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Factors Influencing the Sexual Satisfaction of Spinal Cord Injured Male Veterans

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FACTORS INFLUENCING THE SEXUAL SATISFACTION OF SPINAL CORD INJURED MALE VETERANS

by

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VITA

Gail C. Bien was born August 18, 1943, in Chicago, Illinois. She received a Bachelor of Science degree, magna cum laude, from Loyola University of Chicago in 1986 with a major in applied psychology. Her undergraduate field placement was at the Edward J. Hines, Jr. Veterans Administration Hospital, Hines, Illinois.

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CHAPTER I

PURPOSE OF THE STUDY

Introduction

The purpose of this study was to investigate some of the factors that influence the sexual satisfaction of spinal cord injured male veterans.

Rationale

While the importance and meaning of sexual strivings, sexual tensions and sexual experiences vary from individual to individual, these usually are important facets of every person's life. Injury to the spinal cord can have an impact on physiological sexual functioning (Comarr, 1971; Comarr, 1973; Comarr, 1978; Comarr, & Gunderson, 1975; Comarr, & Vigue, 1978a; Comarr, & Vigue, 1978b; Geiger, 1979; Griffith, Tomko, & Timms, 1973; Higgins, 1979; Lamid, 1986; Larsen, & Hejgaard, 1984; Sidman, 1977; Sjogren, & Egberg, 1983; Tomko, Timms, & Griffith, 1972; Weiss, 1973). Numerous articles in the literature provide information on the interaction of spinal cord injury (SCI), psychosocial factors and sexuality (Berkman, Weissman, & Frielich, 1978; Brown, & Giesy,1986; DeVivo, & Fine, 1985; Rabin, 1980; Hanson, & Franklin, 1976; Hohmann, 1966; Lindner, 1953; Money, 1960; Phelps, Brown, Chen, Dunn, Lloyd, Stefanick, Davidson, & Perkash, 1983;

Ray, & West, 1984; Stewart, 1977; Talbot, 1971; Teal, & Athelstan, 1975; Tomko, Timms, & Griffith, 1972 Trieschmann, 1980; Trieschmann, 1988; Urey, & Henggeler, 1987). Thus, adjustment to spinal cord injury includes a sexual dimension (Berkman, et al., 1978). Anderson and Cole (1975) indicate that in adapting to an acquired physical disability, sexual satisfaction plays an important role. While many articles pertain to physiological sexual functioning and the interaction of spinal cord injury, psychosocial factors and sexuality, only a few articles deal with sexual satisfaction post injury. These studies are rather primitive and the results are inconsistent.

With veterans who have suffered spinal cord injuries living full life spans, the issue of the quality of life available to them is important. Sexual satisfaction may contribute to their quality of life. This study seeks to identify some of the factors that influence sexual satisfaction for this population. The information gained may be helpful in the assessment and counseling of spinal cord injured veterans during their rehabilitation process and throughout their lives.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Prior Studies on Sexual Satisfaction and Factors Influencing the Sexual Satisfaction of the Spinal Cord Injured

When the statement "It is very important to the personal happiness of the paraplegic and quadriplegic to have a satisfactory and active sex life." was presented to a mixed sex group of spinal cord injured adults, 50% of those with quadriplegia agreed or strongly agreed with the statement and 70% of those with paraplegia similarly agreed (Cole, Chilgren, & Rosenberg, 1973).

Phelps, et al. (1983) utilized an extensive self-report questionnaire to study the sexual experience of 55 male spinal cord injured veterans. These subjects were inpatients and outpatients at the Veterans Administration Medical Center and Stanford University, Palo Alto, California. Forty-two percent (42%) of the veterans stated that they were dissatisfied with their sex lives (Phelps, et al., 1983). Berkman and associates (1978) interviewed 145 spinal cord injured male outpatients from the Veterans Administration Hospital, Bronx, New York. They reported that of their subjects involved in sexual relations, 23% had unsatisfactory sexual relations and 36% were somewhat satisfied. Sjogren

and Egberg (1983) studied 21 younger males (M age = 27, SD = 4) in northern Sweden with spinal cord injuries. The level of sexual satisfaction post injury decreased for more than one-half of their participants. Thus, in spite of the fact that the majority of spinal cord injured persons in the literature insist that sexual satisfaction is very important, studies have shown that a great deal of dissatisfaction exists.

However, no definition of what constituted sexual satisfaction has been provided in the above studies and an inconsistency in defining sexual satisfaction is prevalent throughout other studies. Some researchers have equated satisfaction with a match between actual and desired frequency of sexual activity (Halstead, Halstead, Salhoot, Stock, & Sparks, 1977; Halstead, Halstead, Salhoot, Stock, & Sparks, 1978). Sixty-two percent of the disabled participants (of which 75% of the total were spinal cord injured) in Halstead, et al.'s (1978) study responded negatively to the statement "Are you currently as sexually active as you would like?". Reasons cited for the decrease in sexual activity included: lack of partners, not sexually desirable, physical problems, lack of interest, communication problems regarding sex, non sexual problems, and ideas regarding sex differ from partners (Halstead, et al., 1978).

