is not unusual for those providing support to an ill or disabled loved one to be confronted with major emotional adjustments. Family alliances may shift and bonds that were previously stable may be threatened. Family counseling may be imperative in assisting all those affected to make needed role adjustments in the context of disability and illness. Rehabilitation may lead to partial recovery (Hale et al., 2005). However, when an individual has accomplished as much as possible toward rehabilitation he or she must accept the remaining disabilities and limitations as chronic and continue with life. Chronic conditions are conditions from which patients are not expected to recover. For the recovering patient facial disfigurement, a limp or life in a wheelchair may be an inescapable reality.

#### **2.2.4. Rehabilitation**

The history of rehabilitation is fairly recent. In ancient and medieval times there was little tolerance for physical infirmity. During the 1800s several institutes for the care of the ill and crippled were opened in Europe and in the United States. However, it was not until after World War I that the rehabilitation movement took hold and began to develop. In this period emphasis was placed on the physical rehabilitation of those injured in war. The greatest advances in the clinical care of the chronically ill and disabled have been made subsequent to World War I (Dunham & Dunham, 1978).

Rehabilitation is currently a dynamic process that is geared to the needs of the whole person. It is not limited to restoration of the individual's physical capacities and is targeted at several realms. Physical treatments such as medication and

surgery are instituted to reduce the impact of the individual's physical problems (Lee & Ostrander, 2002). Current rehabilitation methods also include: (a) vocational rehabilitation, which involves counseling, testing and training toward the goal of job placement or independent self-employment; (b) psychological rehabilitation, consisting of personal counseling and psychotherapy and supportive measures toward the goal of increased self-acceptance and self-esteem; and (c) social rehabilitation, which includes help in developing and maintaining social relationships and recreational pastimes. Sexual counseling is also provided so that, with some re-learning, a handicapped individual can enjoy a fulfilling sex life (Lee & Ostrander, 2002). Although the process of rehabilitation has traditionally been viewed as physical, rehabilitation is now considered a multi-faceted process involving not only the services of surgeons and physiotherapists but also exercise scientists, dieticians and psychologists (Kolt, 2000).

Researchers have become increasingly interested in the psychological impact of injury and investigate how injured individuals react to being hurt. This has led to an advancement of knowledge about the psychological adjustments made by injured persons during times of injury and the subsequent impact of these adjustments on mental state and adherence to rehabilitation programs (Kolt, 2000). Although the psychological support of injured individuals should ideally be provided by psychology professionals, in practice it is very often administered informally by physiotherapists. Physiotherapists generally consider psychological components of injury to be important but research suggests that most physiotherapists feel limited in their abilities to deal with these concepts and would require additional training (Gordon, Milios, & Grove, 1991). Furthermore, a related study of patients' perspectives indicated that injured individuals felt that physiotherapists and other members of the healthcare team had not consciously considered the emotional impact of their injuries (Pearson, & Jones, 1992).

### **2.2.5. Adjustment Process of Spinal Cord individuals**

The ability to identify TSCI individuals who are not adjusting to their injuries at an early stage can help to establish the necessary support. According to Kolt (2000), poor adjustment manifests in non-compliance or non-adherence to rehabilitation programs. Some injured individuals may do too little while others may push too hard. Physiotherapists have identified non-compliance as a significant problem preventing effective and efficient recovery from injury. A study by Scherzer, Brewer and Cornelius (2001) identified a number of key characteristics in athletes who experienced difficulties in adjusting to their injuries. These included feelings of anger and confusion; obsession with the question of when he or she can return to sport; denial (considering the injury to be no big deal); exaggerated bragging about accomplishments; rapid mood swings; withdrawal from significant others; fatalistic thinking (whatever I do, things are not going to improve); and dwelling on minor physical complaints (Scherzer et al., 2001).

Individuals with spinal cord injury experience challenges related to work, family, finances, loss of independence and societal attitudinal barriers (Crewe & Krause, 2002). Some individuals adjust to these challenges better than others and are able to move forward in a functional and productive manner (Livneh & Wilson, 2003).

A thoracic spinal cord injury is clearly experienced as a traumatic loss. Researchers have suggested that an individual's response to traumatic loss can be understood as a grieving process involving meaning reconstruction (Attig, 2001; Neimeyer, Prigerson, & Davies, 2002). Individuals who experience a traumatic loss engage in a process of reconstructing a world that makes sense following the loss. This reconstruction involves changes in both private thoughts and feelings and in relating to the external world. These meaning-finding processes often revolve around two specific concerns. The first process involves individuals attempting to make sense of the loss (Davis, 2001). In this process

the loss is interpreted within a context that is consistent with the injured individual's worldview and basic beliefs about how and why events occur. Common beliefs include believing that the event was predictable, that it was God's plan or that it just happened. The second process involves attempting to find benefits from the loss. Although some people who experience trauma report lower self-esteem, more worry and psychological problems, some studies point to the positive effects of trauma (Davis, 2001). Studies provide evidence that a significant number of individuals who experience trauma have an increased sense of self-confidence, an increased connectedness to others and an enhanced sense of the meaning of life (Calhoun & Tedeschi, 2001).

Research indicates these meaning-finding processes are associated with positive adjustment following loss (Davis, 2001). For example, in a sample of individuals who had lost a family member making sense of the loss was associated with positive adjustment in the early phases of adjustment (i.e. 6 months post loss). In the same study finding benefits was associated with positive adjustment after 18 months (Davis, 2001). Other studies have found that finding benefits from loss is associated with positive changes in values (in men experiencing heart attacks), improved relationships (in mothers of acutely ill newborns), reduced chance of posttraumatic stress syndrome (in disaster victims), improved health (in HIV-positive men) and fewer days limited by pain (in rheumatoid arthritis patients) (Tennen & Affleck, 2002).

A number of studies indicate that positive changes can be associated with spinal cord injury (McMillen & Cook, 2003). For example, McMillen and Cook (2003) found increased compassion and family closeness and decreased alcohol consumption following spinal cord injury. Researchers have shown interest in investigating factors that influence the psychological adjustment of individuals with spinal cord injury. Factors that have shown a relationship to positive adjustment include internal locus of control, coping strategies, personality traits, social support, attribution of responsibility and purpose in life (Lieh-Mak, 2000;

Martz & Livneh, 2003). Antonovsky's (1987) sense of coherence is a fortigenic quality that could explain the variability in adjustment. Sense of coherence involves a worldview that can be conceptualized as meaning-making construct. The discussion in the previous paragraphs demonstrates that there are differences in terms of the life satisfaction, quality of life and rehabilitation progress among individuals with TSCI. This indicates that it is likely that fortigenic qualities contribute to improved rehabilitation in spinal cord injured individuals. The present study set out to investigate this likelihood.

Longitudinal studies have shown that positive emotions play a role in the development of long-term resources such as psychological resilience and flourishing (Fredrickson, Tugade, Waugh, & Larkin, 2003). Fredrickson et al. (2003) suggest that positive emotions function to distract us from immediate needs and stressors and encourage novel, varied and exploratory thoughts and actions. Positive emotions are typically transient and easily disturbed and the thoughts and actions they lead to are rarely relevant to immediate survival. However, this broadened behavioural repertoire does enhance long-term survival. This study therefore aimed to determine how fortigenic qualities broaden the TSCI patient behavioural repertoire to include more explorative and adaptive behaviours.

#### **2.2.6. Psychological Effects of Thoracic Spinal Cord Injury (TSCI) on the Individual**

According to Martz, Livneh, Priebe, Wuermsler and Ottomanelli (2005) adapting to TSCI may involve greater psychological efforts than those required following traumatic events where physical functioning returns to normal. The difficulty in adjusting to TSCI is evidenced by alarming statistics generated by various studies and national data banks. For example, suicide rates for individuals with TSCI are estimated to be 3 to 5 times higher than for the population at large. Approximately 30% to 40% of individuals with TSCI develop a depressive disorder and 20% to 25% develop an anxiety disorder (Kennedy &

Rogers, 2000). An estimated 30% of TSCI individuals continue to experience depression or anxiety two years post injury.

Blackwell (2001) found that the employment rate of people with spinal cord injury (SCI) decreases drastically following their injuries. For example, Chapin and Kewman (2001) reported that while 59% of persons with TSCI served by the University of Michigan Model Spinal Cord Injury Care Systems were employed before injury, only 25% of the patients were employed at post injury follow-up. Blackwell (2001) indicates that the employment rate of people with TSCI increases steadily and peaks at 30% to 35% at about 10 to 15 years after injury. As a result of the difficult psychosocial and vocational adjustment facing persons with TSCI returning to the community, rehabilitation health researchers have devoted considerable research efforts to better understanding the psychosocial and vocational adjustment processes related to TSCI. Factors investigated include demographic characteristics, injury-related variables (e.g. level of lesion, age of onset, time since onset), personal values and attitudes, vocational aspects, intra-personal strengths (e.g. locus of control, coping strategies) and social support (Blackwell, 2001). The results have been used to improve rehabilitation health services for persons with TSCI in many western countries.

Sexuality is an integral part of the disabled person's personality and can predict the success of psychological rehabilitation. According to Dunham (1978, cited in Chiu, Haan, Cushing, Kramer & Scalea, 2001), these psychological aspects include feelings of sexual attractiveness and fears and doubts about partner satisfaction, and can challenge self-image as a whole. A man's sense of his strength and masculinity may be seriously threatened by the exhaustion and forced dependency of sickness and disability (Lee & Ostrander, 2002).

Lucas, Clark, Georgellis and Diener (2003) demonstrate that emotions that accompany serious illness can be complicated and terrifying. Many patients feel that their emotions are out of control, they experience self-blame, a sense of fail-

ure, anxiety, apprehension and confusion. One of the most important tasks facing a patient is to maintain emotional equilibrium. Several studies have emphasized the importance of keeping emotions in balance in order to cope successfully with illness and injury (Lucas et al., 2003). Depression contributes to a more lengthy recovery process and low psychological morale affects physiological processes directly in harmful ways (Lucas et al., 2003).

This does not mean that patients must 'put on a happy face' in order to recover. Such expectations can be detrimental to a patient's well-being. Although a patient should be helped to deal with negative emotions and to avoid becoming overwhelmed and incapacitated by them, some concern and worry on the part of the patient is actually valuable. Worry that is not paralyzing or debilitating can serve to motivate the patient to follow necessary treatments, to ask questions and to make sure he or she is getting the best care available. In fact, according to Lucas et al., (2003) worry, which involves mentally rehearsing potentially unpleasant events and gaining information about what to expect, can help an individual manage a situation. Lucas et al., (2003) state that strong negative emotional focus throughout the course of one's life predisposes one to poorer health which makes it all the more important to learn effective coping skills early in life. This includes learning to lighten up on the tough days. By learning to improve your sense of humor now, you'll have the rest of your life to continue receiving the wellness-promoting benefits that result from humor and laughter.

Patients should be encouraged to express their true feelings, regardless of the nature of these feelings. Bottling up feelings has been associated with shorter survival, and expressing emotions with longer survival (Lucas et al., 2003). Lucas et al., (2003) research found that the patients who survive longer express their emotions (both positive and negative) more freely. Patients who ask for what they want, including emotional support from others, and express what they are feeling tend to fare better than patients who keep their wishes hidden. Thus, according to fortigenic principles, spinal cord injury challenges a person to tap



into their strengths and to find new emotional and physical ways of doing things. Challenge, struggling and suffering are inherent to the human condition and each individual needs to develop strengths to negotiate these demands. These experiences can thus be channelled as positive experiences.

Denial is defined as an individual's attempts to negate or downplay the consequences of the impairment (Lustig, 2005). Denial is usually viewed as maladaptive, as the individual's emotional avoidance of the sequelae of the disability means that the person avoids accepting assistance or following through with appropriate life tasks (Lustig, 2005). However, denial can also be viewed positively. For example, negation of the consequences of the impairment allows the individual to maintain a sense of competence and self-esteem based on pre-injury functioning (Lustig, 2005). Denial can also allow injured individuals to adjust the emotional distress associated with their current situation and this may result in decreased anxiety (Vash & Crewe, 2004). Individuals who denied their experience of myocardial infarction showed less anxiety and depression one month post illness (Deaton and Namasivayam, 2004). It seems that positive illusions in terms of an individual's belief that the world is manageable, comprehensible and meaningful are beneficial to rehabilitation. Swann and Pelham (2002) hypothesize that individuals seek feedback that verifies their view of themselves. Denial may allow individuals to positively view the self in a pre-injury manner. Individuals with TSCI may "seek self-verification ... because verifying evaluations bolster ... perceptions that the world is coherent and predictable" (Swann & Pelham, 2002, p. 368).

### **2.2.7. Life satisfaction in individuals with TSCI**

Individuals with TSCI face many psychosocial and vocational adjustment problems including depression and anxiety, alcohol and drug abuse, unemployment and lack of social support. Various research studies have linked



these problems to poor quality of life (Tate, Kalpakjian, & Forchheimer, 2002, Rubin, Chan, & Thomas, 2003).

Quality of life (QoL) is the ultimate rehabilitation goal of spinal cord injured individuals (Lucke, Coccia, & Goode, 2004). QoL is generally described as a quantifiable estimation of happiness or satisfaction with those aspects of life that are important to the specific individual. QoL is thus related to an individual's assessment of how satisfied he or she is with his or her own life. Quality is also synonymous with satisfaction. Life satisfaction is defined as an assessment of life as a whole based on how well personal goals match personal achievements. QoL is related to health status, physical functioning, perceived health status, subjective health and well-being. QoL is thus defined as a global subjective assessment of well-being, hierarchically comprised of subjective perceptions in broad domains. Thus, QoL and life satisfaction for TSCI individuals are a subjective and general estimation of physical, social and psychological aspects of their current life situation (Lucke, Coccia, & Goode, 2004).

### **2.3. CONCLUSION**

This chapter demonstrated that thoracic spinal cord injury threatens virtually every aspect of an individual's life. TSCI invariably results in a change in body image as the structure or function of the body has been limited. Positive body attitudes in the individual and surrounding society enable recovery from severe orthopedic insult and the individual may be able to fulfill a role in society despite their physical limitations. Serious injury threatens virtually every aspect of an individual's life. Various thoughts and feelings inevitably arise from serious threats to a person's well-being. These thoughts and feelings change in accordance with the individual's condition. The TSCI patient's thoughts and feelings have an impact on his or her physical condition. For example, a patient's anxiety and fear may deplete the energy he needs for healing. Depression and hopelessness may translate into an unwillingness or inability to take the

necessary steps toward health and well-being. Knowledge and understanding of these psychological factors is critical to the patient's achievement of long-term goals.

Negative body attitudes have serious implications and may be detrimental to effective treatment and rehabilitation and result in behavioural difficulties. This may decrease the quality of mental health and morale. A life with TSCI is filled with threats to self-image and losses of self-esteem, freedom, day-to-day activities, feelings of physical comfort and the possibilities of the future. The researcher believes that for TSCI individuals to be well rehabilitated, they need to tap into their strengths and find new emotional and physical ways of doing things. The researcher was interested in how positive emotions such resilience, optimism, humour and gratitude play a role in moving these individuals towards positive experiences. The following chapter discusses the theoretical conceptualisation used in the study.

## **CHAPTER 3**

### **THEORETICAL POINT OF DERPATURE**

#### **3. 1. INTRODUCTION**

This chapter discusses the positive psychology approach. It illustrates the need for the creation of the positive psychology approach in contrast to traditional psychology. The development of positive psychology is explored in relation to the significance of positive psychology to current psychological trends. The difficulty of formulating definitions and concepts regarding mental health is discussed and contextualized.

#### **3. 2. TRADITIONAL PSYCHOLOGY**

Psychology has been criticized for being primarily dedicated to addressing mental illness rather than mental ‘wellness’ (Seligman, 2002). Humanistic psychologists such as Abraham Maslow, Carl Rogers and Erich Fromm developed successful theories and practices that focus on human happiness despite the lack of solid empirical evidence behind their work.

Traditionally, psychology has focused on understanding pathology rather than understanding positive human attributes. Psychologists were involved in trying to cure dysfunctional individuals. Psychology’s aim was to understand the dysfunction and find the cure (Snyder & Lopez, 2002).

The practice of clinical psychology was traditionally characterized by four assumptions regarding the nature of psychological adjustment and maladjustment (Snyder & Lopez, 2002). These assumptions are:

- Clinical psychology is concerned with pathology (deviant abnormal and maladaptive behaviour).
- Psychopathology and clinical population differ in kind and not just in degree.
- Psychological disorders are analogous to biological disease and reside in the individual.
- The clinician's task is to diagnose the disorder and intervene with therapy to eliminate the disorder.

For the purposes of this research it seemed important to determine how defined symptoms can lead to TSCI individuals' effective rehabilitation. Traditional psychological approaches are aimed at TSCI individuals who develop symptoms that negatively impact their rehabilitation progress (Snyder & Lopez, 2002). Some of the symptoms lead to psychological breakdown and leave TSCI individuals feeling that they are useless and a burden to others. As a result of these feelings TSCI individuals may end up self-isolating, feeling alienated and struggling to cope with their disability. This traditional approach to TSCI is well established and could hamper alternative approaches. Antonovsky (1979) identifies three reasons why traditional, well established approaches hamper alternative approaches.

