

SECTION A

OVERVIEW OF THE STUDY

This thesis consists of three sections, namely an overview of the study (section A), three manuscripts (section B), conclusions and recommendations, combined list of references of section A and B and addenda (section C).

In this overview of the thesis titled “**A group resilience-promoting programme (GRPP) for individuals whose partners have acquired a spinal cord injury**”, the background and rationale for the study will first be reflected upon, as well as the resilience-based framework, the purpose statement, definitions of concepts, research questions, objectives of the study, research methodology, participants and sampling, data gathering, data analysis, ethical aspects and trustworthiness. Finally limitations and contribution of this study and the choice and the structure of the research report will be addressed.

See Figure 1 for a schematic representation of this study (Overview of the study)

Figure 1: Schematic Representation of this Study (Overview of Thesis)



After the overview of the study, section B will follow, which consists of three manuscripts, each prepared according to specific journal guidelines as stipulated at the end of each manuscript; consequently the referencing styles of the manuscripts will differ from one another. Each manuscript is dealt with as an independent unit, focusing on a specific secondary research question answered by applying multi-research methods. Therefore each manuscript has its own problem statement/introduction, research methodology section, results section, and discussion section. Despite each manuscript representing a bounded unit, together they form a cohesive response to the main research question and purpose of the study; therefore the formatting of the manuscript in terms of the font, spacing, numbering of headings and figures were kept consistent. Subsequently this is followed by section C, which entails the study conclusions and recommendations, a consolidated reference list of the overview and manuscripts included in section B as well as addenda. This overview serves as a background document on the rationale and purpose of the study as well as the research methodology of the current study. The three manuscripts in section B serve as research reports on details of empirical research. It is, therefore, acceptable that some repetition of content may occur between the three sections.

1 BACKGROUND AND RATIONALE FOR THE RESEARCH

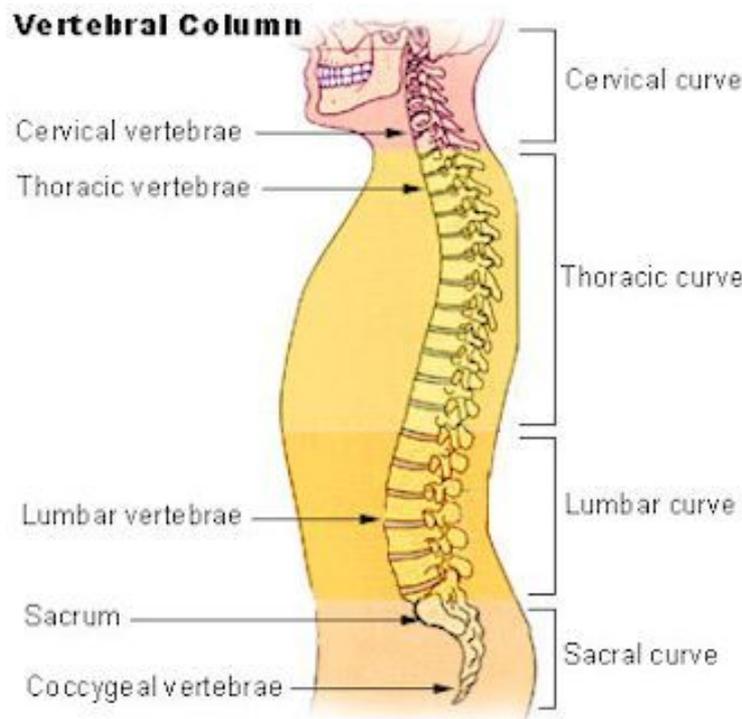
Acquiring a spinal cord injury (SCI) has devastating long-term negative outcomes for both the injured person and his/her partner. Exposure to such prolonged adversity, calls for some intervention to assist with positive adaptation. Such positive adaptation is called resilience. Not all people possess the natural ability to “bounce back”; consequently resilience promotion is imperative. The focus of service delivery during rehabilitation of the SCI is mainly centred on the injured person and consequently the spinal cord injured persons’ partner (SCIPP), who is often the main source of support, and is confronted with this life-altering experience and resulting negative outcomes. In South Africa, literature on

support programmes for SCIPPs is scarce, and more specifically resilience promotion programmes. In order to address this practice need, the researcher executed an intervention research study and developed a group resilience-promoting programme for SCIPPs.

1.1 Introduction to and definition of spinal cord injury (SCI)

Spinal cord injury (SCI) is an acquired physical disability brought about by any of a variety of traumatic injuries such as car accidents and shooting accidents, as well as non-traumatic injuries such as a tumour on the spinal cord (International Spinal Cord Society ISCoS, 2012). This life-altering experience includes severe permanent lifestyle changes for the injured person, the partner, children, and other family members (Chappell & Wirz, 2003:162; Keleher, *et al.*, 2008:75; Young & Keck, 2003:1). The Medical Dictionary (2012) defines a spinal cord injury (SCI) as damage or trauma to the spinal cord which results in a loss of function and mobility or impaired function and reduced mobility. Unlike other parts of the body, the spinal cord is not capable of repairing itself if damaged. Consequently a person who has acquired an SCI will suffer a physical disability and will be either a paraplegic – paralysis of the lower part of the body, including the legs – or a quadriplegic – which is paralysis of all four limbs (ISCoS, 2012; The Medical Dictionary, 2012). Please see figure 2 for a schematic representation of the spinal cord, with a summary thereof, afterwards. Further elaboration on SCI is covered in 5.2 – 5.4.

Figure 2: The Spinal Cord (vertebral column)



Cervical (Neck) injuries C1 – C8	Most severe of the spinal cord injury levels (usually fatal as a possible result of inability to breathe/requires 24 hour a day assistance = quadriplegia)
Thoracic Vertebrae T1 – T12	Spinal cord injury above T1 = quadriplegia (affects arms and legs); Spinal cord injury below T1 = paraplegia (usually only affects legs and trunk).
Lumbar Vertebrae L1 – L5	Injuries generally result in some loss of function in the hips and legs (little or no voluntary control of bowel or bladder - some can manage without a wheelchair or walk with braces).
Sacral Spine S1 – S5	It consists of 3 to 5 bones that are fused together in an adult (e.g. people with rheumatoid arthritis or osteoporosis are inclined to develop stress fractures and fatigue fractures in this part of the spine)

(Langtree, 2008)

1.2 Causes of SCI

An acquired disability such as an SCI is caused by a number of different traumatic and non-traumatic injuries, with those prevalent in the United States of America (USA) and Japan being vehicle accidents (44%), acts of violence (24%), and falls (22%) (Biering-Sørensen *et al.*, 1990:330; Burt, 2004:28; Dawodu, 2011; National SCI Association, 2012). In South Africa, however, researchers have found gunshot injury to be the leading cause of traumatic SCIs, followed by car accidents (Harrison, 2004:1-104; Hart & Williams, 1994:709-714). Non-traumatic SCI can originate from genetic disorders or acquired

abnormalities, for example a tumour or infection of the spinal cord, amongst others (ISCoS, 2012).

1.3 Prevalence of SCI

The prevalence of SCI is increasing globally (Dawodu, 2011), leaving thousands of people injured, who are now faced with the reality of being paralyzed and consequently have to cope with severe permanent lifestyle changes (Chappell & Wirz, 2003:162; Keleher, *et al.*, 2008:58; van Zyl, 2008:95; Young & Keck, 2003:1-3).

1.3.1 International statistics

The International Spinal Cord Society (ISCoS, 2012) reveal that approximately 250 00, 00 – 500 00, 00 people acquire an SCI annually (Kalke *et al.* 2014:72-75). An estimated 12 000 Americans acquire an SCI each year (Biering-Sørensen *et al.*, 1990:330), and German SCI Centres report to have 2 200 admissions with SCI annually (Kalke *et al.*, 2014:72-75). A recent comparative analysis by Vasiliadis (2012: 336-340), which included studies from America, Europe, Africa, Asia and Oceania reported the prevalence of SCI the highest in Portugal (Europe) with a 57.8 incidence per million people, and Western Canada (America) with 52.5 incidence per million people.

1.3.2 National statistics

In South Africa statistics on SCI are limited and researchers have to rely mostly on statistics kept by individual rehabilitation centres. One documented study report on an eleven-year descriptive study (from April 2003 – April 2014) at a Rehabilitation Hospital in the Western Cape indicates that a total of 2 042 patients were treated for SCI, with an average admission of 185 new patients per year, and 15 new patients per month (Sothmann *et al.*, 2014).

The researcher approached rehabilitation centres to obtain statistics on the prevalence of SCI. Rehabilitation centres in Johannesburg and Pretoria reported that they had treated approximately 350 patients during 2009 to 2011 (van Niekerk, 2011, 2012; van Vuuren, 2013).

1.3.3 Prevalence of SCI is higher among males than among females

Vasiliadis (2012:342) conducted a global study on the male-female ratio, amongst others, and reported that one out of every four SCI persons is a female. This concurs with a South African study by Sothmann *et al.* (2014) in the Western Cape, which indicates that a total of 2 042 patients were treated for SCI, of whom 84% were males, and 16% females.

In sum, the available statistics suggest a large number of people, mostly males, are confronted with the traumatic experience of acquiring an SCI. It is, however, not only the injured person, but also his family, and more specifically his or her partner, who is confronted with adjusting to the negative outcomes of this life-altering experience.

1.4 Multidimensional risk of SCI

Literature states unequivocally that, in the presence of risk, for instance acquiring a traumatic injury such as SCI, potential negative outcomes are expected to follow (Masten & Wright, 2010:220; Simpson & Jones, 2012:368). The acquirement of a disability such as SCI might be a risk factor for psychological and physical impairment (Keleher *et al.*, 2008:58; O'Connor *et al.*, 2004:207). The potential negative outcomes of SCI can be identified at the following four levels: physical, psychological, psychosocial, and socio-economical (Chappell & Wirz, 2003:162; Keleher *et al.*, 2008:58; O'Connor *et al.*, 2004:207; van Zyl, 2008:95; Young & Keck, 2003:1), and will subsequently be discussed.

1.4.1 Physical level

Firstly, at a physical level, the injured person is confronted with numerous potential negative outcomes as a result of SCI. After the traumatic incident, the person will be admitted to hospital and, thereafter, to a rehabilitation centre; the duration depends on the level of the SCI the person has acquired (Saulino & Keenan, 2012), but could vary between three and eight months. Injured people with SCI have changes in bowel, bladder, and sexual functioning (O'Connor *et al.*, 2004:207), loss of skin sensations, loss of circulatory control, respiratory problems, muscle tone problems, and constant pain (Mayo Clinic, 2012), resulting in it having an influence on their physical functioning (Keleher *et al.*, 2008:64). This results in the person being less mobile than before and having difficulty performing everyday activities such as getting dressed or taking a bath. In addition, pressure sores and spasms are often experienced (ISCoS, 2012; South African Spine Society, 2012), leaving the person with uncertainty and humiliation because he or she might become dependent on his or her partner and others for physical care (de Kooker, 2005:25; Pienaar, 2008:10; Steyn, 2008:66-69).

This physical impairment of the patient puts strain on the relationship between the injured person and SCIPP, since the original relationship changes. The partner has to assist his/her spouse daily with physical tasks such as getting dressed and having a bath, which might place even more strain on the relationship. Partners need to be prepared and provided with the necessary knowledge and skills shortly after the acquired physical disability, amongst others, on self-regulation and negotiating actions to make positive adaptation more successful in order to adjust positively during the continuous hardships they might experience.

1.4.2 Psychological level

Secondly, several potential negative outcomes may be experienced at a psychological level. Persons who have acquired an SCI may be challenged by negative labels such as being disabled (Cohen & Napolitano, 2007:148; Ross & Deverell, 2010:20). Lee and Green (2002:311) and Saulino and Keenan (2012) highlight that SCI differs from other major life-changing injuries in that many of the potential negative outcomes continue throughout the person's life, with little hope of recovery. Subsequently, there is a high sense of loss of control, resulting in feelings of powerlessness. The Mayo Clinic (2012) has found that around 20% of patients leave spinal cord injury centres clinically depressed. Cohen and Napolitano (2007:148), Keleher *et al.* (2008:64), and Post and van Leeuwen (2012) also refer to depression, anxiety, psychological numbness, disorganisation, or depersonalisation as commonly associated with an acquired disability such as SCI, especially in the early stages of rehabilitation.

Studies done nearly two decades ago by de Vivo *et al.* (1991:620) and Judd and Brown (1992:173) point out that suicide following SCI appears to be greater than in the general population. Mindful of the afore-mentioned, Post and van Leeuwen (2012) illustrate that SCI is associated with abnormal levels of psychological morbidity, substance abuse, and also the risk of suicide. In their study, Migliorini and Tonge (2009:448-449) emphasise that many individuals with SCI do not live satisfactory lives. It is, therefore, crucial that further psychological care and rehabilitation take place to adjust positively after spinal cord injury.

The SCIPP has to face the possibility that his/her partner may struggle for several years to accept the reality of being paralysed and, furthermore, has to deal not only with the partner's psychological reactions, but also has to accept the reality that their entire life as a

couple has changed and therefore needs to learn to regulate his or her own reactions. Against this background, the need for early intervention involving the SCIPP to navigate, meaning-making appeared imperative.

1.4.3 Psychosocial level

Potential negative outcomes at a psychosocial level for the injured person and SCIPP have become prominent in SCI research in the last few decades. Due to the negative impact of SCI on the romantic relationship, both international and local studies concur that there is a high rate of divorce after SCI, and commonly, it occurs within three years of injury (Arango-Lasprilla *et al.*, 2009:1371-1378; Karana-Zebari *et al.*, 2011:120; Keleher *et al.*, 2008:62, 66, 68; Phelps *et al.*, 2001:591; Scelza *et al.*, 2007:71-75; Steyn, 2008:106). Despite the prominence given to the potential negative outcomes of SCI for relationships, Chan *et al.* (2000:501-507), Dickson *et al.* (2011:253), and North (1999:674) report that frustration, at an early stage, can be prevented if more information concerning the injury is shared and if SCIPPs are made aware of how to foster and strengthen their attachments with their partners. A study by Crewe and Krause (1988:435-438) and also a literature study by Smyth (2013:1-11) found that those married after SCI (post-injury) reported greater satisfaction with different aspects (levels) of their lives (sex lives, living arrangements, social lives, health, emotional adjustment) than pre-injury marriages; furthermore, that couples with pre-injury marriages seem to be more depressed and less satisfied than those with post-injury marriages. A significant difference between pre- and post-injury marriages occur, which sensitized the researcher to the fact that those pre-injury relationships might be more at risk and might need some intervention to take place.