Phelps, et al.'s (1983) study of veterans found a connection between sexual satisfaction and frequency of sexual activity in another manner. That is, a decrease in frequency of sexual activity since spinal cord injury was reported by 88% of their male veteran participants; and of these men, 59% indicated insufficient personal satisfaction as a reason for the decrease. Other reasons cited included: few opportunities, fear of not satisfying partner or self, no partner, physically can't do it, loss of interest, and partner lost interest.

The three studies related sexual satisfaction with frequency of sexual activity, but came about it in different ways. The majority of subjects reported sexual dissatisfaction and the literature provides a variety of causes for this dissatisfaction with sexual frequency.

Relative to dissatisfaction with sexual frequency, Steger and Brockway (1980) studied a group of spinal cord injured patients who participated in behavioral group treatment. They found a significant correlation ($r = .83$, $p < .01$) between sexual variety of spinal cord injured couples and levels of satisfaction with sexual frequency. Held, Cole, Held, Anderson, & Chilgren (1975) related a variety of sexual activities and satisfaction in their study of participants who previously participated in Sexual

Attitude Reassessment Workshops. Thirty-eight percent (38.5%) of their participants (disabled and able-bodied) reported that changing their sexual behavior (increasing the variety of sexual activities) produced greater satisfaction. There appears to be a relationship between sexual satisfaction and the variety of sexual activities.

There is, however, inconsistency in the degree of sexual satisfaction/dissatisfaction in the above literature (Berkman, et al., 1978; Halstead, et al., 1977, 1978; Phelps, et al., 1983; Sjogren, & Egberg, 1983). Reports of sexual dissatisfaction range from almost one-fourth of a study's sample to more than one-half of a study's participants. The variability may depend on how satisfaction is defined and how questions are phrased. Sexual satisfaction was not defined in some of the literature (Berkman, et al., 1978; Phelps, et al., 1983; Sjogren, & Egberg, 1983). In other research, aspects of frequency of sexual activity have been equated with satisfaction (Halstead, et al., 1977; Halstead, et al., 1978). Phelps, et al. (1983) related satisfaction with having experienced a variety of sexual behaviors. Since the studies are not entirely comparable, the questions remain open as to if, indeed, veterans are satisfied with their sexual relations and what factors contribute to their sexual satisfaction.

While sexuality is a dynamic, interactive process (Berkman, et al., 1978; Trieschmann, 1988), a review of the literature relating to sexual satisfaction finds no research on changes in role as a sex partner and overall relationships with women post spinal cord injury.

My study was a secondary analysis of an existing data set which examined reports of satisfaction of both the quality and the frequency of sexual relations and any relationship between the two. Also, it examined if respondents indicated a decrease in frequency of sexual activity post injury; and, if so, what reasons were reported for the decrease. In addition, reports of changes in role as sex partner and overall relationships with women and any relationship between these and satisfaction with the quality and frequency of sexual relations were examined. In addition, the study explored possible factors which may relate to degree of satisfaction. The data were analyzed for the subjects as a whole group and in sub-groups of persons with quadriplegic and paraplegic injuries. The sub-group breakdowns were used since the motor and sensory functions of those with spinal cord injury will vary depending upon the level of injury.

Questions

1. a) How satisfied are respondents currently with the quality of their sexual relations?

   b) Do subjects with paraplegia report a different level of quality of sexual relations than those with quadriplegia?

2. a) How satisfied are respondents currently with the frequency of their sexual relations?

   b) Do paraplegic veterans report a different level of frequency of sexual relations than quadriplegic veterans?

3. a) Is there a relationship between current satisfaction with the quality of sexual relations and current satisfaction with the frequency of sexual relations?

   b) Is there a difference in the relationship between current satisfaction with the quality of sexual relations and current satisfaction with the frequency of sexual realtions for quadriplegic and paraplegic respondents?

4. a) Do respondents report a change in frequency of sexual activity post injury?

b) If so, what reasons do respondents indicate for the decrease in frequency of sexual activity post injury?

c) Is there a difference in reported decrease and reasons given for any decrease between veterans with quadriplegia and paraplegia?

5. a) Is there a relationship between current satisfaction with the quality of sexual relations and the number of sexual techniques/ activities currently engaged in?

b) Is there a difference in the relationship between current satisfaction with the quality of sexual relations and the number of sexual techniques/activities currently engaged in for quadriplegic and paraplegic respondents?