- Pathogenic approaches focus on the disease. This implies that once the individual is ill the nature of the disease is the focus and the subjective characteristics of the person are of no real concern.
- The 'magic-bullet' approach (one disease, one cure) resists the suggestion of diseases having multiple causations. This approach implies that if the etiology of the disease is understood a cure can be found, thereby neglecting the possibility of multiple causations.

- The state of disease is qualitatively different from the state of non-disease. This dichotomy holds that an individual is either sick or well. This dichotomy excludes the possibilities inherent in a fortigenic model.

Fortigenesis looks at the qualities that push a person towards either end of the health or disease continuum. This study aligns itself with the psychological concept of fortology (positive psychology) as it relates to an understanding of the effect of positive emotions on the rehabilitation of thoracic spinal cord injured patients in the military.

### **3.3. POSITIVE PSYCHOLOGY**

Positive psychology was the theoretical point of departure for this study. Positive psychologists are committed to the investigation of factors that allow individuals to flourish, to thrive and to function in an optimal way. Thus, positive psychology can be viewed as the science of optimal human functioning. It casts renewed attention on the sources of psychological wellness (Lyubomirsky & Abbe, 2005). Traditional psychology's focus on pathology neglected the idea of a fulfilled individual in society. Following World War II psychology began to focus on people's positive characteristics. Positive psychology set out to change psychology's preoccupation with repairing the worst thing in life and instead focus on building the best quality in life (Snyder & Lopez, 2002).

According to Seligman & Csikszentmihaly (2000), positive psychology aims to catalyse a change in psychology from mainly a pathological perspective to one that addresses positive attributes in human beings. At the subjective level the field of positive psychology is about positive subjective experiences such as well-being, satisfaction, joy, pleasure, happiness, optimism, hope and faith. At the group level positive psychology focuses on civic virtues and institutions or structures that move individuals towards becoming better citizens (Seligman &

Csikszentmihaly, 2000). Positive psychology focuses on the power of positive thinking and feeling as sources of health and well-being (Seligman, 2002).

Research has shown that certain human strengths serve as buffers against illness. These strengths include courage, optimism, interpersonal skill, work ethic, hope, honesty, perseverance and locus of control. The task of prevention in psychology involves creating a science of human strength in order to foster these virtues (Seligman, 2002). Positive psychology aims to re-orient psychology to its two neglected missions of making normal people stronger and more productive as well as actualising human potential. Lopez (2000) states that positive psychology is already being translated into practice and that therapists and their clients' value the shift in focus from pathology to strengths.

### **3. 3.2. General Resistance Resources**

Antonovsky (1979) found that when two people are confronted with identical stressors one person might successfully meet the challenges brought about by the stressor whilst the other person might not. Antonovsky (1979) subsequently formulated a theory of general resistance resources (GRRs). GRRs are defined as the capacities and characteristics within a person that facilitate stress management. GRRs create life experiences that are characterised by consistency and that participate in shaping the outcome of the stimuli. Following the theory of GRRS Antonovsky (1979) developed the theory of fortigenesis.

### **3. 3.3. Fortigenesis**

Fortigenesis involves a process of developing strengths at a variety of endpoints. Fortigenesis makes the following assumptions:

- Two continua of mental illness and mental health exist. During the process of fortigenesis individuals move along these two continua in the direction of more or less strength.
- Challenge, struggling and suffering as a result of excessive demands are natural to the human condition.

- Strengths exist to negotiate and reconcile these demands. Strength can help individuals to flourish in the face of demands.
- Purely positive experiences do exist (Strümpfer, 2006).

All TSCI patients have to find new ways of doing things. There is no right or wrong way to adjust, just as there is no right way to grieve for a loss. The study viewed the presence of positive emotions and well-being as indicators of adjustment in TSCI individuals. The study focused on the fortigenic qualities that enabled TSCI individuals to adjust effectively.

### **3. 4. POSITIVE EMOTIONS**

Positive emotions include feelings of well-being. Fredrickson (2002) describes positive emotions as typically brief reactions to events that are personally meaningful. Positive emotions involve feeling happiness in the moment and experiencing enjoyment of the present. According to Frederickson (2002), positive emotions are consciously accessible, long-lasting feelings, which are often free-floating or objectless and present within emotions, physical sensations, moods and attitudes. Positive emotion facilitates approach behaviour and prompts individuals to engage with their environments.

Fredrickson and Joiner, (2002) state that positive emotions are about the future and need to be cultivated by engaging the imagination in constructive ways. Taking positive emotions seriously means cultivating positive emotions in order to optimize health and well-being.

There is an existing belief that positive and negative emotions are incompatible. Therapists and researchers have made both explicit and implicit use of this assumption (Strümpfer, 2006). Negative emotions help individuals to avoid danger, while joy and other positive emotions broaden individuals' thought-action repertoires.

Finding ways to cultivate positive emotions creates paths towards health and well-being. This is sometimes referred to as emotional intelligence. Emotional intelligence involves the ability to monitor one's own and others' emotions, to discriminate between them and to use the information to guide one's thinking and actions (Hughes, 2005). Success is attained by viewing the self as already successful and holding this image in consciousness. Emotional intelligence includes self-awareness, impulse control, persistence, zeal, self-motivation, empathy and social swiftness.

Positive emotion is also related to locus of control. People who believe that they have a high degree of personal control over events are viewed as having an internal locus of control. In contrast, people who believe that they have little control over events are described as having an external locus of control (May & Warren, 2002). People with spinal cord injuries who believe that they are primarily responsible for their own health show less depression and more adaptive behaviour than those patients who believe in external responsibility. Individuals with an internal locus of control are also more able to adjust to the onset of spinal injuries. Research shows that individuals who take responsibility for their accidents make better recoveries than those who view themselves as innocent victim (May & Warren, 2002). These individuals are able to accept their circumstances and work towards finding a way forward. Rehabilitation personnel can work with these individuals to increase their sense of control over their environment and reinforce their belief that control is still a possibility. People with external locus of control tend to blame others for their condition. This slows down the rehabilitation process and lowers patients' morale. These individuals often get depressed as part of an escape or avoidance strategy.

### **3. 4.1. Broaden-and-Build Theory**

Fredrickson's (1998, 2001, 2002a, 2002b) Broaden-and-Build Theory has two basic assumptions. First, the theory assumes that positive emotions yield non-



specific action tendencies. The second assumption is that positive emotions are also characterized by relatively broad thought-action tendencies. Negative emotions are adaptive in life-threatening situations and result in quick, decisive action. They prompt individuals to discard everyday, automatic behavioural scripts in favour of novel, creative and often unscripted paths of thought and action. Broadening and building indicate that positive emotions broaden the scope of cognition at a given moment by making the person think more widely and consider a greater variety of possible actions. Through this process the individual's scope of action is also broadened. The current research study investigated how TSCI individuals use positive emotions to build larger reserves of intellectual, emotional and social resources. These reserves have enduring effects for the management of challenges and threats in the future.

### **3. 4.2. Positive emotional variables**

#### ***3. 4. 2. 1. Humour and laughter***

Humour is defined as a tendency for particular cognitive responses to provoke laughter and provide amusement. Humour's current meanings include playful enjoyment or creation of incongruities, a cheerful view on adversity that allows one to cope and sustain higher levels of happiness and the ability to make others smile and laugh. Peterson and Seligman (2004) demonstrate that humour fulfills a variety of functions. It can be used as a coping mechanism and is supporting character strength in the 'broaden-and-build theory' of cognitive development. It is difficult to define humour empirically due to its dependence on and variance with societal and cultural milieu. However, humour has been shown to increase baseline happiness levels and resilience (Peterson & Seligman, 2004).

A sense of humour involves the ability to discover and appreciate amusing or comic situations and then to express this discovery or appreciation in a manner that brings forth a smile, mirth or even an unrestrained belly-laugh (Lucas et al.,

2003). Importantly, humour gives rise to positive emotions. Humour can also bring relief from painful emotions by allowing individuals to gain perspective. Humour allows an individual to reinterpret a painful situation and see it as less important and even perhaps as a smiling, or a laughing, matter.

Laughter and smiling are expressions of positive emotions. They often occur in response to joy producing situations but can also follow movement away from distressing events. Laughter and smiling can occur as a person adopts a new and positive perspective on a distressing event or gains insight into the event. A change in perspective resolves tension, which produces positive feelings of relief, amusement or exhilaration, which in turn results in laughter (Lucas et al., 2003).

The undoing hypothesis, which states that negative affect can be replaced by positive affect, has been studied by Fredrickson, Tugade, Waugh and Larkin (2003). Their studies found several positive traits for humour as an underlying positive trait in amusement and playfulness. Several studies have shown that positive emotions can restore autonomic calmness after negative affect. For example, Fredrickson et al. (2003) study showed that individuals who expressed smiles during negative arousal recovered from the negative affect approximately 20% faster than individuals who did not smile.

#### ***3.4.2.2. Optimism***

Dispositional optimism is described as a general tendency to expect positive outcomes, even under difficult circumstances (Scheier, Carver & Bridges, 2001). It involves an assertive confidence that good must in the end be victorious over evil. This expectation implies an anticipation of positive experiences that will produce positive feelings. “Optimists also tend to act on their beliefs, thus turning these, in all likelihood, into self-fulfilling prophecies. Part of being optimistic is

keeping one's head pointed towards the sun; one's feet moving forward” (Mandela, 1994, p. 377).

Evidence suggests that optimism is important in coping with difficult life events. Brissette, Scheier and Carver (2002) link optimism to better responses to various difficulties, ranging from the more mundane (e.g. transition to college) to the more extreme (e.g., coping with missile attacks; Zeidner & Hammer, 1992 cited in Brissette et al., 2000). Optimism appears to play a protective role, assisting people in coping with extraordinarily trying incidents. In examining whether optimism predicts positive affect Segerstrom and Sephton (2010) hypothesize that changes in optimism predict changes in positive affect. In their study increases in optimism were associated with increased positive affect and decreases in optimism were associated with decreased positive affect. However, changes in optimism were not related to changes in negative affect. Thus, optimism appears to be uniquely related to positive affect. This means that optimists are generally happier than pessimists in terms of life satisfaction. The research presented in this section makes it clear that optimism is a powerful tool that individuals can use to stay healthy, happy and alive.

### ***3. 4. 2. 3. Gratitude***

McCullough, Emmons and Tsang (2002, p. 112) investigate what they call the grateful disposition: “a generalized tendency to recognize and respond with grateful emotion to the roles of other peoples' benevolence in the positive experiences and outcomes that one obtains”. Gratitude typically stems from an experience of kindness or generosity. Such experiences result in pleasant appreciation and a sense of wonder, because nothing was necessarily done to earn or deserve the generosity. Gratitude towards the individual responsible results in a sense of goodwill and may even result in an obligation to reciprocate in some manner. To people of all the major religious convictions a God or higher power of some kind must be thanked. The precondition for gratitude is that the

individual must notice the thing they are thankful for. It is not possible to be thankful for something of which one is unaware. McCullough et al. (2002) found significant positive relationships between their Gratitude Questionnaire and extraversion, positive affect, life satisfaction and spirituality/religiousness.

Grateful thinking promotes the savouring of positive life experiences. Relishing and taking pleasure in life's gifts enables individuals to extract the maximum possible satisfaction and enjoyment from their current circumstances (Emmons & Shelton, 2002). Happiness also involves evaluating the past. Was it meaningful? Was it a rich experience? Savouring positive life experiences helps expand people's life stories, filling out the good parts and making the overall tone more positive. Gratitude can help build social bonds, strengthening existing relationships and nurturing new ones. The practice of gratitude is incompatible with negative emotions and may actually diminish or deter feelings such as anger, bitterness and greed (Emmons & Shelton, 2002).

Grateful behaviour can facilitate positive interpersonal and community relationships that may in turn influence other key outcomes (Emmons & McCullough, 2003). It is possible for gratitude to positively impact factors such as job satisfaction, loyalty and citizenship behaviour. In addition to the external benefits of gratitude research concerning gratitude identifies several positive impacts for individuals who express gratitude to others.

Grateful individuals report higher levels of life satisfaction and optimism and greater energy and connections with other people. Grateful people who experience these positive outcomes from their acts of gratitude make for productive and happy individuals (Emmons & McCullough, 2003). The expression of gratitude may help individual's adapt to life's challenges. Danner, Snowden & Friesen (2001), postulate that effective adaptation to life involves the capacity to substitute bitterness and resentment with gratitude and acceptance.

Growing evidence suggests that the expression of gratitude can also improve physical health and functioning. Researchers have found that behaviors such as gratitude are reliably connected to positive changes in an individual's cardiovascular and immune functioning (Emmons & Shelton, 2002). In a recent study by McCraty, Atkinson, Tiller, Rein & Watkins (1995) individuals who focused on being grateful rather than on not being angry recorded positive impacts on a variety of important physiological functions such as heart, pulse and respiration rates. It would seem that the practice of gratitude holds promise for reducing stress and consequent related healthcare costs.

#### ***3. 4. 2. 4. Resilience***

Rutter (1987) cited in Ahmed, Seedat, Van Niekerk & Bulbulia (2004), defines resilience as an individual's ability to triumph over adverse circumstances or stress without developing negative outcomes. Resilience involves two distinct processes (Rutter, 1987 cited in Ahmed et al., 2004). The first process relates to risk factors, stress or adversity. Risk factors increase vulnerability and lead to negative outcomes. The second process relates to factors that provide protection against negative outcomes and /or promote competencies. Rutter (1987, cited in Ahmed et al., 2004) also suggests that resilience is not a fixed attribute but a dynamic interaction between risk and protective processes. In the field of psychology, resilience is used to explain resistance to stress, development and competence despite environmental adversity.

The literature on coping has identified specific factors that foster resilience. The three major sources of resilience are the individual, the family and the extra familial context (Migliorini & Tonge, 2009). Temperament refers to an individual's core qualities (Schmidt, Wallander & Biasing, 2007). An easygoing and sociable temperament is most often associated with resilience. These individuals seem to have high self-efficacy, optimism, talent and goal orientation. Such individuals assume responsibilities, adapt to challenges and appear relaxed even in

potentially stressful situations. Family characteristics associated with resilience include the existence of caring, nurturing parent and consistent adult; socio-economic status advantage; high parental expectations; and a positive support network (Schmidt et al., 2007). The positive environment is typically a stable, stimulating setting in which the individual experiences positive feedback. It is important to note that although these characteristics foster resiliency they do not cause resilience.

Research demonstrates that resilient individuals tend to draw on positive emotion, eliciting coping strategies such as benefit finding, positive re-appraisal, humour, infusing ordinary events with positive meaning (Folkman & Moskowitz, 2000b) and goal-directed problem-focused coping (Billings, Folkman, Acree, & Moskowitz, 2000) in order to regulate negative emotional experiences.

### **3. 5. THE IMPACT OF POSITIVE EMOTIONS ON RECOVERY**

Patients faced with life-threatening illness must try to cope with the illness. There are various elaborate definitions of coping. However, this section considers coping to be something that people do every day while trying to accommodate stressful and disruptive life events.

In attempting to cope with serious illness, people may do one or more of the following:

- Focus on the problems that need to be solved and deal with them alone;
- Try to minimize their emotional distress by detaching themselves from disturbing thoughts, remaining composed and maintaining some sense of self-esteem and happiness;
- Turn to others for assistance, information, clarification and emotional support.

The second item of this list relates to the use of positive emotions. Hughes (2004) states that positive emotions require that an individual makes an effort to avoid or divert thoughts from negative things on which it may be pointless to dwell, such as poor prognoses and what can go wrong. Positive emotions can make a person's life more pleasant (Hughes, 2005). This is partly because the power of positive emotions is an intuitively appealing notion. In fact, many people have come to believe that positive emotions might actually make people not only happier but physically healthier as well.

The aim of positive psychology is to shift the focus of psychology from a preoccupation with repairing the worst things in life to building the best qualities in life. Positive psychology helps build strength and is in the forefront of the treatment and prevention of mental illness (Seligman & Csikszentmihalyi, 2000).

The field of positive psychology is about positive subjective experience. This includes past experiences of well-being and satisfaction, present experiences of flow, joy, sensual pleasures and happiness, and constructive cognitions about optimism, hope and faith in the future. It focuses on positive individual traits including the capacity for love and vocation, courage, interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future-mindedness, high talent and wisdom (Gillham & Seligman, 1999; Seligman & Csikszentmihalyi, 2000). This research looked at how positive emotions enable or hamper individual patient health progress, especially with regards to adapting to their new physical status.

### **3.6. CONCLUSION**

The term fortigenesis relates to the origin of strength and is used synonymously with the term positive psychology. Positive psychology is the science of optimal human functioning. It focuses renewed attention on the sources of psychological wellness.