1.4.4 Socio-economic level

Lastly, at a socio-economic level, several potential negative outcomes of SCI are experienced. Reeve and Reeve (2012) have found that approximately 25% of paralysed people live in poverty due to the fact that they can no longer work or their partners have to quit their jobs to become their caregivers, with resulting financial consequences. Lee and Green (2002:311) and Priebe *et al.* (2007:84) summarise that SCI is expensive and that significant costs are incurred throughout the life of a person with SCI, including initial hospitalisation, acute rehabilitation, home and vehicle modifications, recurring costs for durable medical equipment, supplies, medications, and personal assistance. Thus, at a socio-economic level, the couple is constantly busy adapting to the prolonged risk of the presence of an SCI, and creative problem-solving skills need to be promoted.

1.5 A Loss and trauma-informed theory for this study: Trauma-informed Care (TIC)

The National Center for Trauma informed Care (NCTIC0 (2013) adopts the approach of trauma informed care (TIC) in assisting people to recognize the presence of trauma symptoms in their lives and helps them to acknowledge the role that trauma is playing in their lives. Therefore TIC is a principal framework that emphasizes the impact of trauma and that guides the general organization and behaviour of an entire system (Hopper, Bassuk & Olivet, 2010:81). As the GRPP for SCIPPs aimed at promoting SCIPPs resilience, the researcher adopted the TIC-theory to support the resilience-based framework in promoting the resilience of SCIPPs.

1.6 The researchers' interest in SCI

An SCI exposes both the injured person and his or her partner to prolonged risk, with a resulting potential negative outcome for the romantic relationship (Isaksson *et al.*, 2008:245; Steyn, 2008:62-63). The researcher has first-hand experience of this, as she is married to a person who had acquired an SCI in 2003. For both the researcher and her husband the information and skills that were supposed to have been given to the couple during his rehabilitation-period in preparation for what was awaiting them after his injury were lacking. As a result of the continuous adversity with which they are faced on a daily basis, they have struggled to adapt positively and to successfully reintegrate after the traumatic injury.

The researcher started wondering about how other couples, in a situation similar to theirs, experienced their new situation; thus, with a view to establish what the needs and experiences of such couples are after and due to the accident, she conducted a qualitative study during her Master's studies with couples of whom one had acquired an SCI. In this study, it was found that the most important source of social support to the person who had acquired an SCI was the partner (Steyn, 2008:105-106). Furthermore, it was suggested that the most important changes in the marriage after the acquired physical disability were the changing of gender roles and the loss of the original relationship. Participants in this study reported that there was a lack of emotional support during the rehabilitation phase. In addition, they reported that they were not prepared with the needed knowledge and skills to help them to adjust well to the life-altering experience. It also appeared that the rehabilitation interventions were mainly focussed on the injured person, and mostly only attending to the physical needs of the spinal cord injured person (Steyn, 2008: 105-106). Evidently, participants verbalised the need for skills to positively adapt to the adversity

that they would face continuously. Positive adjustment to a prolonged adversity such as an SCI, and resulting negative outcomes, could be called resilience (Ungar, 2008:225).

Being a marital therapist herself, the researcher became aware that a mere marital therapeutic programme addressing, amongst others, issues such as conflict, communication challenges, and different sexual needs, was not sufficient for couples and specifically the partner of the person who had acquired an SCI. Over and above the issues mentioned above, the partner of the person with an SCI needed to learn and develop skills that were resilience promoting and grounded in the enhancement of protective processes in order to build on existing strengths and learn how to adjust positively to the prolonged risk as a result of the partner's injury (Masten & Wright, 2010:222-229). After a literature review, and consultations with experts, the researcher became aware that no known resilience promotion programme existed for SCIPPs; therefore decided to investigate the need for a resilience-promoting programme (GRPP) for SCIPPs (spinal cord injured person's partners) that could assist them with resilience-promoting knowledge and skills.

1.7 A need for a resilience-promoting programme

The negative outcomes for the SCIPP who has to deal with his/her own frustrations and uncertainties in adapting to this adversity, amidst the sudden care-giver burden, having to take over more responsibilities and dealing with his/her partner's psychological and emotional adjustment are also highlighted in literature (Steyn, 2008: 62-68; Young & Keck, 2003:1-3). It is thus imperative for SCIPPs to be able to regulate their own emotions, actions and reactions in order to adapt positively despite the hardships. If the SCIPP adapts well to the prolonged adversities caused by the SCI of the other partner, it could also ultimately contribute towards the well-being of the injured person as well as the future of the couple. This will hold benefit not only for the SCIPP, but also for his/her

partner, their children, other family members, and the community at large. When couples of whom one has acquired an SCI cope positively with the adversities inherent in such a trauma, they function resiliently (Dickson *et al.*, 2011: 252; Dunn *et al.*, 2009:653; Fronck *et al.*, 2011:99; Gilad *et al.*, 2009:462; Steyn, 2008:113). Such resilience, regardless of trauma and loss, is regarded by Bonanno *et al.* (2011:513) to be fundamental to such positive adjustment. Bonanno *et al.* (2011:513) states that some people have the natural ability to resile in adverse circumstances, but Masten (2001:228) and Schoon and Bynner (2003:22) on the other hand agree that some people might need resilience-promoting assistance. Catalano *et al.* (2011:209) and Dodd (2010:61) highlight the need for professionals to provide opportunities for promoting resilience in individuals whose partners have an SCI, as it could consequently reduce or prevent depression of the SCIPP and contribute to a positive outcome in the marital and cohabiting relationship.

The researcher realised that resilience is a capacity that develops over time (Fletcher & Sarkar, 2012:669-678) and that partners of individuals who have acquired an SCI may initially be resilient and may manage to continue functioning at normal levels, even soon after life-altering events (Bonanno, 2004:20). However, the researcher considered that if an individual reacts positively to adversity at one point in his or her life, it does not mean that person will react similarly to negative outcomes later in his or her life. Resilience researchers such as Ungar (2011:11) emphasise the changeable nature of resilience. From personal experience and the researchers' MA study, the important role the SCIPP plays in supporting the injured partner became evident; hence the focus of this study on the SCIPP.

1.8 Rationale for focussing study on female SCIPPs

In light of the fact that SCI is more prevalent among men (Vasiliadis, 2012:336-342; Sothman *et al.* 2014:1-14), consequently leaving more females at risk due to potential

negative outcomes of their partners' injury, the researcher decided to focus this study on female SCIPPs. Divergences in the nature of the different sexes (Conner, 2006), amongst others, predisposes the researcher to the possibility that males and females might experience the acquisition of the SCI of their partners differently, and that the different sexes should be exposed to therapeutic intervention separately. Therefore this group resilience-promoting programme (GRPP) for SCIPPs was developed specifically for female SCIPPs, seen in the light of above-mentioned statistics (rationale for a group programme is explicated under point 3). The researcher however considers that male SCIPPs might experience unique hardships of their own, and therefore a study for male SCIPPs could be addressed during postdoctoral studies. Furthermore, post-injury relationships might also need interventions which will also be considered in future (Crewe & Krause, 1988:435-438).

1.9 Resilience studies within the context of SCI

Isolated studies globally report on the resilience of individuals who have acquired an SCI, or on their partners' resilience. In Israel, Babamohamadi *et al.* (2011:836) found that understanding strategies that influence the injured person's coping with the SCI will contribute to the nursing body of knowledge. Other studies focusing on the resilience of the person who has acquired the SCI, report that the promotion of resilience must be considered during the rehabilitation period due to the injured individual's continuous exposure to risks (Isacksson *et al.*, 2008:245; White *et al.*, 2008:15; White *et al.*, 2010:27). A study investigating resilience and health consequences in people with traumatic injury, including SCI (Dodd, 2010:57-77), found variations in reported resilience by individuals during a three-month follow-up after discharge from rehabilitation. Individuals who had reported greater resilience during the rehabilitation process appeared to have reintegrated well into the community. However, patients who had reported lower resilience during the

rehabilitation process reported dysfunctional integration and higher depression during a three-month follow-up (Dodd, 2010:57-77).

One study by Dickson *et al.* (2011:251) explored adjustment and coping in partners of the person who had acquired an SCI. The participants in the study strongly motivated that strategies should be in place to equip the partners of the injured person to cope better with the adjustment and, specifically, with their caregiver role. There are, however, no scholarly articles that report on the resilience or promotion of resilience of SCIPPs in South Africa.

Researchers have advocated for interventions to support and empower SCIPPs (Chan *et al.*, 2000:501-507; Middleton *et al.*, 2014: 1313). Thus far, however, only one international study, conducted in the US by Elliot *et al.* (2008: 1226 -1228) examined the usefulness of an individualized problem-solving intervention, conveyed in videoconferencing sessions with family caregivers of persons living with an SCI. This study was also not designed only for SCIPPs, but for any family member who has adopted the caregiver role with regard to a person who has acquired an SCI. Elliot *et al.* (2008:1226 -1228) concluded that community-based telehealth interventions may assist family caregivers and their care receivers, but the mechanisms of these effects still remain unclear. A recent systematic review of telehealth tools and interventions to support family caregivers was done, by means of which thirty-three articles were found with the focus on family caregivers, but no studies regarding SCI and family caregiving were reviewed, and again no specific interventions with SCIPPs were discussed (Chi & Demiris, 2014:37-42). None of these studies, however, aimed at promoting the resilience of partners and caregivers.

In South Africa limited support or therapeutic services are available to the SCIPP, as treatment-intervention at rehabilitation centres are mainly focused on the SCI person

(Steyn, 2008: 81; van Niekerk, 2011, 2012 & van Vuuren, 2013), and no documented resilience-promoting programmes for SCIPPs are available. Supportive interventions, and specifically promoting resilience in SCIPPs in order to adapt positively to the prolonged adversities, is thus a practice need, and therefore the researcher set out to address this practice need by applying an intervention research model by following the six phases of a Design and development model (Rothman & Thomas, 1994:5; Strydom & Delport, 2011:390-496) (see figure 7).

2 A RESILIENCE-BASED FRAMEWORK

2.1 Resilience defined

When defining resilience, there are two core elements that need to be present, namely (1) the presence of risk, significantly enough that it threatens to disrupt normal development, and (2) the ability to adjust well to experiencing significant risk (Masten, 2001:228; Schoon & Bynner, 2003:22). Until recently, resilience was thought of as an individually focused construct, and a combination of individual capacities and environmental support were associated with an individual's success when facing risks. However, Ungar (2011:11) suggests that the focus should alter from resilience as an individual trait to a process-based trait more on the quality of the support within the individual's social and physical ecology.

2.2 Types of approaches to resilience interventions

The researcher acknowledged that interventions are harmful when there is a substantial gap between the goals of these interventions and empirical research to support their efficacy (Bonanno *et al.*, 2011:523); nevertheless, her experience as a therapist and wife, as well as her allegiance to the spirit of resilience theory (which was to study resilience in

order to intervene in ways that will promote greater resilience), urged the researcher to pursue a GRPP for SCIPPs, albeit cautiously (Theron & Theron, 2013:391-413).

Three types of approaches to intervention have been identified in relation to promotion of resilience (Masten *et al.*, 2009:128):

- Risk-focused strategies – the focus is on risk reduction.
- Assets-focused strategies – the focus is on accessing socially available resources that moderate risk.
- Process-focused strategies – the focus is on providing processes that enhance resilient functioning.

2.2.1 A process-focused approach for this study

A process-focused approach was chosen for this study, as the aim in this study was to promote resilience processes in SCIPPs. These processes will be facilitated by a group intervention programme, which focuses on providing knowledge and developing skills that are critical to the management of the prolonged risks, encouraging positive adjustment for the SCIPP, and applauding the development of a new lifestyle and identity by navigating the six universal protective processes as described by Masten and Wright (2010:222-229). Masten and Wright (2010:222) further found that these universal protective processes contribute towards a person's resilience over the lifespan, such as individual capabilities, social supports and relationships, and protection embedded in religion, community or other cultural systems. The individual at risk, thus, identifies protective resources within his or her social ecology and navigates towards support in an attempt to capacitate him/herself to adjust well to risks (Ungar *et al.*, 2012:350-355). The social ecology thus has to actively present support mechanisms and partner with individuals to facilitate enablement. The influential role protective processes play in assisting individuals and families to overcome

risks, stress and adversity was also found in the course of the same decade, in studies undertaken by Vasquez (2000:110) and Patterson (2002:358). Although these protective processes are mostly aimed at resilience in children at risk, it was included in interventions with adults such as the development of a US Army Master Resilience Training course (Robertson *et al.*, 2014:533-562). Masten and Wright (2010:222-229) conclude that resilience-promoting person-context interactions are embedded in six protective processes over the lifespan, the first of which is “attachment relationships” (Masten & Wright, 2010:222), a term that refers to the bond between the child and the primary caregiver, influencing on-going relationships with friends, partners, and colleagues, which provides security and protection in times of severe stress or adversity. Therefore positive attachment relationships across the lifespan are of importance concerning cumulative trauma, as in the case of an unexpected acquirement of an SCI in the lives of a couple (Masten & Wright, 2010:224).

Secondly, there is “agency and the mastery motivation system” (Masten & Wright, 2010:224), explaining that people are more likely to adapt positively when they view themselves as thriving, when they are motivated to achieve goals, and when they experience success in this regard. They are therefore motivated to persist in the face of difficulty, which makes them more likely to succeed under adverse conditions, and taking active steps in a new direction can be initiated through mentoring (Masten & Wright, 2010:224-225); such as exposing people to a resilience-promoting programme. The third reported protective process is “intelligence” (Masten & Wright, 2010:225), involving intelligent behaviour such as problem solving, which develops over time, in accordance with socially supported learning opportunities. Individuals learn in different ways, such as through experience; opportunities to learn (e.g. education on a specific adversity); peer-relationships; such as mutual encouragement. This mentioned resilience protective factor

can be improved by including individuals in a specific intervention (Masten & Wright, 2010:226-227). In the fourth place, “self-regulation” (Masten & Wright, 2010:225-226) enables individuals to control their own behaviour in compliance with the given social ecology, as taught and reinforced by that system as the inability to regulate impulses might predict many difficulties when facing adversity. Assisting people with skills to be able to better self-regulate can be done by prevention efforts, such as provision-specific interventions with people that are suffering hard times (Masten & Wright, 2010:226-227). “Making meaning” (Masten & Wright, 2010:227) is the fifth protective process and refers to making sense of life and having hope, and the optimism that life will improve, which plays a key role in sustaining individuals through great adversity (Masten & Wright, 2010:227). Including people in an intervention, such as a resilience-promoting programme can improve their optimism that their life will once again become more harmonious. The last protective process is “cultural tradition and religion” and refers to beliefs and practices that enable people to deal with hardship. Many beliefs, rituals and practices can assist people in dealing with expected and unexpected adversities, such as engaging the fundamental adaptive systems implicated at the individual level in resilience research, including attachment, self-regulation and meaning making (e.g. mediation practices etc.) (Masten & Wright, 2010:228).