6. a) Is there a relationship between current satisfaction with the frequency of sexual relations and the number of sexual techniques/ activities currently engaged in?

b) Is there a difference in the relationship between current satisfaction with the frequency of sexual relations and the number of sexual techniques/activities currently engaged in for quadriplegic and paraplegic respondents?

7. a) How satisfied are respondents with their overall relationships with women since their spinal cord injury?

   b) Do veterans with paraplegia report a different level of satisfaction with their overall relationships with women than those with quadriplegia?

8. a) Is there a relationship between satisfaction with overall relationships with women post injury and current satisfaction with the quality of their sexual relations?

   b) Is there a difference in the relationship between overall relationships with women post injury and current satisfaction with the quality of sexual relations for quadriplegic and paraplegic veterans?

9. a) Is there a relationship between satisfaction with overall relationships with women post injury and current satisfaction with the frequency of their sexual relations?

   b) Is there a difference in the relationship between overall relationships with women

post injury and current satisfaction with the frequency of sexual relations for quadriplegic and paraplegic veterans?

10. a) Do respondents report a change in their role as a sex partner since injury?

    b) If so, do they indicate that the change has been more positive, more negative, or even?

    c) If respondents report that their role as a sex partner has changed, in what ways has it changed?

    d) Is there a difference in reported change in sex role, reported level of change and reported ways it has changed between veterans having quadriplegia and paraplegia?

11. a) Is there a relationship between respondents' perceptions of whether or not their role as a sex partner has changed since injury and current satisfaction with the quality of their sexual relations?

    b) Is there a difference in the relationship between perceptions of change in sex role and satisfaction of quality of sexual

relations between veterans having quadriplegia and paraplegia?

12. a) Is there a relationship between respondents' perceptions of whether or not their role as a sex partner has changed since injury and current satisfaction with the frequency of their sexual relations?

b) Is there a difference in the relationship between perceptions of change in sex role and satisfaction of frequency of sexual relations between quadriplegic and paraplegic veterans?

Relative to the above findings, what are the implications for sexual counseling of the spinal cord injured?

CHAPTER III

METHOD

Subjects

The subjects were 51 spinal cord injured male veterans (21 quadriplegic and 30 paraplegic individuals) who participated in the Sexual Rehabilitation After Spinal Cord Injury Research Project in 1987 at the Edward J. Hines, Jr. Veterans Administration Hospital, Hines, Illinois, while they were inpatients, outpatients, or visitors at that facility. Veterans, ranging in age from 21 to 77 years (M = 43.90, SD = 12.44), were injured from 3 to 43 years (M = 14.41, SD = 9.47); 51% (n = 26) had complete injuries; and, 27% (n = 14) of the injuries were service connected. At the time of injury the veterans ranged in age from 18 to 68 years (M = 29.49, SD = 10.29). During the three years preceding their participation in the study the veterans had been hospitalized from 0 to 20 times (M = 3.82, SD = 3.30) for a period of 0 to 365 days (M = 82.80, SD = 84.26). The ethnic make-up of the subjects was: Caucasian (74.5%), Black (17.6%), and Hispanic (7.8%). The veterans completed from 8 to 19 years (M = 12.74, SD = 2.30) of education. The religious affiliation of the subjects was: Catholic (35.3%); Mainline Protestant (27.5%); Evangelical/Charismatic/

pentacostal (13.7%); Jewish (2%); and, None (21.6%). Eleven (21.6%) of the subjects were single, 17 (33.3%) were married, 3 (5.9%) were cohabiting, and 20 (39.2%) were separated or divorced. Twenty-two percent (22%) (n = 11) of the veterans were with the same person that they were with at the time of injury. The respondents had been married from 0 to 3 times (M = 1.20, SD = 0.92).

Instrument and Procedures

An extensive questionnaire (Appendix A) was designed to obtain demographic information about the subjects and information about their medical status. Additional information requested pertained to their: (a) physical sexual functioning (e.g., arousal-stimulation, erection, ejaculation); (b) satisfaction, concerns and attitudes relating to sexuality and sexual behaviors; (c) acceptability and frequency of involvement in a variety of sexual techniques/activities; and (d) concerns about activities of daily living. Items consisted of a variety of formats: frequency counts, rankings, Likert-type ratings, and open-ended questions.

Veterans were personally contacted by the experimenters[1] (male or female) and requested to participate in the study with the understanding that the information would be kept confidential and that their participation in no way would

affect their current or future care at the sponsoring facility. Subjects who were physically unable to complete the instrument on their own (veterans with quadriplegia) were assisted by an individual of their choosing (e.g., nurse, significant other, one of the experimenters). Each completed questionnaire which was reviewed for completeness by one of the experimenters and any missing items were completed by the subjects.

