

---

# CLINICAL ARTICLE

---

## Efficacy of sexual counselling during the rehabilitation of spinal cord injured patients

JG Myburgh MBChB, MMed Orth, FCS(SA)Orth

R Fourie MBChB

AH van Niekerk MBChB

Department of Orthopaedics, Steve Biko Academic Hospital, University of Pretoria

**Reprint requests:**

Prof JG Myburgh

Department of Orthopaedics

Room 71306, Level 7, Bridge A

Steve Biko Academic Hospital

Pretoria

Tel: 012 354-2851

Cell: 083 2711 629

e-mail: hans.myburgh@up.ac.za

### Abstract

Spinal cord injury is a life-changing experience. During rehabilitation the emphasis is to help the patient to become as independent as possible in performing the activities of daily living. This study was conducted to determine the importance and efficacy of sexual counselling in the rehabilitation of spinal cord injured patients. The study population comprised a randomly selected group of 102 spinal cord injured patients treated at a tertiary institution. A research questionnaire was used to perform personal as well as telephonic interviews. The study showed that some spinal cord injured patients were inadequately counselled on sexual function during rehabilitation. There were statistically significant differences between male and female patients, and white and black patients. Patient counselling needs to be more thorough, specialised and individualised. Patients' partners should also be counselled to ensure that they work as a team to create mutual sexual satisfaction. Counselling should always be available at follow-up visits.

### Introduction

It is difficult to provide comprehensive rehabilitation in spinal cord injured patients.<sup>1</sup> Spinal cord injury is a devastating experience that not only changes a patient's mobility and sensory ability but has personal and psycho-emotional implications.<sup>2,3</sup> The rehabilitation team has limited time and resources and the emphasis is to help the patient to become as independent as possible in performing the activities of daily living. During the early phases of rehabilitation the patients are often not emotionally ready for sexual counselling or the rehabilitation team need to concentrate on more important issues like bowel, bladder and mobility issues.<sup>4,5</sup> The purpose of this study

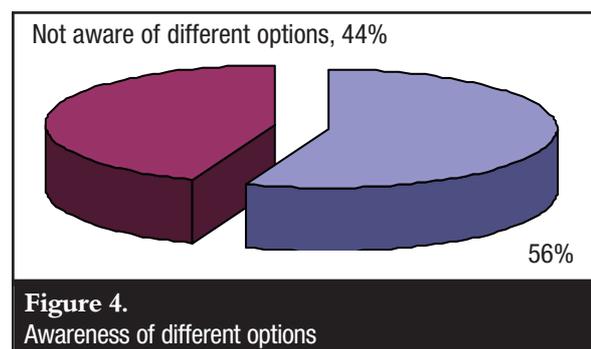
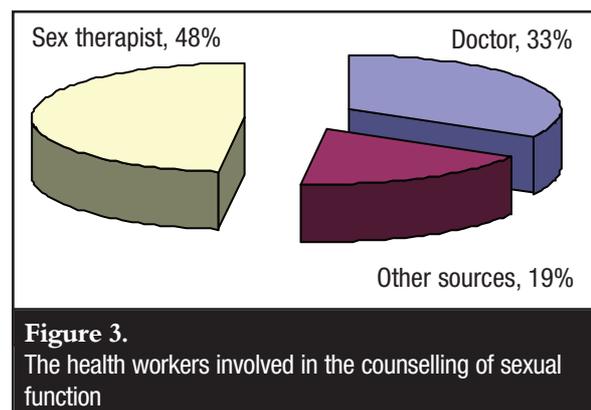
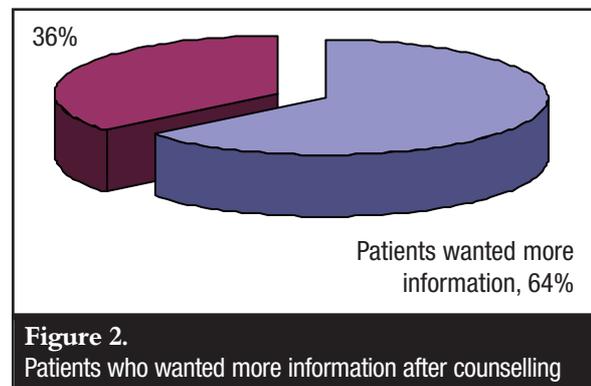
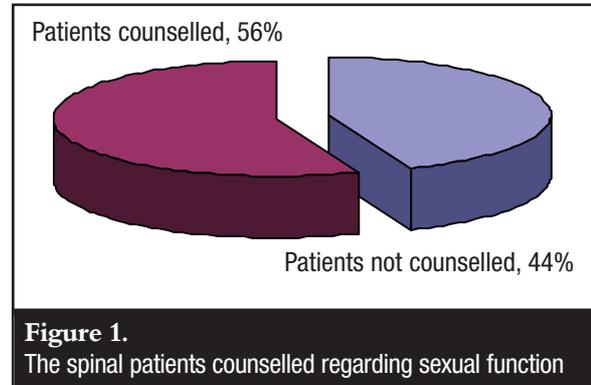
was to determine the importance and efficacy of sexual counselling in the rehabilitation of spinal cord injured patients and to examine the differences between sexes, ethnic groups and different levels of injury. We postulated that some spinal cord injured patients were inadequately counselled on sexual function during rehabilitation.<sup>1,6,7,8</sup> The primary objective of this study was to determine the proportion of patients who are satisfied with the counselling they received. This study also provided an opportunity to provide information and counselling to patients who felt that their counselling was inadequate and those who expressed the need to obtain more information. The outcome of this study will lead to improved counselling and rehabilitation in future.