This proposed process-focused strategy, which aims at promoting the six universal protective processes, differs from rehabilitation programmes found in practice. In many countries worldwide (Mayo Clinic, 2012; van Niekerk, 2011, 2012; van Vuuren, 2013), as well as in South Africa, the rehabilitation of people with an SCI mostly focus on the physical care of the injured person and is conducted by a medical doctor and other medical staff such as a physiotherapist and an occupational therapist (South African Spine Society, 2012). The afore-mentioned is confirmed by social workers employed by rehabilitation

centres in Gauteng, South Africa (Schultz, 2012; van Niekerk, 2011, 2012; van Vuuren, 2013). Furthermore, they stated that rehabilitation is mainly focused on assisting the patients with the physical adaption (Schultz, 2012; van Niekerk, 2012) and that assistance regarding adjustment in the cohabiting or marital relationship is provided on request. They also confirmed that no known formal programmes exist and that little is known about the construct of resilience or resilience promotion.

Internationally and locally, many intervention programmes to enhance resilience among adults in the presence of significant adversity and placed at risk by disease have been developed and evaluated for psychosocial phenomena such as breast cancer survivors (Loprinzi *et al.*, 2011:364), teachers confronted with the HIV/Aids pandemic (Theron *et al.*, 2010:85), and divorced parents (Bannister, 2007:111). However, none exist for promoting resilience in a SCIPP adjusting after the SCI of his/her partner.

There are studies on interventions with persons with disabilities such as SCI, but, generally, they are more well-being oriented (Migliorini & Tonge, 2009:445-450) and not focused on developing skills that are critical to the construct of resilience through education (such as a GRPP), so that individuals can access and use a resilience-promoting process to assist them in adapting positively to continuous adversity. Furthermore, none of these studies focus on an acquired disability such as SCI; neither is the SCIPP emphasised. For these reasons, the researcher conducted this study.

3 RATIONALE FOR A GROUP WORK PROGRAMME

Bearing in mind that resilience theory is the resilience-based framework that directs this research study (Masten & Wright, 2010:222-229; Ungar, 2011:4), and that resilience can no longer be seen as an individual characteristic/trait, but rather navigation between the person and the social-ecology in an effort to negotiate support (Masten, 2001:228; Masten

& Wright, 2010:222-229; Ungar, 2011:4), the researcher aimed at adopting group work as a social work method that will be best suited to fit the aims and objectives of this study. Social group work sets a platform where members come together for group sessions including a series of activities, with a common aim (purpose or function); carried out by a group facilitator during the life of a group (Barker, 2003:342), where group members can support one another (Toseland & Rivas, 2014:16). During the rehabilitation period directly after the injury of the partner, the SCIPPs would often visit his or her injured partner, and as such would come into contact with other SCIPPs who are in the same situation. A group intervention could provide the needed support and resources.

4 PURPOSE STATEMENT

The purpose of this research inquiry was to design and develop, based on the findings of a literature study, and an empirical investigation, a group resilience-promoting programme (GRPP) for SCIPPs (spinal cord injured persons' partners) in South Africa.

5 DEFINITIONS OF CONCEPTS

To prevent any confusion and clarify concepts, it is necessary to define important key terms used recurrently in the research.

5.1 The spinal cord

“The spinal cord is situated within the spinal column; it extends down from the brain to the L1-L2 vertebral level, ending in the *conus medullaris*. Continuing from the end of the spinal cord, in the spinal canal, is the *cauda equina* (or “horse’s tail”). The spinal cord itself has neurological segmental levels that correspond to the nerve roots that exit the spinal column between each of the vertebrae. There are 31 pairs of spinal nerve roots: 8 cervical, 12 thoracic, 5 lumbar, 5 sacral and 1 coccygeal. Owing to the differences in length between the spinal column and the spinal cord, the neurological levels do not

necessarily correspond to the vertebral segments” (International Spinal Cord Society [ISCoS], 2013).

5.2 A spinal cord injury (SCI)

A traumatic lesion of neural elements in the spinal cord resulting in any degree of sensory and/or motor deficit, autonomic dysfunction and bladder/bowel dysfunction. The neurologic deficit or dysfunction can be temporary or permanent and may be incomplete or complete (Dawodu, 2011). The medical dictionary (2012) defines a spinal cord injury as damage or trauma to the spinal cord that results in a loss of function and mobility or impaired function and reduced mobility. Unlike other parts of the body, the spinal cord does not possess the ability of repairing itself when it has been damaged. Consequently, a person who has acquired an SCI will have a physical disability and will be either a paraplegic – paralysis of the lower part of the body, including the legs – or a quadriplegic – which is paralysis of all four limbs (ISCoS:2012).

5.3 Traumatic SCI

A traumatic SCI can originate consequent to a number of different causes, such as vehicle accidents, acts of violence such as gunshot injuries and falls (Biering-Sørensen *et al.*, 1990:330; Burt, 2004:28; Dawodu, 2011; Harrison, 2004:1-104; Hart, 1994:13-15; National SCI Association, 2012).

Traumatic injuries can include SCI – as a result of the injury to the spine, a myriad of bodily functions can be impacted resulting in physical, cognitive, and psychosocial impairments (Driver *et al.*, 2003:41).

5.4 Non-traumatic SCI

Non-traumatic SCI can originate from genetic disorders or acquired abnormalities, for example a tumour or infection of the spinal cord, amongst others (ISCoS, 2012).

5.5 Spinal cord rehabilitation

Rehabilitation is multifaceted labour, which should be conducted by individuals who have the necessary knowledge and experience in managing SCI (de Vivo *et al.*, 1991:620).

ISCoS (2013:67) describes three key phases of health care provision for a person with a spinal cord injury, namely:

- *Pre-hospital and acute care*, which is of crucial importance so as to ensure immediate survival and stabilization. Without the correct initial response, SCI can be life-threatening and can undermine the possibility of future functioning and independence.
- *Post-acute care and rehabilitation services*, which need to be availed of by the patient to ensure the functioning is maximized and that the individual can be as independent as possible so as to return to education or resume employment. Appropriate assistive devices form a vital part of this care. Without access to rehabilitation and assistive devices, the person with SCI has little hope of participating in society.
- *Maintenance of health care*, which is essential for the individual to be able to avoid or survive the complications of SCI, such as urinary tract infections, pressure ulcers and overuse injuries, remain healthy and enjoy a long life. Without access to basic health care, a person with SCI is more likely to die prematurely.

5.6 Couple

The medical dictionary (2012) defines the word “couple” as two of the same sort considered together or as a pair, a married or engaged pair or lovers, thus any two persons considered together.

5.7 SCIPP

Spinal cord injured person’s partner.

5.8 Partner

A partner is an individual who has acquired an SCI with whom the SCIPP shares an intimate relationship; one member of a couple; a soul-mate; your better half (Merriam-Webster, 2013).

5.9 Group resilience-promoting programme

A group resilience-promoting programme is a prevention programme (GRPP) targeting the resilience processes (to sustain and/or improve resilience). It is designed to be a multifaceted resilience programme that encourages participants to apply the resilience-promoting knowledge and skills being taught to them. This programme focuses on the six resilience protective processes that enable people to deal with hardship (Masten & Wright, 2010:228) and draws on information found in resilience literature, interpersonal perspectives, cognitive-behaviour therapy (CBT), and positive psychology (Liopsis *et al.*, 2009:98).

5.10 Social ecological conceptualisation of resilience

For the purpose of this research inquiry, Ungar’s theory of the social ecology of resilience will be adopted as the resilience-based framework for this study (Ungar, 2008:225). To be resilient, people navigate and negotiate for supportive resources, and their social ecology

offers supportive resources (Ungar, 2011:4). Ungar (2011:1) suggests that to fully explain the process associated with resilience, we would have to alter our focus from resilience as an individual trait and focus more on the quality of the support of the individual's social and physical ecology. Therefore this GRPP for SCIPPs can be understood as a potential resource that can be used by the social ecology, namely Social Workers, mental health practitioners and marriage counsellors to promote SCIPPs resilience.

Therefore the working definition for this study is that which was developed by Ungar (2008:225), namely: "In the context of exposure to significant adversity, resilience is the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being and collectively to negotiate for the resources to be provided and experienced in culturally meaningful ways." In addition Masten (2007:921) and Masten and Wright (2010:215) describe resilience as being the dynamic and mutual interaction between an individual (confronted by adversity) and his or her environment and the ensuing positive adjustment, in spite of such adversity; therefore as the capacity to do well in life.

5.11 Trauma

Barker (2003) explains trauma as any circumstance that affects the body or psyche negatively, which can lead to withdrawal, a sense of helplessness, depression, fear, or tension. Retief (2006:26-27) observes that the most severe consequences of trauma are that the person's entire life is shaken and that his or her self-concept and view of God changes and that trauma always includes some form of loss.

6 RESEARCH QUESTION

6.1 Primary research question

How will a GRPP for SCIPPs be designed and developed based on the findings of a literature study and empirical investigation to promote SCIPPs resilience in the South African Context?

6.2 Secondary research questions

1. What is already known about the processes that promote resilience in SCIPPs?
2. What resilience-promoting processes can be organized and synthesized, from previous research, in order to be included in a group resilience-promoting programme for spinal cord injured persons' partners?
3. What programme content and outcomes, that focus on developing skills critical to the construct of resilience and tailored from resilience-promoting processes and that could be applied in a small-group context, as gathered from literature, pre-existing interventions, experts, and people living with SCI, should be included in a GRPP for SCIPPs?
4. What are the evaluative views of professional role-players working within the field of SCI on the readiness of the newly developed GRPP for SCIPPs? How will South African professional role-players working within the field of spinal cord injury evaluate the newly developed GRPP for SCIPPs?

7 OBJECTIVES OF THE STUDY

The primary objective can be operationalized into the following secondary objectives:

1. To explore processes that promote resilience in SCIPPs.
2. To organize and synthesize previous research done on resilience-promoting processes in order to inform the design and development of a group resilience-

promoting programme for SCIPPs to conceptualise protective processes that nurture resilience in SCIPPs.

3. To develop programme content and outcomes, that focus on developing skills critical to the construct of resilience and tailored from resilience-promoting processes and that could be applied in a small-group context, as gathered from literature, pre-existing interventions, experts, and people living with SCI.
4. To evaluate the newly developed GRPP for SCIPPs by means of an empirical study with professional role-players in the field of spinal cord injury.

8 RESEARCH METHODOLOGY

By means of a literature and empirical study, this research attempted to design and develop a group resilience-promoting programme (GRPP) that will assist spinal cord injured persons' partners (SCIPPs) to resile after their partner's acquirement of an SCI. The research methodology employed during this study is depicted in figure 3 and elaborated on afterwards.

8.1 Paradigmatic perspective

All research is based on some underlying philosophical assumptions with regard to which research methods are appropriate for the development of knowledge and/or solving a practice problem in a given study. "A paradigm is a collective worldview that includes a set of assumptions, concepts, values, and practices that constitute a way of viewing reality" (Maschi & Youdin, 2012:82). A variety of paradigms for social work have been identified, such as positivism, post-positivism, constructivism, pragmatism and critical social science (Maschi & Youdin, 2012:83). For the purpose of this study, the researcher found the "constructivist paradigm" to be suitable, as constructivists' views are based on a central acceptance that reality is socially constructed, therefore it is accepted that people

have diverse views; consequently what is true for one person is not automatically true for another (Maschi & Youdin, 2012:84-85).

Given this selected paradigm, the researcher aimed at understanding how a GRPP for SCIPPs could be constructed from previous research and intervention models, expert and professional contributions, and experiences of people living with SCI.

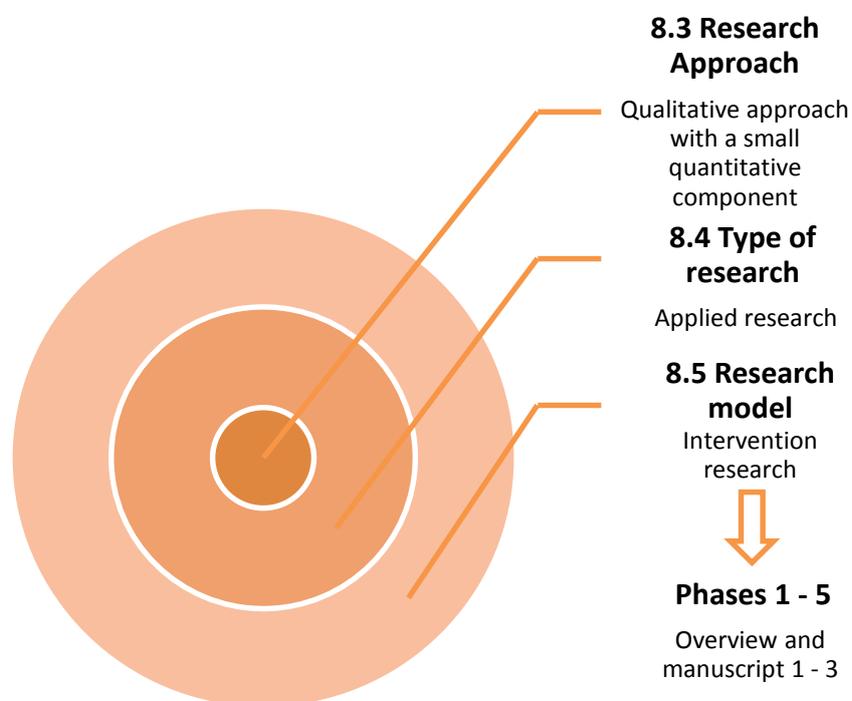
8.2 Review of literature

Information gathering and synthesis are essential to discover what others have done to understand and address a specific problem (Fouché & Delpont, 2011a:133-141). A method of information gathering and synthesis, namely a qualitative research synthesis (QRS) was employed in this study. A QRS is a systematic review of literature, that is a descriptive, informative, evaluative, and connective type of research review, and its purpose is to produce new knowledge by making explicit connections between individual study reports that were not visible before (Suri, 2011:63). Furthermore, a QRS entails the merging of research findings, emanating from both qualitative and quantitative research studies, via qualitative methods. In this study, knowledge acquisition by means of a QRS thus involved using elements of successful models and programmes, documented in literature, that promote resilience in adults to assist them in adapting positively with adversities and resulting negative outcomes (Masten & Wright, 2010:223).

The purpose of the QRS was to organize and synthesize previous research on resilience-promoting processes, in order to inform the design and development of a group resilience-promoting programme (GRPP). After an initial literature review, followed by a qualitative research synthesis, it was confirmed that little literature regarding resilience promotion in spinal cord injured persons' partners exists internationally. A systematic review of literature was done between August 2013 and March 2014, searching electronic archives

of publications (between 2003 and 2014), in accredited journals, from the following search engines: Google Scholar, EBSCOhost, Scopus, One Search, Web of Science, Crossref, Emerald, SAePublications and LexisNexis (please see phase 2 of the Intervention research method later in overview). A synthesis of all the gathered information resulted in the formulation of an outline of a GRPP for SCIPPs (de Vos & Strydom, 2011:473-489). The results of the QRS were documented in manuscript 1.

