

**Making sense of paraplegia caused by  
violence-related gunshot injury**

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## SUMMARY

### MAKING SENSE OF PARAPLEGIA CAUSED BY VIOLENCE-RELATED GUNSHOT INJURY

**Keywords:** making sense; meaning; narratives; paraplegia; spinal cord injury; violence-related gunshot wounds.

The overall aim of this study is to explore the subjective experiences of psychotherapeutic interventions and the sense-making process in a group of persons paralysed as a consequence of violence-related gunshot injury. An available and purposive sample of ten participants was selected from public and private hospitals in and around Johannesburg, and from the Association for the Physically Disabled in South Africa. Three females and seven males, between the ages of 26 and 43 years, took part in the research. The participants had all suffered penetrative damage to the spinal cord in the thoracic region as a result of violence-related gunshot injury, and are therefore classified as having paraplegia. The participants' gunshot injuries had been sustained in incidents ranging from attempted hijacking and armed robbery, to being caught in crime-related crossfire. In-depth interviews were conducted with the participants. A narrative approach was used to examine participants' unique stories, utilising a systematic form of narrative analysis. The thesis consists of three articles, namely 1) *The subjective experience of psychotherapeutic interventions in the rehabilitation of persons paralysed as a result of violence-related gunshot injuries*; 2) *Making sense of paraplegia caused by violence-related gunshot injury*; and 3) *Therapeutic guidelines for the management of persons paralysed as a result of violence-related gunshot injuries*.

The findings of article 1 reveal that paraplegic persons had both positive and negative experiences during their hospital rehabilitation. Ultimately, however, positive

experiences compensated for negative experiences. This suggests that in the absence of psychotherapeutic interventions, psychosocial adjustment may possibly not be facilitated. The second article indicates that although several barriers prevented participants from making sense of their trauma, meaningful relationships, spiritual growth and a greater appreciation of the value of life were still possible. In the final article guidelines were put forward that include meeting the holistic and adjustment needs of paraplegic persons. Future research is suggested and limitations acknowledged.

## OPSOMMING

### SINSKEPPING MET BETREKKING TOT PARAPLEGIE VEROORSAAK DEUR GEWELDVERWANTE SKIETWONDE

**Trefwoorde:** sinskepping; betekenis; narratiewe; paraplegie; rugmurgbesering; geweldverwante skietwonde.

Die oorhoofse doel van hierdie studie is om die subjektiewe ervaring van psigoterapeutiese intervensies en die sinmakingsproses in 'n groep persone verlam as gevolg van geweldverwante skietwonde te ondersoek. 'n Beskikbaarheid- en doelgerigtheidsteekproef van tien deelnemers is gekies vanuit publieke en privaat hospitale in en om Johannesburg, en vanuit die Vereniging vir Liggaamlike Gestremdes in Suid-Afrika. Drie vroue en sewe mans, tussen die ouderdomme van 26 en 43 jaar, het aan die navorsing deelgeneem. Die deelnemers het almal penetratiewe skade aan die rugmurg in die torakale area gely as gevolg van geweldverwante skietwonde, en word op grond hiervan geklassifiseer as persone met paraplegie. Die deelnemers is gewond in insidente soos poging tot motorkaping, gewapende roof en misdaadverwante kruisvuur. In-diepte onderhoude is met die deelnemers gevoer. 'n Narratiewe benadering is gevolg om deelnemers se unieke stories te ondersoek, deur middel van 'n sistematiese vorm van narratiewe analise. Die proefskrif bestaan uit drie artikels, naamlik 1) *The subjective experience of psychotherapeutic interventions in the rehabilitation of persons paralysed as a result of violence-related gunshot injuries*; 2) *Making sense of paraplegia caused by violence-related gunshot injury*; en 3) *Therapeutic guidelines for the management of persons paralysed as a result of violence-related gunshot injuries*.

Die resultate van artikel 1 dui daarop dat paraplegiese persone positiewe en negatiewe ervarings gedurende hulle hospitaalrehabilitasie gehad het. Uiteindelik het positiewe ervarings egter vir negatiewe ervarings gekompenseer. Dit suggereer dat wanneer psigoterapeutiese intervensies nie deel uitmaak van die rehabilitasieprogram nie, psigososiale aanpassing moontlik nie mag plaasvind nie. Die tweede artikel dui daarop dat hoewel hindernisse deelnemers verhoed het om sin te maak van hulle trauma, betekenisvolle verhoudings, spirituele groei en 'n groter waardering vir die waarde van die lewe tog moontlik is. Die laaste artikel stel riglyne voor wat insluit dat die holistiese en aanpassingsbehoefes van paraplegiese persone vervul moet word. Voorstelle vir verdere navorsing word gemaak, en die beperkinge van hierdie navorsing uitgewys.

**LETTER OF CONSENT**

I, the co-author, K.F.H. Botha, hereby declare that the input and effort of Mr Gregory B. Hope is of sufficient scope to be the reflection of his work. I hereby provide consent that he may submit this manuscript in article format for examination purposes in partial fulfillment of the requirements for the degree Philosophiae Doctor.

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Dr K.F.H. Botha

**INTENDED JOURNAL**

**Journal of Health Psychology**  
**An Interdisciplinary, International Journal**

The manuscript as well as the reference has been styled according to the above journal's specifications.

(Manuscript submission guidelines for authors follow.)

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## INSTRUCTIONS TO AUTHORS

Four identical typescript copies of the manuscript, each fully numbered and legible, together with all figures and tables, and a covering letter should be sent to: David F. Marks, Department of Psychology, City University, Northampton Square, London, UK EC1V 0HB. Tel / Fax + 44 (0)207 477 8590; email [D.Marks@city.ac.uk](mailto:D.Marks@city.ac.uk).

Papers should be short and consistent with the clear presentation of subject matter. There is no absolute limit on length but 8000 words is a useful maximum. The title page should contain the word count of the manuscript (including all references). The title should indicate as brief as possible, the subject matter of the paper. An abstract of 100 to 120 words should precede the main text, accompanied by five key words and a bibliography of note of 25 to 50 words. The covering letter should indicate whether the author prefers blind or open review.

Articles submitted for publication must be typed in double spacing, throughout, on one side only of white A4 or standard paper, with generous left- and right-hand margins but without justification. Titles and section headings should be clear and brief with a maximum of three orders of headings. Lengthy quotations (exceeding 40 words) should be displayed, indented, in the text. American or UK spelling may be used according to the author's preference. Single quotation marks should be used and italic type should be underlined. Tables should have short descriptive titles.

Authors should follow the 'Guidelines to Reduce Bias in language' of the Publication Manual of the American Psychological Association (4<sup>th</sup> Edition). These guidelines relate to level of specificity, labels, participant, gender, sexual orientation, racial and ethnic identity, disabilities and age. Authors should also be sensitive to issues of social class, religion and culture. All references cited in text should be listed alphabetically and presented in full using the Publication Manual of the American Psychological Association (4<sup>th</sup> edition).

Authors will be required to provide a diskette, labeled with the date, title and authors' name and containing the final version of their paper following acceptance for publication. Authors are responsible for guaranteeing that the final copy and diskette versions of the manuscript are identical.

It is strongly recommended that all manuscripts be carefully edited by a language specialist before submission. A note that the manuscript had been language edited should accompany the manuscript on admission.

## **INTRODUCTION**

### **MAKING SENSE OF PARAPLEGIA CAUSED BY VIOLENCE-RELATED GUNSHOT INJURY**

Several studies indicate that violence-related gunshot injury is the leading cause of quadriplegia and paraplegia in South Africa. Paraplegia involves the impairment of motor and sensory functions in the lower trunk and lower extremities, and includes loss of bladder and bowel function (Kennedy, 1991) and impaired sexual functioning (Somers, 2001; Trieschmann, 1982).

Receiving a medical diagnosis and prognosis of paraplegia can therefore be an overwhelming experience, regardless of the care the physician takes in conveying the news (Ptacek & Eberhardt, 1996). A diagnosis of paraplegia may also designate persons to a position where they anticipate and fear discrimination and stigmatisation associated with their condition. People in society may have negative, biased attitudes towards persons with paraplegia, as they may perceive people in wheelchairs as being unattractive and devoid of sexuality (Gordon, Feldman, & Crose, 1998; Somers, 2001). The doubly traumatic experience of being shot as a result of a violent crime and consequently being paralysed further causes immense agony and disruption in the lives and life stories of those affected. Survivors of violent victimisation may remain fearful of facing a world in which violent crime is a daily occurrence. According to Janoff-Bulman (1989), Janoff-Bulman and Frantz (1997), and Janoff-Bulman and Frieze (1983), persons paralysed by traumatic events such as violence-related gunshot injuries undergo a profound change in their view of the world. As a result of their traumatic victimisation, such paraplegic persons may struggle to find meaning in their suffering (Frankl, 1969, 1992; Janoff-

Bulman, 1989; Janoff-Bulman & Frantz, 1997; Janoff-Bulman & Frieze, 1983). A further important factor that may impact the rehabilitation process is the lack of psychological and counselling services. In studies by both Carpenter (1994) and Oliver et al. (1988), participants felt restricted, as the rehabilitation programme was dominated by bureaucratic policies and medical principles, while ignoring individual patient needs. Psychotherapy should therefore form an integral part of the rehabilitation of paraplegic persons whose disability is the result of violence-related gunshot injuries.

The first author's observation of rehabilitation treatment centres in the Johannesburg area indicates that it is not standard practice for psychologists to be involved in the rehabilitation of persons with paraplegia. Psychological services, in particular skillful psychotherapeutic interventions, are therefore not readily available to help address the needs of paraplegic persons in a holistic manner. It is also not clear if paraplegia caused by violence-related gunshot injury creates unique experiences or needs, as opposed to paraplegia in general. Further, although the literature does inform us about meaning-making after traumatic loss or the death of loved ones, research on how individuals make sense of paraplegia caused specifically by violence-related gunshot injury is lacking. Little is also known about how they attach meaning to their physical and psychosocial experiences after the impact of violent shooting incidents.

The aims of this study were to:

- explore how paraplegic persons paralysed by violence-related gunshot injuries subjectively experience psychotherapeutic interventions;
- explore how persons paralysed because of violence-related gunshot injury make sense of their paraplegia and their lives; and to

- put forward guidelines for the psychosocial management of persons paralysed because of violence-related gunshot injuries.

The study employs an exploratory, qualitative research methodology. Participants consist of ten paraplegic adults from both gender groups who have been paralysed from the waist downwards by violence-related gunshot injuries e.g. hijacking or armed robbery. Their ages range from 26 to 43 years. The researcher also a participant, is unmarried, 55 years old and who has worked as a clinical psychologist for eleven years. Data was collected through in-depth interviews with all ten participants after informed consent was obtained and confidentiality was assured. The study was also approved by the North-West University's ethical committee (approval number 03M10).

Extrapolating from Terre Blanche and Durrheim (1999), a narrative approach was utilised to reveal and understand the subjective meanings and experiences of paraplegic persons paralysed as a result of violence-related gunshot injuries. At the centre of narrative analysis are stories and 'more specifically, the texts that tell the stories' (Patton, 2002, p. 118). Riesman (1994) asserts that narratives assist persons in making connections and constructing meanings about changes in their lives; by linking past and present, society and self. Although narratives have a constructivist function, the focus of this study is rather on the participants' stories as holding, containing structures of meaning (Roberts, 1999).

The study consists of three articles, namely 1) *The subjective experience of psychotherapeutic interventions in the rehabilitation of persons paralysed as a result of violence-related gunshot injuries*; 2) *Making sense of paraplegia caused by violence-related gunshot injury*; and 3) *Therapeutic guidelines for the management of persons*

*paralysed as a result of violence-related gunshot injuries*. The first article aims to explore how paraplegic persons paralysed by violence-related gunshot injuries subjectively experience psychotherapeutic interventions. This is likely to provide information that could be used to improve psychotherapeutic interventions. The aim of the second article is to explore how persons paralysed because of violence-related gunshot injury make sense of their paraplegia and their lives. The final article aims to put forward guidelines for the psychosocial management of persons paralysed because of violence-related gunshot injuries. Guidelines will be compiled by critically examining the findings from the preceding two articles, triangulated with related literature and the first author's experience as a clinical psychologist working with quadriplegic and paraplegic persons.

The results, implications and recommendations of the study will be summarised in a concluding section.

**MANUSCRIPT**

**Running head: THE SUBJECTIVE EXPERIENCE**

**The subjective experience of psychotherapeutic interventions in the  
rehabilitation of persons paralysed as a result of violence-related  
gunshot injuries**

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**Abstract**

The aim of this qualitative study was to explore how persons paralysed as a result of violence-related gunshot injuries subjectively experience psychotherapeutic interventions during their hospital rehabilitation. Three females and seven males took part in the research. The participants had all been paralysed as a consequence of violence-related gunshot injuries. Narrative analysis was used to examine the participants' unique stories. The research findings centred on the following themes: a) emotional support and being appreciated; b) building confidence; c) feeling marginalized by receiving the diagnosis and prognosis of paraplegia; d) experiencing healthcare professionals as young and inexperienced; e) perceiving the attitude of healthcare professionals as negative and f) lack of psychosocial and psychotherapeutic interventions. Recommendations resulting from the research proposed that psychologists and social workers be part of a holistic, patient-centred rehabilitation approach.

Keywords: experiences; narratives; paraplegia; psychotherapeutic interventions.