Positive emotions' effects go beyond making people 'feel good' or improving their subjective experiences of life. Positive emotions also have the potential to broaden people's habitual modes of thinking and build their physical, intellectual and social resources. Humour, laughter, optimism and gratitude are positive emotions that contribute to positive feelings. The presence of each of these positive emotions broadens an individual's scope of cognition at a given moment, allowing the person think more widely and consider a greater variety of possible actions. This process also broadens the individual's scope of action. The present study investigated how positive emotions enable the TSCI individual to build larger reserves of intellectual, emotional and social resources. These resources have enduring effects as reserves for managing challenges and threats in the future.

The next chapter focuses on the study's data collection and interpretation methodologies.



## **CHAPTER 4**

### **RESEARCH METHODOLOGY**

#### **4.1. INTRODUCTION**

Research involves looking for answers to questions (Terre Blanche & Kelly, 2004). Social research deals with the social environment and aims to understand the social world. Terre Blanche & Kelly (2004) define social research as a collection of methods people use systematically to produce knowledge. It is necessary to have a plan of action before researching the social environment. This plan of action is commonly known as a research design. A research design is a strategic framework that is used to answer the research question (Terre Blanche & Durrheim, 2002).

This chapter explains and explores the methodological choices made by this study. The choice of research design is justified and the research process is described. The concepts of methodology, sampling procedure, data collection and data analysis are addressed.

#### **4.2. SAMPLING PROCEDURE**

The participants were all patients with thoracic spinal cord injuries from 1 Military Hospital Rehabilitation Center in Pretoria. The sample was convenience based and selected according to the participants' availability. The center was created to cater for military personnel who have been injured during their service in the military. Patients who had been living with disability for two to three years were eligible for the study. It was assumed that these patients would still be able to

accurately recall their recovery experiences. The participants were all males between the ages of 25 -40 years.

The head of department of Occupational Therapy (OT) supplied a list of possible participants. Participants who met the research criteria were then recruited. Participation was voluntary. The purpose of the study was explained to participants prior to their agreeing to participate. Participants were ensured of confidentiality (see appendix A). All the participants completed a consent form (see appendix B).

This study made use of a relatively small convenience sample. Participants were given an opportunity to share their experiences during an interview with the researcher. The participants' consent was obtained to audiotape the interviews. Participants' provided biographical information and responded to carefully phrased open-ended questions based on themes related to the topic being researched (see appendix C).

The research was approved by SAHMS Ethics Committee and Military Intelligence and University of Pretoria ethics committee. A pilot study was conducted with a single participant. This pilot study helped to iron out possible difficulties with the interview process. The pilot study demonstrated that an unstructured interview created a therapeutic context, which shifted the focus away from the research topic of interest. As a result semi-structured interviews were used for data collection. The results from the pilot study are not included in the analysis section of this research because the research method used in the pilot study (unstructured interview) differed from that used in the rest of the study (semi-structured interviews). Three participants were included in the study. The researcher arranged to meet the individual participants for interviews. The researcher conducted the interviews, which ran for one hour each. Pseudonyms were used for confidentiality. The interviews were then transcribed and the transcribed material was given to the participants for verification.

### 4.3. RESEARCH DESIGN

Research designs are the ‘blueprints’ that determine which course of action needs to be taken in order to conduct the research. Decisions regarding the research design need to take into consideration factors such as:

- the purpose of the research,
- the theoretical paradigm on which the design is founded,
- the context in which the research is carried out and
- the techniques employed to collect and analyze data (Terre Blanche & Durrheim, 2002).

In order to ensure the maintenance of reliability and validity these factors must be addressed thoroughly prior to developing the design. Terre Blanche & Durrheim (2002) divide research into three broad paradigms based on ontology, epistemology and methodology. The three paradigms are referred to as positivistic, interpretive and social constructionist.

The thematic analysis method used in this research is based on the constructionist paradigm. The constructionist method examines the ways in which events, realities, meanings and experiences are the effects of a range of discourses operating within society (Taylor & Ussher, 2001). In this study themes were identified theoretically/deductively. Theoretical thematic analysis is driven by the researchers’ theoretical or analytic interest. It provides a detailed analysis of certain aspects of the data (Taylor & Ussher, 2001) while ignoring the overall richness of the data.

Themes were identified at the interpretive/latent level. This means that the underlying ideas, assumptions, conceptualisations and ideologies were identified and examined. These underlying factors are seen as shaping or informing the semantic content of the data. The development of themes involves interpretive work and the analysis that is produced involves descriptions, theories and

interpretations (Taylor & Ussher, 2001). The interpretive approach used in this study focused on understanding, interpreting and describing the lived experiences of TSCI individuals. The data that emerged from the qualitative research consisted primarily of the participants' own words and thus recognized the unique contributions that the TSCI individuals made to the research process and outcomes. The TSCI individuals were viewed as experts in their lives and thus co-creators of knowledge. Terre Blanche & Durrheim (2002) stated that knowledge is created through a process of personal interactions based on the understanding and interpretations of experiences within a particular context. The study was thus grounded on a qualitative-interpretive paradigm due to the researchers' concern with understanding the perceptions of TSCI individuals with regards to their adjustment (Denzin & Lincoln, 2000).

#### **4.4. DATA COLLECTING TECHNIQUES**

The data collecting technique influences a study's results and conclusions. It is important that the chosen technique suits both the researcher and the participants (Terre Blanche, Durrheim & Kelly, 2006). Face-to-face interviews were used as the data collection method in the study because they allowed the researcher some control over the environment. Having control of an environment strengthens the quality of the data collected (Smith, 2008). The researcher's presence during data collection means that attempts are made to ensure that the participants' understand the questions. Face-to-face interviewing provides a context for the researcher to probe, explore and discuss the phenomenon with the participant in order to gain in-depth information (Silverman, 2001).

The choice of technique must relate to the study's methodology and theoretical approach. The technique chosen for a qualitative study should allow for rich data collection that does not hinder the participants' freedom to discuss the phenomenon under study. However, the technique should also enforce some

restrictions or boundaries to ensure that the participants do not wander away from the specific topic under study (Terre Blanche et al., 2006).

In this study data was collected through the use of semi-structured interviews. Semi-structured interviews do not offer a limited, pre-set range of answers for a respondent to choose, but instead involves listening to how each individual person responds to the questions (Krippendorf & Klaus 2003). The semi-structured format allows for the interviews to be shaped and developed by each participant, depending on individual responses, comments, and thoughts. Participants have the liberty of responding to each topic in their own manner. Participants also have the freedom to elaborate from personal experience. Sample interview questions are provided in the appendix C.

The interview consisted of structured questions regarding factual information such as the participants' biographical background. The main part of the interview constituted of open-ended questions focusing on information regarding the presentation of fortigenetic qualities (see appendix C).

Smith (2003) lists several advantages of semi-structured interviews. These advantages include providing a means of facilitating rapport, allowing for flexibility of coverage and allowing the interviewer to explore new area of interest. As a result, semi-structured interviews tend to produce rich and detailed data Smith (2003) also notes that semi-structured interviews have the disadvantage of reducing the researcher's control over the situation.

#### **4.5. DATA ANALYSIS**

The purpose of data analysis is to reduce, sift and organise the information in such a way that the themes and interpretations that emerge from the process address the original research question (Krippendorf & Klaus 2003). During the data analysis conclusions are drawn concerning the topic under study. It is

therefore essential to choose an analysis that suits the study and can lead to meaningful conclusions. For this study thematic analysis was adopted as the appropriate method of analysis.

#### **4.5.1. Thematic Analysis**

Thematic analysis focuses on identifiable themes and patterns of living and/or behavior (Terre Blanche et al., 2006). A theme can be defined as “a statement of meaning that runs through all and or most of the pertinent data or one in the minority that carries heavy emotional heavy factual impact” (Krippendorf & Klaus 2003).

Themes develop to form a network, which combines statements or phrases with shared meaning with the research data. These networks of themes can then help to identify various patterns in the research data. These patterns can come from direct quotes or common ideas (Krippendorf & Klaus, 2003). All data that is relevant to the themes must be identified and included in the patterns. The related patterns are then combined and sorted into themes and sub-themes (Terre Blanche et al., 2006). Phrases are combined into themes and sub-themes in order to give meaning to phrases that might have been meaningless when viewed alone (Krippendorf & Klaus 2003). Themes thus provide meaning and structure to the information gathered through qualitative research techniques (Krippendorf & Klaus 2003).

However, broad themes can be determined before the study commences. Determining these themes involves reviewing the literature on the topic being researched. These themes can then be adjusted when the research data is analysed. Themes and sub-themes can also be formed from the research data and added to the predetermined themes (Terre Blanche et al., 2006).

In thematic analysis it is important to note that the themes, whether predetermined or gained from the research data, are constructed by the

researcher and are thus subjective. Themes are also subjective in that they reflect the researchers' understanding of the meaning of the data and topic. The person who analyses the data decides what the themes are and how they are linked together (Krippendorf & Klaus 2003). Krippendorf and Klaus (2003) stated that the researcher cannot objectively analyse a text and identify themes. Instead, the researcher is always influenced by external and internal various factors.

In this study a thematic analysis was conducted. Broad themes were predetermined and additional themes and sub-themes were derived from the research data. The themes are discussed in the next chapter and supported by quotes taken from the participants' interviews. The themes are also discussed and explained in relation to relevant literature.

The study's topic (positive emotionality as a fortigenic quality among people with thoracic spinal cord injury) guided the selection of the method of data analysis. The word fortigenesis indicated that fortigenic qualities needed to be investigated in order to attain a deeper understanding of how these qualities function within the rehabilitation process of TSCI individuals. Interviews were transcribed and analysed according to the guidelines outlined by Braun and Clarke (2006).

This study made use of a qualitative technique for data collection. The qualitative approach enabled a more in-depth view of fortigenic qualities' contribution to the rehabilitation processes of a TSCI individual.

Although qualitative research can take on many forms, all qualitative methods share some essential features. These features include the importance of choosing appropriate methods and theories and the need for the research to be self-reflective in order to minimise bias.

## **4.6. VALIDITY AND RELIABILITY IN THE QUALITATIVE CONTEXT**

### **4.6.1. Reliability**

Reliability refers to dependability or consistency (Neuman, 2006) and is “the degree to which the results are repeated (Terre Blanche & Durrheim, 2002, p.63). This applies to both participants’ scores and responses and the outcomes of the study as a whole. However, within the qualitative framework, social phenomena are context-dependent and the meanings individuals ascribe depend on the situation in which individuals exist (Terre Blanche & Durrheim, 2002). For the purposes of this research semi-structured interviews were used to collect information from participants. Other researchers exploring the same phenomena but using different data collection methods may obtain different results (Neuman, 2006). This is because “data collection is an interactive process in which a particular researcher operates in an involving setting and the setting’s context dictates using a unique mix of measures that cannot be repeated” (Neuman, 2006, p. 196). Research does not take place in an unchanging and stable reality as “individual and organisations will behave differently and express different opinions in changing contexts” (Neuman, 2006, p. 64). Therefore, no two studies will yield the exact same results.

In place of reliability, Terre Blanche and Durrheim (2002) propose that findings need to be dependable. Dependability is defined as “the degree to which the reader can be convinced that the findings did indeed occur as the researcher says they did” (Terre Blanche & Durrheim, p. 64). Dependability can be increased by using audiotape recordings and by transcribing the recordings (Cresswell, 2007). In this study a good quality digital tape recorder was used to record the interviews. The researcher then transcribed the interviews. Terre Blanche and Durrheim (2002) state that “dependability is achieved through rich and detailed descriptions that shows how certain actions and opinions are rooted in and developed out of conceptual interaction” (p. 64). Within the context of this



study the analysis of the data produced rich, detailed and descriptive findings pertaining to the research question.

#### **4.6.2. Validity**

According to Neuman (2006, p. 96) “validity means truthful”. Qualitative research aims at portraying the authenticity of participants’ accounts. Authenticity is defined as “giving a fair, honest and balanced account of social life from the view point of someone else who lives it every day” (Neuman, 2007, p. 196). Cresswell (2007) defines validity as an attempt to assess the accuracy and credibility of research findings. In short, validity refers to whether the explanation fits the descriptions (Denzin & Lincoln, 2000).

From a qualitative perspective phenomena can be interpreted in various ways. There is no single ‘correct’ interpretation. Instead, qualitative research focuses on the accuracy of the description or account of the phenomena (Denzin & Lincoln, 2000). According to Terre Blanche and Durrheim (2002), validity in qualitative research refers to “the degree to which the research conclusions are sound” (p.61). Thus, interpretive validity involves “the extent to which the appropriate conclusions are drawn from the study” (Terre Blanche & Durrheim, 2002, p.62).

In this study validity was achieved by ensuring that the thoughts, ideas, perceptions, meanings, emotions and experiences expressed by the participants were accurately portrayed. To further increase the study’s validity the researcher noted and explored various factors that impacted on the research (Terre Blanche & Durrheim, 2002). The impacting factors identified included the role of the researcher in collecting and interpreting data, the particulars of the participants selected and the context in which the study took place. These will be explained further on.

As stated earlier, qualitative research does not aim to produce results of conclusions that are generalisable to the broader population (Terre Blanche & Durrheim, 2002). However, qualitative research does yield conclusions that are transferable. This is achieved by producing detailed and rich descriptions of contexts, which gives the reader detailed accounts of the structures of meaning which develop in a specific context in other studies to provide a framework with which to reflect on the arrangements of meaning and action that occur in these new contexts (Terre Blanche & Durrheim, 2002, p. 63).

Three participants from 1 Military hospital took part in this study. The small sample offered rich, in-depth, descriptive accounts of the experience of dealing with TSCI. The conclusions drawn from this study can be transferred to other contexts and areas of possible further research.

Smith (2003) suggests that the principle of sensitivity to context should also be used when assessing the quality of qualitative research. Sensitivity to context means that the study should “demonstrate sensitivity to the context in which the study is situated” (Smith, 2003, p.232). This study demonstrated sensitivity to context through an awareness of the current literature on TSCI and fortigenesis. The study also demonstrated sensitivity to context by providing direct quotes or extract from participants’ responses in order to present evidence for the interpretations offered.

Smith (2003) also refers to the principle of importance as a means of evaluating qualitative research. This principle concerns the impact and importance of the study and looks at “whether it actually tells us anything useful or important or makes any difference” (p. 234). The conclusions drawn in the next chapter relate to the principle of importance.

## **4.7. CONCLUSION**

Chapter four presented detailed information regarding participant selection, the construction and rationale for the interview and the data analysis. In this study interpretive thematic analysis was used to analyse the data. This chapter explained this process in detail. The following chapter contains the research analysis.

## CHAPTER 5

### ANALYSIS

#### 5.1. INTRODUCTION

This study made use of the thematic analysis perspective, based on the constructionist method. The constructionist method examines the way in which events, realities, meanings and experiences are the effects of a range of discourses operating within society (Taylor & Ussher, 2001). Themes were identified theoretically/deductively. In this study participants' direct quotes were used with no grammatical/ language usage corrections. The interviews were conducted in English, there was no translation needed into other languages.

Terre Blanche and Durrheim (2002) stated that knowledge is created through a practice of personal interactions based on the understanding and interpretation of experiences within a particular context. This study was grounded in a qualitative-interpretive paradigm (Denzin & Lincoln, 2000) and looked at how fortigenic qualities play a role in TSCI adjustment. Interviews were transcribed and analysed in accordance with the guidelines outlined by Braun and Clarke (2006). The following steps were followed.

##### 5.1.1. Phase 1: Familiarizing yourself with your data

The researcher must immerse themselves in the data to the extent that they are familiar with the depth and breadth of the content. For this research immersion involved 'repeated reading' of the data. The data was read in an active way through searching for meanings and patterns. During this phase notes were taken. These notes helped in forming ideas for later coding.

### 5.1.2. Phase 2: Generating initial codes

Phase 2 begins after the researchers has read and is familiar with the data. The researcher then generates an initial list of ideas about what is in the data and what is interesting about the date. Phase 2 involves the production of initial codes from the data. Codes identify a feature of the data that appears interesting to the analyst and refer to the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon. For this study this was done by focusing on the meaning of phrases or sentences grouped together. Codes were identified by distinguishing them from each other on conceptual grounds. Codes were compared based on both similarities and differences. Natural meaning units with similar content and meaning were then grouped together to form categories of experience. The researcher examined all the transcripts to identify common categories. The initial phases of the analysis yielded fifteen categories. The initial codes were:

Code 1 - Meaning construction

Code 2 - Acceptance

Code 3 - Conflict

Code 4 - Taking responsibility

Code 5 - Grateful

Code 6 - Relationship with staff

Code 7 - Avoiding rejection

Code 8 - Resilience

Code 9 - Frustration

Code 10 - Helplessness

Code 11 - Optimism

Code 12 - Laughter

Code 13 - Sexuality and rehabilitation

Code 14 - Acceptance versus rejection

Code 15 - Challenge (internal conflict)

Examples of these codes are provided in the table below.

