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A Profile of Psychosexual Functioning in Males Following Spinal Cord Injury

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The psychosexual functioning of 47 men with spinal cord injury was studied using the Derogatis Sexual Functioning Inventory (DSFI). Subjects with paraplegia did not differ significantly from subjects with quadriplegia on any of the scales of the DSFI. Subject groups were then aggregated, and the means across DSFI scales were compared to the means of the non-disabled DSFI normative group. This comparison revealed significantly below-normal scores for subjects with spinal cord injury on the Body Image, Gender Role Definition, Experience, and Psychological Symptoms scales, as well as on a composite measure of sexual functioning, the Sexual Functioning Index. The meaning of these results is discussed, and implications for intervention are considered.

KEY WORDS: Sexuality; Spinal Cord Injury.

INTRODUCTION

Traditionally, spinal cord injury (SCI) has been perceived as a predominantly physical trauma, with less regard given to the psychological and social disruption such injury invariably creates. In recent years, however, a broader view of the condition has emerged. Rehabilitation centers are now employing a multidisciplinary approach to address the full spectrum of issues associated with SCI (1). Of increasing concern to the overall rehabilitative process is the post-injury psychosexual functioning of individuals with SCI. Studies have sen-

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sitized rehabilitation professionals to the fact that the sexual difficulties encountered subsequent to SCI may have a considerable impact upon other, more general, aspects of well-being, including the person's self-concept, identity, social role, and body image (2,3).

There have been several attempts to develop sex education and counseling programs for persons with SCI (4,5,6,7). While preliminary evidence suggests that these group treatments have a beneficial effect, methodological problems limit the conclusions that can be drawn (3). These programs typically provide education in group settings, attempting to squarely confront the sexual consequences of SCI and then suggesting modes of compensation. To the extent that psychosexual adjustment is addressed, selection of which issues to focus on is generally influenced by clinical judgement rather than being based on research into the actual needs of persons with SCI. In addition, participants in these groups are usually subjected to identical treatments without regard to such variables as level of physical function (e.g., paraplegia vs. quadriplegia). Given the paucity of empirical data to guide these interventions, such nonspecificity is to be expected.

The present study was undertaken to explore the differences in psychosexual functioning between men with paraplegia and those with quadriplegia, as well as the differences between men with SCI and non-disabled men. It is our hope that improved understanding of these differences will better equip professionals to develop sex education and counseling interventions that more closely correspond to the specific needs of persons with SCI.

METHOD

Subjects

Subjects consisted of 47 males, 22 with paraplegia and 25 with quadriplegia. Ages ranged from 20 to 62, with a mean age of 36.3 years. Paraplegia was defined as a spinal cord lesion (complete or incomplete) at the T1 level or lower. Quadriplegia was defined as a spinal cord lesion (complete or incomplete) between levels C2-C8. Criteria for subject eligibility included a minimum age of 18 years, a minimum of 12 months post-injury, a heterosexual or bisexual orientation, and a minimum of one sexual experience with a female since the time of injury. Subjects were recruited from social and recreational groups for individuals with SCI in California and New York.

Measures

The Derogatis Sexual Functioning Inventory (DSFI) is an omnibus self-report measure used to assess the current psychosexual functioning of the indi-

vidual (8). It is composed of 10 scales: Information, Experience, Drive, Attitudes, Psychological Symptoms, Affects, Gender Role Definition, Fantasy, Body Image, and Satisfaction. The DSFI also yields a Sexual Functioning Index (SFI), which is a composite measure of the preceding scales. In addition, the DSFI includes a scale for rating overall sexual satisfaction, the Global Sexual Satisfaction (GSSI). Reliability coefficients for DSFI scales are at acceptable levels, with the exception of the Information scale (8). There are separate norms for males and females. Overall, the DSFI has been described as a thoroughly studied and valuable instrument for the measurement of sexual functioning (9,10).

The Personal Information Questionnaire (PIQ) was devised for the current study to obtain background information specific to individuals with SCI (e.g., date of injury and level of injury).

Procedure

Subjects who consented to participate in the study received a packet containing the DSFI and the PIQ with instructions on how to complete the measures. Two alterations were made on the standard instructions of the DSFI: the removal of a sentence indicating the involvement of other "staff" members and the inclusion of a phrase asking the subjects to think in terms of their last sexual experience with a woman if they did not currently have a partner. In addition, subjects were provided with a cover letter assuring confidentiality, indicating the relevance of the study, and instructing them to return the packet Subjects were also given a consent form and a gratuity form to sign in order to receive ten dollars upon the return of completed materials.

RESULTS

Separate one-way analyses of variance (ANOVA) showed no significant differences between subjects with quadriplegia and those with paraplegia on any of the DSFI scales.

Since no significant differences between the two SCI groups were found, their scores were aggregated for comparison to the non-disabled male DSFI normative group (see Figure 1). Statistical analyses using two-tailed t-tests yielded the following significant differences: Experience ($T = 5.645$, $p < .001$); Psychological Symptoms ($T = 2.805$, $p < .01$); Gender Role Definition ($T = 2.881$, $p < .01$); Body Image ($T = 6.79$, $p < .001$); SFI ($T = 3.264$, $p < .01$).

DISCUSSION

The psychosexual functioning of subjects with paraplegia was not found to differ significantly from that of their counterparts with quadriplegia. This find-

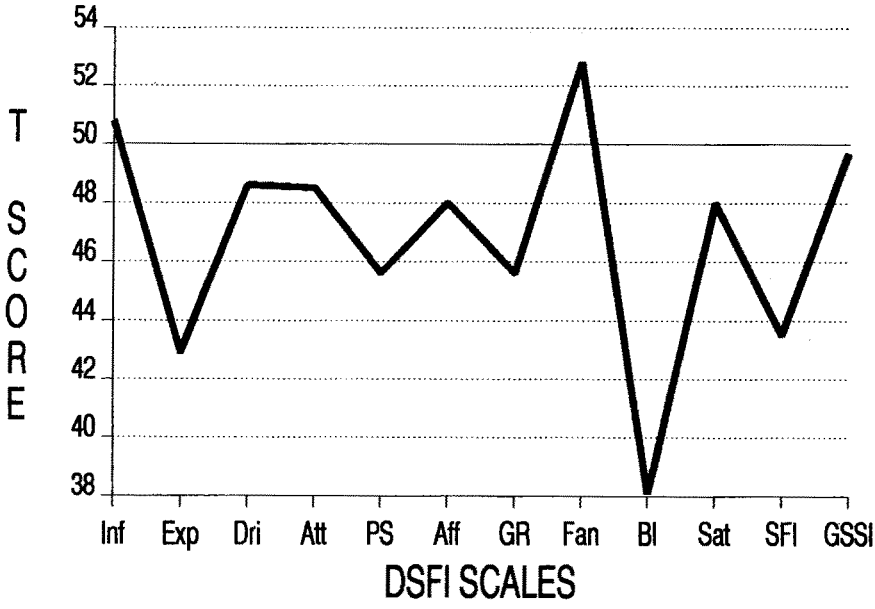

Fig. 1. Mean DSFI profile of SCI subjects.

ing is somewhat surprising as one might expect that, with greater physical independence and mobility and presumably greater opportunities to seek out social contacts, males with paraplegia would demonstrate a better overall sexual adjustment than males with quadriplegia. Perhaps, however, our failure to find a significant difference between the two groups on the DSFI is indicative of the powerful influence of physical, psychological, and social factors common to all men with SCI regardless of level of injury.

When an individual sustains SCI it is nearly always a devastating event with many life-altering implications. In addition to paralysis, the person with SCI typically encounters serious complications such as bladder and bowel control difficulties. Such dramatic physical changes are inevitably accompanied by alterations in self-perception. As Singh and Magner noted in their article on sexuality and SCI, "Loss of bladder and bowel control and inability to walk causes [sic] great shame and feeling of inferiority. Increased dependency is another factor, and body image is the final and most important one" (11, p. 242). In addition to struggling with their altered self-perceptions, individuals with SCI must also confront the social stigma resulting from their disability (12,13). Perhaps both quadriplegia and paraplegia result in such extensive disruption in physical functioning and such profound alteration in self-image and social identity that level of injury becomes inconsequential as a determinant of psychosexual adaptation.

In addition to revealing the similarity in psychosexual functioning among men with paraplegia and men with quadriplegia, the current study also demonstrates that males with SCI score significantly below the mean of the non-disabled normative group on several of the DSFI scales. These findings are discussed below.

Body Image

The Body Image scale of the DSFI is designed to measure how an individual subjectively views his or her body. The relationship of self-esteem, self-concept, and sexuality to body image has been well-documented (14,8). It is not surprising to find that, of all the DSFI scales, our subjects scored lowest on Body Image. As Derogatis stated, "It is common knowledge that in extreme cases of physical disfigurement (e.g., congenital defect, amputation, spinal cord injury), there are negative alterations in body image that coincide with reductions in self-esteem and difficulty in readjustment" (8, p. 123). Guided by body image theory, Duval noted that, after a loss of bodily functioning, personal evaluation of one's body will inevitably suffer (15). It is not difficult to imagine how this notion may apply to individuals with SCI, who, in addition to paralysis, typically experience bowel and bladder complications and generalized atrophy of the leg and abdominal muscles. Tucker also noted that the absence of normal sensory input in many individuals with SCI can result in distortions of their body image (1). Thus, it would be realistic to conclude that body perception and satisfaction with one's bodily capabilities are usually negatively impacted by SCI and that discussion of these important relationships should be an integral part of any sexual remediation program.

Gender Role Definition

The Gender Role Definition scale of the DSFI is based on the premise that individuals are neither all feminine nor all masculine. All individuals possess both qualities and the "translation of the relative balance between these two patterns of behavior becomes established as an individual's gender identity" (8). Gender role is defined as the public display of one's gender identity (8,16). The low mean score on this scale indicates that, in comparison to able-bodied males, males with SCI ascribe more traditionally feminine characteristics to themselves. Others have noted that men with SCI may acquire more traditionally feminine characteristics as a result of their injury:

> The loss of the capacity for normal erection, ejaculation, and fertility has a demasculating effect on the man and forces a role reversal into a relatively passive figure. These effects are especially devastating when it is realized that most spinal cord injured men have in their pretrauma life placed a very high value on physical activity . . .
>
> (Teal & Athelstan, 1975, p. 265).

Alternatively, our finding may be viewed as reflective of attempts by men with SCI to adjust by expanding their views of masculinity to incorporate some of the traditionally feminine traits. Farrow noted that some men base their sexual identity primarily upon stereotyped views of masculinity, such as their ability to engage in genital intercourse (17). He went on to state that,"If a man with spinal cord injury is to begin to reestablish his view of himself as a man, he must first learn to expand his view of masculine behavior" (p.257).

Ultimately, it is the responsibility of the rehabilitation professional to determine whether an individual's shift in self-perception toward more traditionally feminine characteristics represents such an adaptive modification or a less healthy lapse into the passive "demasculated" state described by Teal and Athelstan (2).

Psychological Symptoms

The Psychological Symptoms scale of the DSFI was devised to determine the degree of psychopathology in the individual (8). As noted previously, there is close interdependence between general adjustment and many aspects of sexuality. Our data seem to indicate that, overall, our subjects experience significantly more psychological distress than the non-disabled male normative group. This finding is consistent with other evidence of higher levels of psychological distress in persons with disabilities (18).

Such findings should be interpreted cautiously, however, since many scales of psychopathology contain items that result in misinterpretation of physical disability-related characteristics as evidence of maladjustment (19,20). On the DSFI, for example, admission of "numbness or tingling in parts of your body" results in a more pathological score on the Psychological Symptoms scale.

Nevertheless, it would seem prudent to assess the general psychological adjustment of individuals with SCI prior to initiating specific interventions to remediate sexual functioning in order to rule out underlying problems (e.g., depression) that might impede treatment progress.

Experience

The Experience scale of the DSFI measures the individual's breadth of lifetime sexual experience. Respondents are asked to state which of 24 sexual behaviors (e.g., intercourse—side-by-side) they have experienced. Our subjects scored significantly below the mean of the non-disabled normative group on this scale, suggesting that they have experienced a narrower range of sexual

behavior. This finding is not unexpected given that some of our subjects were injured relatively early in life before they had the opportunity to attempt certain sexual behaviors that they are now unable to perform due to physical limitations.

Other Scales

It is not surprising that there was also a significant difference between subjects with SCI and the normative group on the Sexual Functioning Index, since this is simply a composite scale based, in part, on the scales described above.

Perhaps of greater interest is the finding that, in a number of areas, the men with SCI did not differ from the non-disabled normative group. Specifically, the groups were comparable in reported intensity of sexual drive, level of sexual knowledge, breadth of sexual fantasies, and degree of sexual satisfaction.

CONCLUSION

Men with SCI must contend with a variety of adjustment issues throughout their post-injury lives. Sexual adjustment to SCI is one such issue that is intimately related to body image, general psychological health, and a basic sense of self-esteem. The existing literature suggests that the delicate interplay between personal crisis and social discrimination can negatively impact the sexual adjustment of persons with SCI. Our results highlight most prominently problems with body image but also reveal a number of domains, including sexual drive and satisfaction, in which men with SCI do not differ significantly from non-disabled men. Although our quadriplegic and paraplegic groups produced similar profiles of psychosexual functioning, it should be remembered that each individual reacts to and copes with such issues in a unique fashion.

A number of methodological limitations of this study should be pointed out. First, we used a self-selecting sample of subjects who reported at least one post-injury sexual experience with a woman. This sample may not be truly representative of the male SCI community as a whole. Second, we relied upon the DSFI normative group for comparison purposes rather than selecting our own control group to better match for demographic variables. Third, the use of self-report measures, although common in sex research, raises questions about the truthfulness of responses. In particular, some subjects with quadriplegia required the assistance of an attendant to fill out this study's questionnaires, and lack of anonymity may have affected their responses. Future studies should

attempt to address these limitations and to develop comparable profiles for female, homosexual, and sexually inactive persons with SCI.

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