## Materials and methods

The study population was 102 spinal cord injured patients treated at the spinal unit of the orthopaedic department at a tertiary hospital. A random selection of spinal patients previously treated in the orthopaedic department was done. The study group comprised 81 male and 21 female patients. There were 54 black and 48 white patients. The ages ranged from 17 years to 60 years with an average age of 37 years. The study group included all levels of spinal cord injury from C4 to L4. The level of injury was divided into five main groups: Group 1 comprised patients with level of injury from C3 to C5; Group 2 comprised patients C6 to C8; Group 3 comprised patients T1 to T6; Group 4 comprised patients T7 to T12 and Group 5 comprised patients from L1 to L5. A research questionnaire was used to perform personal as well as telephonic interviews. The questionnaire was designed in such a way that both open- and closed-ended questions were used to obtain all the necessary and relevant information from the patients. The patients had to evaluate the extent of the counselling for sexual functioning that they had previously received. The patients were asked to share their personal experience during an interview with the main investigators. Before the interview was conducted either a verbal or a signed consent form was completed. The questionnaire was completed during a patient's visit to the spinal clinic or during telephonic interviews that were conducted with selected patients. The participation was voluntary and the patient's confidentiality was protected. The questionnaire was set in English to accommodate all racial groups. The help of an interpreter was used when necessary. The questions also provided an opportunity to provide information and counselling to patients who felt that their counselling was inadequate and those that expressed the need to obtain more information. All the data was recorded on the raw data forms. All answering sheets were anonymous and kept as confidential material. The questionnaires were manually marked and interpreted by the main investigators. The data from the questionnaire was converted into an Excel-based spreadsheet for statistical analysis and e-mail correspondence. The study was conducted in compliance with the study protocol and performed according to good clinical practice (GCP) specifications. A sample size of 97 patients would provide a 95% confidence interval that will extend within 10% of the estimated proportion. A total number of 102 patients took part in the study.

## Results

The study showed that some spinal cord injured patients were inadequately counselled on sexual function during rehabilitation. Only 55.9% of patients were counselled on sexual function (*Figure 1*). Of the 55.9% that were counselled 64% wanted more information and 67.7% indicated that their counselling was not sufficient (*Figure 2*).



A sex therapist was responsible for the counselling in the majority (48%) of the study population while medical staff provided 33% of the counselling (Figure 3). Patients who were not aware of the different options available to maintain sexual function comprised 44.1% of the study population (Figure 4.) Only 47% of the patients were satisfied with their sex life. Most of the patients interviewed (86.2%) had a less active sex life when compared to their pre-injury scenario.