DATA EXTRACT	CODED FOR
While lying there I was dying, and God told me "you knew, Peter, it's ok, you can come (pause), it's fine".	3. Conflict
I was disobedient that morning. And I didn't (laughter) want to go like that, being disobedient. Second thing is that I always ask God I do not want to die before my parents. That would break their hearts. And I asked Him please I do not want to die now, because that would be heavy for them. And I told him I really want to live.	4. Taking responsibility
And he said: "Do you know that your back is broken and you'll have to live like that". And I said no problem any day, and if I explained to you how I felt, because saying no problem any day, it was joy. I was glad for that opportunity. Then it was already made out and my mind and in my heart that I would be on a wheelchair	1. Meaning construction (disability vs. death) 2. Acceptance 5. Grateful
But the decision was mine. God had given it to me. So being in a wheelchair or anything that would come later on would not be an issue, as long as I could live.	8. Resilience 4. Taking responsibility 11. Optimism

Table 5.1 Initial codes

### 5.1.3. Phase 3: searching for themes

Phase 3 starts when all the data has been coded and collated. At this point the researcher has a long list of the different codes identified across the data set. These codes are then sorted into potential themes and all the relevant coded data extracts are collated within the identified themes. At this level different codes may combine to form an overarching theme. In this research study

dominant categories were identified. It was noted that most of the other categories formed part of these dominant categories. In total, four main categories were formed. Some of these categories also included sub-categories. These categories are presented in the table below.

<b>Meaning construction</b>	<b>Staff role/ society</b>	<b>Positive emotions/ qualities</b>	<b>Negative emotions</b>
<i>life vs. disability</i> <ul style="list-style-type: none"> <li>• mine</li> <li>• joy</li> <li>• disobedient</li> <li>• acceptance</li> <li>• gift</li> </ul>	<i>Supportive role</i> <ul style="list-style-type: none"> <li>• helpful</li> <li>• accepting</li> <li>• dependable</li> <li>• encouraging</li> <li>• accommodating</li> </ul>	<ul style="list-style-type: none"> <li>• gratitude</li> <li>• optimism</li> <li>• humour</li> <li>• resilience</li> </ul>	<ul style="list-style-type: none"> <li>• anger</li> <li>• frustration</li> <li>• conflict</li> <li>• ambivalence</li> <li>• annoyance</li> <li>• resentment</li> </ul>
<i>Relationships</i> <ul style="list-style-type: none"> <li>• love</li> <li>• beautiful</li> <li>• joy</li> <li>• happy</li> <li>• overwhelming</li> <li>• appreciated</li> <li>• hope</li> </ul>	<i>Uncooperative role</i> <ul style="list-style-type: none"> <li>• unreliable</li> <li>• Inconsiderate</li> <li>• Unhelpful</li> <li>• Judgmental</li> <li>• negative</li> </ul>		

Table 5.2 Categories

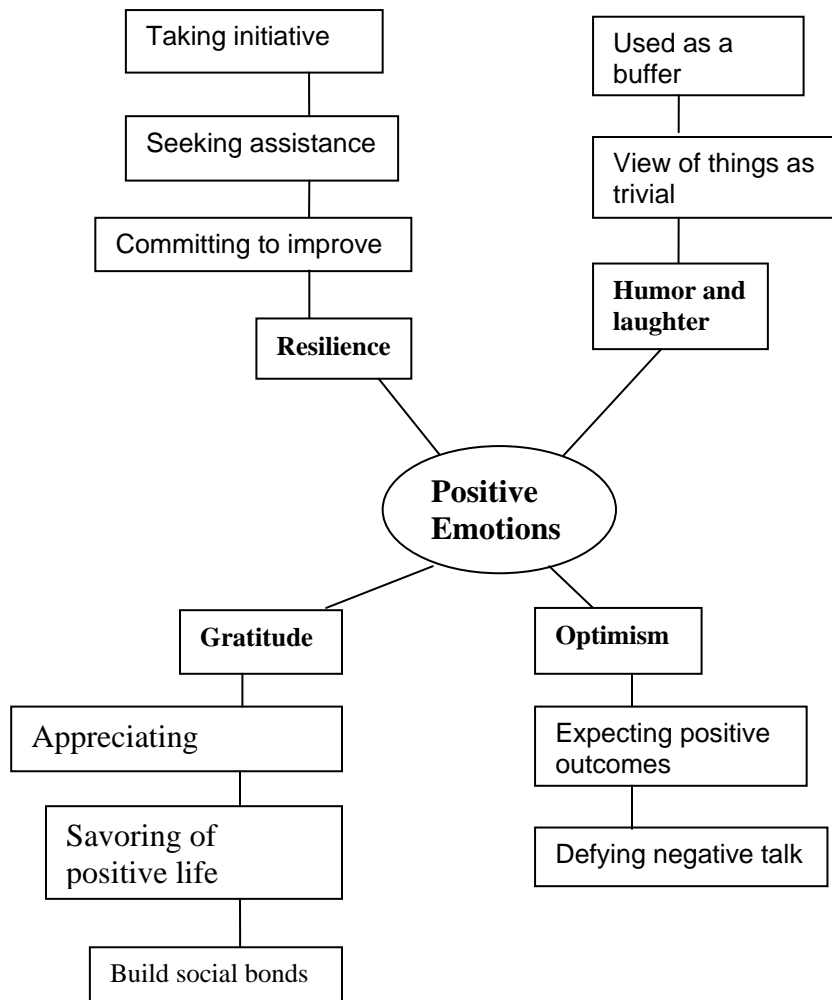
#### 5.1.4. Phase 4: Reviewing the themes

After candidate themes have been devised they are reviewed and refined. The collated extracts for each theme are read and the researcher must determine whether they form a coherent pattern. At this point the researcher considers the validity of individual themes in relation to the data set. The researcher also determines whether the candidate thematic map accurately reflects the meanings of the data set as a whole. For the current study inter-coder reliability was established using the first (pilot) transcript. The transcript was analysed independently by a colleague with a Master's degree in Clinical Psychology. The reviewer used the same method of analysis used by the researcher. He identified 16 categories, which were similar to those identified by the researcher. Based on the identified categories six main categories and sub-categories emerged. The categories were labeled meaning construction, religion and coping, social environment and rehabilitation, intimacy and rehabilitation, fortigenic qualities and rehabilitation, self in the here and there and there and now. Consultation with a supervisor highlighted a need to work with theoretical concepts in order to give the data more validity. The categories were revisited and four main categories were identified in accordance with qualities. The initial main categories formed part of the identified categories. For example, meaning construction forms part of all the main categories but was not listed as a separate category. Instead, meaning construction forms part of the participants' experiences. For example:

- Main category** - Gratefulness (**coded 1**)
- Sub-categories**
- Appreciating disability (**code-1A**)
  - Savoring of positive life experiences (**code 1B**)
  - Build social bonds (**code 1C**)



This means that all the experiences expressed in the subcategories reflect an expression or act of gratitude i.e. category C was linked to Peters expression: “*I thoroughly enjoyed the people there, working with me and they did an excellent job. They were beautiful.*” The section below contains a representation of each category and subcategories as formulated.



**Figure 5.1: Category and Sub-categories of fortigenic Qualities**

### 5.1.5. Phase 5: defining and naming themes

At this point the themes to be presented in the analysis were further defined, refined and analysed. This involves identifying the essence of each theme and determining what aspect of the data each theme captures.

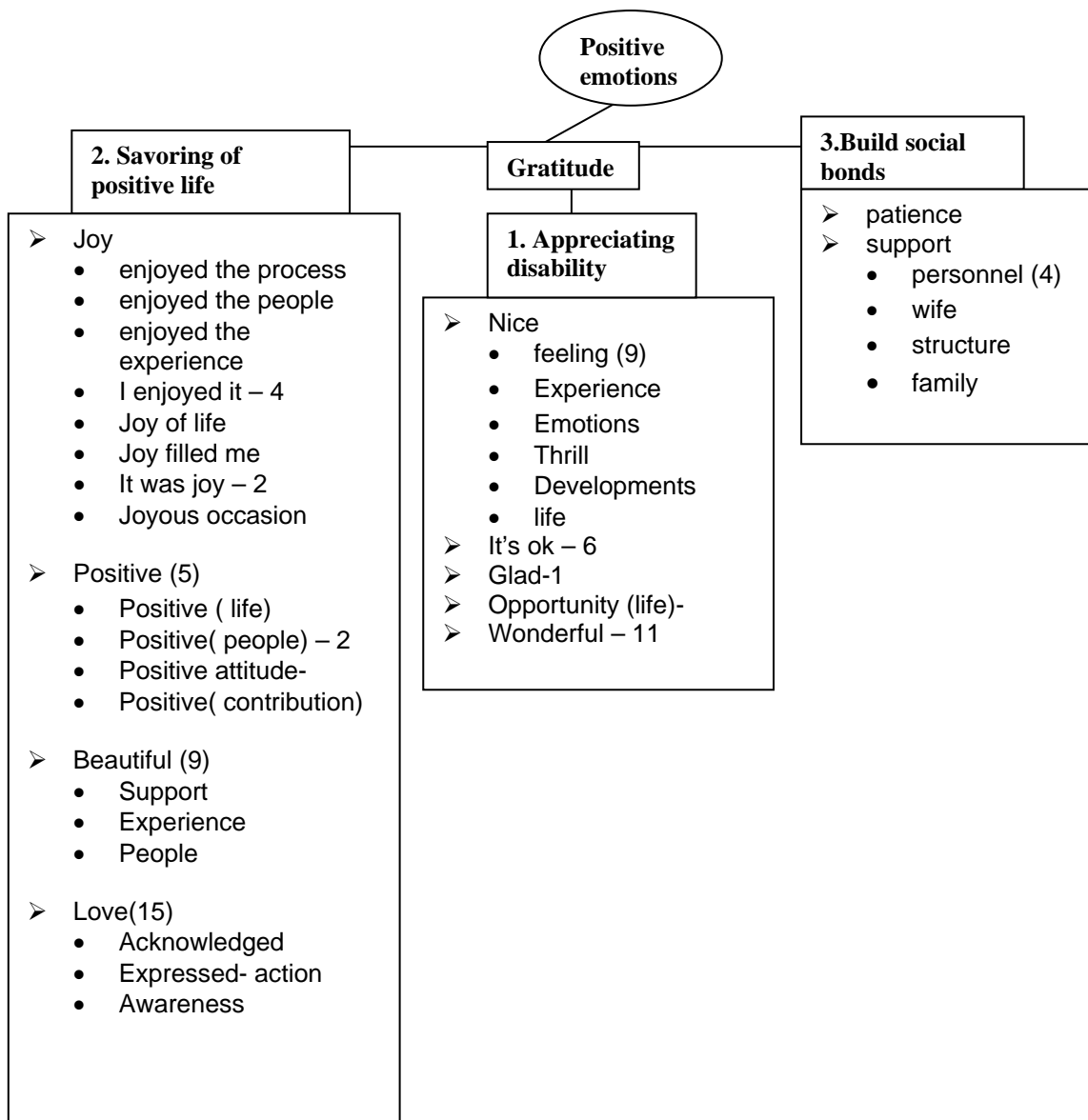


Figure 5.2: Codes, Themes and Experiences

This study explored the contribution of fortigenic qualities to improved rehabilitation of individuals with thoracic spinal cord injuries. The sections below detail the findings of the research. The themes were derived from the content of the transcriptions and were conceptualized in accordance with the principles of positive psychology. An interpretive approach was followed where the propositions of positive psychology derived from the literature were integrated with the themes that emerged from the interviews. In total four themes were identified. These themes were labeled gratitude, resilience, optimism and humour and laughter. Each theme is discussed using a combination of interpretive analysis and illustrative data extracts.

## **5.2. CATEGORIES OF EXPERIENCES**

Categories of experiences were identified in terms of positive emotions and ways of coping with TSCI. At times the same statements reflected different meanings and thus certain statements may appear in more than one category.

### **5.2.1. Gratitude**

Gratitude is about having an awareness of and appreciation for the good things in life and not taking them for granted. It is also about acknowledging the kindness of others. Gratitude was significant for all participants and formed 88% of the data set. Gratitude was mentioned a total of 58 times (23 times by Peter, 19 times by Jonathan and 16 times by Gregory). The participants engaged in a process of reconstructing a world that made sense after the loss. According to the findings of Attig (2001) and Neimeyer, Prigerson and Davies (2002), reconstruction involves changes both in private thoughts and feelings and in relating to the external world. The significance lies in how participants create meaning in their situations.

Gratefulness consists of three components. First, grateful thinking involves the savoring of positive life experience. Second, gratefulness requires the

acceptance of remaining disabilities and limitations. Third, gratefulness ensures that individuals look after themselves and their relationships (Lyubomirsky et al., 2005). In the sections below each of these components is explored in relation to the participants' accounts.

**Component:** Grateful thinking involves the savoring of positive life experience.

In keeping with this component the participants all expressed thankfulness to God. God is viewed as the provider of life. The participants feel that God helps them cope with immediate demands and stressful events. In particular, God helps them find the strength to endure and find purpose and meaning in their circumstances. Peter used words such as “blessed”, “acceptable”, “provision”, “given me”, “gives you” as part of his expression of gratitude to God. The participants all showed appreciation of positive experiences even in the face of very difficult life events.

Peter's account demonstrates that his relationship with God allows him to be more self-aware in terms of how he relates to others and how he experiences himself amongst others. It also increases his insight regarding the external environment. This enables him to be patient and understanding with people and to understand why they act and react in a certain manner.

*Peter.*

*While lying there I was dying, and God told me “you knew, Peter it's ok, you can come (pause), it's fine”. But with everything in my heart I told God, I don't want to go, because number one I was disobedient that morning.*

*What God has given me and the new person I am is stronger than that, and I can live in that but now it has become a reality in my life, the application of that knowledge, the living of that knowledge, not professing it but now living it and its even more difficult to do that in a wheelchair but*

*the more difficult it is the more God gives you to be able to do it, so I am the blessed one, because I get so much more from God.*

*But you in your life and your challenges are not less than my challenges because your challenge is as big as a mountain to you as my challenges are as big as a mountain for me. That bring the parity I need to be patient with other people, with their circumstances because no matter how you look at it it's a cross they have to carry and the same for me.*

Gregory used words such as “given me” and “blessed” to describe his relationship with God. He views God as his source of strength and feels that he can rely on Him.

*God hasn't given me a spirit of fear but a spirit of strength and love, and a sound mind. That's what I've been given, and that's what I'm going to use.*

*I prayed for God to give me the strength to survive this ordeal and go home and show them that I can do it.*

*God has given me a chance to live. He must have allowed this to happen to me for a purpose, mine is to figure out why?*

*When I look at it, I am truly blessed. God can never allow me to go through something I cannot overcome. I must be stronger than I think?*

Jonathan used words such as “given me”, “source”, “grace”, “positive attitude” and “believe” to express his appreciation of God. He also views God as a source of strength. Jonathan feels he can depend on God.

*Because I felt challenged, especially with the lack of certainty on the doctors report. My only source of strength became my God.*

*I also derive strength from my God. I know He will always be there for me. He has given me this life. I've seen so much in life. There's always going to be a better day. By His grace I know He will see me through anything.*

*I believe that when you have something you can't control, that's where we bring in the faith we have in God. Just by having a positive attitude I seem to have been able to encourage everybody around me. When you believe in God, when you follow that, it brings out a positive attitude. You don't have to cry. You don't stay depressed. You don't have to do that.*

For the participants gratefulness is a way of ascribing positive meaning to events that are not necessarily favorable. This allows them to deal with life circumstances with greater ease. Although the participants were not happy with certain aspects of their hospital care they focused more on the pleasant aspects of their experiences with the staff. Participants expressed their appreciation for specific individuals and experiences and used these experiences as encouragement. This is reflected in Peter and Jonathan's accounts.

*Peter:*

*So you are very dependent on people to bathe you and to take care of you. And being unable to tell people that ... So you are lying there and shivering, and there is no one to assist you. And eh, and that created with me inside, me a bit of conflict because I didn't like that ... the ladies I had, assisted me to work beautifully. And I could not say I recovered and had a positive attitude on my own. Those people impacted positively on me. That's contributed positively to whom I am today. And the way I view disability it was wonderful.*

*Jonathan:*

*Often most the staff was unfriendly and uncooperative. One would even be afraid to ask for help. Moreover when you are already feeling like a burden. They didn't make ones stay pleasant. One had to just not take it*

*personal as they are really overworked. There were one or two that took an interest to their patients, for me a visit by my biokineticist made my day. She made it easier for me to cope with the hospital challenges. Those are some of the things that made one determined to work hard to get better.*

**Component:** Gratefulness requires the acceptance of remaining disabilities and limitations.

The participants related how being grateful requires acceptance of remaining disabilities and limitations. They demonstrated this through the meanings they ascribe to their disability. The word “accept” was used synonymously with the concept of gratitude. The participants used words such as “joy”, “glad”, “opportunity”, “happy”, “thankful” and “appreciative” to describe gratitude. Peter’s feels that everyone has challenges, and his disability is his challenge. Making the decision to accept his disability empowered Peter to continue. He now says “I was glad for the opportunity”.