Data Analysis

Descriptive statistics were computed for the demographic variables. Subjects were grouped according to level of injury (quadriplegia and paraplegia) and *t*-tests and Chi-square analyses were used to see if there were significant differences between the groups on the demographic variables (e.g., age, age at injury, education, ethnic background, marital status).

For questions number 1, 2, and 7, the mean and standard deviation were reported on the satisfaction with quality, satisfaction with frequency, and satisfaction with overall relationships with women questions. Then a *t*-test was used to compare respondents having quadriplegia and paraplegia on their satisfaction with quality (question 1b), satisfaction with frequency (question 2b), and satisfaction with overall relationships with women (question 7b).

Questions number 3, 5, 6, 8, 9, 11, and 12 were analyzed by means of Pearson Correlation Coefficients to examine the relationship between the variables within each question. Then a z-test was used to test the differences in the correlations for both levels of spinal cord injury for each question.

For question number 4, a frequency count of respondents who indicated that their frequency of sexual activity had stayed the same and/or increased and those who indicated a decrease was made. Then a chi-square analysis was run to see if there was a difference between the frequencies of those having quadriplegia and paraplegia. The null hypothesis was: There is no difference in proportion of quadriplegic veterans and paraplegic veterans falling into the categories. In addition, a frequency count was made to see if any item tended to be more frequently identified by the subjects as a reason for a decrease in frequency of sexual activity post injury. Finally, a comparison was made of the frequencies of the reasons given for a decrease by quadriplegic and paraplegic respondents.

For question number 10, frequency counts of subjects responding to each category on the 5-point sex role change question and the 3-point valence question were made. Then differences in the responses for veterans with

quadriplegic and paraplegic injuries relative to the sex role change and valance scales were analyzed by independent sample *t*-tests. The responses to the open-ended question asking about the ways in which the subjects' sex roles have changed was inspected qualitatively to ascertain whether there were different categories of sex role change that were consistently mentioned. Finally, a comparison was made of the different categories of sex role change for both levels of spinal cord injury.

CHAPTER IV

RESULTS

Descriptive Statistics on and Psychometric Characteristics of Major Measures

Demographic variables

The demographic data were compared for subjects having quadriplegic and paraplegic injuries (see Tables 1 and 2). Independent sample *t*-tests indicated that the groups did not differ significantly in: current age ($t(47.8) = 1.59$, $p = .12$), age at injury ($t(43.4) = 0.66$, $p = .51$), years post injury ($t(48.8) = 1.35$, $p = .18$), education ($t(49) = 0.82$, $p = .42$), and hospitalizations ($t(28.9) = .92$, $p = .37$).

Table 1

Demographic Descriptions of Sample on Continuous Variables

	Quadriplegia		Paraplegia	
	M	SD	M	SD
Current Age	40.90	8.44	46.00	14.38
Age at Injury	28.48	5.77	30.20	12.58
Years Post SCI	12.43	7.05	15.80	10.75
Years of Education	12.43	2.06	12.97	2.47
Hospitalizations Last 3 Years	4.38	4.27	3.43	2.40

Table 2

Demographic Descriptions of Sample on Discrete Variables

	Quadriplegia (n = 21)		Paraplegia (n = 30)	
	N	%[a]	N	%[a]
Marital Status:				
Never Married (not cohabiting)	4	19	7	23
Married	8	38	9	30
Separated/Divorced (not cohabiting)	7	33	13	43
Cohabiting	2	10	1	3
With Same Person as at SCI	6	29	5	17
SCI Service Connected	4	19	10	33
SCI Non-Service Connected	17	81	20	67
SCI Complete	4	19	21	70
SCI Incomplete	17	81	9	30
Ethnicity:				
Black	7	33	2	7
Caucasian	12	57	26	87
Hispanic	2	10	2	7

	Quadriplegia (n = 21)		Paraplegia (n = 30)	
	N	%[a]	N	%[a]
Religious Affiliation:				
Mainline Protestant	9	43	5	17
Catholic	7	33	11	37
Evangelical/Charismatic/ Pentacostal	1	5	6	20
Jewish	0	0	1	3
None	4	19	7	23

Note. SCI = Spinal Cord Injury

[a]Percents do not total 100% due to rounding.

Chi-square analysis indicated that the groups did not differ significantly in: current marital status ($x^2(3, N = 51) = 1.47$, $p = .69$), being/not being with the same person as at time of injury (x^2 (1, $N = 51$) = 1.04, $p = .31$), and in the spinal cord injury being service/non-service connected ($x^2(1, N = 51) = 1.26$, $p = .26$). However, the groups differed significantly in ethnicity[2] ($x^2(1, N = 51)$, = 5.67, $p = < .02$), with fewer Blacks than Caucasians having paraplegia. Also, there was a significant difference in the groups as to the spinal cord injury being complete/incomplete ($x^2(1, N = 51) = 12.83$, $p = .0003$), with most of the quadriplegic veterans having incomplete injuries and most of the paraplegic veterans having complete injuries. Chi-square analysis was inappropriate for religious affiliation due to the small cell frequencies.