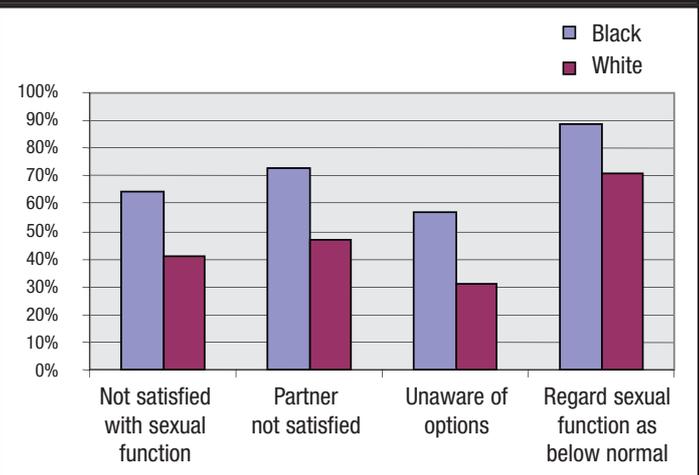
When the study population was divided into various demographic groups it was evident that more males (61%) than females (35%) indicated that they received counselling on sexual function (p=0.046). Only 30% of females as opposed to 62% of males stated that they were aware of the different options available to maintain sexual function (p=0.012). When asked if their partner was sexually satisfied only 10% of females replied negative as opposed to 38% of the males (p=0.002) (Table I). The reason for the statistical difference between the sexes is unclear and might be an area for further investigation and research but we can postulate that women are more conservative and less inclined to speak about sexually related issues.<sup>9</sup> Men, on the other hand, are much more sexually driven and sensitive about their sexual performance.

Of the black patients 64% admitted to having a less satisfactory sex life when compared to 41% of white patients who admitted that they perceive their sex life as below average (p 0.029); and 89% of these black couples regarded their sexual relationship as abnormal as opposed to 71% of white couples (p=0.044). When asked about methods only 43.4% of blacks compared to 69.4% of whites indicated that they knew about the different methods to maintain sexual function (p=0.010). More black patients seemed to perceive that their partners were unsatisfied with their sexual relationship (43.4%) than whites (20.4%) (p=0.012) (Table II).

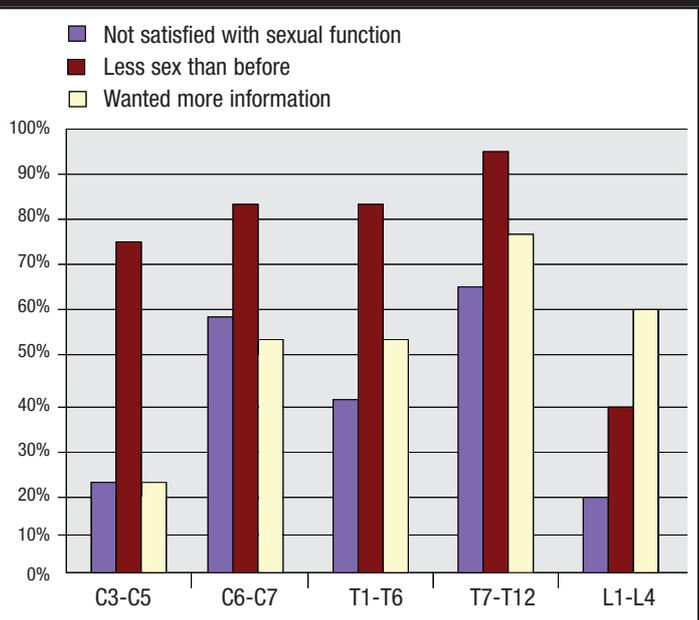
This clearly shows that the rehabilitation team should consider gender and cultural differences in their approach in the management of the spinal cord injured patient.