## **Introduction**

This is the first in a series of three articles in which the overall objective is to explore the ways in which a group of paraplegic persons paralysed as a result of violence-related gunshot injuries subjectively experience psychotherapeutic interventions and the sense-making process. For the purposes of this study, 'psychotherapeutic interventions' is broadly defined to include skilful psychotherapeutic interventions and communication that take place between healthcare professionals and a paraplegic person during his or her hospital rehabilitation. According to Somers (2001), traumatic injury to the spinal cord can result in quadriplegia or paraplegia, depending on the level at which the damage has occurred. Damage to the spinal cord in the neck or the cervical vertebrae results in quadriplegia. Paraplegia is caused by penetrative damage, such as damage done by a bullet, or other injuries to the spinal cord in the thoracic, lumbar or sacral vertebrae.

Paraplegia involves the impairment of motor and sensory functions in the lower trunk and lower extremities, and includes loss of bladder and bowel function (Hayes, Potter, & Hardin, 1995; Kennedy, 1991; Somers, 2001) and impaired sexual functioning (Somers, 2001; Trieschmann, 1982). According to Kennedy (1991) and Somers (2001), a complete spinal injury involves a total loss of function below a particular spinal level, while an incomplete spinal injury means that some sensory and motor functions remain intact.

South Africa has a very high incidence of violent crime. Geldenhuis and Lubisi (2004), for example, report that 38 car hijackings take place in the Gauteng province every day. Three different studies (Harrison, 2004; Hart, 2000; Hart & Williams, 1994) indicate that violence-related gunshot injury is the leading cause of quadriplegia and

paraplegia in South Africa, with figures of 40%, 44% and 36%, respectively. In countries such as Australia, the USA, Sweden, Canada and Thailand, motor-vehicle accidents are the foremost cause of quadriplegia and paraplegia (Hart, 2000).

Paraplegia, in general, results in significant losses that require major adjustments in the areas of personal identity, family, finance, employment, social- and sexual relationships. The doubly traumatic experience of being shot as a result of a violent crime and consequently being paralysed causes immense agony and disruption in the lives and life stories of those affected. Survivors of violent victimisation may remain fearful of facing a world in which violent crime is a daily occurrence. According to Janoff-Bulman (1989), Janoff-Bulman and Frantz (1997), and Janoff-Bulman and Frieze (1983), persons paralysed by traumatic events such as violence-related gunshot injuries undergo a profound change in their view of the world. As a result of their traumatic victimisation, such paraplegic persons may therefore search for meaning in their suffering (Frankl, 1969, 1992; Janoff-Bulman, 1989; Janoff-Bulman & Frantz, 1997; Janoff-Bulman & Frieze, 1983).

Inherent to receiving a diagnosis of paraplegia are various psychological losses. Receiving a medical diagnosis and prognosis of paraplegia can therefore be an overwhelming experience, regardless of the care the physician takes in conveying the news (Ptacek & Eberhardt, 1996). Specifically, giving a diagnosis or prognosis of paraplegia may be conceptualised as bad news. Ptacek and Eberhardt (1996) define news as bad if it results in a behavioural, cognitive or emotional deficit in the person receiving the news. Furthermore, Oliver, Zarb, Silver, Moore, & Salisbury (1988, p. 23) point out that there may not be a 'right way' of informing people about the extent of their

paraplegia and their prognosis. Dewar (2000) argues that in delivering bad news, the patient's reaction is important and maintaining hope is of primary concern. Ptacek and Eberhardt (1996) conclude that giving the patient a sense of hope is important when delivering a diagnosis and prognosis, as hope reduces the threat that the news might convey. Davidhizar (1997), Hayes et al. (1995) and Somers (2001) propose that as a result of the multiple losses suffered, persons paralysed by violence-related gunshot injuries, and their families, may react with grief. If grief and depression prompt an adjustment reaction, then dealing with the grief and depression would be a major aspect of the treatment plan (Davidhizar, 1997). Scivoletto, Petrelli, Di Lucente, and Castellano (1997) note that paraplegic persons with poor social support, economic problems and alterations in familial and vocational roles have a higher risk of developing depression. Depression (Hancock, Craig, Dickson, Chang, & Martin, 1993; North, 1999; Scivoletto et al., 1997; Somers, 2001) as well as post-traumatic stress disorder (PTSD) (Nielson, 2003) usually affect up to a third of persons with paraplegia and quadriplegia. Untreated acute stress disorder or PTSD has been shown to impact the rehabilitation process of persons paralysed as a result of violence-related gunshot injuries (Stiglingh, 2004).

A diagnosis of paraplegia may also designate persons to a position where they anticipate and fear discrimination and stigmatisation associated with their condition. People in society may have negative, biased attitudes towards persons with paraplegia, as they may perceive people in wheelchairs as being unattractive and devoid of sexuality (Gordon, Feldman, & Crose, 1998; Somers, 2001). Patients may even foresee another pending victimisation by the same society that was (at least partially) responsible for their first traumatic victimisation and paralysis as a result of violent crime. They may therefore

continue to feel fearful and vulnerable, in a world where misfortune can strike again (Janoff-Bulman & Frantz, 1997). Somers (2001) notes that the social devaluation of people with paraplegia can be a formidable barrier to social reintegration. Sapey (2002) argues that the aim of adjustment to disability is, in fact, a fallacy, because the social environment is dominated by able-bodied persons' failure to accept persons with disabilities as anything else than a tragedy. Sapey (2002) and Somers (2001) agree that able-bodied persons tend to focus on a disabled person's disability to the exclusion of everything else. Persons with disabilities are then coerced to adjust to the unwillingness of able-bodied persons to accept them. According to Somers (2001), even healthcare workers are socialised to develop negative attitudes towards paraplegic persons in a society where persons with a physical disability are stigmatised and discriminated against. These pessimistic and defeatist attitudes may compromise treatment. Du Preez (1985), Gaitelband (1996) and Schlebusch (1990) all agree that the treatment of patients is sometimes dehumanising. Schlebusch (1990) also criticises specialisation for only treating a particular aspect or system of the patient and not focusing on the whole patient.

Transport and architectural barriers are other obstacles that prevent the successful holistic rehabilitation and reintegration of persons with paraplegia into society. Kennedy (1991) notes that the most striking cultural manifestation of negative attitudes towards people with physical disabilities is the architectural inaccessibility of pavements, shops, offices and public amenities. Budgeting constraints could also limit the rendering of adequate rehabilitation services to persons with paraplegia (Gifford, 1999; Putnam et al., 2003).

Finally, another important factor that may impact the rehabilitation process is the lack of psychological and counselling services available to persons paralysed as a result of violence-related gunshot injuries. In studies by both Carpenter (1994) and Oliver et al. (1988), participants felt restricted, as the rehabilitation programme was dominated by bureaucratic policies and medical principles, while ignoring individual patient needs. Carpenter (1994), Eide and Roysamb (2002), Oliver et al. (1988), Schlebusch (1990) and Somers (2001) further note that newly injured patients are subjected to a standard rehabilitation battery, which is not adapted to individual goals and needs. The rehabilitative milieu could be enhanced if all healthcare professionals are trained in counselling skills (Kennedy, 1991). This would ensure that persons with paraplegia receive emotional support from all rehabilitation team members (Kennedy, 1991; Somers, 2001; Trieschmann, 1982). However, Putnam et al. (2003) point out that some doctors are so young and inexperienced that they do not have sufficient knowledge regarding the abilities and/or disabilities of persons with paraplegia.

Psychotherapy should therefore form an integral part of the rehabilitation of paraplegic persons whose disability is the result of violence-related gunshot injuries. Psychotherapeutic interventions aim to assist persons with paraplegia in coming to terms with their diagnosis, prognosis, multiple losses and traumatic victimisation. Once they are medically stabilised, trauma counselling (Kennedy & Duff, 2001; MacGregor, 1998) may specifically be provided to alleviate the negative impact that any potential or real psychosocial or adjustment problem may have on the rehabilitation and reintegration process. MacGregor (1998) found that victims of hijacking felt a need to tell their stories. This may be an adaptive response that helps survivors to make sense of the intrusive

images of the hijacking experience by transforming traumatic memories into non-traumatic memories. Davis, Wortman, Lehman, and Silver (2000) suggest that it may help to restore a sense of meaning in the lives of persons paralysed by violence-related gunshot injuries, in the event that they themselves are unable to find meaning in their loss.

As reintegration into society is a further important aspect of rehabilitation, it is crucial to the psychosocial adjustment of persons paralysed as a result of violence-related gunshot injuries. Therefore, Somers (2001) suggests that persons with paraplegia acquire the necessary social skills to assert themselves in a rejecting and hostile environment. Social-skills training entails learning verbal and non-verbal stigma management strategies that could improve the quality of interaction with others (Somers, 2001). Trieschmann (1982) stipulates that social skills are a powerful way of changing the negative attitudes that able-bodied persons have towards disability and of maintaining meaningful social relationships.

A crucial psychotherapeutic intervention in the psychosocial adjustment of persons paralysed as a result of violence-related gunshot injuries is sexual counselling (Sishuba, 1992; Somers, 2001) as sexuality for those with spinal cord injury is a complex coping process which requires continual courage and strength (Basson, Walter & Stuart, 2003). Another compounding factor that may prevent the psychosocial adjustment of persons paralysed by violence-related gunshot injuries, is the pain that occurs as a result of the physical damage caused by the bullet. A multidisciplinary approach in the management of pain must therefore also be implemented (McKinley, Johns, & Musgrove, 1999; Ravenscroft, Ahmed, & Burnside, 2000).

Griffit (1997) proposes that successful rehabilitation centers on perceiving the needs of patients (whose injuries may be of a widely differing nature and degree) and their families in an integrated manner. Treating the whole person is important, as there is inter-dependency between persons with disabilities and their environments in the process of fulfilling health and wellness needs (Putnam, Geenen, & Powers, 2003). For the purpose of holistic rehabilitation treatment, Cock (1989), Olkin and Pledger (2003), and Pledger (2003) recommend an integrated, holistic approach, which focuses on the functionality of the disabled person in a socio-ecological context. According to this approach, medical and nursing healthcare professionals, dieticians, physiotherapists, occupational therapists, social workers, clinical psychologists, the family, and the community clinic should all be part of the holistic rehabilitation and treatment of persons paralysed as a result of violence-related gunshot injuries. Contrary to the medical model, this patient-centred approach directs attention to sharing the management of the illness or disability with the patient in an open and trusting relationship (Bauman, Fardy, & Harris, 2003; Little et al., 2001). Principles of this approach include open and honest communication with patients as partners in their own treatment, and focusing on promoting health and sustaining a healthy lifestyle (Bauman et al., 2003; Little et al., 2001). A holistic, patient-centred approach would therefore benefit persons paralysed as a result of violence-related gunshot injuries in a number of ways. It would help them to deal with possible vulnerable feelings experienced as a result of their multiple physical and psychosocial losses, as well as with the fear and trauma resulting from their violent victimisation.

Viewed as a whole, the literature review seems to indicate that the physical, psychological and social deficits or problems secondary to paraplegia have been well researched. Another, equally important, point that emerges from the literature review is that a holistic, person-centred model has been identified as an important approach in the rehabilitation of persons paralysed by violence-related gunshot injuries. One may therefore surmise that if psychotherapeutic interventions by psychologists or social workers are lacking in rehabilitation programmes, such programmes may fail to address the psychological and adjustment needs of persons paralysed as a result of violence-related gunshot injuries. The first author's observation of rehabilitation treatment centres in the Johannesburg area indicates that it is not standard practice for psychologists to be involved in the rehabilitation of persons with paraplegia. Normatively, healthcare professionals included in the rehabilitation programmes at public and private spinal units are medical and nursing personnel, dieticians, physiotherapists, occupational therapists and social workers. Psychological services, in particular skilful psychotherapeutic interventions, are therefore not readily available to help address the needs of paraplegic persons in a holistic manner. Finally, it is not clear if paraplegia caused by violence-related gunshot injury creates unique experiences or needs, as opposed to paraplegia in general.

The aim of this article was to explore how paraplegic persons paralysed by violence-related gunshot injuries subjectively experience psychotherapeutic interventions. This is likely to provide information that could be used to improve psychotherapeutic interventions.

## **Method**

### Design

This study employed a qualitative research methodology. According to Banyard and Miller (1998), qualitative research involves researching the ways in which people experience, perceive and make sense of the events in their lives. Qualitative methods are powerful tools in establishing the subjective meanings which people give to their experiences, or establishing the 'why' of human behaviour (Banyard & Miller, 1998, p. 488). Extrapolating from Terre Blanche and Durrheim (1999), this study utilised a narrative approach to reveal and understand the subjective meanings and experiences that paraplegic persons paralysed as a result of violence-related gunshot injuries associate with psychotherapeutic interventions. At the centre of narrative analysis are stories and 'more specifically, the texts that tell the stories' (Patton, 2002, p. 118). Riesman (1994) asserts that narratives assist persons in making connections and constructing meanings about changes in their lives; by linking past and present, society and self.

### Participants

A purposive sample was employed. Participants were selected from public and private hospitals in and around Johannesburg, and from the Physically Disabled Association of South Africa. Ten persons with paraplegia, three women and seven men, took part in the research. The participants' ages range from 26 to 43 years. The participants all have penetrative damage to the spinal cord in the thoracic regions, as a result of violence-related gunshot injuries. Having spinal cord injury in these regions classifies them as having paraplegia. The participants' gunshot injuries were sustained in incidents ranging

from attempted hijacking, and armed robbery, to being caught in crime-related crossfire. All ten participants have been physically rehabilitated and are living in their own homes in the community. None of the participants underwent any psychological interventions before being interviewed.