Figure 3: Research methodology



8.3 Research approach

This study mainly follows a qualitative approach with a small quantitative component. Qualitative research aims at exploring and discovering issues concerning the problem on hand, because very little is known about the problem, such as resilience-promoting programmes for SCIPPS (Maddick & Stud, 2011:136; Priebe *et al.*, 2007:84). In this study the researcher thus mainly followed a qualitative approach as it is more suitable for smaller

studies (Fouché & Schurink, 2011:307). The purpose was to design and develop a GRPP for SCIPPs from a literature study and an empirical study, which include critical feedback from advisory panel meetings, pilot study, observers, and professional role-players by means of an evaluability assessment. All these strategies involved a small number of people whose feedback was sought by means of multiple data collection methods, mostly eliciting qualitative data. As such, the aim was not to generalise, but to contextualise.

Qualitative data involve words, while quantitative data come in the form of numbers. In qualitative research, findings do not result from statistical procedures; instead they come from an interpretation of non-numerical or largely text-based data. Yet, Bowen (2005:219) argues that numerical data have a place in qualitative studies, but however cautions that it should only be included where appropriate. In addition, Boone and Boone (2012:4-5) argue that if questions are unique and stand-alone, such as included in this study to evaluate core aspects of the GRPP, it should rather be analysed as Likert-type data and not as Likert-scale data, meaning that a series of questions does not exist in the evaluation questionnaire to create a specific scale. A small numeric component was included in manuscripts 2 and 3 by means of Likert-type items – feedback from pilot study participants (in manuscript 2) and professional role-players who evaluated the programme (in manuscript 3) were obtained by means of Likert-type items. Each question evaluated an independent core aspect of the content of the GRPP. However, the rationale for using Likert-type items was not for statistical purposes (due to the small sample sizes), ($n=3$) and ($n=12$), but to focus participants' attention on a specific aspect of the GRPP for SCIPPs and by asking them to construct reasons for their ratings by means of written explanations.

Qualitative information extracted from the written explanations were ultimately utilised to refine the programme, and not from the numeric component in the Likert-type items. The use of Likert-type items and construction of reasons for ratings in small studies have been

successfully implemented in a number of studies (Beattie *et al.*, 2013: 308; Power *et al.*, 2013:6-7).

8.4 Type of research

The study falls within the description of applied research (de Vos & Strydom, 2011:476). Applied research aims at practice and entails the use of existing knowledge from research or personal experience to develop and enhance services, processes, and methods (Kendra, 2013).

8.5 Research model

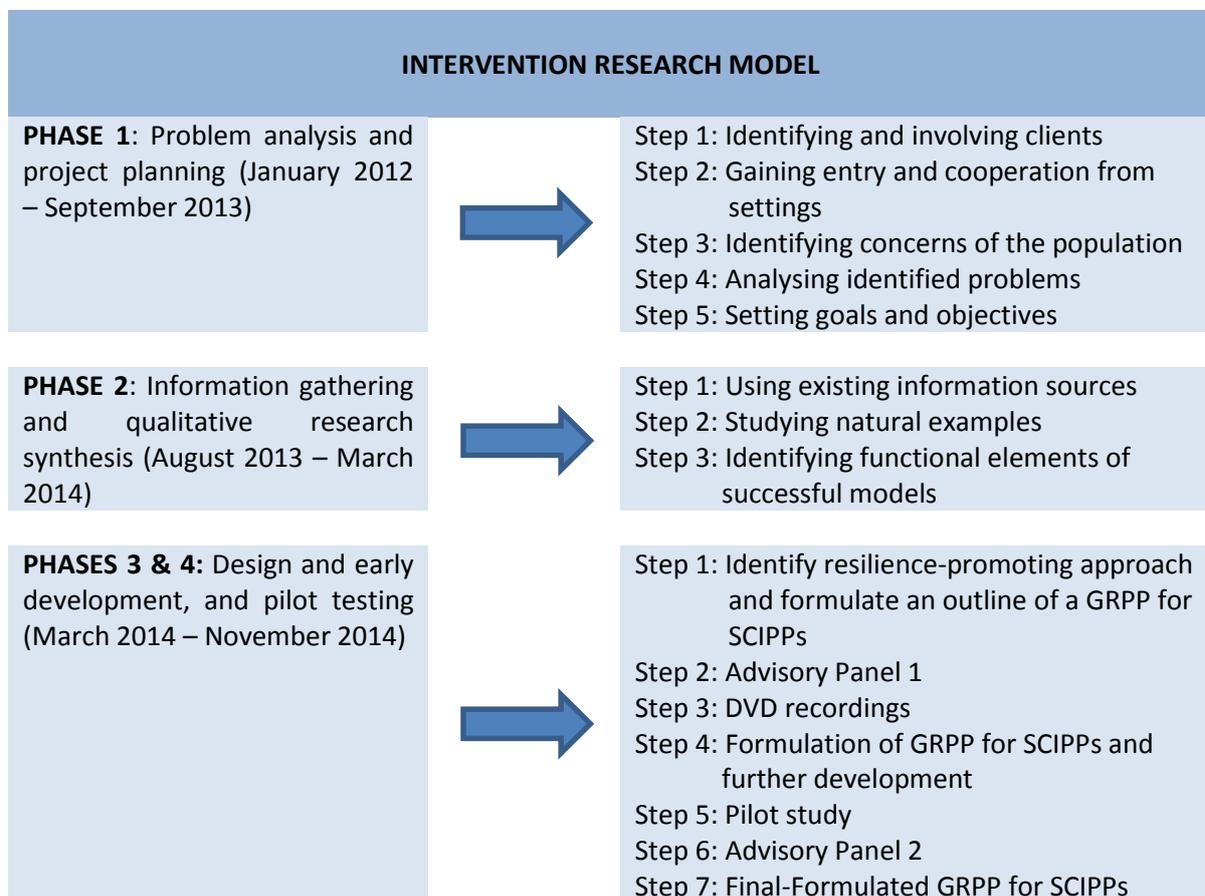
De Vos and Strydom (2011:473-489) view intervention research to be an action undertaken by social workers or other helping agents, considering the client or affected party, to enhance or maintain the functioning and well-being of individuals, families, groups, or communities. In order to address the practice need of the lack of a resilience-promoting programme for SCIPPs, the researcher planned and executed an intervention research project, which aimed at designing and developing an intervention, tailor-made for the South African context. Intervention research consists of the development of a programme, the application of the programme (intervention), and the evaluation of the effectiveness of the intervention (de Vos & Strydom, 2011:473-489).

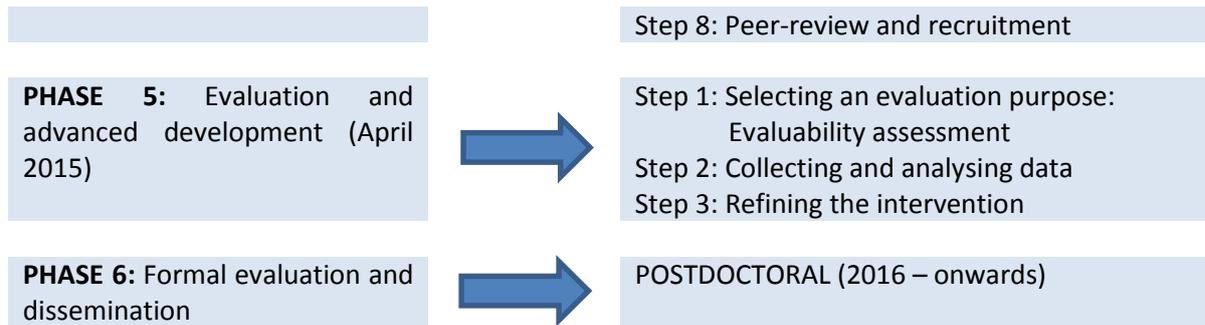
However, the researcher was cautioned by Bonanno and colleagues (2011:523) who advocate that newly developed interventions may be harmful, when not evaluated. As such, questions were raised by professionals in the SCI field as to whether the GRPP for SCIPPs is ready to be implemented with the target population, and whether it should not first be evaluated by professionals. As a result the researcher did not evaluate the GRPP for SCIPPs with the target population (as initially planned) but first subjected it to an evaluability assessment (Fouchè, 2011:456-457) whereby professional role-players

evaluated its readiness to be implemented with the target group (de Vos & Strydom, 2011:473-490).

According to de Vos and Strydom (2011:473-489), describing the process of intervention research, the findings of this research will be aimed at refining the programme. In the context of an intervention research study, knowledge development and the six phases of the design and development model, according to Rothman and Thomas (1994:5) and Strydom and Delport (2011:390-496), are applicable. Although phase models, such as intervention research, are performed in a stepwise sequence, they cannot be viewed as patterns of one phase rigidly following another; therefore the researcher adopted and personalised Rothman and Thomas' (1994:5) six phases as depicted in figure 4 to fit the study. Each phase and its steps are subsequently discussed.

Figure 4: Process and steps of Intervention Research





Adapted from de Vos and Strydom (2011:476-487) and Fouché (2011:456-457)

8.5.1 Phase 1: Problem analysis and project planning

This phase is one of the most important phases in the research journey, as it provides the researcher with a good platform from which to conduct the investigation, also if performed clearly, will ensure a smooth implementation (Fouché & de Vos, 2011:80).

8.5.1.1 Step 1: Identifying and involving clients

During this phase it is important to identify and involve clients; gain entry and cooperation from settings; identify concerns of the population; analyse identified problems and set goals and objectives (de Vos & Strydom, 2011:473-489). A literature review and the researcher's MA study (Steyn, 2008:62-70, 114) found that there are no known resilience-promoting programmes for SCIPPs; hence this finding resulted in a further investigation to determine the feasibility of the design and development of such an intervention.

8.5.1.2 Step 2: Gaining entry and cooperation from settings

Various role-players in the field of SCI were consulted in order to identify the target groups of such an intervention; identify concerns of the population and gain entry and cooperation from rehabilitation centres in Johannesburg and Pretoria (van Niekerk, 2011; van Vuuren, 2013). These role-players could also be called gatekeepers, as a gatekeeper is a person who controls research access (Saunders, 2006:126).

8.5.1.3 Step 3: Identifying concerns of the population

Initially social workers from three rehabilitation centres confirmed that they were committed to refer SCIPPs (whose partners are still in the rehabilitation centre after their newly acquired SCI), for the resilience intervention, after the design and development of the GRPP for SCIPPs (phases 3 & 4 of this manuscript). Unfortunately, towards the end of phases 3 and 4 of this study peer feedback at a conference and a work session (presentation) with professionals at a hospital with a rehabilitation unit, highlighted that it might be more ethical to involve professional role-players in the field of SCI to evaluate the GRPP for SCIPPs before implementing it with the target population.

8.5.1.4 Step 4: Analysing identified problems

Initially no concerns were raised during the planning of this intervention with regard to the implementation of the programme with SCIPPs. However, as mentioned in 8.5.1.3, the researcher was troubled by ethical concerns of do no harm, during phases 3 and 4 (Neuman, 2012:55-59; Patton, 2015:76); therefore the evaluation purpose changed from evaluating it with the target group, to professional role-players working within the field of SCI evaluating the programme before implementation; thus evaluability assessment (Fouché, 2011:456) was done instead (see manuscript 3).

8.5.1.5 Step 5: Setting goals and objectives

The researcher furthermore had to set measurable and ultimate goals and objectives to contribute to the broader goal of the research project. The needed permission and ethical clearance was also obtained prior to commencement of the study. Ethical clearance number: NWU.00171.13.A8 (see addendum 23). Please see heading 7 above for purpose and objectives of the study.

8.5.2 Phase 2: Information gathering and synthesis

Information gathering and synthesis are essential for discovering what others have done in an attempt to understand and address the problem (Fouché & Delport, 2011:133-141). Knowledge acquisition involves using existing information sources from rehabilitation centres and the literature and studying natural examples and identifying elements of successful models and programmes that nurture resilience in adults to assist them in making meaning of this ordeal (Masten & Wright, 2010:223). Therefore the aim of this phase was to provide a qualitative research synthesis (QRS) (Suri, 2011: 63) of studies pertaining to knowledge of existing intervention programmes and processes that promote resilience. A research synthesis is a descriptive, informative, evaluative, and connective type of research review, and its purpose is to produce new knowledge by making explicit connections between individual study reports that were not visible before (Suri, 2011:63).

8.5.2.1 Step 1: Using existing information sources

A qualitative research synthesis of all the gathered information resulted in the compilation of a GRPP for SCIPPs (de Vos & Strydom, 2011:473-489). A systematic search of literature was performed between August 2013 and March 2014, searching electronic archives of publications (between 2003 and 2014) in accredited journals, from the following search engines: Google Scholar, EBSCOhost, Scopus, One Search, Web of Science, Crossref, Emerald, SAePublications and LexisNexis. In so doing, the researcher traced 155 papers and reviewed 8 cited papers in these retrieved articles (therefore a total of 163 papers were reviewed) where after the abstracts and titles were assessed for relevance in order to select the 74 full-text versions of potentially suitable papers, to be quality appraised. Quality appraisal was done with these studies, 21 studies were prepared for data extraction.

8.5.2.2 Step 2: Studying natural examples

Data were extracted only from the findings and discussion sections and documented in an adapted template to enable the extraction of a summary of meaningful information on the aim of the research, research approach and design, sample and participants, findings, format, resilience processes, strategies and activities. A suitable data analysing framework was chosen to meaningfully analyse the included data known as Iterative data analysis, which is a deeply reflective process that promotes insight and develops meaning by visiting and revisiting the data and connecting them with emerging insights to enhance understanding (Srivastava & Hopwood, 2009:76-84).

8.5.2.3 Step 3: Identifying functional elements of successful models

The results of 21 synthesized studies (please see addendum 4) with extracted synthesized studies) were then integrated with the researcher's experience as well as with resilience literature (Masten & Wright, 2010:222-229), and literature on the negative outcomes of SCI in order to formulate a GRPP for SCIPPs.

Hereafter it was shaped by an advisory panel and a pilot study in 2014 (phases 3 & 4) (manuscript 2) and subjected to an evaluability assessment by experts (social workers and psychologists) (phase 5) in 2015 (manuscript 3), and will then afterwards be subjected to further expert review in 2016 (phase 6), to enhance the trustworthiness (member-checking) of the suggested changes to the GRPP for SCIPPs. Next, phases 3 and 4 will be elaborated on.