Questions

Question 1 -- Satisfaction with quality of sexual relations

The mean level of satisfaction with quality of sexual relations on a five-point (1 = dissatisfied, 5 = satisfied) scale was 3.37 (SD = 1.62), as shown in Table 3. Fifty-nine percent (59%) of the subjects reported that they were currently satisfied or somewhat satisfied with the

quality of their sexual relations. The mean levels of satisfaction for quadriplegic subjects (M = 2.95, SD = 1.72) and paraplegic subjects (M = 3.67, SD = 1.52) showed no significant difference between the groups ($t(49) = 1.57$, $p = .123$).

Table 3

Means and Standard Deviations on Continuous Dependent Variables

	Quad (n = 21)		Para (n = 30)		Total (N = 51)	
	M	SD	M	SD	M	SD
Satisfaction with Quality of Sexual Relations[a]	2.95	1.72	3.67	1.52	3.37	1.62
Satisfaction with Frequency of Sexual Relations[b]	2.52	1.75	3.70	1.47	3.22	1.68
Number Sexual Techniques/ Activities[c]	15.62	7.50	14.23	8.21	14.80	7.88
Satisfaction with Relationships with Women[d]	4.24	1.09	3.97	1.38	4.08	1.26
Changes in Sex Role[e]	2.86	1.24	2.93	1.17	2.90	1.19
Quality of Sex Role Change[f]	1.76	.83	1.97	.93	1.88	.89

[a]Satisfaction with Quality of Sexual Relations scores are based on a five-point scale: 1 = Dissatisfied, 2 = Somewhat Dissatisfied, 3 = Neither, 4 = Somewhat Satisfied, 5 = Satisfied.

[b]Satisfaction with Frequency of Sexual Relations scores are based on a five-point scale: 1 = Dissatisfied, 2 = Somewhat Dissatisfied, 3 = Neither, 4 = Somewhat Satisfied, 5 = Satisfied.

[c]Number Sexual Techniques/Activities scores represent the number of techniques/activities checked as having been engaged in. Possible range = 0 - 30.

[d]Satisfaction with Relationships with Women scores are based on a five-point scale: 1 = Very Dissatisfied, 2 = Somewhat Dissatisfied, 3 = Neither, 4 = Somewhat Satisfied, 5 = Very Satisfied.

[e]Changes in Sex Role scores are based on a five-point scale: 1 = Not at All, 2 = Very Little, 3 = Somewhat, 4 = Definitely, 5 = Dramatically.

[f]Quality of Sex Role Change scores are based on a three-point scale: 1 = More Negative Than Positive, 2 = Even, 3 = More Positive Than Negative.

Question 2 -- Satisfaction with frequency of sexual relations

Fifty-five percent (55%) of the subjects indicated that they were currently satisfied or somewhat satisfied with the frequency of their sexual relations. The mean level of satisfaction with frequency of sexual relations on a five-point (1 = dissatisfied, 5 = satisfied) scale was 3.22 (*SD* = 1.68), as shown in Table 3. The mean levels of satisfaction for veterans with quadriplegia (*M* = 2.52, *SD* = 1.75) and paraplegia (*M* = 3.70, *SD* = 1.47) showed a significant difference between the groups ($t(49) = 2.60$, $p = .012$). Paraplegic subjects indicated that they were more satisfied with the frequency of sexual relations than quadriplegic subjects.

Question 3 -- Relationship between satisfaction with quality and satisfaction with frequency of sexual relations

A significant relationship was found between satisfaction with quality and satisfaction with frequency of sexual relations for all participants ($r = .77$, $p = .0005$). Significant correlations were also found when the respondents were segmented into those with paraplegia ($r = .87$, $p = .0005$) and those with quadriplegia ($r = .64$, $p = .002$).

The difference between these two correlations for the levels of injury approached significance (z = 1.87, p = .062).

Question 4 -- Frequency of sexual activities

Seventy-one percent (71%) of the subjects (15 quadriplegic and 21 paraplegic veterans) reported a decrease in the frequency of sexual activity post injury. Chi-square analysis revealed no significant difference between the frequencies of the injury level subgroups (x^2(1, N = 51) = 0.012, p = .913). The reasons given for the decrease in frequency of sexual activity and the frequency counts are given in Table 4. The number of responses for the decrease per subject ranged from 1 to 13 (M = 4.86, SD = 2.86).