*Peter:*

*But you in your life and your challenges are not less than my challenges because your challenge is as big as a mountain to you as my challenges are as big as a mountain for me ... no matter how you look at it it’s a cross they have to carry and the same for me.*

*And I said no problem any day, and if I explained to you how I felt, because saying no problem any day, it was joy. I was glad for that opportunity. Then it was already made out and my mind and in my heart that I would be on a wheelchair.*

For Gregory the magnitude of each person’s struggle differs. He believes that there will always be someone whose situation is worse than your own. To cope he chooses to focus on the self and his decisions. He not only appreciates that he is alive but views his disability as playing a role in improving him. He feels that being able to accept his disability was the first step in permitting him to live and

enjoy life. He was able to reach acceptance by focusing on the things that he can do rather than on the things he cannot do.

Gregory:

*You have to see yourself as an individual who's got so much disability and you've got to keep on struggling with that. I mean, there are people out there who have more than you and yet worse off than you; I mean, they just give up. I think it's best to go your own way and try not to compare yourself with others.*

*For me I was happy I was alive. I was given another chance. My life is better than when I could walk...*

Jonathan:

*I had to learn to first accept that I was disabled ... I now had to spend most of my day on my camp chair (Laughs). I am on holiday 365 days a year chilling (laughs). The minute I made peace with my disability the easier my life became. I looked at this way, I am thankful for my disability; it has made me a better person. I was taking a lot of things for granted but being disabled enable me to more appreciative of life.*

*I have adapted to my limitations. Moreover, I have managed to regain some strength and control on my upper body. Not walking yet, no, that was a rather ambitious goal, but I transfer from bed to chair to car and back again with comparative ease.*

*Even though I can no longer walk, I am still able to communicate, learn, and do whatever I want till the day I die*

*For me the greatest lesson is how I took life for granted when I had no disability, it's only now that I' am enjoying my life. How ironic can that be? (Laughs)*



**Component:** Gratefulness ensures that individuals look after themselves and their relationships as a result of gratefulness towards others. They are also grateful for the opportunity to have relationships or meaningful interactions.

Participants related how being grateful ensures that they look after themselves and their relationships. Their accounts emphasized prioritizing relationships. The participants all reflected gratitude by acknowledging the contributions of significant others. They demonstrated a need to reciprocate and give attention to neglected aspects of their lives.

*Jonathan:*

*My family was quite supportive in that they were there for me when I needed them ... It is good to know that you have somebody when you are in need, that's what my family is to me. They are one of the reasons why I want to live.*

*I could say she saved my life in a way. This experience with her made me realize how I've neglected her and taken her for granted. We have never been closer; I now make effort to make this relationship to work.*

*Now my focus is different. I put more attention to the people I relate to all the time.*

*Gregory:*

*My basic lifestyle has changed. Most of my life revolved around physical things before, my life was pretty superficial really; now all that's changed. It's changed in the way I think about life, my job, the way I treat people who are close. I completely enjoy this side of the fence; it's a lot better. For me I was happy I was alive. I was given another chance. My life is better than when I could walk. My relationship with my family, has improved. Now, I feel as if my daughter is the result of all the changes I've gone through, that I'm a much better father than I would have been, and, man, that's positive*

*Peter:*

*My son that was born five months ago, because I have him, I have to let everything go, in order to handle him with love and patience so suddenly everything goes and what you can give your son is everything beautiful, everything soft, so that really now he has taken the place for cycling for now...*

## **Summary**

Gratitude was significant for all participants. Participants' expressed thankfulness to God and viewed Him as the provider of life. They felt that God helps them cope with immediate demands and stressful events. In particular, God helps them find the strength to endure and find purpose and meaning in their circumstances. Participants show an appreciation of positive experiences even in the face of very difficult life events. Being grateful required acceptance of their remaining disabilities and limitations. The participants felt a need to reciprocate and give attention to neglected aspects of their lives.

### **5.2.2. Resilience**

In the field of psychology resilience is defined as development and competence displayed despite environmental adversity or stress (Rutter, 1987 cited in Ahmed et al., 2004). Resilience was significant and 83% of the data set. All the participants displayed resilience. This seems to have impacted on their rehabilitation processes. There are significant similarities in the manner in which the participants displayed resilience and this is illustrated in the extracts below.

**Definition:** Resilience involves positive outcomes inspite of adverse circumstances or stress.

The participants demonstrated that resilience requires a commitment to improve. It is important to have meaning in life and know yourself well. Participants also

focused on being aware of, controlling and choosing thoughts, feelings and attitudes as well as being able to deal with change and challenges effectively.

Peter's account demonstrates that believing that change is possible enabled him overcome challenges with ease.

*Peter:*

*But the decision was mine. God had given it to me. So being in a wheelchair or anything that would come later on would not be an issue, as long as I could live.*

*And even with me who enjoyed the process of becoming strong again. Because I wanted to become strong, I was an athlete. I want to get there again. I promised myself neh, I was gonna get strong. 'You gonna be the best.'*

In the above extracts Peter shows that perseverance was the key to reaching his goals. Both Gregory and Jonathan committed to improve and chose to persevere during stressful and challenging times.

*Gregory:*

*Once I had my mind on anything, anyone who knows me, know I don't give up. I push and push, and push, until I get it right. I made a decision that I want to be happy. I chose happiness. From then on began on my own rehabilitation. I could no longer fail myself.*

*Jonathan:*

*It took a lot of energy to adjust to the changes let me put it this way limitations that came with the disability. It is only when I was able to get that through my thick skull that I was able to break walls. I began to make and notice the progress in my rehabilitation process.*

*Despite the slow pace of improvement, I refused to give into doubts, I steadfast into my religious faith. I build up enough strength to make things work for me. I believed that I still have a great life ahead of me. I could not just let go, give up. God has a greater purpose for me.*

*I made a conscious decision that I was not going to let anything stand in my way. I felt that as long as I am alive, time keeps moving; therefore, I will keep moving too.*

The following extract reveals that resilience requires seeking and accepting assistance from others. Participants' had to deliberately open themselves to different ways of viewing the problem. At times this meant listening to people with views different from their own. Thus, flexibility and openness to change are needed.

*Peter:*

*Is something that you just had to think about because you were unaware of it, and unprepared of it. But once it sank in you said ' what are we gonna do to make it work?' 'what can I do?' how would we do it, what can you give and how can you assist me?'*

*Gregory:*

*I prayed for God to give me the strength to survive this ordeal and go home and show them that I can do it.*

*Jonathan:*

*I had to accept that my body does not just belong to me anymore. My body has gone through some radical transformation since I've undergone spinal cord injury during a car accident. I have to share my body with everybody else. They have to help me hold my arms and move my legs.*

*... I was able to ask and learned a lot from her. I was able to become more open with her. She enabled me to think differently about the disability and myself as a disabled person.*

Their accounts also illustrate that resilience involves taking initiative. This involves believing that they can influence the direction of their life. This was demonstrated by seeking solutions to problems when facing tough times and by being realistically optimistic about their capabilities and limits.

Peter became involved in his rehabilitation process by actively seeking solutions or finding ways to improve his situation.

*Peter:*

*Is something that you just had to think about because you were unaware of it, and unprepared of it. But once it sank in you said 'what are we gonna do, to me its work?' 'What can I do?' how would we do it, what can you give and how can you assist me?'*

*so she said, no, you know what? I would like (silence) oh she didn't say anything. I just said, you know what? I can't live at the mess anymore. So we'll have to get a place to stay, would you like to stay with me and assist me. And she said yes. She would like to do so, so we looked for a place to stay. Neh, and we rented a place. We moved into a place and it was she and myself and I, and we started our own rehabilitation process*

Gregory focused his abilities on what he was able to accomplish.

*Gregory:*

*But now I'm in another category of people, a person with a disability. I had never thought about that for myself. It's like this: I can't use my legs, but I can use my hands, and I can use my head.*

*I've come to realize that you can only do your own personal best. I set my own goals now. I never had goals before. When I achieve them, it makes me feel good about myself .... better than I ever did before my injury.*

*You have to stop being concerned about the fact that they are standing and you're sitting down. Once you're comfortable, they will be too.*

Jonathan consistently maintains a positive point of view when facing challenging times.

*Jonathan:*

*I knew that this was a test, and that I was going to be tested emotionally, physically and spiritually. I knew that if I could get that in my head I would have enough strength to rise up and lead in all other areas of my life.*

*From then on I began to read more and learn more about my condition.*

*I believe that when you have something you can't control, that's where we bring in the faith we have in God. Just by having a positive attitude I seem to have been able to encourage everybody around me. When you believe in God, when you follow that, it brings out a positive attitude. You don't have to cry. You don't stay depressed. You don't have to do that.*

## **Summary**

Participants demonstrated that resilience requires a commitment to improve. Resilience also requires willingness to seek and accept assistance from others. The participants had to deliberately open themselves to different ways of viewing their problem. Thus, resilience required that they take an initiative. This involved consistently maintaining a positive point of view, focusing more on their abilities than on their disability and actively seeking solutions to problems.

### 5.2.3. Optimism

Optimism formed 77% of the data. The participants displayed optimism in different ways but had similar outcomes. For all the participants optimism was linked to a positive outcome and the will to continue.

**Definition:** Optimism is the general tendency to expect positive outcomes, even under difficult circumstances (Carver et al., 2002).

Peter stated that he constantly has to reassure himself that things will become better. For Peter being optimistic involves setting his mind at rest. He stated: *“then it was already made out in my mind”, ‘decision was mine”*.

*Peter:*

*But I’m gonna continue with my (stressed tone) life, as it was before. Ehm I’m gonna do anything and everything in my powers, to go on with my life as before. So please (stressed tone) don’t brand me as disabled and put me in that group. I refuse that.*

*They must not tell me I’m gonna use this chart because I’m gonna speak.*

*Ok!*

*I promised myself neh, I was gonna get strong. You gonna be the best.*

*And He (God) said: “Do you know that your back is broken and you’ll have to live like that?” And I said no problem any day ... Then it was already made out in my mind and in my heart that I would be on a wheelchair. But the decision was mine. God had given it to me. So being in a wheelchair or anything that would come later on would not be an issue, as long as I could live.*

In these extracts Peter demonstrates a new appreciation for mundane or basic things.

For Jonathan it took something external to change his thinking about his course of life. He said: *“I believed from that moment”, “I knew that this was a test”*. It is then that he realized the value of being optimistic about life *“just as a result of having positive attitude...”*

*Jonathan:*

*Because I felt challenged, especially with the lack of certainty on the doctor’s report ... the words of a powerful man of God when he said: “great leaders lead all the time”. I believed from that moment on that this injury would not be the end of my story the best is yet to come. I knew that this was a test, and that I was going to be tested emotionally, physically and spiritually. I knew that if I could get that in my head I would have enough strength to rise up and lead in all other areas of my life.*

*A year on, it's all second nature. The astounding pessimism of the hospital staff was proved wrong, and most bodily functions operate smoothly. I have adapted to my limitations. I live each day to the fullest. I've also come to realize that just as a result of having positive attitude that my work productivity had improved and finally the long waited anticipated promotion I was finally given.*

Gregory consoled himself by providing a justifiable explanation for the issues relating to the accident. Through this meaning creation process he chooses to determine what he got out of the accident rather than what he should have done to stop the accident.

*Gregory:*

*If I thought too much about whether I'd done that or this, [the accident] wouldn't have happened; I'd have got nowhere. The fact is it happened because I wasn't attending too well, and the fact is, too, that I've learned something new from the accident. It is my choice from now on to either*



*give up or choose to make the best of what I have. I have too much to be happy about to ever be depressed.*

*Life is a gift and something that a lot of people take for granted. I know I did.*

## Summary

The participants demonstrated that optimism requires constant self-reassurance that things will be better. The participants also showed that at times an external factor was needed to bring about a change in their thinking concerning the course of their lives. They also had to search internally for positive and justifiable explanations to enable them to make peace with the accident and their disability. It is through this meaning creation process that the participants chose to determine what they got out of the accident rather than what they should have done to prevent the accident. They also developed a new appreciation for mundane or basic things.

### 5.2.4. Humour and laughter as buffers

Humour and laughter formed 72% of the data set and occurred throughout the whole data set. It helped participants to share their experiences and enabled them to be open and talk about personal and uncomfortable issues.

**Definition:** Humour and laughter is the ability to discover and appreciate amusing or comic situations and then to express this appreciation by repeating them in a way that brings forth a smile, mirth or even an unrestrained belly-laugh (Lucas et al., 2003).

Humour helps the participants discharge tension and keeps them going. Humour/laughter was often used when discussing painful and/or uncomfortable events. The participants used humour and laughter to emotionally detach

themselves from the painful events and thus cope with them with greater ease. Peter related an experience where after defecating on himself the nurses had laughed with him and said “no problem” and for him this “made it so much easier”.

*Peter:*

*Yes, mess on the ground, and the nurses don't see it. They're standing in front of me and then I look down, and I go down and I start to laugh. So says (bangs slightly on the desk) “what's wrong! Why I you laughing?” I say ‘this big ball of (embarrassed laugh), and they started laughing saying “Uhh no problem.” And that made it so much easier.*

Jonathan refers to his wheelchair as a camp chair in an attempt to take away the stigma associated with it (the wheelchair). He uses the words “chilling” and “holiday” to describe his current lifestyle. This enables him to accept his position by viewing it as one of ease and comfort instead of confinement.

*Jonathan:*

*It was a struggle with me. I was different. That meant I would no longer be able to do certain things I was used to do. Like walking I now had to spend most of my day on my camp chair (Laughs). I am on holiday 365 days a year chilling (laughs).*

Gregory described his wheelchair as a “chair” and this gives the impression that he does not feel constrained. He describes his position as that of a person “sitting”, thus implying a sense of ease.

*Gregory:*

*The tall dark handsome guy she fell for (laughs uncomfortably). Yeh! This guy was good-looking. Not that I'm bad looking now, I'm still have the looks( laughs), the thing is, I can't show it off as much when I'm always sitting down ( laughs).*

The use of the words “checking me out” in the extract below show how Gregory lightened up a situation that others may have viewed as uncomfortable or violating. He managed to draw something positive for himself and this enabled him to cope with the event.

*These nurses were bathing me and checking me out (laughs) that I enjoyed*

### **Summary**

Humour and laughter helped the participants discharge tension and keep going. Humour appears to open a window to the participants' future and reminds them that life is still worth living. Through humour and laughter they can continue to experience wonderful moments despite their disability.

### **5.3. CONCLUSION**

This chapter presented the categories of positive emotions accompanied by a definition and description of each category. The initial analysis yielded fifteen categories, which were later re-formulated into main-categories and subcategories. The re-formulated data consisted of four categories, some of which included sub-categories. For example, the category meaning construction included the sub-categories of life, death, relationships and change. An interpretive approach was followed and principles of positive psychology derived from the literature were integrated with the themes from the interviews. Four themes were eventually identified. These themes were labeled gratitude, resilience, optimism and humor and laughter.

The following chapter deals with the discussion of the results and the integration with the literature.

## **CHAPTER 6**

### **DISCUSSION OF RESULTS**

#### **6.1 INTRODUCTION**

This chapter provides a discussion of the results and integrates the results with the literature. The discussion begins with a look at participants' experiences of their disability and ends by focusing on how positive emotions as fortigenic qualities played a role in the participants' rehabilitation process. Recommendations and suggestion regarding further research in the field of fortology and spinal cord injury are also provided.

#### **6.2 PARTICIPANTS' EXPERIENCES WITH THEIR DISABILITY**

Body image is the product of an individual's entire perceptual development. Collectively, body image refers to a person's psychological experience, feelings and attitudes towards the body (Hicken et al., 2002). This was evident in this study as the participants' first point of reference was their disability. They considered their altered body image to be more of a 'handicap' than their physical limitations. According to Hicken et al. (2002), individuals with a poor body-image may use disability as an excuse for not doing more with their lives. The participants in this study found that their previous social or personal standards could no longer be met. They also found it challenging to accept these limitations or to feel accepted by others. They needed to create meaning comprehensible to their new physical selves before any form of continuity could be found. Although participants in the study felt hurt and angry because of the way society treated them, these feelings were short lived. Their ability to build

positive images of their changed bodies enabled them to develop or maintain a positive sense of self. They did not allow external messages about appearance, ability and desirability to shape their perceptions of the body and the self. A study by Rice and Russell (2002) suggests that individuals tend to internalize negative judgments about their bodies and lives. Their research (Rice & Russell, 2002) showed that injured individuals learn to view their bodies as inadequate, unacceptable and a source of stress and anxiety. In contrast, this research found that the participants learned to incorporate their bodies and lived experiences in a similar manner to other people, and heeded their own knowledge and strengths. This is supported by Winchell's (2008) statement that a person living with disability must redefine both their self-concept and their body image. Participants developed a number of strategies to manage social interactions. These strategies included using humour to put others at ease and help them deal with their own feelings, trying to make others comfortable by smiling, being polite and answering questions and actively taking the initiative and sustaining the interaction. This is supported by research that indicates that making sense of loss and finding benefits are associated with positive adjustment following loss (Davis, 2001). Although denial was present it was in the early stages of the injury, the focus shifted quickly to aspects of illness amenable to change. The participants tried to focus on the positive through creating meaning. For some participants this meant focusing on personal growth ("I am now a better person than I was before my disability"). Participants were able to view the disability as complementing and enhancing other abilities.