In his capacity as a clinical psychologist, the first author has worked with quadriplegic and paraplegic patients at a receiving hospital for seven years. However, none of the participants in the study were known to him, and they were interviewed only for this study.

#### Data collection

The researcher was the primary instrument for collecting data. Data was collected by means of in-depth interviews, as interviewing provides a tool for generating narratives and capturing the personal perspectives, constructed accounts or stories of the participants (Banyard & Miller, 1998). Interviews were conducted with all ten participants after informed consent was obtained and confidentiality was assured. The study was also approved by the North-West University's ethical committee (approval number 03M10).

Interviews were tape-recorded, with the permission of the participants. Semi-structured questionnaires using sub-questions were used to explore narratives further when they were not sufficiently detailed. The question posed to all participants was: 'Please tell me the story about the treatment you received from the psychologist or social worker after you were shot?' Participants were all interviewed at least three months after

the violent shooting incidents in which they had been involved. Data collection continued until data saturation had been achieved.

### **Data analysis**

The tape-recorded interviews were transcribed verbatim, shortly after the interviews had taken place. Once data was in text form, participants' narratives were repeatedly read in order to gain an overall sense of the narratives. Data was then analysed using a systematic form of narrative analysis, which included the bottom-up and top-down approaches (Manning & Cullum-Swan, 1994 ). In the bottom-up approach, underlying categories or themes emerge from the narrative itself, while in the top-down approach preconceived themes are applied to the narrative (Terre Blanche & Durrheim, 1999). A category was regarded as a theme that emerges from various sentences and paragraphs, and that contains similar ideas (Dattilo, Caldwell, Lee, & Kleiber, 1997).

Through a process of induction, themes initially emerged from the participants' narratives. This part of the data analysis was based on a bottom-up approach. By means of further analysis, two broad themes and several sub-themes pertinent to the research question were identified. This part of the data analysis was more in line with a top-down approach. Creswell (1994) reminds us that findings remain bound to the context in which the research took place. Banyard and Miller (1998) agree that context is important when understanding and interpreting qualitative research.

Two broad approaches to narrative analysis exist, namely narrative as reflection, and narrative as construction. This study leans toward narrative as reflection, as it is interested in how stories reflect participants' lived experience, and their understanding,

organizing and integrating of these experiences (cf. Manning & Cullum-Swan, 1994; Murray, 1999). Participants' stories are seen as holding, containing structures of meaning (Roberts, 1999), therefore, 'narrative' in this study refers more to a method of inquiry that allows participants to use their own words to describe their life experiences.

### **Trustworthiness**

To ensure the trustworthiness of this study, the guidelines devised by Guba and Lincoln (1985) were followed. The following strategies were used: purposive sampling, triangulation of methods (literature review, interviews and observations), verbatim transcriptions of interviews, and obtaining feedback from participants when unsure about the meaning of their narratives. A dense description was undertaken to ensure transferability. Confirmability was achieved by making use of the second author as co-coder to confirm themes and sub-themes.

### **Results**

The data revealed two broad themes and several sub-themes (see Table 1).

#### **Theme 1: Positive psychotherapeutic experiences**

Positive experiences were related to a narrative of support and being appreciated, as well as to a narrative of confidence-building.

### **Support and being appreciated**

The first narrative that emerged was one of experiencing physical rehabilitation as supportive and conducive to a feeling of being appreciated. For example, a female participant formed a very strong relationship with her physiotherapist, who also has paraplegia. The participant reported, 'I had a very good physiotherapist ... and she could understand and push a bit harder.' The participant's narrative of 'receiving supportive treatment' from her physiotherapist confirms that she felt very understood and supported by her, as they shared similar experiences. The participant's relationship with her physiotherapist therefore appears to have been a great advantage during her hospital rehabilitation. It provided her with the vital support she needed after her traumatic and near-death experience.

Another participant also felt very welcome at the spinal unit where he stayed for about nine months in order for his pressure sores to be treated. He described his experience in the following way: 'That was a nice place. You get it good there, you get it like you're a prince from the doctors and the nurses!' He appears to have had a good relationship with most of the healthcare professionals involved in his long rehabilitation. His narrative of 'being appreciated', especially by the doctors and nurses, depicts his rehabilitation experience as very positive and rewarding. Two other participants who also experienced their rehabilitation positively, linked their positive experience to the fact that their social workers visited them for emotional support while they were in the spinal unit.

Another male participant experienced counselling from an occupational therapist as supportive. He also experienced his rehabilitation at the spinal unit positively, as he received emotional support from healthcare professionals, such as nurses, at the spinal

unit. He was able to contact these healthcare professionals at any time. Receiving positive support from healthcare professionals assisted him greatly during his treatment and rehabilitation, as the social support he received from his family and friends was poor.

The participants' positive experiences, described above, echo the opinion of Somers (2001), who recommends that emotional support to paraplegic persons should not only be provided by counselling and psychiatric staff, but by all rehabilitation team members. Therefore, persons with paraplegia can and should be emotionally supported by all rehabilitation team members, as suggested by Kennedy (1991), Somers (2001) and Trieschmann (1982).

### **Building confidence**

A narrative of 'building confidence' exclusively related to positive sexual-counselling experiences during hospital rehabilitation. A male participant, for example, who had an incomplete spinal injury, was very happy that he was given sex counselling by an occupational therapist during his rehabilitation. His narrative of 'building confidence' in his sexual encounters with his partner also depicted enhanced self-esteem. In addition to his positive feelings about himself, he also had positive feelings about being reintegrated into the community with his able-bodied counterparts. This is in line with Carpenter (1994, p. 623) who notes that participants in her study established a 'new identity' after spinal cord injury. This means that they had progressed beyond individuals in similar situations, and even beyond their own expectations. This participant's positive relationship experiences with his partner furthermore also negated society's view that people in wheelchairs are devoid of sexuality (Gordon et al., 1998; Somers, 2001). Sex

counselling is therefore a crucial psychological intervention in the rehabilitation of persons with paraplegia (Basson, Walter & Stuart, 2003; Sishuba, 1992; Somers, 2001).

### **Theme 2: Negative psychotherapeutic experiences**

Negative experiences included narratives of feeling marginalised through receiving the diagnosis and prognosis of paraplegia, experiencing healthcare professionals as young and inexperienced, perceiving the attitude of healthcare professionals as negative, and experiencing a lack of psychotherapeutic and psychosocial interventions.

#### **Feeling marginalised through receiving the diagnosis and prognosis of paraplegia**

A narrative of 'being marginalised' was associated with negative experiences during hospital rehabilitation. A female participant unfolded her story:

I did get to ... the neurologist who actually came round to see me. He sort of put me right in my place by telling me I was an incomplete paraplegic ... They would rehabilitate me and send me home. Well I was pleasantly surprised by that! I thought when they said they would rehabilitate me, they would get me up walking. He didn't actually explain to me that I'd be in a wheelchair for the rest of my life!

This narrative of 'being marginalised' reflects the participant's experience and feelings of shock, distress and shattered hope at the time she was told about her diagnosis. Furthermore, she did not fully understand her prognosis, as complex medical terminology

was used. In her study, Dewar (2000) confirms that patients often misunderstand their diagnosis if medical terminology is used and not fully explained. Similarly, Putnam et al. (2003) state that participants in their study reported that some physicians did not provide information about specific issues related to patients' conditions. Zondo (2000) established that patients with spinal cord injuries were not informed about their prognosis during their rehabilitation at a spinal unit.

One male participant felt marginalised and very angry that he had been given the standard statement pertaining to the level of his spinal injury. He explained his story in the following way:

The biggest problem that I find with ... this type of condition ... all your therapists, all your doctors. The first thing they tell you, this is the line they use, 'Do you understand the level of your injury?' And if you question, 'What does that mean?' the answer is, 'Your chances of walking, of getting sensations are zero to none!' This breaks you up mentally!

This participant's narrative of 'lost hope', as presented above, may be an indication of what patients experience when emphasis is placed on standard medical practice, and the needs of the patient are not considered holistically. This participant experienced the news about his diagnosis and prognosis as given to him without any hope, explanation or emotional support. Schlebusch (1990) notes that specialists tend to treat only a particular system of the individual. This specific participant experienced this tendency negatively, as emphasis was placed only on his paraplegia. Furthermore, rehabilitation practice has

traditionally been influenced by medical practice, where mostly physical issues are dealt with while personal and psychosocial needs are minimised (Carpenter, 1994; Eide & Roysamb, 2002; Oliver et al., 1988; Schlebusch, 1990; Somers, 2001). Dewar (2000) and Ptacek and Eberhardt (1996) agree that providing hope is very important when conveying a diagnosis and prognosis. Ptacek and Eberhardt (1996) conclude that providing a sense of hope reduces the threat that the news might convey, as the diagnosis of paraplegia is undoubtedly an overwhelming experience.

### **Experiencing healthcare professionals as young and inexperienced**

A narrative of 'not being understood and supported' was an indication of a negative experience during hospital rehabilitation. Young and inexperienced healthcare professionals, lacking knowledge and skills, often failed to assist persons with paraplegia during their rehabilitation. One participant who had a negative experience at the spinal unit where she was rehabilitated narrated her experience in the following way:

I saw a social worker at ... the hospital. She was completely overwhelmed ... I eventually told her I didn't need to spend time with her. I was a 37-year-old and was being dealt with by a 21-year-old, who I think wanted to help, but had absolutely no idea what I was going through, had no idea what I had lost ... it was useless! So I told her I didn't need to see her any more. I needed to speak to someone who actually understood what I was going through and didn't sort of say, 'Ag shame!'

This narrative of 'not being understood and supported', as set out above, is closely related to the fact that the participant perceived the social worker as being too young and inexperienced to assist her in her time of need. Putnam et al. (2003) agree that some healthcare professionals are young, inexperienced and lacking in specific knowledge about certain conditions.

### **Negative attitudes of healthcare professionals**

A narrative of 'experiencing negative attitudes' was also related to experiencing hospital rehabilitation as negative. A male participant reported that a psychiatrist whom he saw at the spinal unit had a negative attitude towards him. As he specifically put it:

There was one psychiatrist that ... I didn't get on with ... I didn't really like her approach. And one day we really did have a fight just before I left the hospital. I said she must go on with her life and I'll go on with mine.

This participant's narrative clearly indicates that he experienced the way he was treated by the psychiatrist as negative. The participant terminated his relationship with the psychiatrist because of her perceived negative attitude towards him and because of the conflict between them. Somers (2001) confirms that healthcare professionals may have negative attitudes towards persons with paraplegia. They acquire these negative attitudes as they are socialised and live in a society where persons with a disability are stigmatised and discriminated against. Such pessimistic and defeatist attitudes can compromise paraplegic persons' progress during the rehabilitation programme.

**Lack of psychosocial and psychotherapeutic interventions**

Even though the interview question focused on the role of psychologists and social workers, most participants did not even refer to them – a clear indication that their psychosocial needs were more often addressed by other healthcare workers.

A narrative of 'being neglected' also depicted a negative experience during hospital rehabilitation. A male participant responded in the following way to the research question: 'The social worker at the hospital, she did not assist me ... She did not help me.'

This participant's narrative of 'being neglected' stems from his experience with a social worker who, during his rehabilitation, did not assist him with the application for a disability grant. The disability grant would have provided him and his family with financial support after his discharge from hospital. The participant was a plumber by trade and the sole breadwinner of his family before he was paralysed as a consequence of violence. After his discharge from the spinal unit he could not return to work, due to his paraplegia. At the time of the interview he appeared anguished and distressed, and said, 'I am suffering now!' He could not provide for his family, who were almost starving because of a lack of financial resources. He felt desperate, and his primary concern was to get a disability grant in order to sustain him and his family.

This scenario supports the findings of Scivoletto et al. (1997), whose study found that paraplegic persons with poor social support, loss of income and inability to return to work because of their condition have a higher risk of developing depression. This participant was clearly at risk of developing depression, but this was not identified by any healthcare professional including a psychologist during his hospital rehabilitation. Lack

of psychosocial interventions, such as help with financial support, could also impact hospital rehabilitation. Eide and Roysamb (2002) emphasise the importance of addressing psychosocial needs in the hospital rehabilitation programme.

Two other participants ascribed negative experiences during their rehabilitation to the fact that they were not seen by a psychologist or social worker for psychotherapeutic interventions at their receiving hospitals and spinal units. A female participant, for example, had social problems resulting from her financial difficulties, which were not addressed. Like the participant discussed above, this participant was at risk of developing depression. In her case, too, this risk was not identified during her hospital rehabilitation programme.

The participants' narratives suggest that they experienced their physical rehabilitation negatively at times, especially when their holistic needs were overlooked. Carpenter (1994), Eide and Roysamb (2002), Oliver et al. (1988), Schlebusch (1990) and Somers (2001) confirm that rehabilitation usually only focuses on medical and physical practice and ignores holistic patient needs. Due to a lack of psychotherapeutic and psychosocial interventions at both private and public hospitals, the holistic needs of some of the participants in this study were overlooked.

## **Discussion**

The participants in this study narrated both positive and negative experiences. Positive experiences were associated with receiving counselling and emotional support from various rehabilitation healthcare professionals. Negative experiences were related to feeling marginalised by receiving a diagnosis and prognosis of paraplegia, experiencing

healthcare professionals as young and inexperienced, and perceiving the attitude of healthcare professionals as negative. Negative experiences were also associated with a lack of psychotherapeutic and psychosocial interventions. Persons paralysed as a result of violence-related gunshot injuries therefore experience their physical rehabilitation negatively when their holistic needs may have been overlooked.