Table 4

Frequencies of Reasons for Decrease in Sexual Activity Post Spinal Cord Injury

Number of Responses			
Quad	Para	Total	Reasons -- Check List
10	9	19	Not as many sexual opportunities
6	9	15	No partner
4	9	13	Inability to have an orgasm/climax
4	7	11	Loss of Interest
3	8	11	Physically cannot do it
3	7	10	Inability to attain erection
7	3	10	Not feeling sexually attractive/ desirable
4	5	9	Partner lost interest
4	3	7	Not enough personal satisfaction
4	3	7	Fear you won't satisfy you or your partner
4	3	7	Ideas regarding sex differ from partner's
4	2	6	Fear of infection
2	4	6	Fatigue
6	0	6	Lack of privacy
4	2	6	Too much trouble to remove and replace catheter or condom
4	1	5	Partner afraid of hurting you
3	1	4	Spasms during sex

Number of Responses			
Quad	Para	Total	Reasons -- Check List
2	1	3	Too painful
2	1	3	Sex partner assists in personal care
0	3	3	Fear of hurting your partner
1	2	3	Don't like the way you get satisfaction
1	2	3	Loss of ability to have children
0	2	2	Fear of hurting yourself
0	1	1	Don't know how to go about it
0	0	0	Doctor's advice
0	0	0	Morally cannot do it
0	0	0	Fear of infecting your partner
			Reasons -- Written In
1	0	1	Diabetic now
1	0	1	Can't get around as easily to where women are
1	0	1	Don't have much free time
1	0	1	Partner has moral hangups re not having sex, if can't have kids
0	1	1	Loss of energy and bodily response with age

Approximately the top one-third of the reasons given for decrease in sexual activity frequency fell into three main categories: (a) lack of partner (i.e., not as many sexual opportunities; no partner); (b) physical limitations due to SCI (i.e., inability to have an orgasm/climax; physically cannot do it; inability to attain erection); and (c) personal factors (i.e., loss of interest; not feeling sexually attractive/desirable). There was no significant difference between level of injury relative to the responses for each category: lack of partner ($x^2(1, N = 36) = 1.62$, $p = .203$), physical limitations due to SCI ($x^2(1, n = 36) = 2.86$, $p = .091$), and personal factors ($x^2(1, N = 36) = 0.82$, $p = .365$).

Question 5 -- Relationship between satisfaction with quality of sexual relations and number of sexual techniques/activities experienced

A list of 30 sexual techniques/activities was included in the questionnaire. Respondents were asked to indicate those techniques/activities that they experienced (see Appendix A). Analysis found no significant difference between the mean number of techniques/activities for the quadriplegic ($M = 15.62$, $SD = 7.50$) and paraplegic ($M = 14.23$, $SD = 8.21$) subjects, $t(49) = 0.61$, $p = .542$ (see Table 3).

A significant relationship was found between satisfaction with quality of sexual relations and the number of sexual techniques/activities experienced (r = .40, p = .004). Also, a significant correlation was found for the paraplegic veterans (r = .48, p = .007). No significant correlation was found for the quadriplegic veterans (r = .36, p = .105). The difference between these two correlations for level of injury was not significant (z = .48, p = .632).

Question 6 -- Relationship between satisfaction with frequency of sexual relations and number of sexual techniques/activities experienced

The information regarding the number of sexual techniques/activities experienced by the veterans is indicated above.

No significant relationship was found between satisfaction with frequency of sexual relations and the number of sexual techniques/activities experienced for the total group (r = .27, p = .056). For the sub-groups of quadriplegic (r = .30, p = .190) and paraplegic veterans (r = .34, p = .063), no significant correlations were found. The difference between these two correlations for level of injury also was not significant (z = .17, p = .866).

Question 7 -- Satisfaction with relationships with women

The mean level of satisfaction with relationships with women on a five-point (1 = very dissatisfied, 5 = satisfied) scale was 4.08 (*SD* = 1.26), as shown in Table 3. Eighty-two percent (82%) of the subjects reported that they were currently satisfied or somewhat satisfied with their relationships with women. The mean levels of satisfaction for quadriplegic (*M* = 4.24, *SD* = 1.09) and paraplegic veterans (*M* = 3.97, *SD* = 1.38) were not significantly different ($t(49) = 0.75$, $p = .455$).

Question 8 -- Relationship between satisfaction with relationships with women and satisfaction with quality of sexual relations

A significant relationship was found between satisfaction with relationships with women after injury and satisfaction with the quality of sexual relations ($r = .48$, $p < .0005$). Also, a significant correlation was found for subjects having paraplegia ($r = .61$, $p < .0005$). No significant correlation was found for those having quadriplegia ($r = .41$, $p = .067$). The difference between these two injury level correlations was not significant ($z = .89$, $p = .374$).

Question 9 -- Relationship between satisfaction with relationships with women and satisfaction with frequency of sexual relations

A significant relationship was found between satisfaction with relationships with women and satisfaction with frequency of sexual relations (r = .35, p = .012). For the subgroup of quadriplegic veterans no significant correlation was found (r = .19, p = .401). A significant correlation was found for the paraplegic veterans (r =.58, p = .001). The difference between these two injury level corrleations was not significant (z = 1.51, p = .130).