8.5.3 Phases 3 & 4: Design and early development & Pilot testing

Although phase models, such as intervention research, are performed in a stepwise sequence, they cannot be viewed as patterns of one phase following another rigidly (de Vos & Strydom, 2011:476). In this study, the design of the study was done in

collaboration with the advisory panel (AP) as well as members of the pilot study. As such, phase 3 (design) and phase 4 (early development and pilot testing) were combined for the purposes of this research. De Vos and Strydom (2011:482) enlighten the importance of two steps, namely “Designing an observational system”, and “Specifying procedural elements of the intervention”. By observing the problem and studying other interventions and/or prototypes, researchers can find procedural elements for use in the intended intervention (de Vos & Strydom, 2011:483).

Furthermore, the researcher personalized and combined the included steps that were used during phase 3 and phase 4, which consist of eight distinct steps, and incorporate the findings of the qualitative research synthesis, as well as resilience literature and more specific the six universal protective processes of Masten and Wright (2010:222-228) to formulate an outline of the GRPP for SCIPPs. The researcher therefore adapted phases 3 and 4 of de Vos and Strydom (2011:473-489), to refine the intervention (and also suit the needs of this study). The steps employed during this phase will briefly be elaborated on.

8.5.3.1 Step 1: Identify Resilience-promoting approach and formulate outline of GRPP for SCIPPs (March 2014)

It is imperative to plan a resilience-promoting programme within a suitable intervention approach. Masten *et al.* (2009:117-131) identified three approaches to resilience promotion, namely: a risk-reduction approach (focusing on risk reduction and aiming at reducing exposure to adversity); secondly, assets-focused approach (interested in increasing the number and quality of resources); and lastly, a process-orientated approach (influencing processes that will improve the life of the person at risk, instead of merely limiting exposure to risks or increasing the number of resources). For the purpose of this study, the process-orientated approach was chosen as it is very unlikely that the SCIPPs’

exposure to risks would be reduced or that they will necessarily have access to more resources. Such a process-focused resilience-promotion approach intervention could be implemented at rehabilitation centres where persons with an SCI are treated and visited by their partners.

8.5.3.1.1 Identified group work as a social work method for the GRPP for SCIPPs

During the design phase, planning what the intervention would be like, took place. Since it was decided that the intended GRPP for SCIPPs would be a group-work programme, the procedural element in this intervention (de Vos & Strydom, 2011:483) was firstly determined by the process of Social group-work (Toseland & Rivas, 2014:2). Social group-work sets a platform where members come together for group sessions including a series of activities, with a common aim (purpose or function); carried out by a group facilitator during the life of a group (Carswell *et al.*, 2011), where group members can support one another (Toseland & Rivas, 2014:16). Furthermore the GRPP for SCIPPs will also be managed as closed groups which means the group begins and ends with the same membership and frequently meets for a pre-determined number of sessions, so that resilience-promotion with the SCIPPs can effectively take place, moreover that new members will not impede the progress of the original members (Toseland & Rivas, 2014:180).

The GRPP for SCIPPs will also be a “formed group”, as the participants will be called together for a particular purpose (Toseland & Rivas, 2014:13), which is to promote their resilience after their partners had acquired SCI (Ungar *et al.*, 2007:307). Furthermore, the GRPP for SCIPPs also aimed at being a “treatment group”, with the emphasis on two of the six primary purposes of treatment groups, namely *education* and *support*. The main purpose of the latter is to assist members in gaining new information and skills, and

supporting group members, so that they will be able to effectively adapt to and cope with future stressful life events, especially regarding the acquired SCI of their partners (Maddick & Stud, 2011:132; Reich *et al.*, 2010:218; Toseland & Rivas, 2014:20; Ungar *et al.*, 2012:675-693).

Thus, Social group-work can be a perfect counterpart with the ecological approach of resilience, as psychological resilience is a process of reciprocated interactions between an individual and his or her supportive ecology (Toseland & Rivas, 2014:52; Ungar, 2008:225 Ungar, 2011:11), negotiating for resources to be provided, as cohesion and relationships are also resilience resources (Ungar, 2008:225).

8.5.3.1.2 Formulating the outline of the GRPP for SCIPPs

After having chosen the process-orientated resilience approach, and Social group-work as delivery method for the GRPP for SCIPPs, the researcher had to choose the main resilience-promoting processes that emerged from the QRS (manuscript 1), translated those into outcomes (Toseland & Rivas, 2014:163-165), thereafter developed strategies and activities accordingly by consulting various literature sources (figure 3 in manuscript 2); experts in the field of SCI and resilience; and personal experience. Administrative aspects such as the number and duration of the sessions and the nature of media to be used had to be taken into consideration (Becker, 2010:82-100; Toseland & Rivas, 2014:162-198). Furthermore an outline of the GRPP for SCIPPs was formulated; please see table 4 in manuscript 2.

During this process the researcher had to ensure that the procedural elements (de Vos & Strydom, 2011:483; Toseland & Rivas, 2014:163-165), with included outcomes, strategies and activities and methods according to which data would be collected and evaluation would take place, were connected with the main aim of the GRPP for SCIPPs, namely to

develop and promote the resilience of SCIPPs, so that, by being more resilient, they and their partners can positively adapt to the prolonged risk and potential negative outcomes.

Table 4 (manuscript 2) a formulated outline of the GRPP for SCIPPs, illustrates that the proposed GRPP for SCIPPs consists of six group work sessions, with outcomes, as well as resilience-promoting activities (RPAs), in an effort to promote SCIPPs resilience. After the outline of the GRPP for SCIPPs had been formulated, it was subjected to the opinions of an advisory panel – their feedback and ideas were used to amend the outline of the programme. Next it was further developed in preparation for the pilot study.

8.5.3.2 Step 2: Advisory Panel meeting 1 (AP1) (Pre-pilot study: March – April 2014)

The researcher decided to consult an advisory panel (AP), consisting of experts in the field of SCI and resilience, and to gather the opinions from SCIPPs and people living with SCI in order to scrutinize the activities that won't fit and can help the researcher to reject the proposed activities that may not suit the audience. Utilizing advisory panels have been used widely in resilience-focused studies, both internationally and in South Africa (Ungar *et al.*, 2007:294; Theron *et al.*, 2013:67; Truter *et al.*, 2014:312). The role of the AP was to give feedback on the relevance and feasibility of content, outcomes and intended activities outlined in the GRPP for SCIPPs (Table 4 in manuscript 2). They were further requested to critically comment on resilience-promoting processes, outcomes and activities that are included in the formulated outline of the GRPP for SCIPPs. In addition their advice was sought on the mode of delivery, duration of the programme and the length of the sessions. The AP was also consulted on identifying data collection methods to be utilized during the pilot study for evaluation purposes. Furthermore, the advisory panel members (APMs) recommended the possibility of including video (DVD) recordings to strengthen the resilience-promoting activities in the GRPP for SCIPPs (Masten & Wright, 2010:222-229).

It was thus decided to include live interviews/recordings of professionals, with profound knowledge of SCI, and of people with SCI and also recordings of SCIPPs (Patton, 2015:434).

Hence, to guide this process, the researcher utilized open-ended interviews consisting of questions revolving around the particular area of interest (GRPP for SCIPPs), guided by an interview road-map and an outline of the GRPP for SCIPPs (addendum 6 and number 1 in manuscript 2) which still allowed flexibility in scope and depth of the phenomenon (Greeff, 2011:348; 352-353).

Firstly, the researcher purposefully identified four participants, who had specific knowledge and skills pertaining to SCI and resilience and therefore could assist the researcher in answering the research question (Niewenhuis, explained by Maree & van der Westhuizen, 2012). The first four chosen participants then assisted the researcher by means of snowball sampling to recruit two more participants for the AP (Niewenhuis, explained by Maree & van der Westhuizen, 2012; Strydom, 2011:233). In total, six professionals were included in the advisory panel.

8.5.3.3 Step 3: Recording DVDs for use as media during group sessions (May – June 2014)

Most of the advisory panel members recommended that including DVDs of interviews with professionals possessing profound knowledge of SCI/resilience, as well as the inner perspectives of people with SCI and SCIPPs (Patton, 2015:426, 434), amongst others in the GRPP for SCIPPs, have the potential of enhancing resilience. Including diverse resources (during intervention) may offer the potential for resilience to be enhanced (Ungar *et al.*, 2012:348-366). The protagonist of the DVDs is thus to strengthen the

resilience-protective processes in the GRPP for SCIPPs (Masten & Wright, 2010:222-229).

Furthermore, as the rehabilitation team working with SCI, consists of various professionals, it would be a challenge for the researcher to truthfully include the professionals' responsibilities (during the acute rehabilitation phase; as well as after dismissal of the SCI patient), in this intervention programme. The researcher therefore decided to identify themes for the video recordings from the outcomes in the formulated outline (table 4 in manuscript 1) of the GRPP for SCIPPs, to support the programme media in the intervention, and ultimately strengthen the resilience-protective processes of Masten and Wright (2010:222-229).

As a result, the researcher decided to video-record various role-players, rendering services to SCI people during their rehabilitation; experts on resilience; people living with SCI and SCIPPs, by adopting two interview approaches, namely "phenomenological interviews", and "life story interviews" as both focus on capturing lived experiences (Patton, 2015:433) in the words of the person telling the story (Patton, 2015:434; Strydom, 2011:330).

Although these are video recordings (placed on DVDs), which imply that participants of the GRPP for SCIPPs won't be able to communicate directly with the people on the DVDs, this method can also be seen as peer-support (Toseland & Rivas, 2014:14), and correspond with the ecological approach of resilience, as resilience is a process of shared interactions between an individual and his or her supportive ecology (Ungar, 2008:225; Ungar, 2011:4,11), as in this case the group facilitator will be available for participants' reflections after the group had watched the DVDs.

After completion of the video recordings, as well as editing and translating the recordings (where needed), formulation the GRPP for SCIPPs was then done (see manuscript 2),

including the feedback from AP-1 (manuscript 2); the video recordings (DVDs); the researcher's own experience; and literature on Social group-work (Becker, 2010:82-100; Toseland & Rivas, 2014:162-198) in this intervention programme (de Vos & Strydom, 2011:473-490). Every session covers some key components, namely: outcomes; icebreakers; resilience-promoting activities (RPAs); DVDs; Survival Kit DVDs, hand-outs and "anchors" (survival "tool"-kit).

8.5.3.4 Step 4: First formulation of a GRPP for SCIPPs and further development (adjusted/amended after AP1 and before Pilot Testing)

The researcher amended the formulated outline of the GRPP for SCIPPs (table 4), after feedback from AP-1 (Manuscript 2: table 9), and the recording and editing of the videos (DVDs), and converted it into a formulated programme (table 11) in preparation for the pilot study. The major amendments had a bearing on the structure, length and order concerning the activities/programme media included in each session, especially after the researcher had edited the incorporated content on the DVDs and familiarized herself with it.

Bearing in mind the content; outcomes and resilience processes of Masten and Wright (2010:222-229) (see table 4 in manuscript 1), the researcher structured and outlined all six sessions of the GRPP for SCIPPs according to a self-drafted format for all (Toseland & Rivas, 2014:272-278). The format per session thus includes the themes; outcomes and resilience processes; one included icebreaker per session; DVDs (including professionals and SCIPPs/people with acquired spinal cord injuries); resilience-promoting activity/ies (RPA/s); and survival kit activities (research journal; hand-outs; survival kit DVDs; questionnaire to fill out between sessions, and anchors).

8.5.3.5 Step 5: Pilot Study (17 – 18 July 2014)

The main purpose of the pilot study was to evaluate the usefulness of the programme content and activities for SCIPPs and make recommendations to improve it (de Vos & Strydom, 2011:484). Pilot tests are done in settings convenient for the researcher, and are similar to the ones in which the intervention will be used; can be tested on a trial basis, redefined and redesigned, if needed (de Vos & Strydom, 2011:483-484). The researcher then planned to pilot test the formulated GRPP for SCIPPs (de Vos & Strydom, 2011:483-484), with two SCIPPs, using six self-administered questionnaires which contained Likert-type items that facilitated the construction of qualitative feedback (Babbie & Mouton, 2012:153-154; Boone & Boone, 2012:5; Delpont & Roestenburg, 2011:188; Neuman, 2012:135) (see addenda 10 - 15); also including an Observer, who had to fill out a practice protocol (see addendum 16) to make sure that the researcher who had a dual-role as researcher and facilitator, was adhering to the content and strategies of the newly developed GRPP (Jackson, 2011:110). Feedback from the SCIPPs and the observer were incorporated to further amend the GRPP for SCIPPs.

8.5.3.6 Step 6: Advisory Panel 2 (AP2) (Post-pilot study: July – August 2014)

Feedback from the pilot participants and the observer as well as the formulated programme was discussed with the advisory panel by means of open-ended interviews. The purpose was (1) to obtain their critical feedback on the formulated programme as (2) well as giving feedback regarding the outcomes of the pilot study (manuscript 2: table 10); and discussing the researcher's critical reflection as well as recommendations and suggestions (table 15) after the execution of the pilot study.

8.5.3.7 Step 7: Final-Formulated GRPP for SCIPPs (table 17)

The findings from the pilot study and feedback during AP-2 were incorporated to amend the Final-formulated GRPP for SCIPPs.

8.5.3.8 Step 8: Peer-review and recruitment

The aim of presenting a poster on the GRPP for SCIPPs at the South African Spinal Cord Association (SASCA) congress (2-4 October 2014) (congress agenda: addendum 21), was to receive the verbal feedback from other professionals and people living with SCI regarding the proposed GRPP for SCIPPs and also to invite feedback on the evaluation of the GRPP for SCIPPs with the target population (see addendum 22 of Poster).

From the feedback during the SASCA Congress (2014), the researcher established that it might be more ethically correct to consider deviating from the original plan, which was to conduct the evaluation of the GRPP for SCIPPs using the target population (Fouché, 2011: 464-472), which would have been SCIPPs (“new” SCIPPs) whose partners were still in the rehabilitation centre after having acquiring a spinal cord injury, especially to avoid any possible harm (Patton, 2015:76; Strydom, 2011:6-9).

In addition, on 14 November 2014 different professionals, employed at the rehabilitation unit of a hospital in North West Province (social workers; psychologists; occupational therapists; physiotherapists and medical doctors), attended a presentation on the GRPP for SCIPPs. The general, verbal feedback from the professional team was that this is a much needed intervention, but they mutually suggested that this intervention be approved by professionals in the field of SCI prior to exhibiting it to the target population (“new” SCIPPs, whose partners were still in acute care after the acquirement of an SCI).