It appears that persons paralysed by violence-related gunshot injuries experience their rehabilitation positively in instances where their needs are met in a holistic manner. The participant who received sex counselling from an occupational therapist during his rehabilitation is a good illustrative example. This positive experience and crucial intervention assisted him with his psychosocial adjustment in the community. This was, however, an exceptional experience in the study.

Several participants in this study received counselling and emotional support from various healthcare professionals, such as doctors, physiotherapists, occupational therapists, nurses, and to a lesser extent, social workers during their hospital rehabilitation. The counselling and emotional support the participants received helped them to experience their hospital rehabilitation positively at times. If, during the rehabilitation process, various healthcare professionals provide emotional support and counselling to persons paralysed by violence-related gunshot injuries, it enhances the rehabilitative milieu, as suggested by Kennedy (1991). Ongoing emotional support offered by all the involved rehabilitation professionals is therefore needed (Kennedy, 1991; Somers, 2001; Trieschmann, 1982) to help paraplegic persons cope with the after-effects of their traumatic experiences and the feelings of vulnerability, uncertainty and insecurity they may still be experiencing (Janoff-Bulman & Frantz, 1997).

Two participants had particularly contrasting experiences during their rehabilitation. A female participant really enjoyed the treatment and supportive relationship offered by her physiotherapist, who also has paraplegia. Her narrative of 'receiving supportive treatment' from her physiotherapist indicates that the participant had a positive experience of being understood by her physiotherapist. The physiotherapist not only assisted her with her physical rehabilitation, but also provided a therapeutic milieu (Kennedy, 1991) in which she really felt understood, at a critical time in her life when she had experienced multiple losses after a traumatic victimisation. However, the same participant also expressed a narrative of 'being marginalised' by her neurologist and a narrative of 'not being understood and supported' by her social worker, which clearly indicates that she also had negative experiences during her hospital rehabilitation. She felt misunderstood and unsupported by these healthcare professionals, as they did not understand what she was going through. Although her holistic needs were overlooked by both these healthcare professionals, neither of her negative experiences impacted her physical rehabilitation. Nevertheless, this respondent ultimately suggested that only healthcare professionals who have paraplegia like her physiotherapist, should be involved in the rehabilitation of persons with paraplegia. The respondent's relationship with her physiotherapist appears to have been a great advantage during her hospital rehabilitation, as it provided her with the vital emotional support and therapeutic milieu she needed, in addition to the physiotherapy for her physical adjustment.

A male participant had a negative experience during his rehabilitation, as reflected by his narrative of 'experiencing negative attitudes' when he perceived his psychiatrist as having a negative attitude towards him. He terminated this conflict-ridden relationship, as

he did not like the treatment he received. However, the participant also pointed out that all the other team members treated him well and made him feel supported and appreciated. His narrative of 'being appreciated' by the doctors and nurses appears to have been more prominent and rewarding to him, and he refused to dwell on his negative experience with the psychiatrist. His positive experiences seem to have overshadowed the negative experience; in his words, he felt that he was treated like a 'prince'. His negative experience with the psychiatrist did not interfere with his physical rehabilitation, as he was well supported by other healthcare professionals like the doctors and nurses. Therefore, in both the examples cited above, participants' positive experiences were found to compensate, to a certain extent, for their negative experiences during hospital rehabilitation.

This study revealed that psychologists or social workers trained in psychotherapeutic skills did not adequately form part of the rehabilitation programmes at the public or private spinal units where persons paralysed by violence-related gunshot injuries were physically rehabilitated. All the participants in this study suffered traumatic victimisation. However, none of them received specialised trauma counselling, individual therapy or any other psychotherapeutic interventions, as discussed earlier. The study therefore exposed a clear lack in the provision of psychotherapeutic and psychosocial interventions aimed at assisting persons paralysed by violence-related gunshot injuries in meeting their holistic needs and coming to terms with multiple traumatic losses. This is consistent with studies by Carpenter (1994), Eide and Roysamb (2002), Oliver et al. (1988), Schlebusch (1990) and Somers (2001), which suggest that rehabilitation programmes are dominated by bureaucratic policies and medical principles. Those

participants who were at risk of developing depression were neither identified nor treated. A lack of psychosocial interventions, such as welfare assistance, could also negatively impact the rehabilitation of persons paralysed as a result of violence-related gunshot injuries. Eide and Roysamb (2002) recommend psychosocial assistance to avoid this.

Rehabilitation still tends to focus on the medical model, with the result that the medical and physical needs of paraplegic persons paralysed because of violence-related gunshot injuries are met, but their holistic needs are neglected. In the USA, specialist rehabilitation programmes include a physiatrist – a physician trained in physical medicine and rehabilitation, rehabilitation nurses, occupational and physical therapists, social workers, recreational therapists, vocational counsellors, nutritionists and other specialists (National Spinal Cord Injury Association).

### **Recommendations**

Although data was saturated in this sample of ten participants, the representativeness of the study is limited in terms of both numbers and demographic distribution. However, the aim of this qualitative research was not necessarily to be representative, but rather to explore the subjective experiences that persons paralysed as a result of violence-related gunshot injuries associate with psychotherapeutic interventions. As this aim was attained, the following recommendations are made.

This study reveals the need for psychologists and social workers with psychotherapeutic skills to be part of a rehabilitation approach based on a holistic, patient-centered model (Cock, 1989; Oikin & Pledger, 2003; Pledger, 2003) and patient-

centred care (Bauman et al., 2003; Little et al., 2001). In this way the holistic needs of persons paralysed as a consequence of violence-related gunshot injuries can be met.

In terms of further research, it is recommended that studies be done to explore the way in which persons paralysed because of violence-related gunshot injuries make sense of their paraplegia and their lives. The information gathered as a result of such research could be used to facilitate the compilation of therapeutic guidelines for the rehabilitation of persons paralysed as a result of violence-related gunshot injuries.

### **Conclusion**

The aim of this study was to explore the psychotherapeutic experiences of paraplegic persons whose paralysis was caused by gunshot injuries sustained during acts of violence. It was found that emotional support and counselling from rehabilitation professionals enhance the rehabilitative milieu.

Psychotherapy is an integral component in the rehabilitation programme of persons paralysed as a result of violence-related gunshot injuries. However, in this study psychologists or social workers with psychotherapeutic skills did not appear to have adequately been part of the rehabilitation teams in any of the hospital rehabilitation programmes. Lack of psychotherapeutic and psychosocial interventions in a rehabilitation programme may mean that the holistic needs of persons with paraplegia caused by violence-related gunshot injuries are not met. This will inevitably impact their psychosocial adjustment in a society where violent crime is commonplace.

This study has far-reaching implications for improving the rehabilitation of persons paralysed as a result of violence-related gunshot injuries, as it highlights the

importance of treating them in a holistic manner, taking into account the full range of their needs. The entire process in which diagnosis and prognosis are given, and in which treatment takes place, is important in contributing to successful rehabilitation. The findings of this study contributes to literature in the field of psychotherapeutic interventions for paraplegic persons affected by violent gunshot injuries. Specifically, in the absence of psychotherapeutic interventions, psychosocial adjustment may not be facilitated.

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**Table 1. Themes and sub-themes**

<b>Theme 1</b>	<b>Positive experiences</b>
Sub-themes	Support and being appreciated
	Building confidence
<b>Theme 2</b>	<b>Negative experiences</b>
Sub-themes	Feeling marginalised through the diagnosis and prognosis
	Negative attitudes of healthcare professionals
	Experiencing healthcare professionals as young and inexperienced
	Lack of psychotherapeutic and psychosocial interventions

**Running head: MAKING SENSE OF PARAPLEGIA**

**Making sense of paraplegia caused by violence-related gunshot injury**

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### **Abstract**

The purpose of this study was to explore how persons paralysed by violence-related gunshot injury make sense of their paraplegia. Three females and seven males took part in the qualitative research. Narrative analysis was used to examine participants' unique stories. The participants' narratives indicated that they experience several barriers that prevent them from making sense of their traumatic experiences. Nevertheless, the participants have found meaningful and purposeful relationships and more valued lives after being paralysed because of violence-related gunshot injuries. The recommendations resulting from this research proposed that reconstruction of meaning be the main aspect of psychotherapy for persons paralysed as a result of violence-related gunshot injuries.

**Keywords:** gunshot; making sense; narrative; paraplegia.

## **Introduction**

This is the second in a series of three articles in which the overall objective is to explore the subjective experiences and sense-making processes of persons paralysed as a consequence of violence-related gunshot injuries. According to Somers (2001), damage to the spinal cord in the thoracic, lumbar or sacral region, causes paraplegia. Persons with paraplegia are confronted with multiple physical losses, such as loss of sensory experience, mobility, and bowel and bladder functioning (Kennedy, 1991; Somers, 2001). Inherent to receiving a diagnosis of paraplegia are various psychological losses (cf. Hope & Botha, 2005a). Davidhizar (1997) notes that one's self-concept, body image, ego and identity are all closely associated. An alteration in or loss of any one of these aspects can have a deleterious effect on the entire self. Trieschmann (1992) agrees and describes paraplegia as an assault on one's personal identity.

Receiving a diagnosis of paraplegia may also designate the person receiving the diagnosis to a position where he or she anticipates and fears the discrimination and stigmatisation associated with paraplegia (Ptacek & Eberhardt, 1996). Somers (2001) states that the social devaluation of people with paraplegia can be a formidable barrier to their reintegration into society. Persons with paraplegia may feel as though society rejects them, particularly because of the social perception that people in wheelchairs are unattractive and devoid of sexuality (Gordon, Feldman, & Crose, 1998; Somers, 2001).

The nature of the trauma that caused the paraplegia is an additional factor that complicates the subjective experience of being paraplegic. Violent crimes involving

shootings, such as car hijacking and armed robbery, are the leading cause of quadriplegia and paraplegia in South Africa (Harrison, 2004; Hart, 2000; Hart & Williams, 1994). After being confronted with such traumatic victimisation, persons paralysed by gunshot injuries may question their assumptions or views about the world they live in. According to Janoff-Bulman (1989), Janoff-Bulman and Frantz (1997), and Janoff-Bulman and Frieze (1983), there are three fundamental assumptions about the world and the self that most people share. These are a belief in personal invulnerability, a perception of the world as meaningful and comprehensible, and a positive view of the self. These beliefs form a conceptual system that guides a person's goals, expectations, plans and behaviours.

In many psychological schools of thought, meaning appears to be the central element in adaptation after a major traumatic loss such as paraplegia caused by violence-related gunshot injury. Baumeister (1991) asserts that people's lives are full of meaning. People use meaning every day when they speak, think, plan and make decisions. Everyone constructs the meaning of their life. People might choose to devote their life to their children, work, faith or garden. Such choices determine what meaning life will have for them. Baumeister (1991) also emphasises that meaning has to be imposed on life, since it is not automatically built in. Frankl (1969, p. 8) proposes that 'man is a being encountering other beings and reaching out for meanings to fulfill.' Frankl (1969, 1992) argues that what actually matters is not the meaning of life in general terms, but rather what the specific meaning of a person's life at a given moment in time is. Meaning is said to differ from person to person, and from time to time. Janoff-Bulman and Frantz (1997) define meaning in a number of ways, including order, purpose, interpretation, sense,

significance and denotation. Two questions are raised – firstly whether something ‘makes sense’ in the world and fits in with a system of rules, and secondly whether ‘something is of value or worth’ (Janoff-Bulman & Frantz, 1997, p. 91).

In order to experience the world as meaningful, people must perceive a connection between their behaviour and the outcome of what they do. The experience of traumatic victimisation that persons paralysed by violence-related gunshot injuries have contradicts this assumption, since they, through none of their own doing, are inflicted with paraplegia and its associated losses in a world in which they should be protected, but are not. Persons paralysed because of violent crime come face to face with their own fragility, and this throws them into a psychological or existential crisis (Janoff-Bulman & Frantz, 1997). They are left to contend with multiple physical and psychological consequences, and their lives and life stories undergo drastic changes. As a result of their traumatic victimisation, paraplegic persons often search for meaning in their suffering (Frankl, 1969, 1992; Janoff-Bulman, 1989; Janoff-Bulman & Frantz, 1997; Janoff-Bulman & Frieze, 1983) during which they have to confront the cognitive task of assimilating the traumatic experiences and/or changing their fundamental assumptions about the world and themselves.

Neimeyer and Anderson (2002) draw attention to three contexts in which the reconstruction of meaning occurs after a traumatic event such as the loss of a loved one. If this reconstruction of meaning fails, previously held meanings strive to accommodate the reality of the trauma (Neimeyer & Anderson, 2002). The first of the three contexts is sense-making. Sense-making appears to be the most urgent task in the aftermath of the loss, and its attainment results in early adaptation. Finding benefit or deriving some good

from the traumatic event is the second context in which reconstruction of meaning occurs. Davis & Nolen-Hoeksema (2001); Davis et al. (2000), Janoff-Bulman (1989), Janoff-Bulman and Frantz (1997), and agree that benefits may emerge from a traumatic loss. Thirdly, according to Neimeyer and Anderson (2002), individuals could develop a new identity that incorporates a new life story and growth from their traumatic experiences.