According to Attig (2001) and Neimeyer, Prigerson and Davies (2002), Individuals who experience a traumatic loss engage in a process of reconstructing a world that makes sense after the loss. Studies show that a significant number of individuals who experience trauma have an increased sense of self-confidence, an increased connectedness to others, and an enhanced sense of the meaning of life following the trauma (Calhoun & Tedeschi, 2001). The findings in this study match those in previous studies.

Participants in this study became more connected to others. Their relationship with others and God enabled them to become more self-aware, more aware of how they relate and more aware of how they experience themselves amongst others. It increased their insight into the external environment, which enabled them to be patient and understanding with other people's actions and reactions. This is consistent with Attig (2001) and Neimeyer et al.'s (2002) research that found that reconstruction involves changes in both private thoughts and feelings and relating to the external world. Participants in this study took direct action to change their situation. This process involved decision making, making a plan of action and fighting for personal beliefs. The participants focused on the positive. Accepted empathy and understanding from others and tried to forget their problems.

Making sense of the loss and finding benefits are associated with positive adjustment following loss (Davis, 2001). The participants in this study created their own meanings that are consistent with their worldviews. The participants did not view themselves as victims but took ownership and responsibility for the accident, thus demonstrating an internal locus of control. According to Mary and Warren (2002), people with spinal cord injuries who believe that they are primarily responsible for their health show less depression and more adaptive behaviour than those who have external health beliefs. The participants in this study accepted their disability and the resulting changes. Their acceptance was a result of gradual exposure to the extent of their disability.

Individuals who take responsibility for their accidents tend to make better recoveries than individuals who see themselves as innocent victims (Tennen & Affleck, 2002). Finding benefits in loss is associated with positive changes in values and improved relationships (Tennen & Affleck, 2002). Participants in this study learned to adjust to their limitations and to come to terms with an altered self-image. This acceptance provided them with the necessary energy to maximize their remaining potential. The participants chose to focus on what they were able to do rather than on their limitations.

The researcher found that nurses and the hospital staff had a large impact on the participants' rehabilitation process. While these professionals normally eased the transition they could also be a large stumbling block for injured individuals. TSCI individuals might encounter or feel resentment from the hospital staff. They feel alienated from the society that is supposed to accept them and help them adjust. It is likely that if a person does not feel accepted by the hospital staff they will find it difficult to feel accepted by the broader community. Two of the participants in the study had negative experiences with the hospital staff members and felt a sense of urgency to escape the hospital environment. The hospital environment was suffocating and they wanted to flee to a place that they felt would help them improve. Their main concern focused on how society would perceive them. They plunged into depression and secluded themselves. It was through family support and persistence that they managed to slowly engage with other members of society. If participants felt that the staff accepted them it provided them with a sense of hope that the broader community would also be accepting. This finding is supported by Duggan & Dijkers's (2001) view that the length and quality of the individual's life depends upon appropriate and timely treatment and rehabilitation. Thus, the choices that are made in the acute stages of illness or injury can have a lasting impact on the individual's long-term survival and the quality of his or her future life.

In the study all the participants created their own perception of the staff based on the impact and experiences of their interactions. Their interpretation was largely based on their internal struggle with the changes they face. The success of their rehabilitation depends largely on the positive meaning they create while dealing with the self in the midst of others. This is consistent with Fredrickson et al. (2003) who suggest that positive emotions take our minds off of immediate needs and stressors and encourage new, diverse and exploratory thoughts and actions. Looking at the brighter side of the relationship or drawing strength from negative aspects of relationships helped participants to be determined and to engage in more constructive behaviour. Although they were not happy with certain aspects of their hospital care they focused more on the pleasant aspects of their

experiences with the staff. They did this by appreciating certain individuals and experiences and using that as a way to encourage themselves.

Generally, researchers have found that people who receive both tangible and emotional support from friends and extended family tend to cope better than those who do not have support (Hale et al., 2005). All the participants acknowledged the impact of the presence and availability of their families in their rehabilitation. They experienced some conflict about the extent of the support but felt grateful that it was readily available.

The participants' were concerned about society's beliefs and perceptions of disability. All the participants expressed that they did not want to be viewed by others as useless, pitiful or dependent. The social reaction to the stigma determined to a large extent the individual's sense of rehabilitation. McMillen and Cook (2003) found increased compassion and family closeness and decreased alcohol consumption following spinal cord injury. For the participants a sense of acceptance, whether from an intimate partner or a friend, played a huge role in building hope and security.

### **6.3 THE ROLE OF POSITIVE EMOTIONS AS FORTIGENIC QUALITIES IN THE REHABILITATION PROCESS**

According to Strümpfer (2006) negative emotions help us avoid danger and positive emotions broaden an individual's thought-action repertoire. Participants in this study presented with qualities such as optimism, humor, resilience, gratitude, a sense of self-understanding and an ability to endure and find outlets for emotions. These positive emotions are the building blocks for participants' positive adjustment. Several studies have emphasized that keeping emotions in balance in order to cope successfully with illness and injury is a central part of effective rehabilitation (Lucas et al., 2003). Although the participants in the study experience anxiety, apprehension, and confusion these are short lived as they are mediated by positive emotional states. This was evident in that each time a



participant discussed a negative experience he would follow up by discussing a positive aspect of the experience. These findings support Lucas et al.'s (2003) statement that strong negative emotional focus throughout the course of one's life predisposes one to poorer health and makes it all the more important to learn effective coping skills early in life. These skills include learning to lighten up on the tough days. Learning to improve a sense of humour leads to a lifetime of wellness-promoting benefits Lucas et al. (2003) state that a patient should be helped to deal with negative emotions in order to avoid becoming overwhelmed and incapacitated by them.

The profound impact of TSCI on an individual's identity was prominent in all of the participants' accounts and all the participants described how their injury served to shatter their perception of themselves. Each participant reached a stage during which they described moving beyond conflicting identity and moving forward to re-establish a sense of self. Participants expressed that, although they experienced a period of time during which they felt obsolete, they reached a point at which they decided that they had to change.

One of the participants noted a more gradual realization that he did not like who he had become. The participants reported achieving a new definition of self in which they realize that being in a wheelchair does not make them different people. Fredrickson et al. (2003) suggest that positive emotions function to take our minds off immediate needs and stressors. These positive emotions encourage novel, varied and exploratory thoughts and actions. In this study the TSCI individuals' experience of positive emotions enabled them to become more aware and develop an interest in knowing more about their disability. Knowledge can be viewed as a form of empowerment, which results in the generation of positive emotions. This study demonstrated that positive emotional states facilitate positive behavioral practices such as taking initiative and adapting and coping with the challenges that come with disability. These findings relate to Frederickson's (2002) statement that positive emotions are consciously

accessible, long-lasting feelings, often free-floating or objectless, present within emotions but also within physical sensations, moods and attitudes. Positive emotions facilitate approach behaviour and prompt individuals to engage with their environments. This is important to the TSCI individual because the drive for exploration and discovery provided the basis for positive social interactions. It enabled them to become more tolerant, expansive and creative. This study found that the more positive emotion the participants experienced the more open they were to new ideas and experiences.

This study suggests that participants' high repertoire of positive emotions can act as a remedy for negative emotions. Positive emotional states may influence a person's behavioral repertoire and can have an impact on their motivation to improve the self and thus be driven towards better rehabilitation. This is consistent with Frederickson's (2001) theory which suggests that positive emotions broaden peoples' attentions and thinking, undo negative emotional arousal, fuel psychological resilience, build consequential personal resources and trigger an upward spiral towards greater well-being. The participants in this study used humour, creative exploration and optimistic thinking as ways of coping. These coping strategies have the ability to cultivate positive emotions such as amusement, interest, optimism, gratefulness and hope. In addition to developing positive emotions the participants demonstrated that eliciting positive emotions in others helps with the creation of a supportive social context that also facilitates coping. This involved the participants taking responsibility for their disability. They expressed gratitude and viewed the disability as an opportunity for growth and development. They also realized that they had to take responsibility for their own rehabilitation processes. This relates to the theme of resilience. The participants showed resilience by focusing on the good things and reflecting on the things for which they are grateful. Taking control of events/circumstances allowed the participants to be optimistic about the future. They focused and acted on those things that they could control and devoted little time or energy to things that were beyond their sphere of influence. The courage to

take responsibility and ownership of their actions required that they recognize that they are the authors of our own lives. Their happiness was based not on waiting for someone (or something) else to change but rather on looking at what they can do differently to change their situation.

This study investigated how fortigenic qualities of positive emotionality influenced/contributed to improved rehabilitation of individuals with thoracic spinal cord injury. Findings indicate that traits (e.g. psychological resilience) with functional properties associated with positive emotions may serve to strengthen resistance to stress by affording greater access to positive emotional resources (Ong & Bergeman, 2004a; Tugade et al., 2004). This, in turn, may help to provide momentary relief from ongoing stressful experiences (Folkman & Moskowitz, 2000a; Zautra, Johnson, & Davis, 2005). Each participant engaged in a process of meaning reconstruction that was affected by the manner in which he handled the life demands that influenced his rehabilitation process and thus directly affecting his own quality of life.

#### **6.4 LIMITATIONS OF THE STUDY**

The study included a small sample size of only three participants. Although sufficient saturation of data was reached for the purposes on this study, additional participants may have more information on their experience with TSCI. The three participants in the study represented a specifically selected group of men. The data obtained through interviews may therefore be subject to social desirability bias. It is possible that certain participant characteristics (e.g. "I want others to see my situation as improved") could have lead to high levels of reported positive emotions. All the interviews were tape-recorded. Despite reassurances from the researcher that all information is anonymous and confidential it is possible that the tape-recorder intruded on the interview process.

There are a number of areas for further research. First, this study should be replicated with a larger and more diverse sample. The participants in this study

were individuals from a rehabilitation center at a national organisation it is possible that they differ from individuals with spinal cord injury in the general population. Because they are all part of the military their experiences might differ from that of the civilian. This research should be replicated with other groups of individuals with acquired disability. Secondly, interviews can be conducted with family members and close friends in order to get collateral about the individuals' functioning and fortigenic qualities. Thirdly, studies that explore the role of negative emotions could also be useful. Other methodologies such as quantitative research could also shed more light on this topic.

## **6.5 RECOMMENDATIONS FOR PSYCHOLOGISTS DEALING WITH TSCI PATIENTS**

Although there are a number of possible points of intervention for moving the individual toward acknowledgment and adjustment, one approach is to attempt to directly affect the person's repertoire of positive emotions. The rehabilitation psychologist needs to assess the client's perceived current level of positive emotions and perceived level of positive emotions prior to spinal cord injury before initiating therapy directed towards strengthening an individual's levels of positive emotions. This will enable the therapist to tap into the client's emotional functioning and determine which emotions need to be worked on in order to facilitate effective rehabilitation. The therapist's focus would be on assisting the TSCI individual improve these positive traits.

Forms of negative thinking can be dismantled by rational analysis and helping TSCI individual explore their own feelings and the meanings they attach to their current situation. Verbal encouragement can help reframe negative statements made by the TSCI individual into more positive statements that are rehearsed and spoken by the patient as part of his own internal dialogue (self-talk). This can lead to more positive approaches to rehabilitation. Helpless and hopeless phrases such as 'I am getting nowhere fast' and 'I'll never regain full range of

movement' can be reframed into more positive alternatives such as 'I've made some progress and if I keep working I will get there'. This self-talk is instructional and motivational instead of being negative. Rehearsal is the key to success and the TSCI individual will gradually start to harbour more positive beliefs and expectations (Menzies, 2000).

The established techniques of goal-setting and self-talk are two of the most important in the rehabilitation process. These techniques have been shown to be positively associated with adherence to rehabilitation programs and with faster healing times.

The psychological impact of injury can affect a TSCI individual long after the body has successfully healed. The role of a psychologist is thus particularly important in the progression from the rehabilitation clinic to adjustment both outside and back home. The performance and self-confidence of the TSCI individual are likely to be lower than pre-injury and this can be addressed by implementing a steady process of goal-setting and achievements to build both factors.

## **6.6 CONCLUSION**

This study attempted to provide a view of how positive emotions contribute to improved rehabilitation for some individuals with thoracic spinal cord injury. The study also provided a review of literature concerning TSCI patients, their experiences and the impact of disability on their lives and functioning. A qualitative research design was used to enter into the life worlds of the participants and share their experiences with them through their own descriptions. This allowed the researcher to gain the necessary information for the study and gave participants an opportunity to talk about their experiences.

TSCI exposed participants to various experiences, as discussed in the previous chapters. These experiences differed between participants. However, all participants reported fairly similar experiences at certain points in time. In the

initial stages of their rehabilitation process they all tried to find the cause of the accident. During this time they began to engage in a meaning construction process. They tried to find ways to make sense of what had happened to them. The participants' interpretations differed but contained some similar elements. They all viewed the event as having a link to some greater purpose or intention for their life. The event was also cast as a lesson from which they could learn. Secondly, participants had to deal with the extent of their physical changes and limitation. Thirdly, they had to learn to adjust to and deal with perceptions from their external environment (i.e. family and society). All the participants reported experiencing negative emotions, however these were mediated by positive emotions that rendered them capable of handling challenging life circumstances and coping effectively with life demands.

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## **APPENDIX A**

### **INFORMATON SHEET**

My name is Maud Moloji I am a master's student in Clinical Psychology at the University of Pretoria. As part of the requirement for the completion of my masters I am to do a research study under the supervision of Ms. Marna Dreckmeier-Meiring. The title of my research is Positive Emotionality as a fortigenic quality among people with thoracic spinal cord injury

The aim of my study is to determine how positive emotions contribute to improved rehabilitation of individuals with thoracic spinal cord injury. The study also aims to find out how positive emotions as a fortigenic quality broaden the TSCI patient behavioural repertoire to more explorative and adaptive ones

You are thus invited to participate in my study. Your participation would be being involved in a scheduled taped recorded interview session with the researcher. You are encouraged to ask any questions that you might have in connection with this study at any stage. The researcher will gladly answer your questions. You are free to withdraw from the study (without providing any reasons) at any time. Privacy and anonymity; will be maintained as your name will not appear anywhere in the study. The tape material will be destroyed once the researcher has completed transcribing the material. Your participation in the study would be greatly appreciated.

## APPENDIX B

### CONSENT FORM

**Research Title:** Positive Emotionality as a fortigenic quality among  
people with thoracic spinal cord injury

**Name of Researcher:** Maud Moloji

I, \_\_\_\_\_ hereby voluntarily consent to participate in the following research. The aims of the study have been clearly explained to me. I was given an opportunity to ask questions before participating in the study. I understand that I may withdraw my participation at any time during the study. I understand that my privacy and anonymity; will be maintained as my name will not appear anywhere in the study. The video material will be destroyed once the researcher has completed transcribing the material.

**Participant Signature**.....

**Date:** .....

**Place**.....



## APPENDIX C

### INTERVIEW GUIDE

#### Demographic Information

**Gender:** Male  
Female

**Age:**

**Ethnic group:** (i.e. Sotho, Zulu, Ndebele, Swati etc.)

**Language:**

**Rank:**

**Relationship status:** Married  
Single  
Separated  
Divorced

**Living situation:** Own Room  
Sharing  
Other

**Education level:**

**Type of work:** Volunteer work  
Paid employment  
Attend school / college  
Other

How long ago have you had the injury?

How did you experience the injury?

Has anything changed about you?

- If yes. What is it about you that have changed?
- If no. what do you think enabled you to remain the same?

## APPENDIX D

### TRANSCRIPT: George

**Gender:** Male

**Age:** 29

**Ethnic group:** Black

**Home Language:** Sepedi

**Rank:** Captain

**Relationship status:** in a relationship

**Living situation:** living with girlfriend and son

**Education level:** degree

**Type of work:** Paid employment (trainer)

**How long ago have you had the injury?** Over 2 years

If I thought too much about whether I'd done that or this, [the accident] wouldn't have happened; I'd have got nowhere. The fact is it happened because I wasn't attending too well, and the fact is, too, that I've learned something new from the accident. . It is my choice from now on to either give up or choose to make the best of what I have. I have too much to be happy about to ever be depressed," he says with a grin. "Life is a gift and something that a lot of people take for granted. I know I did.

But now I'm in another category of people, a person with a disability. I had never thought about that for myself. It's like this: I can't use my legs, but I can use my hands, and I can use my head. God hasn't given me a spirit of fear but a spirit of strength and love, and a sound mind. That's what I've been given, and that's what I'm going to use."