Question 10 -- Change in sex role

The majority of subjects indicated that their sex role had changed to some degree after spinal cord injury. A slight majority (28 vs. 23 veterans) reported that the changes had been more positive than negative or about even. The mean levels of change on a five-point (1 = not at all, 5 = dramatically) scale for quadriplegic (M = 2.86, SD = 1.24) and paraplegic veterans (M = 2.93, SD = 1.17) were not significantly different ($t(49)$ = 0.22, p = .82) (see Table 3). No significant difference was found ($t(49)$ = 0.81, p = .42) between the mean change being more positive, even or more negative for quadriplegic (M = 1.76, SD = 0.83) and paraplegic veterans (M = 1.97, SD = 0.93).

When veterans were asked to describe specific changes in sex role, the responses fell into the following categories: (a) physical limitations due to SCI; (b) more responsiveness to partner, (c) negative feelings; (d) personal factors; (e) limited or no sex life; and (f) other. The majority of responses were from categories a - c. Examples for each category can be found in Table 5; a complete listing of all responses by category is located in Appendix B.

Table 5

Examples of Changes in Sex Role Post Spinal Cord Injury (SCI)

I. Physical limitations due to SCI

"Can't use my hands; immobility of trunk movement."

"...can't get erection and perform like used to. Before I could provide more and do more and now the woman has to take over and do more."

"I can get my partner to have orgasm, but I can't."

"High blood medications, g.u. infections have lessened sex drive and infected testicles."

II. More responsiveness to partner

"I think more about the needs of my partner and we talk about sex as we wish. It was not like that preinjury."

"Not being able to have orgasm makes you want to please and experiment more. Being a para all you do is sit around thinking of better ways."

"More receptive to my partner's needs and feelings, in turn making experience better for both."

III. Negative feelings

"Married my wife and would not and still cannot accept my paralysis."

"People, especially women, back off."

IV. Personal factors

"I've 'cooled' less often."

"Not being aggressive."

V. Limited or no sex life

"Don't have sex life."

"Non-existent."

VI. Other

"Prosthesis"

For the responses given for physical limitations related to changes in sex role post SCI, paraplegic veterans tended to indicate difficulty with erection/intercourse, while quadriplegic veterans responded in a variety of ways (e.g., sexual ability taken away, use of hands, mobility). The statements given by injury level subgroups relative to being more responsive to partners were similar in content. When indicating negative feelings as being a part of sex role change, paraplegic and quadriplegic veterans reported the negative feelings of respondents as well as of women.

Question 11 -- Relationship between role change and satisfaction with quality of sexual relations

A significant relationship was found between respondents' perceptions of whether or not their role as a sex partner had changed since injury and current satisfaction with the quality of their sexual relations (r = .43, p = .002). For the sub-groups of quadriplegia (r = .43, p = .053) and paraplegia (r = .46, p = .011), significant correlations were found. The difference between these two injury level correlations was not significant (z = .13, p = .896).

Question 12 -- Relationship between role change and satisfaction with frequency of sexual relations

No significant relationship was found between respondents' perceptions of whether or not their role as a sex partner had changed since injury and current satisfaction with the frequency of their sexual relations (r = .27, p = .055). A significant correlation was found for the sub-group of paraplegic veterans (r = .41, p = .023). No significant correlation was found for the quadriplegic veterans (r = .17, p = .457). The difference between these two injury level correlations was not significant (z = .88, p = .382).

CHAPTER V

DISCUSSION

Veterans Satisfied with Quality and Frequency of Sexual Relations

While the mean of distribution for satisfaction with quality of sexual relations was in the neutral range, a slight majority (59%) of veterans rated themselves as being somewhat satisfied or satisfied. There seem to be enough respondents on either side of center that they appear to balance each other out when the mean is computed -- a statistical artifact. That the veterans were satisfied is in keeping with the research findings of Phelps, et al. (1983) and Berkman, et al. (1978).

The same phenomenon (statistical artifact) occurred relative to satisfaction with frequency of sexual relations. While the mean of distribution was in the neutral range, a slight majority (55%) of respondents indicated that they were somewhat satisfied or satisfied with the frequency of their relations. This finding of satisfaction is contrary to Halstead, et al.'s (1978) research results.

Even though a majority of subjects reported satisfaction with both quality and frequency of sexual relations, there were a large number who were dissatisfied. As the literature has shown that treatment interventions have been successful in enhancing the sexual relations of individuals with spinal cord injury (Halstead, et al., 1977; Halstead, et al., 1978; Steger, & Brockway, 1980), sexual counseling should be regarded as an important component of the rehabilitation process.