Davis and Nolen-Hoeksema (2001), Neimeyer (2000), and Neimeyer and Anderson (2002) confirm that the central feature of grief in traumatic loss is meaning reconstruction. Neimeyer and Anderson (2002) refer to various narrative processes that are used in psychotherapy during the process of meaning reconstruction. Telling the story takes place in the external narrative, while meanings and feelings are processed in internal and reflexive narratives. This study provided persons paralysed due to violence-related gunshot injury with an opportunity to tell their stories in the external narrative. According to White and Epston (1990), a person in psychotherapy searches for new meanings, and retelling the story results in re-authoring, or relocating the person's experience into new narratives. In this way new meanings are found and the traumatic events are integrated into new life stories (White & Epston, 1990).

However, not everyone who has experienced a loss searches for, or manage to find meaning (Davis & Nolen-Hoeksema, 2001; Davis Wortman, Lehman and Silver, 2000). Davis et al. (2000) reviewed literature about the meaning-making process in coping with the loss of a loved one as a result of illness, motor vehicle accidents and other adversities. They found that those traumatic events that shatter deeply held worldviews are unlikely to yield to meaning reconstruction. Within the cognitive

framework, Beck (1976) describes personal or private meanings as subjective and complex in that they are evoked when an experience impacts a sensitive or important aspect of a person's life or sense of self. For this reason, personal meanings are not often shared with the outside world, thus limiting the individual's opportunity to affirm the authenticity or correctness of these meanings. Furthermore, personal meanings may give rise to behavioural and emotional reactions that may be excessive in comparison to the event. Beck (1976) explains this dynamic in terms of situations being misinterpreted. The incorrect or unchecked personal meanings comprise the core of situational misinterpretations. This could result in negative meanings, which in turn comprise the core of emotional disorders such as depression and anxiety.

Depression has been found to affect up to a third of paraplegic and quadriplegic persons (Hancock, Craig, Dickson, Chang, & Martin, 1993; North, 1999; Scivoletto, Petrelli, Di Lucente, & Castellano, 1997; Somers, 2001). In a media report, Smith (2002) quotes Wolff who suggests that failing to attribute meaning to a traumatic event can trigger post-traumatic stress disorder (PTSD). According to Bracken (2001), many researchers and clinicians argue that the characteristic avoidance and intrusive symptoms of PTSD can be seen as evidence of the individual's search for meaning and order as a result of the trauma suffered. Ordinary coping responses may prove ineffective until the individual integrates, reorganises or assigns meaning to the traumatic loss (MacGregor, 1998). Davis et al. (2000) conclude that it may help to restore meaning in one's life by focusing on the rebuilding of shattered assumptions.

However, in the first article of this research, Hope and Botha (2005a) indicate that during their hospital rehabilitation, paraplegic persons did not receive psychotherapy,

which may have facilitated adjustment to their trauma had they received it. Although the literature does inform us about meaning-making after traumatic loss or the death of loved ones, research on how individuals make sense of paraplegia caused specifically by violence-related gunshot injury is lacking. Little is also known about how they attach meaning to their physical and psychosocial experiences after the impact of violent shooting incidents. The aim of this study is therefore to explore how persons paralysed because of violence-related gunshot injury make sense of their paraplegia and their lives.

### **Method**

This study employed a qualitative research methodology. Creswell (1994) states that qualitative research focuses on how people make sense of their experiences, life and world. Extrapolating from Terre Blanche and Durrheim (1999), a narrative approach was utilised to reveal and understand the subjective meanings that persons paralysed after violence-related gunshot injury ascribe to their experiences, and how they make sense of their lives. At the centre of narrative analysis are stories and 'more specifically the texts that tell the stories' (Patton, 2002, p. 118). Riesman (1994) asserts that narratives assist persons in making connections and constructing meanings about changes in their lives, by linking past and present, society and self.

### Participants

An available, purposive sample was employed to select participants from public and private hospitals in and around Johannesburg, and from the Physically Disabled Association of South Africa. Ten persons with paraplegia (seven males and three females,

between the ages of 26 and 43) participated in the research. The participants had all suffered penetrative damage to the spinal cord in the thoracic and lumbar spines, as a consequence of violence-related gunshot injuries. Spinal cord injury in these regions qualifies them as having paraplegia. The violent incidents in which the participants were injured ranged from attempted hijacking, and armed robbery, to being caught in criminal crossfire. All ten participants have been physically rehabilitated and are living in their own homes in the community. The participants were interviewed at least three months after the violent incidents they were victim to. None of the participants had received any psychological interventions before they were interviewed.

In his capacity as a clinical psychologist, the first author in this study has worked with quadriplegic and paraplegic patients at a receiving hospital for seven years. However, none of the participants were known to him, and were only interviewed for this study.

#### Data collection

The researcher was the primary instrument for collecting data. Data was collected through in-depth interviews, as interviews provide a tool for generating narratives and capturing the personal perspectives or stories of the participants (Banyard & Miller, 1998). Interviews were conducted with all ten participants after informed consent was obtained and confidentiality assured. The study was also approved by the North-West University's ethical committee (approval number 03M10).

Interviews were tape-recorded, with the consent of the participants. Semi-structured questionnaires using sub-questions were used to explore narratives further

when they were not sufficiently detailed. The research question posed to all participants was: 'Please tell me the story of your life as a paraplegic person?' Sub-questions were asked to facilitate clarity about the process of sense-making. Data collection continued until no new data emerged and data was saturated.

### **Data analysis**

The tape-recorded interviews were transcribed verbatim shortly after the interviews had taken place. Once data was in text form, participants' narratives were repeatedly read in order to gain an overall sense of them. Data was then analysed using a systematic form of narrative analysis that included the bottom-up and top-down approaches (Manning & Cullum-Swan, 1994). While the bottom-up approach allows underlying themes to emerge, the top-down approach applies preconceived themes to the narrative (Terre Blanche & Durrheim, 1999). A theme emerges from various sentences and paragraphs that hold similar ideas (Dattilo, Caldwell, Lee, & Kleiber, 1998).

Through the process of induction, themes initially emerged from the participants' narratives. This was related to a bottom-up approach. Through further analysis, two themes and eight sub-themes pertinent to the research question were identified. This was more in line with a top-down approach. Creswell (1994) reminds us that findings remain bound to the context in which the research took place. Banyard and Miller (1998) agree that context is important in the understanding and interpretation of qualitative research.

Two broad approaches to narrative analysis exist, namely narrative as reflection, and narrative as construction. This study leans toward narrative as reflection, as it is interested in how stories reflect participants' lived experience, and their understanding,

organizing and integrating of these experiences (cf. Manning & Cullum-Swan, 1994; Murray, 1999). Participants' stories are seen as holding, containing structures of meaning (Roberts, 1999), therefore, 'narrative' in this study refers more to a method of inquiry that allows participants to use their own words to describe their life experiences.

### **Trustworthiness**

To ensure the trustworthiness of this study, the guidelines devised by Guba and Lincoln (1985) were followed. The following strategies were used: purposive sampling, triangulation of methods (literature review, interviews and observations), verbatim transcriptions of interviews, and obtaining feedback from participants when unsure about the meaning of their narratives. A dense description was undertaken to ensure transferability. Confirmability was achieved by making use of the second author as co-coder to confirm themes and sub-themes.

### **Results**

Using the participants' unique narratives, data analysis revealed two themes and eight sub-themes (see Table 1). The themes and sub-themes are subsequently explained in terms of the relative experiences of the participants in this study.

#### **Theme 1: Barriers to sense-making**

Experiencing barriers to sense-making emerged as the most prominent narrative. The participants revealed a number of barriers that prevented them from successfully adjusting to and being reintegrated into society.

### **Physical losses**

All the participants experienced multiple physical losses and various related role losses. Several experienced pain after the incidents in which they were paralysed. All these factors proved to be barriers to making sense of their trauma.

One participant had been living with paraplegia for a year by the time she was interviewed. Her physical losses and the accompanying distress comprised her main theme, as reflected in her narrative: 'I can't feel from under my arms. It's just such a heavy feeling, you know. It just feels dead ... it really feels dead. There's just absolutely no feeling!' She appeared to be anguished by the loss of physical sensation following her paraplegia. She described her life as a paraplegic person as 'hell'. She believed that able-bodied persons had no idea what it was like to live with paraplegia, and that being in a wheelchair was one of the most difficult things in her life. She still struggled to adjust to her condition, thus finding it difficult to make sense of the trauma she had experienced.

Another participant focused on the change in sensation, rather than loss of sensation. She explained her physical changes since her traumatic experience in the following way: 'I do have feelings but ... my feelings, my sensations are totally different. I feel ... I'm sitting on broken glass.' As a result of this, she experienced constant pain. She also lamented the loss of one of her abilities specifically: 'My husband and I used to dance a lot and that actually hurts.' Kleiber, Brock, Lee, Dattilo and Caldwell (1995) conclude that even though rehabilitation helps paraplegic persons to perform modified activities, it is impossible to remove the sense of loss.

One of the participants, with an incomplete spinal injury, experienced excruciating pain on a daily basis for about nine months after his injury. His main theme

of physical losses and chronic pain as a result of his spinal injuries was also evident throughout his story: 'The pain is my biggest killer, if I didn't have the pain I'd do much more, but I can't!' He had to take expensive medication that became ineffective by midday. This caused him immense discomfort and affected his daily functioning at home and in his business. Excruciating pain and the inability to accept his physical losses were barriers that precluded his making sense of his paraplegia.

Another participant had an incomplete spinal injury that resulted in loss of mobility, loss of sensation, and pain in his legs. As a consequence, his life had changed drastically since his traumatic experience, which had taken place about 13 months before the interview. His narrative was characterised particularly by his physical losses and the impending loss of his work role. His greatest fear was being unable to return to work. He had difficulty accepting his situation and explained, 'I can't do anything. I'll just wait and see what is going to happen.' He also struggled to cope with his dependency on others. This tendency is also pointed out by Kleiber et al. (1995), who found that dependency after paraplegia was difficult to accept, and was often complicated when the needed assistance was unavailable. Failing to accept his loss of independence and his loss of work role hindered this participant's process of making sense of his paraplegia.

A male participant who had a complete high thoracic spinal injury experienced no physical sensation from under his arms downwards. He appeared to be anguished about his physical losses and the loss of his work role, and reported, 'I haven't got balance when I take the brace off.' He was therefore afraid that he would not be able to work as a plumber in the future. His inability to accept his physical losses and the loss of his work role also appeared to be barriers that kept him from making sense of his trauma.

### Anger

Most of the participants had difficulty making sense of their trauma due to feelings of anger. This was particularly evident in one of the female participants. Even though she was very functional as a mother and wife, her narrative was characterised by a struggle to adjust psychologically. At the time she was interviewed for this study, she had been paralysed for seven years, and she was still extremely angry with God. She believed that she had been punished by God, even though she had done what was expected of her. In questioning her basic assumptions about the world, she emotionally explained her dilemma:

That's a very difficult one because I'm still very angry ... I've always felt that if you did good and followed the Ten Commandments as well as one could, didn't hurt people ... what ye sow , ye shall reap – God will actually look after you.

Another participant, who had been living with an incomplete spinal injury for about three years before the interview, still felt very angry about her situation and could not accept life in a wheelchair: 'I try to accept it, but I can't. I can't accept it ... they try to teach you that at rehab. Even if you're ten, fifteen years in this thing, you're never going to accept it!'

Similarly, a male participant said of his paraplegic condition, 'It's been four years for me now, paraplegics who can tell me they have accepted that they are paralysed, I'll say ... they are lying – there's still times that I cry.' This participant was quite emotional and also felt angry at other paraplegic persons giving the impression that life with paraplegia was easy to accept.

Anger is a normal reaction to loss (Somers, 2001), but survivors of violent crime usually feel even more distressed because the traumatic event is human-induced (Janoff-Bulman & Frieze, 1983). However, none of the participants expressed any real anger at their perpetrators. This could probably be explained in terms of most of the participants internalising their anger rather than externalising it at their perpetrators. Other findings in their review show that the bereaved person may feel more satisfied only when the perpetrator is imprisoned and justice done (Davis et al., 2000). Janoff-Bulman (1989) asserts that victims of violent crime usually experience a huge psychological toll from the shattering of their basic assumptions about the world and themselves. Consequently, they may perceive the world as meaningless and feel unprotected in an unjust world (Janoff-Bulman, 1989; Janoff-Bulman & Frantz, 1997; Janoff-Bulman & Frieze, 1983).

A male participant, for example, whose functioning and quality of life were affected by chronic excruciating pain, narrated the following about his traumatic experience: 'I happen to be one of the statistics in this country! They decided to rob me at that time! I just happened to be a statistic at the time!' His narrative depicts his anger at being a crime statistic. He also identified with the less fortunate crime victims in South Africa.

From the above findings it is evident that the participants in this study have not adequately integrated their losses into their self-narratives or formulated new life stories as Neimeyer and Anderson (2002) maintain should happen. In this regard, the lack of psychotherapeutic services available to paraplegic persons (Hope & Botha, 2005a) becomes more significant.

**Being stigmatised and discriminated against**

Most of the participants felt stigmatised and discriminated against by the very society in which they were paralysed. They found it difficult to make sense of the stigma associated with paraplegia. One participant, who had been living with paraplegia for two and a half years, told his story in this regard:

I don't go to church, because sometimes in church people ... They think I'm ... a useless person! They don't see me as a human being. When you are going to church all the people are looking at you, like you're a different person.

He felt alienated and stigmatised by the congregation, so he stopped going to church altogether. A female participant also felt very angry that people with paraplegia are still stigmatised by society and said, 'They think we are invalids.' Somers (2001) agrees that the stereotyping and devaluation of persons with paraplegia still exist. Paraplegic persons who use a wheelchair are immediately stigmatised as disabled and seen as unattractive and devoid of sexuality. The wheelchair is viewed by society as symbolising a disabling condition, which results in stigmatisation and discrimination (Gordon et al., 1998). This can cause immense distress for paraplegic persons, because the negative societal attitudes usually go hand in hand with negative self-esteem.