When I was at the hospital all I wanted to do, was to go home. I felt so useless and a burden to other people. I hated myself. For being so useless, never have I had to depend on people like this. These nurses were bathing me and checking me out (laughs) that I enjoyed hahaha. I felt as though these people preferred me dead than alive. I told myself these people are not going to put me down, I didn't wish this upon myself...I prayed for God to give me the strength to survive this ordeal and go home and show them that I can do it . I began my rehabilitation with the help of my family. One thing about it, they waited for me to be ready, and were up in arms when I asked them for help.

Once I had my mind on anything , anyone who knows me ,know I don't give up, I push and push, and push, until I get it right. My basic lifestyle has changed. Most of my life revolved around physical things before, my life was pretty superficial really; now all that's changed. It's changed in the way I think about life, my job, the way I treat people who are close. I completely enjoy this side of the fence; it's a lot better.

For me I was happy I was alive. I was given another chance. My life is better than when I could walk. My relationship with my family, has improved. Now, I feel as if my daughter is the result of all the changes I've gone through, that I'm a much better father than I would have been, and, man, that's positive. I've come to realize that you can only do your own personal best. I set my own goals now. I never had goals before. When I achieve them, it makes me feel good about myself. . . better than I ever did before my injury.

I'm almost grateful that I had my accident. The change in me and my life has been so positive. Who was I, in the mist of all this. I was different, it was no longer me. I had to learn to accept myself as I am. It was a struggle. I made a decision that I want to be happy. I chose happiness. From then on began on my own rehabilitation. I could no longer fail myself.” You have to see yourself as an individual who's got so much disability and you've got to keep on struggling with

that. I mean, there are people out there who have more than you and yet worse off than you; I mean, they just give up. I think it's best to go your own way and try not to compare yourself with others. God has given me a chance to live. He must have allowed this to happen to me for a purpose, mine is to figure out why?

In the beginning I doubted his presence in my life. Well maybe I needed to go through this in order for me understand his true value in my life. He has never failed me. I'm still here. When I look at it, I am truly blessed. God can never allow me to go through something I cannot overcome. I must be stronger than I think?" Every time I wanted help, I wanted to die. When I thought of the nurses attitudes. These people made my life miserable. Their job was to help me, but they, on the other hand they resented me. Like it was my fault to be in this state. One wonders why they come to work.

I just ... I would just go from the bed to the shower to the front of the computer to the front of the television... that kind of stuff. And it's just ... it's just not me. I don't like that ... I wasn't like that before.

At first, people noticed a big change in me. I mean, I was really depressed, with good reason. Maybe that's why a lot of my friends got scared and stopped seeing me; they couldn't deal with the big change they saw in my personality. I've pretty well got my old personality back now, and I have developed a whole new set of friends. It all took a long time, but what a difference it makes to life. You really get to appreciate people more. When I make new friends these days, you know, work them through all the stuff about the injury that they don't know, I figure they really want to know me and that's important. I put a lot more effort into my friendships these days. You know you've made it when you are able to deal with the public on a one-to-one basis, and you find yourself not caring about the way they look at you because you know it's their problem, not yours.

You have to stop being concerned about the fact that they are standing and you're sitting down. I have also found that talking about my disability makes me feel better about myself. I think if people are aware of what it means to be disabled they would stop treating us if we are retarded. Once you're comfortable, they will be, too. I can truly say I have two best friends in my life. These guys gave me the courage to go out again and experience life. I don't know what I would have done without them. They were really amazing. You know, when I was refusing to see people. I lost a lot of friends during that time. You know what I don't blame because I know I was bad company in the early stages of my recovery, if I were them I too would have divorced myself (laughs). (Pauses) Ja, I stinked, and I don't mean it literally since that could be the case when you are on a wheel chair. You know to think about it maybe that was one of the reasons they avoided being around me (Laughs). Just joking, then I had learnt the art of working the catheter.

But well they all left me except these two, Mike and Tim. They were the only ones who could tell me where to get off, and stop being on a whining wagon. Well I knew that friends come and go, but as long as God was on my side I had everything. I was thankful for the few I had. Two is better than nothing. This also gave me an opportunity to determine the quality of friends I have, and the ones I would like to choose and keep in future. The support I have received from girlfriend is beyond my comprehension. She has been my pillar of strength. She is one of the reasons I have managed to move on, she gave me a reason to live, and you see it's like this. When I left the hospital I didn't want to be seen or be around people. When she came to visit me at home, I would refuse to see her. Several times she came and I couldn't allow her to see me like that. You see, I felt incomplete. I thought that she would not be able to handle being with someone like me.

The tall dark handsome guy she fell for (laughs uncomfortably). Yeh! This guy was good-looking. Not that I'm bad looking now, I'm still have the looks (laughs),

the thing is, I can't show it off as much when I'm always on my camp chair (laughs). Any way she is my life. I owe her life itself. I don't want to ever see her hurt. Nka bolaya motho (I could kill for her). My mom, is the best...she never gave up on me. I gave her tough time in the beginning...let me tell you that women has got patience. She was there for me all the way. Well what can one say? That's what mothers are there for. She often encouraged me when I was feeling down. I truly appreciate her .there is never a time if I recall, that she made me feel like I'm burdening her.

I remember when I would be messing on myself before we got the hang of how to use the catheter and timing. She would be so keen on cleaning after me. She truly is a blessing. I myself don't know if I'm capable of doing that much for a person I love. I now spend time running a group for the paraplegics. I'm there to motivate them. It makes life so much easier when you have somebody you identify with someone who has gone through a similar ordeal. Wow it is such pleasure just being around these people. I pray that God should enable me to give them the courage to go on. Life is too precious to just decide to stop living. I remember my consultation with a psychologist, as I was sharing my experience. I think she realized that I was struggling to cope so in her attempt to console me she said to me that she understands what I was going through. How could she understand? She could walk. How could she identify with my struggle and pain? I felt she was a hypocrite. You cannot begin to say you understand when you have never had the same experience.

## APPENDIX E

### TRANSCRIPT: Jonathan

**Gender:** Male

**Age:** 28

**Ethnic group:** white

**Home Language:** Afrikaans

**Rank:** captain

**Relationship status:** in a relationship

**Living situation:** not sharing

**Education level:** degree

**Type of work:** Paid employment (Human resources)

**How long ago have you had the injury?** 2 years

Well one unfortunate night after a soccer game at a stadium on our way back. It was five of us in one car. It was late at night I think round about past eleven. Just as we reached an inter-section, at Euffes off ramp. The robots had given us a right of way but some guy decided not to stop so, it was a head on collision. They say I fell into the road and I broke my back. I woke up about seven days later in ICU at the hospital. My friend told me what happened but I couldn't remember anything. The first person I remember was my girl friend, eh my girl friend. Because nobody could wake me up, she got me out of it. So they tried her and she got me!(exclaims with excitement) she got me woken up. That voice got me woken up.

It took me a while before I could remember what had happened. One thing I immediately notice is that I couldn't move. I immediately began called out the nurse. She was quite comforting in her explanation. The thought of the possibility of not being able to ever walk again was daunting. After ten days, the doctors sent me to rehabilitation. This is where I regained my strength and began the struggle to regain my independence. This conflict is clearly shown in rehab where I was very stubborn and did not want to do any training exercises. I had to learn how to do everything in a wheelchair, from showering differently to just getting into a car. These deceivingly simple skills I developed from my physiotherapist.

During the four months I was there, I thought I was going to one day feel my legs again. I remember the day that the doctor delivered the unconcealed truth to me. This is where I discovered that I will never walk again in my life time. Hearing those words struck a vivid, unforgettable image in my mind that I still remember today; I was bursting in tears unable to compose myself. What was to come only made it worse. I began to suffer from depression immediately following those life-changing words.

After a numerous of doctor visits, I returned to work. Shortly after returning to work the questions began. It was during this time that I expressed denial about my future. Many people wanted to know what had happened to me and whether or not I was going to walk again. The repetition and impersonal disrespect these people exhibited bothered me a great deal. My answer to such questions was always a pretense. I usually lied and told them that I would be able to walk again. I am quite an active person with a passion for soccer. I had played some soccer in high school and was working on campus job at university when a friend saw me and suggested I join the soccer. When I joined the military I had to keep fit as a result of the type of work I do.

I had to accept that my body does not just belong to me anymore. My body has gone through some radical transformation since I've undergone spinal cord injury during a car accident. I have to share my body with everybody else. They have to help me hold my arms and move my legs. I've always felt like a father figure. I've



said that a lot — they call me ‘Daddy PJ.’ But now I feel like a kid. Because most people take advantage of everyday things, just being alive is what people should learn to be grateful for. From my perspective, it took a near death experience to change my view on life and ultimately, how I live every day. At the age 30, I walked into my eleventh surgery. After surgery was completed, I woke up two days later paralyzed from the waist down and as a result I became a paraplegic. I had to learn to first accept that I was disabled.

It was a struggle with me. I was different. That meant I would no longer be able to do certain things I was used to do. Like walking I now had to spend most of my day on my camp chair (Laughs). I am on holiday 365 days a year chilling (laughs). The minute I made peace with my disability the easier my life became. I looked at this way, I am thankful for my disability; it has made me a better person. I was taking a lot of things for granted but being disabled enable me to more appreciative of life. Tests revealed a fractured vertebra and spinal swelling. To combat the situation doctors fused four of my vertebrae during a marathon nine-hour surgery. Even with the surgical intervention, I could move but not control my arms, and I had no feeling below my chest. Worse, doctors really couldn’t tell me if or when the situation would improve.

With a spinal cord injury, there is no timeline. That’s one thing I had to learn. Because everyone reacts differently to spinal injuries, the doctors just really cannot tell you. Because I felt challenged, especially with the lack of certainty on the doctors report. My only source of strength became my God. I remembered the words of a powerful man of god when he said: “great leaders lead all the time” I believed from that moment on that this injury would not be the end my story, the best is yet to come. I knew that this was a test, and that I was going to be tested emotionally, physically and spiritually. I knew that if I could get that in my head I would have enough strength to rise up and lead in all other areas of my life.

One other person that helped me greatly was that one of the rehabilitation team members was also on a wheelchair. I think she was a biokenetics. She visited while I was still bedridden. She really did help me. Especially her story reminds

me that there's someone who understands where I'm at. She went through then what I'm going through now. She really gave me the courage to continue. I was able to ask and learned a lot from her. I was able to become more open with her. She enabled me to think differently about the disability and myself as a disabled person. From then on I began to read more and learn more about my condition. My first three months as a paraplegic were spent in hospitals, the endless tediousness and depression of which has thankfully been largely forgotten.

I do remember discovering that nurses are as marvellous as all the clichés suggest, and that hospital food is unimaginably bad (laughs). Often most the staff was unfriendly and uncooperative. One would even be afraid to ask for help. Moreover when you are already feeling like a burden. They didn't make ones stay pleasant. One had to just not take it personal as they are really overworked. There were one or two that took an interest to their patients, for me a visit by my biokenetics made my day. She made it easier for me to cope with the hospital challenges. Those are some of the things that made one determined to work hard to get better.

I missed home cooked meal and could kill just to have some home cooked meal man...my mouth would be just watering at the thought it. I also had to go through the trauma of bowel and bladder management, and facing up to just how limited I was in terms of movement. The result was weeks of pain, frustration and sometimes misery, mitigated only by the warmth and loyalty of my family and friends. A year on, it's all second nature. The astounding pessimism of the hospital staff was proved wrong, and most bodily functions operate smoothly. I have adapted to my limitations. Moreover, I have managed to regain some strength and control on my upper body. Not walking yet, no, that was a rather ambitious goal, but I transfer from bed to chair to car and back again with comparative ease.

When I began as inpatient treatment at the Rehabilitation Center at 1 Military Hospital, I remember I had to complete three to four hours a day of movement and strengthening exercises. I held a 2 kg weight, but it felt like 15 kg. I could

bench-press more than 150 kg before this happened. It took a lot of energy to adjust to the changes let me put it this way limitations that came with the disability. It is only when I was able to get that through my thick skull that I was able to brake walls. I began to make and notice the progress in my rehabilitation process. During my time at the rehab center it was suggested that I join a Spinal cord injured group meetings, this was only seven months after the surgery, and it made me feel rushed to make new, separate friends. At first this seemed like a good idea, but later proved to be wrong for me. Yes, I did meet many different disabled people. I realized that I did not belong there. I realized during my time in rehabilitation that just because I was disabled did not mean I had to spend time with disabled people, nor did I want to. I liked the true friends I had prior to having the disability. Why did I have to make new ones just because they were disabled like me? I left the spinal cord group and never returned because I accepted who I really am. I am still the same person I was before that decisive surgery.

Despite the slow pace of improvement, I refused to give into doubts, I steadfast into my religious faith. I build up enough strength to make things work for me. I believed that I still have a great life ahead of me. I could not just let go, give up. God has a grater purpose for me. Because I was someone who was used to helping others, accepting help required a change in perspective. I've always taken it upon myself not to think negatively, but at certain points, life does try to beat down on you. So, at times, I do think, I used to be the strong one among my friends, and now the people who leaned on me, well, I need to lean on them.

My friends have been a big help in that regard. They really helped me to heal. I derive my strength from my friends. My friends definitely motivate me. These friends would push me around the hallways when I was tired or they just deemed it necessary too. A combination of the little things like helping me in and out of houses or otherwise difficult places for disabled people always made me feel like I was asking for too much. According to them, however, it was their duty as a

loyal friend to be there and help me even if I was as capable on my own. That I truly appreciated.

I also derive strength from my God. I know he will always be there for me. He has given me this life. I've seen so much in life. There's always going to be a better day. By his grace I know he will see me through anything. My family, including mom Mpho, sisters Nosi and Musa and dad Paul, were all supportive and helped care for me. My dad was out of town when he received the phone call that I was injured, and he immediately began to pray. My mom was at a Christian conference in Cape Town that time, they say when my dad called her to share the news, that she merely replied, "God is in control."

I believe that when you have something you can't control, that's where we bring in the faith we have in God. Just by having a positive attitude I seem to have been able to encourage everybody around me. When you believe in God, when you follow that, it brings out a positive attitude. You don't have to cry. You don't stay depressed. You don't have to do that. My family was quite supportive in that they were there for me when I needed them, well even when I did not want them heh heh (laughs) It's just that I did not want them there all the time. I felt bombarded. I hate to depend on people. It is good to know that you have somebody when you are in need, that's what my family is to me. They are one of the reasons why I want to live.

My girlfriend and I we loved ice-skating. Every weekend, there is not one Saturday, not one Saturday that we didn't go in the ice....every Saturday. Now, I'm disabled I can't take that fun away from her. You know it's not my fault that she is walking nor is it her fault that I'm on a wheel chair, so we can't blame each other. So I said because I don't want to take the fun out of her life. Say for instance the fun for her was going to the movies. So that means I can't go with her because I'm on a wheel chair. So I also take that fun away. We didn't break up, I said Ann go on with your life. You know I was six months in the hospital, everyday of that six month she was by my side. Every single day, well except for some weekends, well she must have her social life ha ha ha. But every weekday,

not one day she didn't see me. She came and came; the more I tried to get rid of her the more she came. And I just had to accept that she is not living. She is here to stay.

For me that was a relief in that when I said to her she must go on with her life that's not what I wanted. I was just trying to protect myself from rejection. When I realized she was willing stay I was happy, I knew I can depend on her she was my soul mate. All I know is that if she didn't come to the hospital I wouldn't have been alive. I could say she saved my life in a way. This experience with her made me realize how I've neglected her and taken her for granted. We have never been closer; now make effort to make this relationship to work.

Before, work was just work, after something like this, you realize what's important and what's not. Your priorities get straightened out. Before I was unhappy with my work and lack of promotion. I worked to earn a living. Now my focus is different. I put more attention to the people I relate to all the time.

I live each day to the fullest. I've also come to realize that just as a result of having positive attitude that my work productivity had improved and finally the long waited anticipated promotion I was finally given. For me the greatest lesson is how I took life for granted when I had no disability, it's only now that I am enjoying my life. How ironic can that be? Hahaha (Laughs). I made a conscious decision that I was not going to let anything stand in my way. I felt that as long as I am alive, time keeps moving; therefore, I will keep moving too.

My personality changed from looking at people differently to accepting everyone for who they are. They knew I was in a wheelchair, but soon they talked to me it was as if I was walking beside them. I made many new friends and never once did I feel lonely. All along, my parents were my greatest supporters. Now I feel that I can confide in them about anything because I know they will support any decision that I put my mind to. This experience has left me living every day to the fullest. Even though I can no longer walk, I am still able to communicate, learn, and do whatever I want till the day I die. Every minute I am grateful for the greatest gift I was given when I was born: Life.