With this feedback in mind, the researcher first started investigating the possibility of approaching SCIPPs whose partners had acquired spinal cord injuries longer than a year before (“old” SCIPPs); thus their SCI partners had completed their acute rehabilitation phase (ISCoS:2013) and were back at home, as these mentioned SCIPPs (Marshall & Rossman, 2016:50-52) can also be seen as the target population (Bertram & Christiansen,

2014:59), but maybe a lower risk-group, due to the fact that they might have adapted somehow after the SCI of their partners (due to the time lapse). The researcher managed to find SCIPPs who were willing to participate, but due to logistical constraints it would have been a time-consuming and costly process for these participants to commit themselves to six or more weeks of participation, which might cause harm to them and have the potential of resulting in the evaluation being unethical and unfair towards the participants (Marshall & Rossman, 2016:50-52; Neuman, 2012:53).

The latter situation was discussed with one of the AP members who is an expert in intervention research and ethic literature; eventually the researcher decided to rather conduct an evaluability assessment (Fouché, 2011:456-457), deviating from her original plan to implement the GRPP for SCIPPs during phase 5 of this thesis, with the target population (Bertram & Christiansen, 2014:59).

8.5.4 Phase 5: Evaluation and advanced development: Evaluability assessment

MS 3

During this phase, a panel of professionals, who are confronted with service delivery to SCIPPs and their injured partners, were approached to evaluate the newly developed GRPP for SCIPPs. The findings of the mentioned evaluation, consisting of both qualitative and quantitative data, were discussed in manuscript 3.

8.5.4.1 Step 1: Selecting and evaluation purpose – Formative evaluation: evaluability assessment

During this study the researcher did not make use of an experimental design; thus no pre-tests or post-tests were conducted to evaluate the effectiveness of the GRPP for SCIPPs. The rationale hereof is to prevent the potential of “doing harm” (Neuman, 2012:55-59; Patton, 2015:76; Strydom, 2011:6-9) to vulnerable and traumatised persons by exposing

them to a newly developed programme that has not been subjected to an evaluability assessment (Fouché, 2011:456-457). Fouché (2011:457) reasons that evaluation research has three purposes, namely gathering information to improve a design; to developing, forming and implementing the programme; and describing the process of a programme as it is being developed. Evaluability assessment is one form of evaluation research and can be done as either formative evaluation; process evaluation or summative evaluation (Fouché, 2011:455-460). The researcher therefore had to investigate whether an evaluability assessment will be feasible; thus she enhanced her knowledge by studying literature in which formative evaluability assessments are defined and utilized (Davies, 2013:1-48; Fouché, 2011:453-457; Smith, 2014:258; Trevisan & Huang, 2003:1-7). The researcher also discovered that an evaluability assessment does not have to be exported as a lock-step linear process assessment (Davies, 2013: 2; Trevisan & Huang, 2003:3), thus some commonly used steps, as suggested by Davies (2013:2-3; 16-17) and Trevisan and Haung (2003:3) were taken into consideration which correlate with the steps of Fouché (2011:456). The researcher therefore employed planning and consultation which is in detail explained during manuscript 3.

8.5.4.2 Step 2: Collecting and analysing data

The researcher conducted two workshops, and utilized two data-collection methods during these workshops, namely self-administered questionnaires (developed by the researcher), with both qualitative and quantitative items (Bowen, 2005:219; Clason & Dormody, 1994:31; Delport & Roestenburg, 2011:188; Neuman, 2012:135); and a video interview of workshop participants (Patton, 2015:428;446). Certain questions need to be posed when a formative evaluation is done. Therefore, during the development of these data collection methods, the researcher took into account that a formative evaluability assessment

attempts to determine whether a programme meets certain pre-conditions (Fouché, 2011:456-457) and therefore the pre-conditions of Rossi *et al.* (2004:157-159) were considered. Please see figure 17 with an illustration of these mentioned pre-conditions and a discussion of the two selected data-collection methods utilized.

- ***Self-administered questionnaires***

Six self-administered questionnaires were developed, one for each session. It contained both quantitative and qualitative items (Clason & Dormody, 1994:31; Delpont & Roestenburg, 2011:188; Neuman, 2012:135). With regard to quantitative items, individual Likert-type items for each of the six sessions were developed. As such, participants were asked to evaluate the outcome and content (procedural elements) of the programme on a seven-point scale ranging from completely disagree (1) to completely agree (7) (Neuman, 2012:135). As explained earlier, the purpose of the individual Likert-type items on the questionnaire was not to generate descriptive statistics, but merely to focus the participants' attention on a specific core aspect of the programme content or activity, after which they were requested to construct reasons for their rating by means of written explanations (narratives) clarifying the reasons for the score given. The written feedback was used to refine the GRPP for SCIPPs. The use of Individual Likert-type items and written narratives to evaluate the content (procedural elements) and outcome of programmes in this way has been successfully implemented in a number of studies which also focussed on small samples (Beattie *et al.*, 2013:308; Power *et al.*, 2013:6-7).

The development of the self-administered questionnaires, and Likert-type items were done in collaboration with a statistical consultant employed by Optentia Research Programme at the North-West University, Vaal Triangle Campus. This statistician also assisted in conducting the quantitative data analysis. During the development of the self-administered

questionnaire the researcher first identified the core content as well as the various procedural elements for each session that needed to be evaluated. In addition, the researcher also bore in mind the pre-conditions of an evaluability assessment (see diagram 1). Hereafter the researcher formulated statements and questions. Next the statistician assisted in refining the statements and questions, and recommended a seven-point scale. Each question was followed up with a request to motivate the reason for the score given. Before pilot testing, the researcher double-checked every question (Rossi *et al.*, 2004:157-1590) to ensure that the necessary information was taken into account. The self-administered questionnaire was hereafter pilot tested with two experienced social workers who had background knowledge of the GRPP for SCIPPs (Strydom, 2011:236-247). After the pilot test, amendments were made, mainly pertaining to the technical layout of the questionnaires. Each question or statement on the self-administered questionnaire focussed on an individual aspect and it did not evaluate a core idea or phenomenon. The strengths of utilizing Individual Likert-type items in a self-developed questionnaire is the uncomplicatedness of using it (Neuman, 2012:138) and that it could be used to determine the relative intensity of different items (Babbie & Mouton, 2012:154).

- ***Video recordings***

After each workshop, further qualitative feedback was obtained and facilitated by the researcher; video-recorded by a research-assistant, and entails a short reflection by each participant regarding their overall feedback concerning the GRPP for SCIPPs. This feedback has two purposes, namely: (a) to obtain the participants' overall feedback after attending the 2-day workshop, regarding the GRPP for SCIPPs (b) secondly, enhancing trustworthiness, to eliminate any misunderstandings, as the researcher is "the instrument"

of qualitative data collection, in this study (Niewenhuis, explained by Maree, 2012; Marshall & Rossman, 2016:44,46).

When formulating questions for the general feedback, the researcher took the following into account: (a) the pre-conditions of Rossi *et al.* (2004:157-1590), and (b) to ask open-ended questions to permit the participants to take whatever direction and use whatever words they want to express their opinion (Patton, 2015:446-447). The facilitation took part in group-format, facilitated by the researcher, allowing each participant an opportunity to reflect on their experience of the content of the presented/facilitated GRPP for SCIPPs during the workshop. Please find the guideline with semi-structured questions (Bertram & Christiansen, 2014:76) posed by the researcher during these video-recordings (figure 18). A summary is provided of the mean and standard deviation of the procedural elements. In manuscript 3 the findings from both quantitative and qualitative data analysis per session are depicted in tables 21 - 29 with a reflection on the findings after each table. Most emphasis was placed on the qualitative findings which were primarily utilized to refine and further develop the GRPP for SCIPPs. Please see figure 19 for a summative illustration of the data collection and analyses employed during this study. The researcher was assisted by a statistical consultant at Optentia (NWU, Vaal Campus) with the analysis of quantitative data. Due to the small sample ($n=12$) and the fact that the refinement and further development of the GRPP for SCIPPs is mainly based on qualitative feedback, only basic descriptive statistics (mean and standard deviation) were conducted using the statistical package for the social sciences (SPSS) (Garth, 2008). The term mean is used to describe the central tendency of a large data set, and variety provides context for the mean (Rouse, 2009). It is determined by adding all the data points in a population and then dividing the total by the number of points and the resulting number is known as the mean or the average (Techopedia, 2015).

The goal of “standard deviation” is to get the standard, typical distance from the “mean” (Sathy, 2013), thus standard deviation describes how close to the mean the individual participants’ scores are (Sparkling Psychology Star, 2013); therefore a standard deviation of zero indicates all values in the set are the same. Thus, a smaller standard deviation illustrates that if the scores are much closer to the average, than the participants’ score closer to the mean, therefore there is consensus regarding the mean (Sathy, 2013). In this study the standard deviation strengthens the interpretation of the qualitative findings.

8.5.4.3 Step 3: Findings according to themes; and refining the intervention

Please see table 19 (manuscript 3) with Likert means and the standard deviation for all six sessions, as well as pertaining to the complete GRPP for SCIPPs with a brief description. Furthermore, please find information regarding the seven procedural elements of the GRPP for SCIPPs (table 20) evaluated during the workshops, contained in the self-administered questionnaires, and linked to the relevant sessions during which they emerge. These selected procedural elements relate to the pre-conditions considered when compiling the self-administered questionnaires, as suggested by Rossi *et al.* (2004:157-159) (see figure 17) in combination with the goals, activities and programme media of the GRPP for SCIPPs (see draft training manual of April 2015 on provided examination copy - CD). As depicted in table 10, three additional programme activities were included during sessions 1, 5 and 6 of the GRPP for SCIPPs, namely Contracting with SCIPPs; Invitation to SCI partners; and a “Letter-to-myself-exercise” but were grouped with some of the other mentioned procedural elements in table 20, as they best fit these procedural elements’ outcomes, and will be discussed as such.

For the purpose of this study (manuscript 3), the researcher reports on step 2 and step 3 of phase 5 (Fouché, 2011:456) together in tables 21-29, and a reflection on the findings

follows after each mentioned table with a view to streamline how the intervention was refined by the researcher after analysing the data. The themes that emerged from the video-recordings (tables 27 & 28) will be depicted in table 29 and a summary of the planned changes to the GRPP for SCIPPs will be demonstrated in table 30, where after a discussion will follow and conclusions be drawn.

8.5.5 Phase 6: Dissemination

After the intervention has been field-tested and evaluated, it will be prepared for dissemination to the spinal cord injured community, and professionals such as social workers and health-care practitioners who are working in this field (for example, at rehabilitation centres), and other target audiences (in this case, the SCIPPs or people who have acquired an SCI and who are at rehabilitation centres). According to de Vos and Strydom (2011:473-489), the potential outcomes of the research endeavour should be meticulously planned, be it in the form of articles, chapters in books, or conference presentations. The researcher will disseminate the final outcomes by publishing the findings in academic journals; rendering workshops for professionals, and making adjustments to the draft training manual of April 2015 (see CD: Examination copy).

Community-based dissemination will not be documented as part of this study.

Table 1: Design map

	Manuscript 1: Phase 2: Information gathering and qualitative research synthesis (August 2013 – March 2014)	Manuscript 2: Phases 3 & 4: Design and early development and pilot testing (March 2014 – November 2014)	Manuscript 3: Evaluation and advanced development (April 2015)
Secondary research questions	<p>What is already known about the processes that promote resilience in SCIPPs?</p> <p>What resilience-promoting processes can be organized and synthesized, from previous research, in order to be included in a group resilience-promoting programme for spinal cord injured person's partners?</p>	<p>What programme content and outcomes, that focus on developing skills critical to the construct of resilience and tailored from resilience-promoting processes and that could be applied in a small-group context, as gathered from literature, pre-existing interventions, experts, and people living with SCI, should be included in a GRPP for SCIPPs?</p>	<p>How will South African professional role-players working within the field of spinal cord injury evaluate the newly developed GRPP for SCIPPs?</p>
Design method	<p>Qualitative research synthesis.</p>	<p>Advisory panel meetings; and pilot study consisted of a two-day workshop with two SCIPPs and one Observer.</p>	<p>Evaluability assessment – Two 2-day workshops, 12 professionals; answered evaluability assessment questions regarding the GRPP for SCIPPs after presentation of each of the six sessions of the GRPP for SCIPPs.</p>
Sampling, participants and data collection method	<p>Systematic review of 163 papers; 74 papers were quality-appraised; 21 studies were thematically analysed to extract content for a GRPP for SCIPPs.</p>	<p>Purposive and snowball sampling; Open-ended interviews with six advisory panel members; Pilot study with two SCIPPs and an observer; Audio-recordings; transcriptions.</p>	<p>Purposive and snowball sampling; questionnaire with seven-point Likert – type items to focus participants' attention on aspects, and to construct reasons by means of written explanations; video recordings; Pilot the questionnaire with two social workers.</p>
Data analysis	<p>Iterative data analysis; independent coding; consensus discussion.</p>	<p>Thematic content analysis; independent coding; consensus discussions; member checking</p>	<p>Thematic content analysis; basic descriptive statistics; Independent coding; consensus discussion; member checking.</p>
Outcome	<p>First formulated outline of a GRPP for SCIPPs.</p>	<p>Formulation of a GRPP for SCIPPs was compiled.</p>	<p>GRPP for SCIPPs was refined in preparation for implementation and evaluation with the target group (postdoctoral).</p>

9 PARTICIPANTS AND SAMPLING

During this research, different participants were sampled who then participated. Sampling refers to the process that is being used to make decisions about people, settings, events or behaviours to include in the study (Bertram & Christiansen, 2014:59; Niewenhuis, explained by Maree, 2012). The researcher identified participants employed at the Life Health Care Group, via the gatekeepers (Saunders, 2006:126). Participants for this study were selected by combining different sampling methods, namely purposeful sampling and snowball sampling (Niewenhuis, 2012:99-117; Strydom, 2011:233). Strydom (2011:228, 233) refers to purposeful sampling and then also to snowball sampling (Strydom, 2011:233). Purposeful sampling entails sampling people with specific knowledge and skills pertaining to a phenomenon, such as SCI (Niewenhuis, 2012:99-117).

9.1 Qualitative research synthesis

During the qualitative research synthesis (manuscript 1), the researcher did not make contact with participants directly, as the aim of this manuscript was to provide a qualitative research synthesis of studies pertaining to knowledge pertaining to existing intervention programmes and processes that promote resilience. See number 10.1 or more details on the QRS.

9.2 Advisory panel members

The composition and use of an AP would be worthless, had the appropriate participants been approached; therefore the researcher sought efficient sampling methods in order to include paramount participants (Niewenhuis, 2012:00-117). Sampling refers to the process that has been used to make decisions regarding people, settings, events or behaviours to include in the study (Bertram & Christiansen, 2014:59; Niewenhuis, 2012:99-117). Participants for this AP were selected by combining different sampling

methods, namely purposeful sampling and snowball sampling (Strydom, 2011:232-233). Purposive sampling takes place when a researcher selects participants according to pre-selected criteria relevant to a particular research question (Niewenhuis, 2012:99-117; Strydom, 2011:232). Furthermore, snowball sampling is a method whereby participants, with whom contact has already been made, are used to enter their social networks to denote the researcher to other participants who often used to find “hidden populations”, that is, groups not easily reachable to reach through other sampling strategies (Niewenhuis, 2012:99-117; Strydom, 2011:233). The following criteria were used to purposively sample participants: they had to be Social workers and Physiotherapists who had at least five years of experiences in working within the field of SCI; intervention research specialists; experts on resilience; SCIPPs who had already lived in a cohabited relationship for at least five years with a spinal cord injured partner (SCIP) who had acquired this injury after they were married/cohabiting relationship; therefore they could give guidance from their lived experiences (Patton, 2015:434).

For this study, a total of six participants were recruited and included in the AP. The first four chosen participants were thus selected by means of purposeful sampling and complied with the criteria of possessing sufficient knowledge and skills pertaining to SCI and/or resilience respectively, and who also assisted the researcher through snowball sampling to recruit more participants for the AP (Niewenhuis, 2012:99-117; Strydom, 2011:232-233).

As depicted in table 7 (manuscript 2), the members included in AP-1 consisted of two social workers who are working at rehabilitation centres in Vereeniging and Johannesburg respectively. They were selected due to their experience in the field of SCI (5 years and 22 years respectively). A Physiotherapist with her own practice/association, rendering therapeutic services at different rehabilitation centres, was included because of her

pioneering work regarding SCI in South Africa (she was one of the founders of the South African Spinal Cord Association (SASCA) in 1993), and her extensive experience in the field of SCI (more than 30 years). One social work academic, with expertise pertaining to intervention research and resilience (more than 30 years), was selected and therefore had to advise the researcher on the resilience-based framework of resilience (Masten & Wright, 2010:222-229; Yates & Masten, 2004:8), as well as the planned research model to be used (de Vos & Strydom, 2011:476-487). Two SCIPPs, who also participated in the researcher's MA studies (Steyn, 2008:55), were included because both SCIPPs' cohabiting partners had acquired their spinal cord injuries after they married, therefore they could give guidance from their lived experiences (Patton, 2015:434), cohabiting with their SCI partners for 10 years and 8 years respectively.

9.3 DVD participants

All six APMs availed themselves of being part of the video recordings during May – June 2014. More participants for the video recordings were selected by combining different sampling methods, namely purposeful sampling and snowball sampling (Strydom, 2011:232-233). As numerous participants were included in the video recordings, the researcher could not describe the complete demographics and details of the participants in manuscript 2. More detail of the participants on the DVDs were thus included in addendum 8 (complete demographics of these participants). A total of 28 participants are included in the DVDs.

The participants comprised various “types”, namely professionals who are knowledgeable about SCI or resilience, as well as people living with SCI, and SCIPPs. The main sum of included people was personally video recorded by the researcher and a videographer, but some (only 12) were extracted from YouTube. The participants comprised academics

(experience between 3 and 30 years); one medical nurse who specializes in wound care (more than 20 years' experience); two social workers with field experience (5 and 30 years); a trauma therapist (more than 25 years' experience); a physiotherapist (30 years' experience); two occupational therapists (experience of 5 years and longer); two sexologists (12 – 35 years' experience); seven SCIPPs living with their partners who had acquired spinal cord injuries between 8 to 48 years ago; and seven people each living with an SCI, between 8 and 48 years.

9.4 Pilot study participants

Purposeful sampling was used to select these participants (Strydom, 2011:232). The pilot study consisted of two SCIPPs, who are living with their partners who had acquired spinal cord injuries between 8 and 15 years ago respectively, as well as an Observer. The inclusion criteria for an observer were the following: the observer should be a registered social worker, with more than five years' experience as practising social worker; and should have extensive experience in the method of Social group-work (Toseland & Rivas, 2014:11-12). Therefore, the selected Observer met all the criteria, with more than ten years' experience as social worker and also extensive experience in group-work as a method in social work. Although P1 and her partner knew each other before her partner had acquired SCI 15 years ago, they have only had a romantic relationship and have live together for 12 years, and thus she is considered to have extensive knowledge as a SCIPP. P2 is the same participant as APM-2, and was included seeing that she has knowledge of the process of designing and developing the GRPP for SCIPPs, and her husband's acquired SCI (8 years ago) is a post-marital injury; thus she resembles the target population for whom this GRPP for SCIPPs is aimed at, and could also contribute her lived experience as a SCIPP. Both included SCIPPs were thus in pre-injury relationships with their partners.

9.5 Evaluability assessment participants

Purposive sampling was initially used to select the participants (Bertram & Christiansen, 2014:60-61; Strydom 2011:232) followed by snowball sampling (Neuman, 2012:55-59; Strydom 2011:233). Sampling took place between January 2015 and March 2015. Firstly the researcher identified participants employed at the Life Health Care Group, via the gatekeepers (Saunders, 2006:126), who are professional role-players within the field of SCI (Niewenhuis, 2012:99-117). The last-mentioned participants gave the researcher the contact details of more professionals, employed at other rehabilitation centres who were then also contacted; thus snowball sampling correspondingly took place, where one person can refer the researcher to another person who is also involved in the phenomenon under investigation (Niewenhuis, 2012:99-117; Neuman 2012:55-59; Strydom, 2011:233).

The professional role-players who were participants during the evaluability assessment consisted of twelve included professionals in total, who are working within the field of SCI. Eight participants are social workers (n=8) and four psychologists (n=4). Different culture and language groups in South Africa were represented, namely Black (n=3), White (n=7), Indian (n=1) and Coloured (n=1), representing five of the eleven national languages. Almost all the participants have more than ten years' experience in their profession, with eight participants possessing more than one qualification: namely one holding two Honours degrees; five holding Master's degrees and two Doctoral degrees (PhDs). Unfortunately only one male availed himself to be part of this study, therefore the different genders are not represented equally.

Despite the fact that participant 2 is a psychologist, and thus a professional role-player in the field of SCI, she also has acquired a non-traumatic SCI, approximately three years ago (with paralyzing effects on the right side of her body). She is a lecturer at a university, and

also owner of a private practice (with other psychologists in her service); rendering therapeutic services to different rehabilitation centres. Therefore she could convey her combined lived and professional experience to the workshop.

Participant 10 is qualified as both a social worker and physiotherapist and has practice experience with SCI from the perspectives of both professions. She is also married to a person who had acquired an SCI more than ten years ago. She could thus also convey her united lived and professional experience to the workshop.

Participant 7 is the participant with the longest experience within the field of SCI (22 years) and was an expert advisor (advisory panel) during the period of designing and developing the GRPP for SCIPPs (manuscript 2), and also an evaluator (professional role player in the field of SCI) during the evaluability assessment. Participant 7 could thus extend her practice experience to inform scientific inquiry (Yegidis *et al.*, 2012:30-47) by having this dual role as advisor and evaluator; and could therefore integrate her multiple sources of knowledge and practice wisdom (as social worker) during two of the five phases of the intervention research model (de Vos & Strydom, 2011:473-489; Fouché, 2011:456; Rothman & Thomas, 1994:5) which was utilized during this study (see figure 14).

10 DATA GATHERING AND ANALYSIS

10.1 Qualitative research synthesis (manuscript 1)

In manuscript 1 a systematic search of literature was done between August 2013 and March 2014, searching electronic archives of publications (between 2003 and 2014), in accredited journals, from the following search engines: Google Scholar, EBSCOhost, Scopus, One Search, Web of Science, Crossref, Emerald, SAePublications and

LexisNexis, to determine whether a similar study had not perhaps already been done and furthermore to report on what is already known about the process that nurtures resilience in SCIPPs.

The researcher found 155 papers and reviewed 8 cited papers in these retrieved articles (therefore a total of 163 papers were reviewed) where after the abstracts and titles were assessed for relevance in order to select the 74 full-text versions of potentially suitable papers, to be quality appraised. Quality appraisal was done with these studies before 21 studies were included in this research synthesis. The 21 selected qualitative, quantitative and mixed-studies (Flemming, 2009:205-210; Suri, 2011:64), as well as literature reviews (which also answered the research questions, although it did not include specific participants), were included to be subjected to data extraction. Data were extracted only from the findings/results and discussion sections of primary quantitative, qualitative and mixed method research reports, as well as literature reviews. The researcher acknowledges that qualitative and quantitative findings are presented differently. Quantitative findings mostly refer to numbers presented in text, tables and figures in a section labelled 'results', with a researcher's interpretation in a 'discussion' section (Sadelowski *et al.*, 2012:1428). Qualitative findings are generally not linked to numbers but presented in narrative form, organized thematically (Schurink *et al.*, 2011:397-423). The findings of quantitative studies were thus not meta-analysed, but reviewed for summaries of findings that answered the two research questions (Flemming, 2009:205-210). Considering the fact that this study was guided by a resilience-based framework (Masten & Wright, 2010:222-229) a pro-forma or adapted template (Flemming, 2009:205-210; Roberts & Bailey, 2011:690-708) was created to enable the extraction of a summary of meaningful information on the title of the research, the research approach/design, the sample and participants, the findings (first and second level codes), the format, and how

this align with the six resilience processes of Masten and Wright (2010:222-229) (see table 3 and addendum 4). As such, first-level coding was employed, which means that the researcher inductively coded the data to determine what content and reported resilience processes emerged from the data.

Bearing in mind the latter, and specifically the first question posed by Hopwood (2015) and Srivastava and Hopwood (2009:76-84) second level coding was implemented next, whereby all the first-level codes were grouped into eight categories. Following this process, the researcher deductively integrated the eight categories with the six universal resilience-protective processes found by Masten and Wright (2010:222-229). All eight categories could be contextualised into one or more of the six protective processes.

A suitable data analysing framework was chosen to meaningfully analyse the included data named Iterative data analysis, which is a deeply reflective process that promotes insight and develops meaning by visiting and revisiting the data and connecting it with emerging insights to enhance understanding (Srivastava & Hopwood, 2009:76-84).

10.2 Advisory panel meetings (manuscript 2)

Advisory panel meeting 1

In manuscript 2, open-ended interviews (Field & Morse, 1995:67) were conducted with advisory panel members (during March-April 2014, as well as during July-August 2014) to gather data that could assist the researcher in answering the research question.

The interviews with all the AP members, except APM-6 was audio recorded and transcribed. Hence, a comprehensive process note was completed after the interview with APM-6.

The researcher employed thematic content analysis, followed by a process of inductive analysis, as suggested by Tesch (in Creswell, 1994:154-155, 2009:186) and Braun and Clarke (2006:77-101, 2013:5-23) in analysing the latter mentioned data. The researcher read and reread the transcripts and categorized feedback and recommendations in accordance with the different sessions, as outlined in the first formulated GRPP for SCIPPs (table 11 of manuscript 2). Hereafter the researcher used track changes to insert aspects in agreement/ suggestions/comments on the outline of the GRPP for SCIPPs (see table 8 in manuscript 2). See addendum 7 for the coding procedure. Hereafter the researcher synthesized and colour-coded comments that were similar, reflected on it, compare it with literature and amended the outline.

Advisory panel meeting 2

The interviews with all the AP2 members were also audio recorded and transcribed. The researcher again followed a process of inductive content analysis, as suggested by Tesch (in Creswell, 1994:154-155, 2009:186) and Braun and Clarke (2006:77-101, 2013:5-23) in analysing the latter mentioned data. The researcher thus read and reread the transcripts and categorized feedback and recommendations in accordance with the different sessions, as defined in the formulated GRPP for SCIPPs (table 11).

Hereafter the researcher used track changes, with color-codes to analyse and reflect on recommendations (see addendum 20) for an excerpt of coding procedure.

DVDs

During the recording of the DVD; informal feedback was obtained from various role-players. The researcher documented reflections and observations during these events in her researcher journal. When a decision was made about the change of the evaluating purpose, the researcher journal played a significant role.

10.3 Pilot study (manuscript 2)

During manuscript 2 a pilot study was done on 17 and 18 July 2014, by using six self-administered questionnaires with four-point Likert-type items and written explanations for scores given (Babbie & Mouton, 2012:153-154; Boone & Boone, 2012:5; Delpont & Roestenburg, 2011:188; Neuman, 2012:135) (see addendums 10-15); also including an Observer, who had to fill out a checklist (protocol) (see addendum 16), amongst other tasks (Jackson, 2011:110). The purpose of the Likert-type items was to focus the participant's attention on a specific category of the session, and thereafter participants were requested to construct their reasons for giving a specific rating by giving written explanations. Feedback from the SCIPPs and the Observer were incorporated to amend the GRPP for SCIPPs further.

The written explanations and feedback of the three participants (from 18 questionnaires altogether); as well as the written feedback from the observers' completed checklist (protocol) were coded by means of colour-coded comments via track-changes; discussed, reflected upon and convened with an independent coder. See addendum 19 for an excerpt of the transcript and coding procedure.

This analysing-method correlates with the inductive content analysis approach as suggested by Tesch (in Creswell 1994:154-155, 2009:186) and Braun and Clarke (2006:77-101, 2013:5-23), although it was adjusted to suit the researcher's "track-changes" technique. Please see an audit trail (see table 14 in manuscript 2) to demonstrate coding decisions (addendum 19).

10.4 Peer review (manuscript 2)

POSTER (2-4 October 2014)

The aim of presenting a poster on the GRPP for SCIPPs at the SASCA congress (2-4 October 2014) (see addendum 21 for congress programme), was to receive other professionals and people living with SCI's verbal feedback regarding the proposed GRPP for SCIPPs and also to invite feedback, via a poster presentation, on the evaluation of the GRPP for SCIPPs with the target population (see addendum 22: Poster).

PRESENTATION (14 November 2014)

On 14 November 2014 different professionals, employed at the rehabilitation-unit of a hospital in North West Province (social workers; psychologists; occupational therapists; physiotherapists and medical doctors), attended a presentation, by the researcher, on the GRPP for SCIPPs. The purpose was to get professionals to refer SCIPPs to the researcher to be included in the research (see addendum 35).

No formal data analysis was done after the peer review. However, critical reflection on verbal feedback was documented in the researcher's journal which was taken into consideration when a decision was made to change the evaluation purpose.