The narrative of 'being rejected and stigmatised' made participants feel that they were being prevented from being reintegrated into society. This may result in the perception of another victimisation, in addition to the traumatic victimisation participants had already experienced.

Most participants also felt discriminated against because of architectural barriers. Being discriminated against by society in this way also hindered participants' sense-making process. One participant, who had been paralysed for about four years before the interview, narrated his experience:

We don't have shopping facilities, so that's why I don't go to the local shopping centre. There's no facilities whatsoever – no parking, no spaces, no paraplegic parking! There's nothing done about it. People forget that there are paraplegics ... living here!

This participant's strong perception of and emotions about being discriminated against are quite obvious from his story. He emphatically stated that he could never accept his condition, especially because the wheelchair was a constant reminder of his inability to walk and because of the stigma and discrimination associated with wheelchairs and paraplegia. The latter point is also noted by Gordon et al. (1998) and Somers (2001).

A female participant also felt discriminated against because of architectural barriers. Regarding this she said, 'There's always stairs ... I can't get up the stairs.' Yet another participant found the environment restrictive because of transport and architectural barriers. He often had to stay at home because he was wheelchair-bound. This narrative of 'being discriminated against' is confirmed by Kennedy (1991), who notes that the most striking cultural manifestation of negative attitudes towards people with physical disabilities is the architectural inaccessibility of pavements, shops, offices and public amenities. Architectural barriers, which are still present, continue to prevent

paraplegic persons from accessing and being reintegrated into their environments. However, there is currently an increasing awareness of the importance of making the environment more wheelchair-friendly.

### **Despair**

Despair was the main theme that emerged from the narratives of two participants in particular. One of them contemplated what he would do:

The life has changed too much for me so I don't promise or say I wanna make it ... I'm waiting to see ... when will I end ... this life! Will I go further or maybe ... I will cut myself off. It's like losing hope every day.

The above narrative depicts the participant's anguish, hopelessness and depression. He also appeared to be suicidal. He clearly found it difficult to make sense of his trauma. Similarly, a female participant reported that she often thinks, 'Why can't I just take my life!' She also felt hopeless and helpless, and had symptoms of PTSD. In addition to her traumatic injury, her husband had divorced her. She was faced with looking after her two children, who were still at school.

Another participant's despair derived from his financial difficulties and being unable to support his family. At least three participants were found to be depressed when they were interviewed. This incidence of depression is in line with research by Hancock et al. (1993), North (1999) and Scivoletto et al. (1997). According to Beck's cognitive theory of depression (Beck, 1976), people with depression often misinterpret difficult

situations as a result of negative meanings about themselves, the world and their future. The participants in this study who experienced despair and depression live a life and life story that depict anguish, hopelessness and existential issues.

### **Lack of social support**

Meaningful relationships assisted participants in making sense of their situation, but lack of support hindered this process because of the difficulties they experienced in coping on their own. Several participants experienced a lack of social support, lack of welfare assistance and poor quality support from family and friends. One participant was not assisted with the application for a disability grant while he was in hospital, and this affected the welfare of his family. Two other participants both experienced poor support from their family and friends. One of them lived in a house that was not architecturally easily accessible to his wheelchair. He therefore found it very difficult when there was no one to help him. He narrated the following about his situation: 'I'm alone ... I'm alone here in the house ... maybe ... I need water, I need something ... Sometimes I need something from the shops, no one can go to the shops for me.'

In addition to experiencing poor social support and socio-economic problems, this participant could not really cope on his own. Poor social support is therefore experienced as a barrier in making sense of traumatic losses, and participants who lacked such support were particularly at risk of developing depression, as suggested by Scivoletto et al. (1997). Emotional and social support for persons paralysed as a consequence of traumatic incidents is therefore crucial (Janoff-Bulman & Frieze, 1993; Trieschmann, 1982).

### **Loss of financial status**

Several participants were affected by socio-economic factors such as inadequate financial resources. Their domestic situations changed drastically after the traumatic events they experienced, and they were not able to support their families. One participant's narrative specifically focused on financial difficulties. He had been shot and paralysed nine months earlier, and was unable to work as a plumber because of his paraplegia. He told his story: 'I'm suffering now ... when my aunty doesn't give me anything to eat, I am suffering. And my neighbours maybe ... they assist me ... they give me something to eat.'

This participant seemed to be desperate and had to rely on family and neighbours for food. He was no longer able to support his family, and therefore appraised the social situation as threatening. He felt distressed and helpless, and he ultimately believed that obtaining a welfare grant was the only possible solution to save his family from starvation.

Although another participant was getting a disability grant, she could not take adequate care of her children, as it was not enough to support a family of three. Another participant also felt desperate because he had no income and could not meet his family's social and financial needs. This finding supports research by Scivoletto et al. (1997) that paraplegic persons with economic problems and alterations in familial and vocational roles are at greater risk of developing depression and not to make sense of their situation.

### **Theme 2: Factors contributing to sense-making**

All the participants in this study experienced extremely traumatic incidents that involved threatened death and serious spinal cord injuries. Most participants found that meaningful

and purposeful relationships helped them to cope with their traumatic losses. Another narrative that emerged was sense-making through spiritual growth and enhanced life perspective.

### **Meaningful and purposeful relationships**

Most participants experienced more meaningful and purposeful relationships with family and friends after the traumatic events they were victim to. Participants with such relationships experienced excellent emotional and social support after their trauma, and this assisted them in making sense of their lives.

One of the female participants appeared to be a very functional and independent wife, and had found purpose and value in her suffering – an enhanced relationship with her family. As she put it, ‘I have a loving family ... so I’m very lucky with that!’ A second participant happily narrated the following about his children:

My kids have really done well at school ... at sports, they both got provincial colours in hockey. So they’ve really done me proud. Since this has happened, I would have thought they would have gone down with me. But instead they have both rocketed! So that’s assisted me in every way.

Besides the tremendous support this participant received from his children, their achievements provided him with a great deal of meaning and purpose. He also continued to enjoy the emotional support of and a trusting relationship with his wife. These factors added meaning to his life. Another participant appeared especially to value the support of

his mother, who assisted him throughout his ordeal, and reported, 'My mother ... has really been there for me.'

This narrative of 'making sense through supportive family' was noted in all the other participants. According to Frankl (1969, 1992) finding purpose, as all the participants did, is a way of coping in a world that does not make sense. For these participants, the traumatic events they experienced served as a catalyst in realising meaningful and purposeful relationships with their families. This finding is in agreement with Davis and Nolen-Hoeksema (2001), Davis et al. (2000), Janoff-Bulman (1989), Janoff-Bulman and Frantz (1997), as well as Neimeyer and Anderson (2002), who confirm that benefit emerges when people make sense of a loss. In this regard, Nielson (2003) also notes that social support promotes psychological health.

### **Spiritual growth and an enhanced perspective on life**

After their trauma, several participants experienced enriched lives as a result of their spiritual growth and meaningful relationships with God. They also enhanced their perspective on life and valued their lives more. The participants' new-found spirituality and sense of the value of life assisted them in making sense of their lives. A female participant narrated her story about her convictions:

I think God has played a big role in my life, and He has before, and He ... He always has, you know! I just pray for guidance and help. That's one thing that gets me through ... being a paraplegic.

The same participant felt that she had gained from her traumatic experience, and appeared to value her life much more, saying, 'I look at people who just take life for granted!' Similarly, a male participant also felt that he had become more religious since he was shot and paralysed. As he put it, 'It has actually brought me closer to my religion and to God!' He also experienced a life change by valuing his life more. Another participant explained his improved relationship with God: 'When this happens you definitely get closer ... you realise that everything is in the hands of God.'

According to Pargament and Park (1995), religion can assist people in times of tension, fear or internal conflict. Greater religious involvement may also be associated with better health due to the sense of belonging and purpose it provides (Levin, 1994). Janoff-Bulman and Frantz (1997) confirm that persons affected by traumatic events valued their lives more and established more meaningful relationships with God. The present study's finding supports research by Davis and Nolen-Hoeksema (2001), Janoff-Bulman and Frantz (1997), and Neimeyer and Anderson (2002), which affirms that benefits could emerge from a traumatic loss.

### **Discussion**

The participants in this study experienced barriers that prevented them from making sense of their traumatic losses. This was the most prominent theme. However, the study also revealed factors that assisted persons paralysed by violence-related gunshot injuries in making sense of their lives.

The anguish of not accepting physical losses, accompanied by pain and the loss of various roles, were barriers that prevented participants from making sense of their trauma. Feelings of anger also hindered the sense-making process. Furthermore, the

stigmatisation and rejection of society anguished participants. They found it difficult to accept living in a wheelchair, and dealing with the associated stigma. This supports research by Gordon et al. (1998) and Somers (2001) suggesting that paraplegic persons are still stigmatised and discriminated against. Barriers such as despair, lack of support and loss of financial status also prevented participants from making sense of their trauma. They became depressed as a result of poor social support, socio-economic problems and alterations in familial and vocational roles.

Factors were also revealed that contributed to participants' making sense of their lives after violence-related gunshot injuries. They found meaningful and purposeful relationships with family members after their traumatic losses. Furthermore, they enhanced their perspective on life by valuing their lives more. This is in agreement with reports that benefits do emerge from a traumatic loss (Davis & Nolen-Hoeksema, 2001; Davis et al., 2000; Janoff-Bulman & Frantz, 1997; Neimeyer & Anderson, 2002). Janoff-Bulman and Frantz (1997) argue that although survivors are confronted with the pain of shattered assumptions and the awareness of their own vulnerability, they often go on to build a meaningful life in an essentially meaningless world. This is consistent with the findings of this study.

The participants experienced spiritual growth by forming a more meaningful relationship with God after their traumatic experiences. This finding supports the view of Janoff-Bulman and Frantz (1997), who state that trauma survivors often become more devoted to God and more appreciative of nature.

This study furthermore reflected the physical, psychological and social changes that took place in the lives and life stories of persons paralysed by violence-related

gunshot injuries. The participants had to make permanent changes to their lives and life stories after being injured. They idiosyncratically described the meanings that they attach to their physical symptoms, relationships and present situations. Meanings were experienced differently as they were dependent on a variety of factors, such as completeness of injury, social support, psychological and social consequences of injury, and religious beliefs. The participants who had good social support appeared to cope better with the challenges of living in a wheelchair, even though they sometimes faced an inaccessible physical and rejecting social environment. This is in agreement with Nielson (2003), who states that social support appears to promote psychological health.

According to Neimeyer and Anderson (2002), individuals who suffer a major traumatic event will often reconstruct meaning, and effectively integrate their traumatic losses into their self-narratives. The participants in this study, however, have not effectively integrated their losses into their self-narratives. This could be related to the fact that the participants received no psychotherapy to facilitate adjustment to their traumatic condition (Hope & Botha, 2005a). Similarly, re-authoring of narratives into new life stories (White & Epston, 1990) did not efficiently take place. Davis and Nolen-Hoeksema (2001) and Davis et al. (2000) confirm that making sense of a loss may at times never take place at all.

Adjusting to paraplegia after violence-related gunshot injury also appears to be very complex. On the one hand it not only involves incorporating traumatic experiences in one's worldview, but also redefining a new identity. On the other hand it entails coming to terms with physical, social and economic barriers and limitations in a society that still stigmatises and discriminates against people with physical disabilities.

If Janoff-Bulman's theory (Janoff-Bulman, 1989; Janoff-Bulman & Frantz, 1997; Janoff-Bulman & Frieze, 1983) is applied, people who have been involved in traumatic life events in South Africa may well perceive South African society as malevolent and meaningless. Although basic assumptions that are built over time are resistant to change (Davis & Nolen-Hoeksema, 2001; Janoff-Bulman, 1989), the worldviews of those affected by traumatic life events do undergo changes and may even be more accessible (Janoff-Bulman, 1989).

### **Recommendations**

Although the sample of ten participants may not represent paraplegic persons in general, the aim of this study was to explore the process, rather than the representativeness, of meaning. As this was achieved, the following recommendations are made.

In the event that individuals paralysed by violence-related gunshot injuries find it difficult to create meaning in their loss, Davis et al. (2000) suggest that it may help to restore meaning in their lives by focusing on the rebuilding of shattered assumptions. Janoff-Bulman and Frantz (1997) strongly agree that meaning in life should be maximised, and that the terror of meaninglessness should be minimised. Therefore psychotherapy is strongly recommended to assist persons paralysed by violence-related gunshot injuries in the reconstruction of meaning and in psychosocial adjustment. The results of this study could be used towards the compilation of therapeutic guidelines for persons paralysed by violence-related gunshot injuries. Future research could explore traditional beliefs in various South African ethnic groups in making sense of traumatic victimisation.

**Conclusion**

The aim of this study was to explore how persons paralysed by violence-related gunshot injury make sense of their paraplegia and lives. This study revealed that sense-making is a complex process influenced by numerous factors. Paraplegic persons experienced several barriers that prevented them from making sense of their trauma. These barriers included experiencing anguish and anger as a result of the inability to accept traumatic physical and other losses, stigmatisation and rejection by society, despair and depression, lack of social support, and loss of financial status. However, paraplegic persons also found meaningful and purposeful relationships and more valued lives after being paralysed by violence-related gunshot injury. Ultimately life and relationships became more meaningful in a world where traumatic losses still present difficulties to cope with. Janoff-Bulman and Frantz (1997) concludes that survivors of traumatic victimisation often go on to build a meaningful life in an essentially meaningless world.

The findings of this study have contributed to the literature regarding making sense of paraplegia after violence-related gunshot injury. Although evidence has been provided of numerous barriers that prevent paraplegic persons from making sense of their trauma, it is clear that despite of this, sensemaking is still possible.

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**Table 1. Themes and sub-themes**

<b>Theme 1</b>	<b>Barriers to sense-making</b>
Sub-themes	Physical losses
	Anger
	Being stigmatised and discriminated against
	Despair
	Lack of social support
	Loss of financial status
<b>Theme 2</b>	<b>Factors contributing to sense-making</b>
Sub-themes	Meaningful and purposeful relationships
	Spiritual growth, enhanced perspective and valued life

**Running head: THERAPEUTIC GUIDELINES FOR PERSONS PARALYSED**

**Therapeutic guidelines for the management of persons paralysed as a  
result of violence-related gunshot injuries**

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**Abstract**

This literature review provides guidelines to assist healthcare professionals in the management of persons paralysed as a result of violence-related gunshot injuries. Guidelines have been compiled from the research findings of Hope and Botha (2005a & 2005b) triangulated with related literature and the first author's experience as clinical psychologist working with paraplegic persons. Guidelines include using a holistic, person-centred approach, supporting persons with paraplegia and their families with hope, giving information and psychoeducation about paraplegia, identifying and assessing individual psychosocial needs and adjustment problems, implementing appropriate psychotherapeutic interventions, and rendering ongoing social support throughout rehabilitation.

Keywords: guidelines; gunshot; paraplegia; psychotherapeutic interventions.

## **Introduction**

This review article aims to put forward guidelines for the psychosocial management of persons paralysed because of violence-related gunshot injuries. It is the final in a series of three articles (cf. Hope & Botha, 2005a; 2005b) in which the overall objective is to explore the subjective experience of psychotherapeutic interventions and the sense-making process in a group of persons paralysed as a consequence of violence-related gunshot injury.

South Africa has a particularly high rate of violent crime (Geldenhuis & Lubisi, 2004), and many instances of penetrative damage to the spinal cord are the result of violence-related injuries. In fact, gunshot wounds sustained during violent crimes, such as car hijacking and armed robbery, are the leading cause of quadriplegia and paraplegia in South Africa (Harrison, 2004; Hart, 2000; Hart & Williams, 1994). Persons paralysed as a result of violence-related gunshot injury are affected by multiple traumatic physical and psychosocial losses, and may need psychological and emotional assistance from their admission to hospital throughout their rehabilitation. Surviving and living well with paraplegia not only depends on the acquisition of impeccable self-care skills to prevent any medical complications, but also on life-long psychological and social support (Trieschmann, 1982, 1992). Adjustment after traumatic loss furthermore involves finding meaning and purpose in one's life (Frankl, 1969, 1992; Thompson, Coker, Krause, & Henry, 2003).

In the first article of this series, it was found that paraplegic persons experienced their rehabilitation negatively when their holistic needs were overlooked by rehabilitation professionals (Hope & Botha, 2005a). The findings of the second article in the series

suggested that various barriers prevented persons paralysed as a result of violence-related gunshot injuries from making sense of their trauma (Hope & Botha, 2005b). However, several persons with paraplegia also experienced benefits resulting from their traumatic loss.

Qualitative research was employed in both previous articles in this series (Hope & Botha, 2005a, 2005b). In this article, guidelines will be compiled by critically examining the findings from the preceding two articles, triangulated with related literature and the first author's experience as a clinical psychologist working with quadriplegic and paraplegic persons.

### **A critical examination of research findings**

#### **Therapeutic challenges**

Psychotherapeutic interventions form an important part of the rehabilitation of persons paralysed by violence-related gunshot injuries. Such interventions assist them in adapting to their losses. The first article of this series (Hope & Botha, 2005a) explored the psychotherapeutic interventions that persons paralysed as a consequence of violence-related gunshot injuries received, and investigated how this impacted their adjustment and rehabilitation. Findings indicate that persons with paraplegia experienced their rehabilitation positively when they received emotional support and counselling from various healthcare professionals, such as occupational therapists, nurses and physiotherapists. This supports literature suggesting that persons with paraplegia should be emotionally supported by all rehabilitation team members (Kennedy, 1991; Somers, 2001; Trieschmann, 1982). This finding is also in keeping with the view that the

rehabilitative milieu could be enhanced if all healthcare professionals were trained in counselling skills (Kennedy, 1991).

Hope and Botha (2005a), however, found that persons paralysed because of violence-related gunshot injuries experienced their rehabilitation negatively, when their holistic needs were not met. They felt angry, marginalised and distressed when standard rules and medical jargon were used at the time they were told about their diagnosis and prognosis. They also experienced a loss of hope. In light of this finding, it appears that the tendency to ignore the holistic needs of paraplegic persons in favour of a focus on physical problems constitutes a shortcoming of current interventions by rehabilitation professionals. Somers (2001) concludes that inherent in the medical model is the domination and subjugation of and demeaning attitude towards the patient in the professional-patient interaction. Dewar (2000) confirms that patients misunderstood their diagnosis in instances where medical terminology was used and not fully explained. Putnam, Geenen and Powers (2003) agree with this, as they found that some physicians did not provide information on specific issues related to patients' conditions. Interventions presently practised therefore still appear to be strongly influenced by medical practice and science (Carpenter, 1994; Eide & Roysamb, 2002; Oliver, Zarb, Silver, Moore, & Salisbury, 1988; Schlebusch, 1990; Somers, 2001). Schlebusch (1990) also criticises specialisation for treating only a particular aspect or system of the patient and not focusing on the whole person.

Adequate knowledge and therapeutic skills are essential in order to handle the multidimensional implications of paralysis resulting from violence-related gunshot injury. Hope and Botha (2005a) found that young and inexperienced healthcare

professionals could be perceived as lacking in appropriate knowledge and skills, resulting in failure to assist a person with paraplegia with the necessary psychotherapeutic interventions. This finding is in agreement with research by Putnam et al. (2003), who suggest that some doctors are too young and inexperienced, and lacking in specific knowledge about certain conditions.

Negative attitudes can also impact negatively on the rehabilitation process. According to Somers (2001), healthcare workers are socialised in a society where persons with a physical disability are stigmatised and discriminated against. Healthcare professionals themselves may therefore develop negative attitudes towards persons with paraplegia. These pessimistic and defeatist attitudes may compromise rehabilitation treatment.

Lack of psychosocial interventions, such as welfare assistance, could impact negatively on the rehabilitation of persons paralysed by violence-related gunshot injuries. Hope and Botha (2005a, 2005b) found that several paraplegic persons, whose lives were completely disrupted by their traumatic losses, were no longer able to work and support their families. According to Hope and Botha (2005a, 2005b) welfare assistance was not always available to persons who experienced extreme financial difficulties after having been paralysed as a result of violence-related gunshot injuries. Eide and Roysamb (2002) emphasise the importance of addressing psychosocial needs in the hospital rehabilitation programme. Currently used interventions illustrate that a holistic, patient-centered model of rehabilitation (Olkin & Pledger, 2003; Pledger, 2003), which focuses on the functionality and holistic needs of persons with paraplegia in society is not in practice.

Scivoletto, Petrelli, Di Lucente and Castellano (1997) agree that paraplegic persons with economic difficulties and alterations in familial and vocational roles are at risk of developing depression. A lack of psychotherapeutic interventions can also impact the rehabilitation process. The research of Hope and Botha (2005a) revealed that psychologists or social workers trained in psychotherapeutic skills did not form part of the rehabilitation programmes at the public or private spinal units where persons paralysed by violence-related gunshot injuries were physically rehabilitated. The study therefore exposed a clear lack in the provision of psychotherapeutic and psychosocial interventions aimed at assisting persons paralysed by violence-related gunshot injuries in meeting their holistic needs and coming to terms with multiple traumatic losses. This is consistent with studies by Carpenter (1994), Eide and Roysamb (2002), Oliver et al. (1988), Schlebusch (1990) and Somers (2001), which suggest that rehabilitation programmes are dominated by bureaucratic policies and medical principles.

### **Sense-making challenges**

Hope and Botha (2005b) assert that making sense of paraplegia after violence-related gunshot injury appears to be particularly complex. On the one hand it not only involves having to incorporate traumatic experiences in one's worldview, but also having to redefine a new identity. On the other hand it also entails coming to terms with the physical, social and economic barriers and limitations of paraplegia.

According to Hope and Botha (2005a, 2005b), adjusting to physical losses, which also includes pain and loss of various roles, was an enormous task that persons paralysed by violence-related gunshot injuries found difficult to cope with. These factors also

proved to be barriers to participants' making sense of their trauma. Kleiber, Brock, Lee, Dattilo and Caldwell (1995) conclude that even though rehabilitation assists persons with paraplegia to perform modified activities, it is impossible to remove the sense of loss.

Most of the participants in this research found it difficult to make sense of their trauma due to their feelings of anger (Hope & Botha, 2005b). Somers (2001) notes that although anger is a normal reaction to loss, survivors of violent crime usually experience more distress if the traumatic event was human-induced (Janoff-Bulman & Frieze, 1983). However, most of the participants internalised their anger rather than expressing it at their perpetrators (Hope & Botha, 2005b). The day-to-day difficulties that persons paralysed as a result of violence-related gunshot injuries experience remain an issue, despite the contemporary emphasis on the human rights of people with disabilities. The research of Hope and Botha (2005b) indicates that most persons with paraplegia feel stigmatised and discriminated against by the very society in which they were paralysed. They found it difficult to make sense of the stigma associated with paraplegia, over and above the difficulty they had accepting living in a wheelchair. This supports research by Gordon, Feldman and Crose (1998) and Somers (2001), who note that paraplegic persons who use wheelchairs are immediately stigmatised as disabled and seen as unattractive and devoid of sexuality. This can cause immense distress, because of the negative societal attitudes and associated negative self-esteem that persons with paraplegia experience. Hope and Botha (2005b) found that, during their hospital rehabilitation, persons with paraplegia were not trained to confront and cope with a rejecting and stigmatising society. After their discharge they were therefore not suitably equipped to deal with such rejection and

stigmatisation in society. Consequently, ongoing rehabilitation in the community continues to be hampered by social and environmental barriers (Hope & Botha, 2005b).

Persons paralysed as a result of violence-related gunshot injuries were also discriminated against by society in the form of architectural and transport barriers (Hope & Botha, 2005b). Kennedy (1991) reports that the most striking cultural manifestation of negative attitudes towards people with physical disabilities is the architectural inaccessibility of pavements, shops, offices and public amenities.

According to Hope and Botha (2005a, 2005b), the lack of psychotherapeutic interventions prevented persons paralysed as a result of violence-related gunshot injuries from receiving assistance in dealing with their psychological and adjustment problems. Strong emphasis is placed on the medical and physical aspects of rehabilitation, while the psychological needs of persons with paraplegia are ignored. Despair, depression, lack of social support and loss of financial status were all barriers that prevented the participants in this study from making sense of their trauma (Hope & Botha, 2005b). This supports research by Scivoletto et al. (1997) indicating that paraplegic persons who experience alterations in familial and vocational roles, and who have poor social support and economic problems, are at risk of developing depression. Depression has been found to affect a third of persons with quadriplegia and paraplegia (Hancock, Craig, Dickson, Chang, & Martin, 1993; North, 1999; Scivoletto et al., 1997; Somers, 2001). The persons paralysed as a consequence of violence-related gunshot injuries in the study of Hope and Botha (2005a; 2005b) were not assessed, identified or treated for depression during their hospital rehabilitation. They found it difficult to make sense of their situation as they did

not integrate their traumatic losses into their self-narratives. Similarly, re-authoring (White & Epston, 1990) of their traumatic experiences into new narratives did not occur.

In contrast to these barriers, several persons paralysed by violence-related gunshot injury experienced enriched lives as a result of their spiritual growth and more meaningful relationships with God (Hope & Botha, 2005b). They also enhanced their perspective on life and valued their life more. This supports literature suggesting that benefits may emerge from a traumatic loss (Davis & Nolen-Hoeksema, 2001; Davis, Wortman, Lehman, & Silver, 2000; Janoff-Bulman, 1989; Janoff-Bulman & Frantz, 1997; Neimeyer & Anderson, 2002). Their newfound spirituality and sense of the value of life assisted them in making sense of their lives (Hope & Botha, 2005b). Janoff-Bulman and Frantz (1997) confirm that persons affected by traumatic events valued their lives more and established more meaningful relationships with God.

#### **An integration of challenges in the management of persons paralysed as a result of violence-related gunshot injury**

By providing psychosocial and psychotherapeutic interventions, therapeutic and sense-making challenges can be addressed integratively in the management of persons who have been paralysed as a result of violence-related gunshot injuries. The interventions that are presently practised are inadequate and are not based on a holistic model and multidisciplinary approach (Cock, 1989; Olkin & Pledger, 2003; Pledger, 2003). Persons paralysed as a result of violence-related gunshot injuries are therefore prevented from being rehabilitated holistically and being fully reintegrated into society. In order to meet the therapeutic and sense-making challenges, psychotherapeutic interventions and the

associated guidelines for therapy need to conform to certain criteria for quality. The following section discusses these criteria.

### **Criteria for good-quality psychotherapeutic interventions**

The criteria set out in this section are the standards that should determine guidelines for good-quality psychotherapeutic interventions. Interventions should be cost-effective, culturally fair, multiprofessional, easy to apply and available to all persons paralysed as a result of violence-related gunshot injuries.

In South Africa, where violent crime is rampant (Geldenhuis & Lubisi, 2004), all healthcare professionals need to be aware of the psychological consequences of the traumatic victimisation that persons paralysed by violence-related gunshot injuries experience. In the absence of such awareness, the possibility of achieving full social rehabilitation remains remote. Specific criteria for good-quality therapeutic guidelines applicable to all rehabilitation healthcare professionals (medical and nursing personnel, occupational therapists, physiotherapists, dieticians, social workers and psychologists) are therefore essential in order to aggressively meet the holistic and adjustment needs of persons paralysed as a result of violence-related gunshot injuries.

### **Guidelines for psychotherapeutic interventions**

The following guidelines are suggested for all rehabilitation healthcare professionals involved in treating persons paralysed as a result of violence-related gunshot injury. Guidelines are based on the aforementioned criteria for good-quality psychotherapeutic interventions.

**Employ a holistic rehabilitation model**

Griffit (1997) proposes that success in rehabilitation is about perceiving and addressing the needs of the patient and the family as whole human beings. Treating the whole person is important as there is interdependency between people and their environments in fulfilling health and wellness needs (Putnam et al., 2003). However, both studies by Hope and Botha (2005a, 2005b) indicate that the holistic needs of persons with paraplegia are often not taken into account. This may prevent persons paralysed as a result of violence-related gunshot injuries from adjusting to and being reintegrated into society. For the purpose of holistic rehabilitation treatment, Olkin and Pledger (2003) and Pledger (2003) recommend a holistic model, which looks at the relational nature of the disabling condition and the environment. Implementing this rehabilitation model implies shifting the emphasis from the disability of the paraplegic person to the functionality of the person in a restrictive and disabling environment (Cock, 1989; Olkin & Pledger, 2003; Pledger, 2003; Putnam et al., 1998; Trieschmann, 1982, 1992). By utilising this rehabilitation approach, survivors of traumatic victimisation can learn to cope in the able-bodied world and possibly learn to live more functional and meaningful lives. It is suggested that all rehabilitation healthcare professionals be equipped with the necessary knowledge regarding the holistic implications of paralysis caused by violence-related gunshot injury. Along the same lines, Trieschmann (1982) recommends milieu therapy, which embraces a holistic approach as it utilises the environment or residential setting to prepare persons paralysed as a result of violence-related gunshot injuries for problems they may experience in society.

**Use a person-centred approach**

A patient-centred (Bauman, Fardy, & Harris, 2003; Little et al., 2001), or as we prefer it, a person-centred approach, could form the basis of a holistic approach. Using a person-centred approach makes it possible for healthcare professionals to form good relationships with patients. Principals of this approach include open and honest communication with patients, viewing patients as partners in their own treatment, and focusing on the promotion of health and a healthy lifestyle (Bauman et al., 2003; Little et al., 2001). Little et al. (2001) conclude that patients with a very strong preference for person-centredness are those who are socio-economically challenged and those who are unwell or worried. The person-centred model is similar to the client-centred approach (Cormier & Cormier, 1985), except that the latter is more non-directive. A person-centred approach would benefit persons with paraplegia because of the possible feelings of vulnerability associated with their multiple physical and psychosocial losses after violence-related gunshot injuries.

Healthcare professionals need to be sensitive, empathic, non-judgemental and genuine when they interact with persons with paraplegia (Cormier & Cormier, 1985). In order to improve the therapeutic milieu, training could be provided to those team members who lack therapeutic communication skills (Kennedy, 1991). Olkin and Pledger (2003) recommend that training and development in disability studies be included in all areas of traditional psychology curricula as well as in other specialist areas. Similarly, Carpenter (1994, p. 626) suggests that healthcare professionals be trained in all aspects of the experience of disability in the 'real world'. In this way they can become more aware

of the impact of disability, and redefine the rehabilitation programme with the assistance of persons paralysed as a result of violence-related gunshot injuries.

**Prepare and emotionally support persons with paraplegia and their families with hope when giving the diagnosis and prognosis**

Psychological interventions in the treatment of persons paralysed as a result of violence-related gunshot injuries should involve individually preparing patients and their families for the diagnosis and prognosis of paraplegia, which may be perceived as bad news. Receiving a diagnosis of paraplegia is associated with a host of psychosocial losses. Ptacek and Eberhardt (1996) state that hope is important in giving a prognosis perceived as bad news, as hope reduces the threat that the news might convey. Campbell (1994) stipulates that patients should be prepared before diagnosis or prognosis is given. It should also be established from families and patients what they already know about the patient's condition. Vanderkief (2001) suggests individualising breaking bad news in terms of the patient's desires and needs. Ultimately, the holistic needs of persons with paraplegia and their families should be taken into account during this sensitive time. Specific information about paraplegia and its implications should be available to paraplegic persons and their families, as discussed below. Emotional support should be given to persons paralysed as a result of violence-related gunshot injuries, from the time of admission and throughout their lives (Trieschmann, 1982). According to Kennedy (1991), such emotional support enhances the rehabilitative milieu.

**Give information and psychoeducation about paraplegia and treatment**

It is suggested that full information and psychoeducation about paraplegia caused by violence-related gunshot injuries, and the implications thereof, be given to persons with paraplegia and their families, in understandable terminology. Kennedy (1991) emphasises the importance of clear and consistent information from all rehabilitation team members answering specific questions posed by paraplegic persons and their families. Furthermore, Davidhizar (1997) reports that information is useful in assisting paraplegic persons in making changes in their self-management and treatment regimen. Detailed information about the physical and psychosocial consequences of paraplegia will also contribute to the adjustment of persons with paraplegia, as it may help them to feel more in control of their condition. Kennedy (1991) recommends that the communication process and the provision of information should be ongoing and always available, as it takes a long time for the consequences of paraplegia to be fully conceptualised and integrated by persons with paraplegia.

**Identify and assess individual psychosocial needs and adjustment problems**

Carpenter (1994) suggests that interventions must be tailored to capitalise on the individual's personality and life experiences, and to suit the particular needs of the individual. Persons paralysed as a result of violence-related gunshot injury ought to be consulted as partners, and should be involved in decision-making about their rehabilitation goals, including future goals and psychosocial survival issues. Persons with paraplegia in need of welfare assistance should be referred to a social worker for assistance with an application for a disability grant as soon as their diagnosis is known.

Davidhizar (1997) notes that nurses are in a strategic position to identify the needs of patients and their families and to provide them with psychological support. Individual assessments should be made regarding the situation and circumstances in which the traumatic victimisation took place, as this could impact the rehabilitation and reintegration of persons paralysed by violence-related gunshot injuries. Survivors of traumatic victimisation may continue to feel fearful of facing a world in which violent crime is commonplace. Memories of the traumatic event are easily accessible and this may result in feelings of vulnerability, uncertainty and insecurity, and a belief that misfortune can strike at any time (Janoff-Bulman & Frantz, 1997). Prompt interventions by healthcare professionals could alleviate the negative impact that any potential or real psychosocial problem or adjustment obstacle may have on the rehabilitation process.

#### **Implement appropriate psychotherapeutic interventions**

Persons paralysed by violence-related gunshot injuries who are identified as having specific psychological needs and adjustment problems should be referred to the psychologist or social worker for appropriate psychotherapeutic interventions. Various interventions, such as trauma counselling (Kennedy & Duff, 2001; MacGregor, 1998) and individual therapy (Davidhizar, 1997; Hayes, Potter, & Hardin, 1995; Somers, 2001) could initially be implemented once persons paralysed as a result of violence-related gunshot injuries have been medically stabilised. Davidhizar (1997) suggests that if grief and depression prompt an adjustment reaction, then dealing with the grief and depression would be a major aspect of the treatment plan. Crucial psychotherapeutic interventions to facilitate the psychosocial adjustment of persons paralysed as a result of violence-related

gunshot injuries are sexual counselling (Sishuba, 1992; Somers, 2001) and social-skills training (Somers, 2001; Trieschmann, 1982). Trieschmann (1982) concludes that social skills can be a powerful way of changing the negative attitudes of able-bodied persons towards disability. A multidisciplinary pain management approach (McKinley, Johns, & Musgrove, 1999; Ravenscroft, Ahmed, & Burnside, 2000) can also be implemented if necessary. Applying White and Epston's (1990) concept of re-authoring could be an important means towards integrating traumatic meanings into new self-narratives. According to White and Epston (1990) persons in psychotherapy search for new meanings, and retelling their story results in re-authoring, or incorporating the person's experience into new narratives. In this way new meanings are found and the traumatic events are integrated into new life stories.

#### **Render ongoing social support throughout rehabilitation and in the community**

Ongoing social support would benefit all persons paralysed as a result of violence-related gunshot injuries, but especially those with poor family support. Janoff-Bulman and Frieze (1983) confirm that social support from family, friends and therapeutic personnel is crucial for people affected by a traumatic experience. Persons with paraplegia who have good social support during their hospital rehabilitation cope better with their traumatic ordeals (Hope & Botha, 2005a). Putnam et al. (2003) stress the importance of social activities and a support network, such as church and peer groups, as important sources of social support, health and wellness. Similarly, Nielson (2003) shows that social support promotes psychological health. In South Africa, such support is available from the

Association for the Physically Disabled, where paraplegic persons and their family members can get ongoing social and emotional support.

### **Conclusion**

This literature review aimed to provide rehabilitation healthcare professionals with guidelines for psychotherapeutic interventions applicable to persons paralysed as a result of violence-related gunshot injuries. Adjustment appears to be a very complex and individual process that involves meeting therapeutic and sense-making challenges. For this reason, therapeutic guidelines for all healthcare professionals involved in the rehabilitation of persons paralysed because of violence-related gunshot injuries are essential. These guidelines encompass meeting the adjustment needs according to a holistic, person-centred model of rehabilitation, which may eventually result in paraplegic persons' complete reintegration in the community. Ongoing emotional and social support is also needed.

Future research could focus on the development of techniques to teach social skills that will facilitate the reintegration of paraplegic persons into the community. In the South African context, striving towards a holistic, person-centred rehabilitation approach may be hampered because of inadequate professional resources. The real test will be to empirically assess the impact of the therapeutic guidelines set out in this article in the future. These therapeutic guidelines are thus provided as a contribution to literature regarding psychotherapeutic interventions for and the sense-making process of persons paralysed as a result of violence-related gunshot injuries.

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## CONCLUSION AND RECOMMENDATIONS

### MAKING SENSE OF PARAPLEGIA CAUSED BY VIOLENCE-RELATED GUNSHOT INJURY

South Africans are exposed to violent crime on a daily basis. This often results in traumatic victimisation that has lifelong consequences. In South Africa, violent crimes such as car hijacking and armed robbery appear to be the leading cause of penetrative damage to the spinal cord resulting in quadriplegia and paraplegia. The overall aim of this study was to explore the subjective experiences of psychotherapeutic interventions and the sense-making process in a group of persons paralysed as a consequence of violence-related gunshot injury. This study employs a qualitative research method with a narrative approach.

The first article aimed to explore how persons paralysed as a result of violence-related gunshot injuries subjectively experienced psychotherapeutic interventions. The findings of this research reveal that paraplegic persons had both positive and negative experiences during their hospital rehabilitation. Positive experiences were associated with receiving emotional support and counselling from various healthcare professionals, such as occupational therapists and physiotherapists, during hospital rehabilitation. Negative experiences were related to feeling marginalised by receiving the diagnosis and prognosis of paraplegia, experiencing healthcare professionals as young and inexperienced, and perceiving the attitudes of healthcare professionals as negative. Negative experiences were also associated with a lack of psychosocial and psychotherapeutic interventions by psychologists or social workers skilled in psychotherapy. Ultimately, however, positive experiences compensated for negative experiences. Specifically, this study suggests that

in the absence of psychotherapeutic interventions, psychosocial adjustment may possibly not be facilitated.

The aim of the second article was to explore how persons paralysed as a result of violence-related gunshot injury make sense of their paraplegia and their lives. The research indicates that several barriers prevented persons paralysed by violence-related gunshot injuries from making sense of their trauma. These barriers comprised their physical losses, anger and the stigmatisation of society. Several participants found it difficult to make sense of their trauma because of despair, depression, poor social support and loss of financial status. However, several persons paralysed as a consequence of violence-related gunshot injuries gained meaningful relationships, spiritual growth and a greater appreciation of the value of life from their traumatic loss. In the final article of this series, the aim was to compile and present therapeutic guidelines for all healthcare professionals involved in the rehabilitation of persons paralysed by violence-related gunshot injuries. Guidelines are based on the holistic and adjustment needs of paraplegic persons to assist their reintegration into society. This means a person-centred approach during which emotional support should be provided to persons with paraplegia and their families when giving the diagnosis and prognosis. Further, information and psychoeducation about paraplegia and its treatment should be given, based on the identification and assessment of individual psychosocial needs. Only then appropriate psychotherapeutic interventions could be implemented. Finally, ongoing social support should be rendered not only throughout rehabilitation, but also later on in the community.

As a final thought, then, adjustment appears to be a very complex and individual process that involves meeting therapeutic and sense-making challenges. For this reason,

therapeutic guidelines for all healthcare professionals involved in the rehabilitation of persons paralysed because of violence-related gunshot injuries are essential. These guidelines encompass meeting the adjustment needs according to a holistic, person-centred model of rehabilitation, which may eventually result in complete reintegration in the community of persons with paraplegia.

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