## APPENDIX F

### TRANSCRIPT: Peter

**Gender:** Male

**Age:** 32

**Ethnic group:** white

**Language:** Afrikaans

**Rank:** Lt. Colonel

**Relationship status:** Married

**Living situation:** living with wife and son

**Education level:** degree

**Type of work:** Paid employment (lawyer)

**How long ago have you had the injury?** Over 2 years

But while I was in the accident and it was busy occurring and I realise I dreamed this or I felt it before, I relaxed completely. And then I knew everything It's ok. I would not say it was predestined. Maybe it was a warning that it would happen. And when it happened it was ok. It was familiar. So from that stage on I knew that everything was ok. My experience was, this is mine. While lying there I was dying, and God told me, "you knew, Peter, it's ok, you can come (pause), and it's fine". But with everything in my heart I told God, I don't want to go, because number one I was disobedient that morning. And I didn't (laughter) want to go like that, being disobedient. Second thing is that I always ask God I do not want to die before my parents. That would break their hearts. And I asked Him please I do not want to die now, because that would be heavy for them. And I told him I really want to live.

And He said "Do you know that your back is broken and you'll have to live like that". And I said no problem any day, and if I explained to you how I felt, because

saying no problem any day, it was joy. I was glad for that opportunity. Then it was already made out and my mind and in my heart that I would be on a wheel chair. But the decision was mine. God had given it to me. So being in a wheelchair or anything that would come later on would not be an issue, as long as I could live. That's why I am saying ... while I was in a hospital ... everything I turned thereafter was wonderful, it was wonderful, it was a joy for me, I really enjoyed it.

Except for a few things, number one (laughs). Why, when I woke up, I've been induced coma for a month and two days, and when you woke up there, you are unable to use arms, feet or anything else. Because of the state you are in you are really ehm depleted of power, you don't, you've wasted away over a period of a month, eh and your life was also threatened and died nearly three times. And it means there was a big shock to my body you could, you cannot help yourself, so for a period, of after waking up for at least a month, you cannot use your arms, it is a very difficult situation and you are very weak. So you are very dependent on people to bathe you and to take care of you.

And one of the things I distinctly remember is getting cold. And being unable to tell people that I am cold. Because I had trachea, eh trachea. So I cannot tell people what is wrong and then. They would bathe me and nursed called away but I still have they wet water on me. And I am laying in ICU, and ICU as cold as it is in the office now. So you are lying there and shivering, and there is no one to assist you. Eh or they don't cover you. And eh, and that created with me inside of me a bit of conflict because I didn't like that. They would use a blunt shaver without, even, moistening or heating my beard because the nurse just didn't care and that really hurt. The third thing is because you are on, severe or very hard medication like eh morphine you get a lot of nightmares and you have to battle with those nightmares because the people around you don't understand. Eh, when I could start to speak I told the person there was a church service yesterday in the ICU and people were walking on their knees, and I don't

understand why (laugh). But the people especially my family didn't realise really what was going on. And so they were not really briefed, of what the eh effect would be (laughs) so (laughs) that was sometimes difficult cause they probably thought that I was going crazy (laughs).

Wee, but that wasn't a big crises. Because we could laugh about it at a later stage so that was difficult (sniffs). Lying in a hospital even a month after waking up, you would see numbers running on the walls. Numbers...and in the light I would see super hero characters (laughs) and you know, six months (*pause*) gone from the hospital I went to see, if they aren't super hero characters on that room and the lights (*bangs lightly on the desk while talking*) and they weren't there so it was reality. Eh those are the bad things about it.

But one also realises that is something that you just have to live with. And you have to be patient and go through it. But the wonderful thing for me is, when I opened my eyes, the first time after the induced coma. It was one month and two days after the accident. And then I looked out and I saw all the people and they were crying, and I thought 'what's wrong with you? Don't you know I am going to live neh!' because already in my mind we sorted it out with God. (*not audible*) fine. But with myself when you are in a situation like that it's when the fighter comes out and you fight with everything that's in you. So for me it wasn't even an issue (*sharp tone*) of, fee...ling sorry, err or sad. It was a joyous occasion for me. And then I was very frustrated with people. Having their soapy attitudes and poor this and poor that, and I really hated that. Woo! I hated that and then of course I couldn't communicate with them, I couldn't talk. And then my sister immediately car (*inaudible*). She said I have an alphabetic chart here, and now you will learn how to use this ha haha now and you know what?! (*Stiffens his voice*) I got so frustrated. They must not tell me I'm gonna use this chart because I'm gonna speak. Ok! So don't come with rubbish here he he he. That's how I felt. *The* rehabilitation a lady came saying "here is a booklet contact numbers for a place where you can stay in the city, as a disabled person." Ha ..



ha .. ha.. and thank you very much but you know what I don't intend staying with disabled people. Nothing against them. But I'm gonna continue with my (*stressed tone*) life, as it was before.

Eh I'm gonna do anything and everything in my powers, to go on with my life as before. So please (*stressed tone*) don't brand me as disabled and put me in that group. I refuse that. She took note eh and I started where I was and continued my life again. Now surely, I was living in the navy in the in the mess in the officers mess, I could not go back there. So we had to change thing so we could continue with life.

And one of the things is I had a beauty, beauty girlfriend, her name is Mary. Beautiful and she decided that after the accident that she still wants to be with me. Because I, effectively (*stressed tone*) told her please you must go, leave me alone neh! Not because I wanted to be alone. I felt sorry for myself. Because I knew it could have a very big impact on her life. And if she does not buy into it on her own or by herself, she is not gonna cope. And. Funny enough, she has so much resolve, so much more, to be with me than before, that she stuck with me.

So she said, no, you know what? I would like (*silence*) oh she didn't say anything. I just said, you know what? I can't live the mess anymore. So we'll have to get a place to stay, would you like to stay with me and assist me. And she said yes. She would like to do so, so we loo...ked for a place to stay. Neh, and we rented a place. We moved into a place and it was she and myself and I, and we started our own rehabilitation process. Soon after leaving the hospital she, she wanted to get married. Eh, and she got a little bit desponded because, she knew she loved me, she was still with me. And the disability is no issue. But for me I realised that she had to learn what the full impact of it was. I myself didn't really realise it at that stage what the full impact be over a period of time. So I compelled her to (*silence*) I didn't ask her to marry me. I've only asked her

to marry me after she had been exposed for that period of time. When I felt she was ready. And she could live with it. And I'm happy because it really made a difference.

So the first thing you need to get to grips' with, while you're lying there, ok! I'm disable and I am not able to use my legs, but you don't for at least a period of about two to three weeks, what the full impact is. One: you are not able to urinate yourself. Now at that stage there is an indwelling catheter that takes the urine out. But you never think about that issue. It only becomes relevant later then it sinks in. 'I want to be able to urinate'. Secondly: I want to be able to evacuate the fesses as normal. And then you start coping with it. Thirdly: you won't be able to get an erection. That means you can't have sex. That comes out at a later stage and suddenly you might start feeling yourself being very alone. Because you always look and stare against the issue of being in a wheelchair. I've sorted that out already. It's not a problem.

But suddenly these other things becomes a problem, that I haven't thought of. And then you are often alone, in, handling these issues (pause). The psychiatrists were there, they did come to assist. But they were often overworked and stressed themselves. So much so that I provided some (laughs) guidance an assistance to them! But the wonderful thing is that it was beautiful, it was nice. Because for me I was positive because I can live. I had a different perspective than anybody else that was there. And that joy filled me, and I enjoyed it.

The issue of these other three things that made it difficult. Is something that you just had to think about because you were unaware of it, and unprepared of it? But once it sank in you said 'what are we gonna do to make it work?' 'what can I do?' 'how would we do it, what can you give and how can you assist me?' ' the wonderful thing is that at one Military Hospital, they provided me with everything I needed to assist me. To be able to assist myself, and that was wonderful. So once I've saw we will address these things. They are assisting me with it. I am

able to do it. Wow! The whole world changed. It brought hope, and I could function on my own again.

They also assisted me to become strong. Took me to the gym, on a training programme. Took me eh (laughs) and I had to complete a course with my wheelchair, as fast as possible, it was beautiful, the support provided by the personnel. Especially Charmaine was the occupational therapist, was beautiful and excellent. I really enjoyed that it was really nice.

Now (laughs) I must tell you. This is my personal. Eh thing that I would like to share with you. As a man, I'm still a man. Now, I don't have everything in place as it used to be. But I still have the hormone and everything that goes with that. And while I was weak and everything that goes with that and busy with this rehabilitation process. Charmaine assisted me with many of the things. And she often used to take my wheelchair and stand behind me and tilt me. And what would happen, I would lean against her Yoh! (Slightly bangs on the table) and that was nice. It may seem like a simple thing but as a man it brought back life into your body, as a male. And that was really nice. Now don't think in a sexual way or that, but on closeness, and in assisting me, course she was the closest to me. And the nurses. But never before has a person put me against her breast, if I can call it that, because I'm leaning against her that was nice and I would call it a sexual encounter, but being a man and encountering a female close to you, that was nice! and I'm still a maaan! Come on! Laat ek jou gryp! But that is the idea. That feeling of life coming back. Now talking about sex with another person would have been awkward and difficult and fortunately that didn't happen. At a later stage, you had to discuss those issues. Yah sure no problem. So development was nice, people that were with me was beautiful.

But sometimes it was awkward, for example emptying the stomach. Not everybody was keen on doing especially some of the nurses. (Uncomfortable laughter) you could hear, sense the uh he, postponing it (uncomfortable laughter).

But they were some that were excellent, this little nurse, I've forgotten her name. Eh, one day I said, 'I'm very sorry that you have to do this,' she said, "uh don't worry, I love shit" (laughs). The nurses and the staff make it so much easier for a person to come back into life.

There can also be a big stumbling block for people. To be able to, make the transitions. Because they might encounter or feel resentment. They might feel that, and that means they are alienated within a society, where they are suppose to be accepted in the first place. Now if a person gets alienated there it's, sooner difficult in the bigger society to be accepted. Although people may accept you, you already dealt a blow and you unaccepted. Although you may be accepted. Fortunately for me that was not the case. I thoroughly enjoyed the people there, working with me and they did an excellent job. They were beautiful.

But on the other hand, I influenced their lives as well. Because they saw a person whose back was broken, and is now disabled, but he has the joy of life. And is living each day to the fullest and trying his hardest. And that made them positive. And they were reciprocating, what I was giving them they were giving back to me. It was beautiful. We loved it.

One day (laughs embarrassingly) mmm. The nurse was taking me into the bathroom, and now initially they do the gloving thing, they put on the gloves and take out the fesses for you when you are not on the toilet. And later on they teach you how to do it. Now usually with being in the bathroom for about half an hour to three quarters of an hour, and at that stage you were err, doing, what you call it. I forgot the name but anyways it entails a water bag, you put it at the bottom and it emm the water goes into your colon and it flushes everything out. What you do is, you put in all the water there and you wait for it to come out, and then you put it in again and you wait again. And then the nurse, was calling me "you must come, you must finish neh, your time is up" I said 'no I wanna make sure that everything is out. So I will wait' so I was there an hour, hour an a quarter,

hour and a half, and then I said ‘ok everything must be out now.’ So we went and they took me back to the bed. Difficult process, it takes long. You are tired, and at that stage, you’re not strong man. You still though weakly. But you had to sit at the toilet for that period of time. So we go back to the bed, and we just about, I’m sitting on the commode. It’s a wheelchair with a whole inside of it. I’m just about and I’m lifting myself up. And they are assisting me to get over into the bed. Now at that stage we have become a little bit stronger. And have learned how to displaced from one place to another place. So I lift myself, as I lift myself to move over I leave this big... (Silence). Yes mess on the ground, and the nurses don’t see it. Their standing in front of me and then I look down, and I go down and I start to laugh. So says (bang slightly on the desk) “what’s wrong! Why I you laughing?” I say ‘this big ball of (laughs embarrassingly), and they started laughing saying “Uh no problem.” And that made it so much easier. And even with me who enjoyed the process of becoming strong again.

Because I wanted to become strong, I was an athlete. I want to get there again. Promised myself ne, I was gonna get strong. ‘You gonna be the best. They could have made it very difficult for me, but they didn’t. Those people are life savers or they are killers. Fortunately the ladies I had, assisted me to work beautifully. And I could not say I recovered and had a positive attitude on my own. Those people impacted positively on me. That’s contributed positively to whom I am today. And the way I view disability it was wonderful.

Ya, I as fortunate because I did have that support structure. They were there often, always. That was beautiful. Eh, and they also assisted my girlfriend Anna-Marie at that stage, who later became my wife.

Eh for me that support system was wonderful. Now, actually it was bit overwhelming and too much for me. I could have done with a lot less. Because you need time to reflect and you need time to work through everything. But on

the other hand, it did not allow you to be alienated, to be alone or lonesome. They didn't really allow that, although I needed more space on my own.

Just to think about these things. It was often a situation, I really wanted to rest. But there was often people with me and that bothered me because I couldn't rest. But my family was nice in a sense of "you know what if you want to sleep, sleep, you don't need to be awake for us and then after that they keep people outside who wanted to come because I was sleeping and say they can come back later. Initially although it was a bit of a frustration actually it had a very good spinoff.

So (silence). The first day after metric I took my staff and I left home from that day on I was very independent. And that's why I say I didn't enjoy my parents crowding me a bit, because I've never been used to that. I was independent from the start. So I was never dependent on them to assist me with anything I went on with my own life although I love them and I often went to visit them, and tell them I love them. It wasn't a situation that I need their closeness and their supporting I wanted to do it on my own but at the end of the day I really appreciated their presence and their love. For me it was a bit overwhelming and I understood, why and I could live with it. So for me it was a bit too much but it was fine (laughs).

...I knew my parents loved me but weren't shown in affection, they also always scared, there was always for me kind of a barrier between me and my parents you couldn't go and show some 'oh, I love you' (famine affection tone) and whatever goes with that, it was also my, eh pe my parents know I love them. And they wouldn't often come and tell us that they loved us, my father told me he loved me the first time when I was at university. Telephone conversation, said "I miss you and I love you" and I nearly fell over (laughs uncomfortably). So my accident happened when I was thirty two, so just to give you an idea it's probably at the age of twenty two that he told me that he loved me, and still it wasn't a close relationship so for me disciplined ruled my life. Set rules. Now when you

are in an accident and you used to that, the set rules that apply and you know what you have to make a plan you have to adapt and you go on. And you don't moan about, and that's the way my whole life was. That's the way they handle people. And that's also the way I handled myself.

Because you don't ever go sit in a corner and you cry about something, you identify the issue try and understand the issue see what you can do about it, make a plan execute the plan and then if it doesn't work you review your plan and you try something else, its always how its been. And I think that's the way I handled my rehabilitation my life and everything that goes with that. But as you become older and you have experiences with people you have to allow more space for people, because you cannot handle everybody on the same basis and same rules you handle yourself therefore you have to allow more. After the accident it has happened that I had to do with more people based on their appointment. As a junior you are not in a, lets called it, a managerial position, as you become older, as you develop, as you grow up in life you get that opportunity, and that allows for maybe a more laid back approach, it's ok, if you don't get everything right the first time. It's ok if other people to measure up to your standards, step back a little bit allow them some room lets' see if we can develop. Lets' be patient, and that means you suddenly learn to be patient more patient with yourself and other people around you, so that's where development has been, has occurred. But not necessarily related to the fact that you are in a wheelchair. It's the normal way of life.

So how am I different from before? Err I think that's also the reason why my wife married me, because I'm exactly the same person after the accident that I was before. whether that can be attributed being in a wheelchair or the accident, I'm not so sure, I think is something that comes with as you develop as an individual, whether you are in a wheelchair or not, that would happen, but being in a wheelchair of course has taught you, to be more patient. Because the symptoms of being in a wheelchair, is not just that you can't walk, you ankles start to swell

up because the blood circulation is not good, now although I don't have any feelings in my lower extremities, I can tell you when my feet I starting to swell. My body reacts and comes into err a ...lot if I can called like that and say something is wrong, my body is uncomfortable. And then I know, mm..my ankles are started to swell. Apart from that I have unfortunately the difficulty of constipation, constantly, I.. I live on laxatives each day. Without the laxatives and even with them I am constantly blotted, and uncomfortable. So you feel frustrated, irritated the whole time, now imagine, each day you are in Bloemfontein and you drive down to Cape town, which is a thousand kilometres, ten day, ten hours ne, and the next day, you drive back to Bloemfontein, the next day you drive back to Cape Town. Just imagine how you gonna feel. And the whole time you are sitting, you don't once get the opportunity to stand up, ok! All the time you are blotted, yes, later on you feel like killing yourself ne (laughs), now initially when I started to work and I often prayed the morning I pray for God to assist me because in my own power I cannot get through this day (clap hands), because you have the constipation. And at that stage don't really know what's going on and why it's like that, yo er learn still learn a lot of your body; you are still a bit weak. Go and then initially starts the half days work and then the full day. But by the end of a full day you are soo tired you can't even push your wheelchair to get to the car and the you have to get in and get out again load in your wheelchair and everything that goes with that, and you feel oh I'm not gonna make this day, and you ask God to give you strength. Be patient. So if you can go one centimetre you can go two, if you can go two you can go four and if can go four you can go eight, and that's the one thing I've learned being in a wheelchair, you need to be patient, and if you can do a little bit, you can do more, and if you can do more you can do a lot and if can do a lot you can do anything.