When the different levels of injury were compared, 97% of the patients in group 4 comprising the lower thoracic levels T7-T12 indicated that they had less sex than before their injury (p=0.01). Seventy-eight per cent of group 4 patients indicated that they wanted more information regarding sexual function (p=0.012). Only 23% of group 1 comprising levels C3 to C5 indicated that they were less satisfied when compared to the other groups (p=0.04) (Table III) which confirms the research work of Anderson that showed that regaining arm and hand function is more important to quadriplegics.<sup>2</sup>

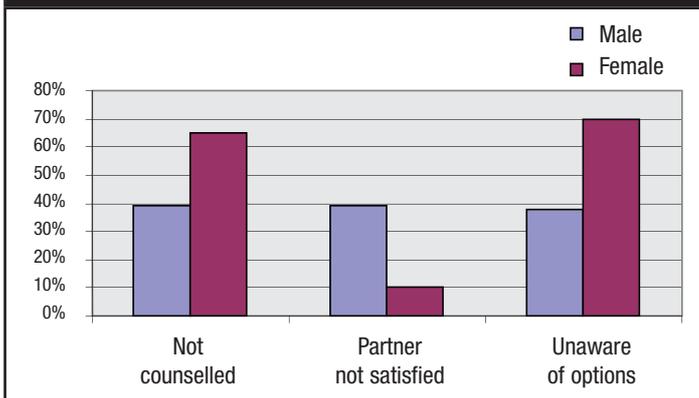
**Table II.**  
Counselling on sexual function in different races



**Table III.**  
Sexual function of different levels of spinal injury



**Table I.**  
Male and female counselling on sexual function



## Recommendations

Spinal patients' counselling needs to be more thorough and specialised. Their partners should also be counselled to ensure that they work as a team to create mutual sexual satisfaction.<sup>10</sup> Sexual counselling should also be available at follow-up visits. Both the rehabilitation team and the sexual counsellor must be sensitive and try to individualise the counselling to each individual's specific needs.

## Discussion

Spinal cord injury is a life-changing event that not only affects mobility, sensation and body functions but also self-esteem and self-confidence. Problems may lead to feelings of sexual inadequacy.<sup>6</sup> During the rehabilitation phase the patient's main objective is to survive and try and adapt to the impairment of bodily functions, mobility and sensation. They are often in denial and a single counselling session might be of little or no worth. Both the rehabilitation team and the sexual counsellor must be sensitive and try to individualise the counselling to each individual's specific needs.<sup>11</sup> Patients must be reassured that intimacy and love-making entails much more than a physical act.<sup>12</sup> Emotions, feelings, cuddling and kissing can be a lot of fun.

Women must be reassured that they are still able to please their partners and experience orgasms. They and their partners should realise that stimulation of sensitive areas other than the genitals can also provide orgasms.<sup>13,14</sup> Women can experience disreflexia and bladder incontinence during sexual intercourse. They are still able to fall pregnant after spinal cord injury but have an increased risk of urinary tract infections, pressure sores and hypertension.<sup>9,15</sup>

Men are self-conscious about their erections and should be told that there are various tablets like Viagra, Cialis and Levitra that may provide a stronger and longer duration of erection. The tablets must be taken 30 minutes or more before intimacy, and stimulation will still be required for making love.<sup>16-18</sup> Toys and assistive devices like vacuum pumps and vibrators can be used with tablets. These devices can cause pressure sores and other injuries with incorrect use. If the tablets do not work an urologist can determine the dosage of Caverject that can safely be injected. Caverject can be used with good therapeutic effect but may cause fibrosis with long-term use.<sup>16,19,20</sup> Penile implants are generally not recommended. Ejaculation can be facilitated by means of electrical stimulation.<sup>21</sup> Sperm banking might be considered as there is a higher incidence of infertility as result of the higher scrotal temperatures associated with prolonged sitting.<sup>22,23</sup>

*The content of this article is the sole work of the authors. No benefits of any form have been derived from any commercial party related directly or indirectly to the subject of this article.*