Strong Correlation Between Satisfaction with Quality and Frequency of Sexual Relations

The strongest correlation found in the study for the group as a whole, as well as for the sub-groups, was for satisfaction with quality and frequency of sexual relations. Overall for the total group, 59% ($r^2 = .59$) of the variance in satisfaction with quality was attributable to satisfaction with frequency. The correlation for those with paraplegia was higher than the one for those with quadriplegia; this was the only finding where the between group difference approached significance.

Decrease in Frequency of Sexual Activity

The majority (71%) of subjects indicated a decrease in frequency of sexual activities, as did Phelps, et al.'s

(1983) respondents. The top one-third of reasons for the decrease in activity were similar to those cited by Halstead, et al. (1978) and Phelps, et al. (1983). The multitude of reasons indicated by veterans for decrease in frequency (Table 4) appears to confirm the complexity of the issues that are involved relative to sexuality and spinal cord injury as previously cited in the literature review section of this paper.

Number of Sexual Techniques/Activities Engaged In

The mean level for the whole group indicated that veterans had engaged in approximately one-half of the sexual techniques/activities listed in the questionnaire. Considering that the list (Appendix A) included items that ranged from what might be referred to as "moodsetting" behaviors (e.g., music, candlelight, talking sexy, viewing erotic materials) to physical expression (e.g., oral/manual stimulation of body parts, intercourse) to what some may consider adventurous or "wild" sex (e.g., group sex, using vibrators/dildo), it appears that the men are involving themselves in a modest variety of sexual experiences.

Veterans Satisfied with Relationships with Women

That the large majority (82%) of men reported that they were satisfied or somewhat satisfied with relationships with women bodes well as this is the prospective pool from which

most will select sexual partners. Satisfying overall relationships with women would hopefully allow for an atmosphere of mutual comfort for veterans and women and, subsequently, assist in the development of sexual relations.

Changes in Sex Role

That a vast majority (96%) of veterans reported a change in sex role was not surprising as in most cases they indicated that they dealt with a variety of issues (e.g., physical, emotional, relationship with partner) in adapting to their injuries (Appendix B). It was a hopeful sign that the men have been able to make positive adjustments to their injuries in that a majority of the men indicated that the changes in sex role had been more positive than negative or about even.

Moderate Correlations Between Number of Sexual Techniques/ Activities, Relationships with Women, Sex Role Change and Satisfaction with Quality of Sexual Relations

For the total group, there were significant moderate correlations between the number of sexual techniques/ activities engaged in, their relationships with women and their sex role change with satisfaction with quality of sexual relations. All three correlations were significant for the group as a whole (range r = .40 - .48) with the average of correlations being .44. The three variables on

average account for 19% of the variance in satisfaction with quality of sexual relations.

Moderate Correlations Between Relationships with Woman, Sex Role Change and Satisfaction with Frequency of Sexual Relations; No Correlation Between Number of Sexual Techniques/Activities and Satisfaction with Frequency of Sexual Relations

Relative to the correlations of the three variables with satisfaction with frequency of sexual relations, only one out of the correlatons was significant for the group as a whole; the average of correlations being .30. The three variables on average account for 9% of the variance in satisfaction with frequency of sexual relations. While the total group had a significant moderate relationship between relationships with women and satisfaction with frequency of sexual relations, only the veterans with paraplegia had a significant moderate relationship between sex role change and satisfaction with frequency. Contrary to the findings of Steger and Brockway (1980), there was no significant relationship found for the number of sexual techniques/ activities and satisfaction with frequency.

Methodological and Future Research Considerations

The small size of the subgroup and total populations and consequent lack of statistical power is a methodologic

limitation which may account for some of the lack of significant relationships and/or differences between groups for some of the results.

Due to the self-report nature of the original study and no control over who some subjects may have selected to assist them in completing the questionnaire or their being assisted without the knowledge of the original experimenters, original data may need to be interpreted with care. In addition, as with other research in the area of sexuality, veterans' ability to openly and truthfully discuss the subject matter with the female member of the original research team might possibly have biased the outcome of the study. Sexuality traditionally has been considered as a sensitive personal matter and the candor of respondents in dealing with the topic may be questioned. The male subjects may possess some "bravado" in dealing with sexuality and/or have concern regarding the social acceptability of their responses. Separate corroborative reports from subjects' partners would be most helpful; however, these may be difficult to obtain.

The results indicate the complexity of satisfaction with sexual relations and some factors that relate to satisfaction. It is suggested that further research be conducted to ascertain other factors that may contribute to or affect achieving fulfillment in sexual relationships

(e.g., age, years post injury, sexual experience prior to injury, motivation).

It did not appear from the veterans' comments regarding role change that sexual satisfaction was an instantaneous occurrence after injury. