

Adjustment to Changes in Sexual Functioning Following Spinal Cord Injury: The Contribution of Men's Adherence to Scripts for Sexual Potency

Shaun Michael Burns · James R. Mahalik · Sigmund Hough · Ashley N. Greenwell

Published online: 8 August 2008
© Springer Science+Business Media, LLC 2008

Abstract Recent epidemiological statistics suggest approximately 250,000 people in the United States live with a spinal cord injury. Men constitute roughly 82% of these individuals. Following spinal cord injury, men frequently experience significant changes in their sexual functioning. As a result, men with spinal cord injuries are at an increased risk for experiencing adjustment difficulties. Unfortunately, relatively little is known about factors that promote or impede men's adjustment to these changes. In the present article, the authors highlight how men's adherence to gender scripts for sexual potency may contribute to their adjustment following a spinal cord injury. To organize the discussion, the authors review related literature and, through case examples, illustrate how men's adherence to this gender norm may influence their post-injury mental health. Directions for gender-sensitive interventions and future clinical research are provided.

Keywords Adjustment · Gender scripts · Masculinity · Spinal cord injury · Sexual functioning · Treatment interventions

Introduction

Recent epidemiological statistics suggest 250,000 people in the United States live with a spinal cord injury [1]. Approximately 11,000 individuals experience spinal cord injuries each year [2]. Relative to women, men are four times more likely to sustain a spinal cord injury [3], and constitute roughly 82% of those that do [1].

Following spinal cord injury, men frequently report little or no physical sensation below the level of their injury [4–6]. This loss of sensation often results in significant changes in

S. M. Burns (✉) · S. Hough · A. N. Greenwell
VA Boston Healthcare System, Spinal Cord Injury Service, Harvard Medical School/Boston University
School of Medicine, Boston, MA, USA
e-mail: shaun.burns@va.gov

J. R. Mahalik
Department of Counseling, Developmental, and Educational Psychology, Boston College, Chestnut
Hill, MA, USA

men's sexual desire and arousal, orgasm, erectile functioning, and fertility [7–9]. Indeed, in research by Kreuter et al. [10] a majority of male participants, and 50% of their intimate partners, reported decreases in sexual interest and activity. Fisher et al. [11, 12] found that a significant portion of males remain concerned about their partners' and their own sexual satisfaction months after a spinal cord injury. In a study by Anderson et al. [13] only 48% of men surveyed reported any post-injury capacity for orgasm. Similarly, research by Phelps et al. [5] suggests that 42% of men living with a spinal cord injury are dissatisfied with their sex lives, 20% report little sexual desire, and 50% experience strong feelings of sexual inadequacy.

As a result of these changes, men living with spinal cord injuries are at an increased risk to experience significant adjustment difficulties [14]. Estimates of the prevalence of depressive disorders among individuals with spinal cord injuries range from 24% [15] to as high as 45% [16]. Individuals living with spinal cord injuries are also two to six times more likely to suicide than members of the general population [17]. Unfortunately, relatively little is known about factors that promote or impede men's adjustment to changes in sexual functioning following their injury.

One factor that might affect men's adjustment to changes in their sexual functioning following a spinal cord injury is their adherence to traditional masculine norms [18]. Specifically, men's adherence to scripts of masculinity stressing the importance of men's sexual capacity and potency in defining their worth may exacerbate their adjustment by enhancing the salience of post-injury changes in sexuality [19]. In the present article, the authors describe and illustrate how men's adherence to this script may affect their adjustment to spinal cord injuries. In doing so, the authors recognize that scripts stressing male sexual potency may be important for some men but not for others. Consistent with interpersonal theory [20], the authors also believe that men's adherence to this norm may be adaptive for men if flexibly enacted. However, the purpose of discussing men's adherence to this script is to help professionals who treat men living with spinal cord injuries to better understand how men's conformity to this script may affect their thoughts, feelings, and behaviors during their post-injury adjustment.

This discussion begins by describing the masculine socialization process and how it may be relevant to understanding men's health behaviors. Next, the authors describe how men's enactment of scripts for sexual potency may affect their adjustment to changes in their sexual functioning. To translate these findings into descriptions that medical and mental health professionals might better recognize, the authors provide fictitious case examples of composite concerns of men with spinal cord injuries to illustrate how gender scripts for sexual potency may influence men's behaviors in traditional treatment settings. In concluding, the authors suggest potential gender-sensitive treatment strategies and directions for future clinical research.

Gender Socialization and Masculine Scripts

The process of gender socialization is described as one in which social and cultural forces (e.g., peers, parents, teachers, media) influence males and females to adopt certain ideal roles for their gender [21, 22]. These ideals guide and constrain masculine and feminine identity development by dictating how boys and girls are socialized, what tasks children are taught, and what life roles are acceptable for men and women [23]. As a result of these dictates, male and female children are treated differently by their parents or guardians from the first day of life [24]. For instance, some boys receive less emotional warmth and

nurturance from their parents and caretakers [25]. Parents/guardians also interpret similar emotional responses in boys and girls as anger and fear, respectively, whereas they talk more about anger than sadness with boys [26]. Parents physically distance themselves from boys more than girls, display less concern about boys' physical welfare [26], and teach boys to be less dependent on the assistance of others [25].

By way of these processes, boys learn powerful and enduring lessons about their social roles and how they should think, act, and feel in those roles [22]. Gradually, these roles are internalized as ideal masculine states [22]. With time, these ideals become masculine scripts of acceptable ways for boys and men to think, feel, and behave [27].

A growing body of literature highlights the adverse consequences of men's adherence to these masculine scripts on their health and health-related behaviors. For example, men who enact masculine scripts for emotional restraint are four times more likely to die from coronary heart disease than are more expressive peers [28]. Similarly, emotionally restricted men suffer more severe heart attacks and delay treatment seeking longer than do men scoring low in this characteristic [29]. Enactment of traditional masculine scripts is also associated with an array of health risk behaviors, including greater substance abuse [30, 31], coronary-prone behavior [31], violence and aggression [31, 32, 33], poor use of preventive health care [31], risky sexual and driving behaviors [31, 34], and less willingness to consult medical and mental health care providers [35]. Thus, research demonstrates that masculine gender scripts are an important correlate of the health outcomes and health-related behaviors of men. In the next section, the authors discuss men's adherence to scripts for male sexual potency, a script that the authors propose may be particularly relevant to understanding men's adjustment to spinal cord injury.

Male Sexual Potency and Adjustment to Spinal Cord Injury

Male sexual potency is a masculine script emphasizing the importance of male sexuality as a central indicator of masculinity [36]. From an early age, many boys learn that manhood is signified by the possession, size, and use of their genitals [37]. Boys also typically learn that men initiate sexual activity [38] and that males should possess and exhibit insatiable sexual desire [39]. Powerful, prestigious, and competent men are understood to be sexually achieved and in complete control of their sexual functions [39]. As a result of these socialization pressures, changes in desire or sexual performance are associated with psychological distress in men [37]. Indeed, failure to initiate sex because of low desire or poor erectile capacity is construed as unmasculine [40] and results in feelings of humiliation and despair [38]. For many men, erectile difficulties also precipitate depression [41], shame [42], decreased self worth [43], anger [44], low self-confidence [45], and poor self-esteem [46].

According to Anderson et al. [47] and Reitz et al. [48], these feelings may be particularly relevant to men living with spinal cord injuries given that a significant portion of such men experience changes in their sexual functioning following their injury [8]. In one investigation, 45% of men surveyed reported no post-injury capacity for orgasm [4]. In another study, a majority of men living with spinal cord injuries reported decreased sexual satisfaction following their injury while 28% reported significant difficulties adjusting to changes in their sexual functioning [7].

For many men with a spinal cord injury, this loss of function is associated with feelings of tremendous despair. Consider George:

George is a 63-year-old former real estate executive living with quadriplegia he sustained during a motor vehicle accident. As a result of his injury, George experiences little sexual desire, poor erectile quality, and diminished pleasure. In psychotherapeutic sessions with his psychiatrist, George describes his romantic relationship as “satisfying and generally happy.” In his most recent session, however, George reports feeling disconnected from his partner and “in a state of constant tension.” When pressed for greater detail, George suggests he feels “unmanly because of [his] lack of desire and because [he] can’t perform when [he] wants to. It’s like we’re not even really together because of this.”

Like George, many men with spinal cord injuries associate changes in their sexual functioning with a loss of their masculinity [18]. In a study by Romeo et al. [49], for example, men experiencing sexual dysfunction after a spinal cord injury felt that they had lost a central component of their identities. In research by Sakellariou [50], men with post-injury erectile dysfunction reported feeling unmanly and inadequate. Other men with spinal cord injuries feel hopeless, insecure, [18], and depressed [51].

According to Tepper [18], these feelings may stem from the impact of changes in sexual functioning following a spinal cord injury on men’s identity. Specifically, a spinal cord injury may be considered a victimization experience that threatens one’s socially constructed masculine identity [52]. Post-injury erectile dysfunction, for instance, may disrupt the identity of men who define masculinity through sexual performance. For these men, self definitions that emphasize sexuality as a means of validating masculinity are likely to impede positive adjustment [19]. Men with more flexible gender schemas (i.e., viewing men’s identity as not being limited to their sexual performance) may more successfully adapt to diminished sexual function [19]. Although no prior study tests these contentions, research by Good et al. [53] and Schopp et al. [8] suggests that men who fail to modify their gender schemas following a spinal cord injury demonstrate poorer rehabilitative outcomes, more problematic use of alcohol, and lower life satisfaction. Similarly, spinal cord injured men who adhere to traditional notions of masculinity report poorer body image and greater loss of identity [54].

Gender-specific Treatment Recommendations

From the preceding discussion, it is evident that treatments that fail to consider men’s gender scripts may be less effective in helping them adjust to changes in their sexual functioning following a spinal cord injury [55]. Even with this understanding, however, professionals who treat men with spinal cord injuries may wonder how to incorporate masculine gender scripts into their practices. To this end, the following strategies are recommended.

First, as men with spinal cord injuries are likely to vary in the way that they define masculinity, clinicians should begin their work by identifying the saliency of scripts for male sexual potency for their patients [27]. For one man, achieving erections may be viewed as a critical component of masculinity, while another man may view his erectile capacity as only a small component of his identity. As sexuality is likely to be a critical component of the adjustment of many men to spinal cord injuries, the authors suggest that professionals speak specifically with their patients about the degree to which they adhere to this script rather than talk about masculinity in a global way. Consider, for example, Arthur:

Arthur is 48-year-old fully disabled veteran of the United States Armed Forces who sustained his spinal cord injury during an accidental fall from a barrack's roof in his early 1920s. Since his accident, Arthur has experienced poor erectile quality and little sexual interest. At support group meetings for veterans with disabilities, Arthur reports feeling "depressed" because of his inability to engage in penetrative sex and lack of romantic relationships. In the group he states, "I didn't realize what an important part of my life sex was until it was gone. Sometimes, after my injury, I've felt completely inadequate and doubted that I would be any interest to a woman."

Second, clinicians should explore positive aspects of men's adherence to masculine scripts [27]. Consider Rodney:

Following his spinal cord injury in 2003, Rodney has experienced complete impotence and diminished capacity for orgasm. Despite these changes in his sexual functioning, however, Rodney is optimistic, reports a satisfying sex life, and seems well adjusted. In a visit to his primary care physician Rodney says he is "coping fine on [his] own" and feels good that he is in control. He notes that although sex is really important to him and that he is "not happy" with his erectile dysfunction, he does not let it bother him because "getting upset doesn't change a thing," and "there are many ways to have a pleasurable relationship."

For men like Rodney, adherence to scripts for male sexual potency may prove helpful in coping with changes in sexuality as enactment of this script may motivate them to identify strategies to improve their sexual health. Rodney may, for instance, pursue adaptive means of maintaining this aspect of his identify by considering devices to improve his sexual performance and erectile capacity. Emphasizing these strengths not only demonstrates respect for the client's efforts [56], but may also reduce embarrassment, encourage disclosure, and improve patient–clinician communication [57].

Next, after identifying the scripts their patients adhere to and the benefits these scripts may provide, clinicians should help men examine the costs of their enactment of masculine scripts in relation to their presenting concerns [27]. Consider, for example, Harold:

Harold, a retired traveling salesman, experiences frequent erectile dysfunction as a result of his spinal cord injury. Although he reluctantly accompanies his wife to marital therapy, Harold refuses to discuss his erectile dysfunction or its impact on the relationship claiming his wife cannot possibly understand his needs. In the course of therapy, it becomes apparent that Harold is greatly distressed by his loss of erectile function and that much of the discord in the relationship centers on this issue. When driving home after sessions, Harold complains therapy is a waste of time and that the couple can resolve their difficulties on their own.

When treating men who adhere to scripts for male sexual potency like Harold, therapists may encourage them to consider the way their adherence to this norm effects their adjustment to erectile dysfunction. For example, Harold may be encouraged to examine the costs of his adherence to this script on his familial and marital relationships. Similarly, Harold's clinician may help him to identify the way his adherence to scripts for male sexual potency contributes to feelings of despair.

Finally, according to Charmaz [58], physical ailments afford men an opportunity to examine and reconstruct their masculine identities. For many men, successful adaptation to a spinal cord injury may require such reconstruction [19]. To aid men in this process, clinicians should encourage them to adopt greater flexibility in their gender scripts [27, 59].

For instance, when the costs of men's adherence to scripts for sexual potency appear problematic, clinicians who treat men with spinal cord injuries might help them reconstruct this script [55]. Consider Dustin:

Six months ago, Dustin sustained a spinal cord injury during a diving accident. Since his accident, Dustin has experienced complete erectile dysfunction. Although his significant other suggests their relationship has changed little since treatment, Dustin privately believes "it has deteriorated a lot due to [his] inability to get an erection." Although he is ashamed of this loss of function, Dustin schedules a visit with his nurse practitioner to discuss ways to improve his performance. During this visit, his nurse practitioner identifies the central role of sexuality in Dustin's understanding of his masculinity. To help him reconstruct this script, his nurse practitioner aids Dustin in identifying unrealistic expectations regarding his sexual performance, and how these expectations may reduce his feelings of self-worth.

Other strategies to aid Dustin in reconstructing this script may include normalizing problems with, and fears about, sexual dysfunction [59, 60]. Dustin's health care provider could suggest, for example, that many men living with spinal cord injuries experience concerns about their sexuality and that erectile difficulties are not uncommon [55]. Dustin could also be urged to foster greater intimacy in his relationship beyond sexual intercourse [59, 61]. Similarly, his nurse practitioner could encourage Dustin to consider novel ways of viewing sexuality, experiencing pleasure, and intimately relating to his partner [59, 62]. Each of these strategies is likely to aid Dustin in adopting greater flexibility in his scripts for sexuality [55].

Conclusion

Although little is known about factors that promote or impede men's adjustment to changes in sexual functioning following their injury, spinal cord injuries represent an intriguing context for the study of gender and health. According to Tepper [18], changes in sexual functioning following a spinal cord injury pose serious threats to men's scripts for masculinity. Forty-five percent of men living with spinal cord injury, for example, report no post-injury capacity for orgasm [4]. Similarly, 20% of men who sustain spinal cord injuries report little sexual desire [5]. For many men, these experiences precipitate shame and psychological distress [15, 42]. Although research is needed to test our suggestions, the authors propose that men's adherence to masculine scripts for sexual potency reflects an important and heretofore neglected factor that may lead to better understanding of men's adjustment to changes in their sexual functioning following a spinal cord injury.

Future challenges for health psychology include continued assessment of the influence of masculine norms on men's adjustment to spinal cord injuries. More specifically, as men's adherence to scripts for sexuality may be important for some men but not for others [19, 27], researchers might identify *additional* scripts for masculinity that effect men's post-injury adjustment. Men's adherence to norms for emotional control (a traditional masculine norm stressing that men should contain vulnerable emotions), for instance, may represent an important norm for further research because men who conform to this norm may be unwilling to confide their difficulties to others [19]. Adherence to norms for self-reliance (a norm stressing that men should deal with their problems independently) may also represent an important area for further inquiry because men who adhere to this norm may cope with changes in their sexual or physical functioning in isolation—a behavior that

may leave them alone to manage these changes and adversely effect their adjustment [19]. Furthermore, as men frequently report poorer physical health, greater pain, poorer role functioning, less energy/vitality [63], greater motor impairment, and less functional independence [64] following spinal cord injury, future studies might investigate how masculine scripts mediate or moderate adjustment to these variables as well. Finally, although we offer a number of potentially useful strategies in the present article, we recognize the need for research efforts to develop empirically supported guidelines for interventions aimed at improving men's adjustment to changes in sexual functioning following a spinal cord injury.

References

1. National Spinal Cord Injury Association: More About Spinal Cord Injury. <http://spinalcord.org/news.php?dep=17&page=94&list=1191> (2007). Retrieved 8 November 2007
2. Christopher and Dana Reeve Paralysis Resource Center: Spinal Cord Injury. http://www.paralysis.org/site/c.erJMJUOXFmH/b.1293655/k.CF13/Spinal_Cord_Injury.htm (2007). Retrieved 8 November 2007
3. Centers for Disease Control and Prevention: Injury Fact Book 2001–2003: Spinal Cord Injury. http://www.cdc.gov/ncipc/fact_book/25_Spinal-Cord_Injury.htm (2005). Retrieved 2 January 2008
4. Dahlberg, A., Alaranta, H.T., Kautiainen, H., Kotila, M.: Sexual activity and satisfaction in men with traumatic spinal cord lesion. *J. Rehabil. Med.* **39**, 152–155 (2007)
5. Phelps, J., Albo, M., Dunn, K., Joseph, A.: Spinal cord injury and sexuality in married or partnered men: activities, function, needs, and predictors of sexual adjustment. *Arch. Sex. Behav.* **30**, 591–602 (2001)
6. Sipski, M.L.: Sexuality and spinal cord injury: where we are and where we are going. *Am. Rehabil.* **23**, 26 (1997)
7. Alexander, C., Sipski, M.L., Findley, T.W.: Sexual activities, desire, and satisfaction in males pre- and post-spinal cord injury. *Arch. Sex. Behav.* **22**, 217–228 (1993)
8. Schopp, L.H., Good, G.E., Mazurek, M.O., Barker, K.B., Stucky, R.C.: Masculine role adherence and outcomes among men with spinal cord injuries. *Disabil. Rehabil.* **29**, 625–633 (2007)
9. White, M.J., Rintala, D., Hart, K., Young, M.E., Fuhrer, H.J.: Sexual activities, concerns and interests of men with spinal cord injury. *Am. J. Phys. Med. Rehabil.* **71**, 225–231 (1992)
10. Kreuter, M., Sullivan, M., Siosteen, A.: Sexual adjustment after spinal cord injury-comparison of partner experiences in pre- and post-injury relationships. *Paraplegia* **32**, 759–770 (1994)
11. Fisher, T.L., Byfield, M.G., Tymus, T., Laud, P.: The profile of sexual health needs of individuals 12 months after spinal cord injury. *SCI Psychosoc. Process.* **14**, 5–11 (2001)
12. Fisher, T.L., Laud, P.W., Byfield, M.G., Brown, T.T., Hayat, M.J., Fiedler, I.J.: Sexual health after spinal cord injury: a longitudinal study. *Arch. Phys. Med. Rehabil.* **83**, 1043–1051 (2002)
13. Anderson, K.D., Borisoff, J.F., Johnson, R.D., Stiens, S.A., Elliott, S.L.: Long-term effects of spinal cord injury on sexual function in men: implications for neuroplasticity. *Spinal Cord* **45**, 338–348 (2007)
14. Fugl-Meyer, A.R., Lodnert, G., Branholm, I.B., Fugl-Meyer, K.S.: On life satisfaction in erectile dysfunction. *Int. J. Impot. Res.* **9**, 141–148 (1997)
15. Krause, J., Kemp, B.J., Coker, J.: Depression after spinal cord injury: relation to gender, ethnicity, aging, and socioeconomic indicators. *Arch. Phys. Med. Rehabil.* **81**, 1099–1109 (2000)
16. Boekamp, J., Overholser, J., Schubert, D.: Depression following a spinal cord injury. *Int. J. Psychiatry Med.* **26**, 329–349 (1996)
17. Hartkopp, A., Bronnum-Hansen, H., Seidenschnur, A.M., Biering-Sorensen, F.: Suicide in a spinal cord injury population: its relation to functional status. *Arch. Phys. Med. Rehabil.* **79**, 1356–1361 (1998)
18. Tepper, M.S.: Letting go of restrictive notions of manhood: male sexuality, disability and chronic illness. *Sex. Disabil.* **17**, 37–52 (1999)
19. Burns, S.M., Mahalik, J.R.: Understanding how masculine gender scripts may contribute to men's adjustment following treatment for prostate cancer. *Am. J. Men's Health* **1**, 250–261 (2007)
20. Kiesler, D.J.: The 1982 interpersonal circle: a taxonomy for complementarity in human transactions. *Psychol. Rev.* **90**, 185–214 (1983)
21. Gilbert, L., Scher, M.: Gender and sex in counseling and psychotherapy. Allyn & Bacon, Boston (1999)
22. Mintz, L., O'Neil, J.M.: Gender roles, sex, and the process of psychotherapy: many questions and few answers. *J. Counsel. Dev.* **68**, 381–391 (1990)
23. Best, D.L., Williams, J.E.: Gender, culture. In: Matsumoto, D. (ed.) *The handbook of culture and psychology*, pp. 195–222. Oxford University Press, New York (2001)

24. Courtenay, W.H.: Engendering health: a social constructionist examination of men's health beliefs and behaviors. *Psychol. Men Masculinity* **1**, 4–15 (2000)
25. Lytton, H., Romney, D.M.: Parents' differential socialization of boys and girls: a meta-analysis. *Psychol. Bull.* **109**, 267–296 (1991)
26. Golombok, S., Fivush, R.: Gender development. Cambridge University Press, Cambridge, UK (1994)
27. Mahalik, J.M., Good, G.E., Englar-Carlson, M.: Masculinity scripts, presenting concerns, and help-seeking: implications for practice and training. *Prof. Psychol.* **34**, 123–131 (2003)
28. Sher, L.: Type D personality, cortisol and cardiac disease. *Aust. N Z J. Psychiatry* **38**, 652–653 (2004)
29. Helgeson, V.S.: The role of masculinity in a prognostic predictor of heart attack severity. *Sex. Roles* **22**, 755–774 (1990)
30. Blazina, C., Watkins, C.E., Jr.: Masculine gender role conflict: effects on college men's psychological wellbeing, chemical substance usage, and attitudes toward help-seeking. *J. Counsel. Psychol.* **43**, 461–465 (1996)
31. Mahalik, J.R., Lagan, H.D., Morrison, J.A.: Health behaviors and masculinity in Kenyan and U.S. college students. *Psychol. Men Masculinity* **7**, 191–202 (2006)
32. Locke, B.D., Mahalik, J.R.: Examining masculinity norms, problem drinking, and athletic involvement as predictors of sexual aggression in college men. *J. Counsel. Psychol.* **52**, 279–283 (2005)
33. Mahalik, J.R., Locke, B., Ludlow, L., Diemer, M., Scott, R.P.J., Gottfried, M., Freitas, G.: Development of the conformity to masculine norms inventory. *Psychol. Men Masculinity* **4**, 3–25 (2003)
34. Pleck, J.H., Sonenstein, F.L., Ku, L.C.: Attitudes toward male roles among adolescent males: a discriminant validity analysis. *Sex. Roles* **30**, 481–501 (1994)
35. Addis, M.E., Mahalik, J.R.: Men, masculinity, and the contexts of help seeking. *Am. Psychol.* **58**, 5–14 (2003)
36. Helgeson, V.S., Lepore, S.J.: Men's adjustment to prostate cancer: the role of agency and unmitigated agency. *Sex. Roles* **37**, 251–266 (1997)
37. Martino, W., Pallotta-Chiarolli, M.: "So what's a boy?" Addressing issues of masculinity in schooling. Open University Press, London (2003)
38. Lee, C., Owens, R.: The psychology of men's health series. Open University Press, Philadelphia (2002)
39. Edgar, D.: Men, mateship, and marriage. HarperCollins, Pymble, New South Wales, Australia (1997)
40. Kimmel, M.: Manhood in America: a cultural history. Free Press, New York (1996)
41. Hatzichristou, D., Cuzin, B., Martin-Morales, A., Buvat, J., Porst, H., Laferriere, N., et al.: Vardenafil improves satisfaction rates, depressive symptomatology, and self confidence in a broad population of men with erectile dysfunction. *J. Sex. Med.* **2**, 109–116 (2005)
42. Schuetz-Mueller, D., Tiefer, L., Melman, A.: Follow-up of vacuum and nonvacuum constriction devices as treatments for erectile dysfunction. *J. Sex. Marital Ther.* **21**, 229–238 (1995)
43. Korenman, S.G.: New insights into erectile dysfunction: a practical approach. *Am. J. Med.* **105**, 135–144 (1998)
44. Feldman, H.A., Goldstein, I., Hatzichristou, D.G., Krane, R.J., McKinlay, J.B.: Impotence and its medical and psychosocial correlates: results of the Massachusetts male aging study. *J. Urol.* **151**, 54–61 (1994)
45. Swindle, R., Cameron, A., Rosen, R.A.: 15-Item short form of the psychological and interpersonal relationship scales. *Int. J. Impot. Res.* **18**, 82–88 (2006)
46. Cappelleri, J.C., Althof, S.E., Siegel, R.L., Stecher, V.J., Tseng, L.J., Duttugupta, S.: Association between the Erectile Dysfunction Inventory of Treatment Satisfaction and the Self-Esteem and Relationship Questionnaire following treatment with sildenafil citrate for men with erectile dysfunction. *Value Health* **8**, S54–S60 (2005)
47. Anderson, K.D., Borisoff, J.F., Johnson, R.D., Stiens, S.A., Elliott, S.L.: The impact of spinal cord injury on sexual function: concerns of the general population. *Spinal Cord* **45**, 328–337 (2007)
48. Reitz, A., Tobe, V., Knapp, P.A., Schurch, B.: Impact of spinal cord injury on sexual health and quality of life. *Int. J. Impot. Res.* **16**, 167–174 (2004)
49. Romeo, A.J., Wanlass, R., Arenas, S.: A profile of psychosexual functioning in males following spinal cord injury. *Sex. Disabil.* **11**, 269–276 (1993)
50. Sakellariou, D.: If not the disability, then what? Barriers to reclaiming sexuality following spinal cord injury. *Sex. Disabil.* **24**, 100–111 (2006)
51. Taleporos, G., McCabe, M.P.: The impact of sexual esteem, body esteem, and sexual satisfaction on psychological well-being in people with physical disability. *Sex. Disabil.* **20**, 177–183 (2002)
52. Janoff-Bulman, R.: Shattered assumptions: toward a new psychology of trauma. Free Press, New York (1992)
53. Good, G.E., Schopp, L.H., Thomson, D., Hathaway, S., Mazurek, M.O., Sanford Martens, T.: Men with serious injuries: relations among masculinity, age, and alcohol use. *Rehabil. Psychol.* **53**, 39–45, (2008)

54. Sparkes, A.C.: Sport, spinal cord injury, embodied masculinities, and the dilemmas of narrative identity. *Men Masculinities* **4**, 258–285 (2002)
55. Courtenay, W.H.: Counseling men in medical settings: the six-point HEALTH plan. In: Brooks, G.R., Good, G.E. (eds.) *The new handbook of psychotherapy and counseling with men*, pp. 59–91. Jossey-Bass, San Francisco (2001)
56. Grüniger, U.J.: Patient education: an example of one-to-one communication. *J. Hum. Hypertens.* **9**, 15–25 (1995)
57. Rappaport, B.M.: Family planning: helping men ask for help. In: Swanson, J.M., Forrest, K.A. (eds.) *Men's reproductive health*, pp. 245–259. Springer, New York (1984)
58. Charmaz, K.: Identity dilemmas of chronically ill men. In: Sabo, D., Gordon, D.F. (eds.) *Men's health and illness: gender, power, and the body*, pp. 266–291. Sage, Thousand Oaks, CA (1995)
59. Bergman, S.J., Surrey, J.L.: Couples therapy: a relational approach. *J. Fem. Fam. Ther.* **11**, 21–48 (2001)
60. Francher, J., Kimmel, M.S.: Hard issues and soft spots: counseling men about sexuality. In: Kimmel, M.S., Messner, M.A. (eds.) *Men's lives*, 2nd edn, pp. 428–450. Macmillan, New York (1992)
61. Gray, R.E., Fitch, M.I., Fergus, K.D., Mykhalovskiy, E., Church, K.: Hegemonic masculinity and the experience of prostate cancer: a narrative approach. *J. Aging Identity* **7**, 43–62 (2002)
62. Oliffe, J.L.: Constructions of masculinity following prostatectomy-induced impotence. *Soc. Sci. Med.* **60**, 2249–2259 (2004)
63. Middleton, J., Tran, Y., Craig, A.: Relationship between quality of life and self-efficacy in persons with spinal cord injuries. *Arch. Phys. Med. Rehabil.* **88**, 1643–1648 (2007)
64. Fisher, C.G., Noonan, V.K., Smith, D.E., Wing, P.C., Dvorak, M.F., Kwon, B.: Motor recovery, functional status, and health-related quality of life in patients with complete spinal cord injuries. *Spine* **30**, 2200–2207 (2005)