## References

- Breen S, Rines B. Sexual health care in British Columbia: a model of service delivery. *SCI Nurs* 1996 Mar;**13**(1):2-5.
- Anderson KD. Targeting recovery: priorities of the spinal cord-injured population. *J Neurotrauma* 2004 Oct; **21**(10):1371-83.
- Anderson KD, Borisoff JF, Johnson RD, Stiens SA, Elliott SL. The impact of spinal cord injury on sexual function: concerns of the general population. *Spinal Cord* 2007 May;**45**(5):328-37.
- Chiodo AE, Scelza WM, Kirshblum SC, Wuermsler LA, Ho CH, Priebe MM. Spinal cord injury medicine. 5. Long-term medical issues and health maintenance. *Arch Phys Med Rehabil* 2007 Mar;**88**(3 Suppl 1):S76-83.
- Benevento BT, Sipski ML. Neurogenic bladder, neurogenic bowel, and sexual dysfunction in people with spinal cord injury. *Phys Ther* 2002 Jun;**82**(6):601-12.
- Elliott SL. Problems of sexual function after spinal cord injury. *Prog Brain Res* 2006;**152**:387-99.
- Reitz A, Tobe V, Knapp PA, Schurch B. Impact of spinal cord injury on sexual health and quality of life. *Int J Impot Res* 2004 Apr;**16**(2):167-74.
- Sharma SC, Singh R, Dogra R, Gupta SS. Assessment of sexual functions after spinal cord injury in Indian patients. *Int J Rehabil Res* 2006 Mar;**29**(1):17-25.
- Jackson AB, Wadley V. A multicenter study of women's self-reported reproductive health after spinal cord injury. *Arch Phys Med Rehabil* 1999 Nov;**80**(11):1420-28.
- Gittler MS, McKinley WO, Stiens SA, Groah SL, Kirshblum SC. Spinal cord injury medicine. 3. Rehabilitation outcomes. *Arch Phys Med Rehabil* 2002 S90-8; Mar;**83**(3 Suppl 1):S65-71.
- McBride KE, Rines B. Sexuality and spinal cord injury: a road map for nurses. *SCI Nurs* 2000;**17**(1):8-13.
- McKenna KE. Neural circuitry involved in sexual function. *J Spinal Cord Med* 2001;**24**(3):148-54.
- Anderson KD, Borisoff JF, Johnson RD, Stiens SA, Elliott SL. Spinal cord injury influences psychogenic as well as physical components of female sexual ability. *Spinal Cord* 2007 May;**45**(5):349-59.
- Sipski ML, Arenas A. Female sexual function after spinal cord injury. *Prog Brain Res* 2006;**152**:441-47.
- Karlsson AK. Autonomic dysfunction in spinal cord injury: clinical presentation of symptoms and signs. *Prog Brain Res* 2006;**152**:1-8.
- Brown DJ, Hill ST, Baker HW. Male fertility and sexual function after spinal cord injury. *Prog Brain Res* 2006;**152**:427-39.
- Lombardi G, Macchiarella A, Cecconi F, Del Popolo G. Ten years of phosphodiesterase type 5 inhibitors in spinal cord injured patients. *J Sex Med* 2009 May;**6**(5):1248-58.
- Sanchez Ramos A, Vidal J, Jauregui ML, Barrera M, Recio C, Giner M, et al. Efficacy, safety and predictive factors of therapeutic success with sildenafil for erectile dysfunction in patients with different spinal cord injuries. *Spinal Cord* 2001 Dec;**39**(12):637-43.
- Zaslau S, Nicolis C, Galea G, Britanico J, Vapnek JM. A simplified pharmacologic erection program for patients with spinal cord injury. *J Spinal Cord Med* 1999;**22**(4):303-307.
- Creasey GH. Lecture 6: restoration of male sexual function following spinal cord injury. *Int J Impot Res* 2000 Sep;**12**(Suppl 3):S54-5.
- Howards S S, Jones EV, Wind TC, Edlich RF. Functional electrical stimulation for ejaculation. *J Long Term Eff Med Implants* 2002;**12**(3):201-209.
- Eklund M, Griffin S, Copeland J, Elliott S, Nigro M. Exploring male fertility options after spinal cord injury: the role of the nurse clinician. *SCI Nurs* 1998 Dec;**15**(4):95-98.
- Linsenmeyer TA. Sexual function and infertility following spinal cord injury. *Phys Med Rehabil Clin N Am* 2000 ix; Feb;**11**(1):141-56.