10.5 Evaluability assessment (manuscript 3)

Self-administered questionnaires were developed with Likert-type items and written explanations for each of the six sessions based on the outcomes and content of each session (Neuman, 2012:135) (see addenda 29 – 34). These Likert-type items were designed to yield both numeric and qualitative data to evaluate the relevance, applicability and acceptability of the GRPP for SCIPPs. Likert-type items were useful in this study because it was exploring attitudes and opinions of professional people. In the Likert-type items the researcher used statements, such as: “The goals and objectives of session 1 is

well defined and feasible”; “The reading material regarding resilience is clear and will be easy to follow for the SCIPPs”, etc., and used a 7-point response scale. The response scales used anchors such as 1=strongly disagree to 7= strongly agree. The items were phrased in a way that posed one topic only so that it was clear what the person was responding to: Typically one would score each item so that higher scores always indicate more of some characteristics and then take the mean (average) of all of the items. However, the numbers will not have any inherent meaning, except that on average that specific participant was slightly favourable in his/her attitudes and can then be compared with the distribution of the remaining responses (Boone & Boone, 2012:5). The purpose of the Likert-type items was to focus the participant’s attention on a specific category of the session, and thereafter participants were requested to construct their reasons for giving a specific rating by providing written explanations. In addition, due to the small sample (n=12), the aim of the questionnaire containing Likert-type items was thus not so much on the numeric value, but on the written narratives explaining the reasons for the score given. The combined use of such Likert-type items and written narratives to evaluate the outcome of programme in this way has been successfully implemented in a number of studies (Beattie *et al.*, 2013: 308; Power *et al.*, 2013:6-7). In addition to the above, video recordings were also conducted during a group interview conclusion of the workshops.

To properly analyse Likert-type data, one must understand that the numbers assigned to Likert-type data express a “greater than” relationship. However, how much greater is not implied. Because of these conditions, Likert-type items fall within the ordinal measurement scale. Descriptive statistics recommended for ordinal measurement scale items include a mode or median for central tendency and frequencies for variability (Boone & Boone, 2012:4). Due to the small sample size (n=12), and the fact that the Likert-type data was only used to focus participants on a core aspect of the GRPP for

SCIPPs, basic descriptive statistics were conducted by a statistical consultant from the Optentia Research Unit (NWU, Vaal Campus) prior to and during the collection of the numeric data analysis. Descriptive statistics (mean and standard deviation) by means of SPSS were computed for numerical data from the Likert-type items.

Thematic content analysis was conducted (Braun & Clarke, 2006:77-101, 2013:5-23; Tesch (in Creswell, 1994:154-155, 2009:186) on written responses (narratives) (on the Likert-type data).

Video recordings

After each workshop, the verbal feedback was facilitated by the researcher and video-recorded by a research-assistant, and entailed a brief reflection by each participant regarding their overall feedback concerning the GRPP for SCIPPs. The last-mentioned reflection (verbal feedback) served two purposes, namely (a) the analysed verbal feedback was seen as additional qualitative data with the purpose to obtain the participants' overall feedback regarding the GRPP for SCIPPs, as they evaluated the programme per session during the self-administered questionnaires, and not the overall programme; and (b) secondly, enhancing trustworthiness, by member checking, to eliminate any misunderstandings, as the researcher, in this study, is "the instrument" of qualitative data collection (Niewenhuis, 2012:99-117; Marshall & Rossman, 2016:44,46). Transcriptions of video recordings were coded, and thematically analysed by two independent coders. The themes were finalized after a consensus discussion.

11 ETHICAL ASPECTS

Strydom (2005:56) points out that the researcher has an ethical responsibility to the discipline and science. Therefore, the Ethics Committee of the North-West University's Vaal Triangle Campus assessed and approved the research project (September 2013).

Furthermore the researcher took into account the importance of protocol adherence (Kessler *et al.*, 2003:1057) during the entire research enquiry (see manuscripts 2 and 3).

Creswell (2009:88-92) explains that the researcher has ethical obligations towards the research problem, the data collection process, the analysis and interpretation of the data, and when writing and disseminating the research. Participation in the study was voluntary; therefore the participants were not intimidated to participate (Babbie & Mouton, 2012:521; Machi & Youdin, 2012:49-50). The researcher took special note to handle the participants' information confidentially, since Machi and Youdin (2012:34) and Maree and van der Westhuizen (explained by Maree, 2012) stipulate that the right to privacy is a social work professional value and relates closely to confidentiality, also in research by treating participants' information confidentially. Hence Patton (2015:499-450) reports that informed consent does not automatically mean that confidentiality has to be maintained, as participants might desire to "own their stories" and therefore might want their identity to be known, which was especially in this study the situation with the people who availed themselves for the video recordings, which enhanced the trustworthiness, reliability and validity of these recordings (Marshall & Rossman, 2016:43-47).

Informed consent forms (see addenda 5, 9, 18 & 27) were furthermore provided to and signed by participants before any data collection had taken place (Patton, 2015: 497-480; Yegidis *et al.*, 2012:36). The forms were designed to protect the participants from unknowingly getting themselves into this study, and provided them with a description of what to expect (Machi & Youdin, 2012:50; Neuman, 2012:59; Yegidis *et al.*, 2012: 37). Furthermore, when requesting participants to partake in a study, the participants must be fully informed of any risk or possible damage from participating and must be offered debriefing (Machi & Youdin, 2012:139). As a result uncertainties were dispelled before commencement of any data collection during the study. No participant requested to be

debriefed afterwards. Participants were also given the opportunity of indicating, after the recordings had been made, what information they may want to be omitted.

Strydom (2011:124) argues that a researcher must ensure the participants that he/she (the researcher) is competent and adequately skilled to undertake the investigation at hand; thus the researcher informed the participants that she is a SCIPP herself; a registered social worker at the South African Council for Social Service Professions (SACSSP); has obtained a Master's degree titled "Egpare se belewenis na 'n spinalekoordbesering van 'n egmaat] (Steyn, 2008:1-114); and has 18 years' experience in the field of social work. All the participants voluntarily signed the informed consent forms prior to the commencement of the study (Jackson, 2011:54; Neuman, 2012:59-60). The researcher furthermore reported all research findings and problems experienced as accurately and correctly as possible (Creswell, 2009:88-92).

12 TRUSTWORTHINESS

Niewenhuis (2012:99-117) states that trustworthiness is of the utmost importance in qualitative research due to the fact that trustworthiness is the acid test of the researcher's data analysis, findings, and conclusions.

The traditional criteria for ensuring the credibility of research data, namely objectivity, reliability and validity are used in quantitative and experimental studies because they are often based on standardized measuring instruments (Anney, 2014:272; Shenton, 2004:64).

In contrast, qualitative studies are usually not based upon standardised instruments and they often utilize smaller, non-random samples. Therefore, these evaluation criteria cannot be strictly applied to a qualitative study, mainly because the researcher is more interested in understanding how participants construct meaning and interpret a specific phenomenon.

In qualitative studies, trustworthiness is the corresponding term used as a measure of the

quality of the research. It is the extent to which the data and data analysis are believable and trustworthy. The trustworthiness of qualitative data can be established by using four strategies, namely: credibility, transferability, dependability and conformability (Denzin & Lincoln, 1994:575-586).

Table 2: Trustworthiness

STRATEGIES OF TRUSTWORTHINESS	APPLICATION TO THIS STUDY
<p>CREDIBILITY: The extent to which the data and data analysis are believable and trustworthy.</p> <p>Credibility strategies: prolonged and varied field experience, flexibility (research journal; peer review; triangulation; member checking; peer review).</p>	<p>The researcher has first-hand experience of being a SCIPP herself and has thus prolonged experience of the phenomenon under study and understands the core issues that need to be addressed in a GRPP for SCIPPs.</p> <p>Being a qualitative researcher during intervention research creates a multi-faceted role and several authors stipulate the inclusion of a reflexive approach when there is a dual role for the researcher (Trondsen & Sandaunet, 2009:13-20). At all stages in the research, the impact of the researcher in terms of data generation and analysis, relationships in the process, and how one is addressed as a researcher and facilitator should be documented and become part of the analysis. Hence reflexivity establishes the researchers' integrity. In this study the researcher included a research journal and audit trail (Arber, 2006:885-895).</p> <p>The researcher sought peer review and feedback throughout the study to improve the quality of the GRPP for SCIPPs and findings. The researcher included two triangulation techniques, namely multiple data collection methods and informants such as interviews; workshops; observers; experts; professional role-players and people affected by SCI.</p> <p>Inclusion of member checking into the findings, namely gaining feedback on the content and activities of the GRPP for SCIPPs during early and advanced development stages from advisory panel members, observer and professional role-players in the field of SCI.</p>
<p>TRANSFERABILITY: The extent to which other researchers can apply the findings of the study to their own transferability strategies: Provide thick descriptions.</p>	<p>Transferability was enhanced in this study by providing a detailed, thick description of the setting studied; research methodology; and procedures to provide other researchers with sufficient information to be able to judge the transferability of the findings to other settings.</p>
<p>CONFIRMABILITY OF THE FINDINGS (The extent to which the research findings can be confirmed or corroborated by others) AND DEPENDABILITY: The extent to which research findings can be replicated with similar participants in similar contexts. Thus, the study should be reported in detail, enabling other researchers to repeat the work and gain the same results.</p>	<p>Throughout the study, at least two independent coders were analysing the data. This was followed by consensus discussions prior to finalising the themes/sub-themes. An audit trail of coding decisions made was documented. An audit trail allows other researchers to trace the course of the research step-by-step via the decisions made and procedures described. The audit trail is represented through-out the study.</p> <p>The research procedures were discussed stepwise (Peer review in the form of advisory panel meetings; workshops with professional role-players; Poster presentation at SASCA conference; presentation at a rehabilitation centre; professional observers during</p>

Dependability strategies: audit trail; stepwise replication; independent coding; peer review of findings.	pilot study).
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Anney (2014:272); Flick (2011:194); Lietz *et al.* (2006:450); Shenton (2004:64-72)

13 LIMITATIONS/CONTRIBUTION OF THE STUDY

The following limitations of the study were identified:

- The researcher excluded studies during the qualitative research synthesis before 2003, and also studies after 2014, she thus acknowledges that the publications being used might be incomplete, even though she sampled until data saturation was reached.
- The exclusion of studies in languages other than English and Afrikaans might have caused the exclusion of studies answering the research questions. This implies that the researchers' sampling could be biased, and thus reported findings may need to be interpreted cautiously.
- The GRPP for SCIPPs was developed specifically for female SCIPPs, as the acquirement of male SCI is higher in South Africa than female SCI. As a result of the latter, this GRPP for SCIPPs might not address the needs of male SCIPPs as such, as some of the procedural elements (especially some media on the DVDs), exclusively caters for female SCIPPs. The researcher considers however, that male SCIPPs might also experience unique hardships of their own. Therefore the providing of a GRPP only for female SCIPPs can be seen as a possible limitation.
- Furthermore this study was also only focusing on pre-injury cohabiting relationships, which might also exclude the inclusion of SCIPPs in post-injury cohabiting relationships, and the research acknowledges that post-injury cohabiting relationships might also have unique diversities of their own.

- A small sample of professional role players within the field of SCI (n=12) participated in the evaluability assessment (manuscript 3), which might be seen as a limitation as the results cannot be generalized to the opinions of all professionals working within this field.
- Although the professional role players who participated in evaluating the readiness of the GRPP for SCIPPs were representatives of all four culture groups in South Africa, more inputs are needed as resilience is also culture-bound and only a small group (n=12), only from the Gauteng-province participated, which can also contribute to isolated findings.
- As resilience is flexible and can take time to unfold, it might happen that there could be some SCIPPs that won't benefit from this newly developed GRPP for SCIPPs. The latter could be seen as a possible limitation and that more research might need to be executed pertaining to resilience-promoting processes in SCIPPs; nevertheless the newly developed GRPP for SCIPPs is at least a good start.

The newly developed GRPP for SCIPPs has a few contributions to make, namely:

- The GRPP for SCIPPs is the first known intervention for SCIPPs in South Africa, and therefore this intervention might contribute to advanced service delivery in the field of social work; and moreover in the field of SCI, especially as it has the potential to promote SCIPPs resilience (as evaluated by professionals in manuscript 3).
- By means of a resilience-based framework (Ungar, 2011:4; Yates & Masten, 2004:8) in partnership with a process-focused approach (Yates & Masten, 2004:9), and the six resilience-protective processes of Masten and Wright (2010:222-229), the findings of the study has proven the possible usefulness of employing

resilience-promoting interventions in Social group-work interventions, as evaluated by professional role players working within the field of SCI.

- This newly developed intervention might sensitize professionals working within the field of SCI for the need to include SCIPPs in service delivery, as the negative outcomes for the SCIPP [who has to deal with his/her own frustrations and uncertainties in adapting to this adversity, amidst the sudden care-giver burden, having to take over more responsibilities and dealing with his/her partner's psychological and emotional adjustment], were highlighted in literature (Steyn, 2008: 62-68; Young & Keck, 2003:1-3). This furthermore correlate with findings from Catalano *et al.* (2011:209) and Dodd (2010:61) that professionals need to provide opportunities for promoting resilience in individuals whose partners have an SCI, as it could consequently reduce or prevent depression of the SCIPP and contribute to a positive outcome in the marital and cohabiting relationship.
- The GRPP for SCIPPs hold benefit not only for the SCIPP, but also for his/her partner, their children, other family members, and the community at large, as this study provides new information pertaining to needed support services which might be neglected in the past. When couples of whom one has acquired an SCI cope positively with the adversities inherent in such a trauma, they function resiliently (Dickson *et al.*, 2011: 252; Dunn *et al.*, 2009:653; Fronck *et al.*, 2011:99; Gilad *et al.*, 2009:462; Steyn, 2008:113).

14 CHOICE AND STRUCTURE OF THE RESEARCH REPORT

14.1 Section A: Overview

This section covered the relevancy of the research, the goals and objectives, the resilience-based framework used, reasons for focussing this research on female SCIPPs, the method

of investigation and procedures, definitions and key terms as well as the announcement of the research results.

14.2 Section B: Three manuscripts

Manuscript 1: Resilience-Promoting processes to be included in an intervention for Spinal Cord Injured Persons' Partners: Qualitative research synthesis

Prepared for: Journal of Psychology in Africa

Referencing style: APA

Word limit: Not defined

Manuscript 2: Design and development of a group resilience-promoting programme for spinal cord injured persons' partners (SCIPPs)

Prepared for: Social Work/Maatskaplike Werk

Referencing style: HARVARD

Word limit: 10 000 words

Manuscript 3: Professional Perspectives on the readiness of Group Resilience-Promoting activities to be implemented with Spinal Cord Injured Persons' Partners

Prepared for: Journal of Humanities/Tydskrif vir Geesteswetenskappe

Referencing style: HARVARD

Word limit: 6 000 words

14.3 Section C: Conclusions and recommendations

The main conclusions formulated from the results of the research, as well as the recommendations for the improvement of the GRPP for SCIPPs, are discussed in this section. It consists of a comprehensive summary, conclusions, and recommendations



regarding the research undertaken. After the conclusion and recommendation a consolidated list of references is presented, as well as the addenda.

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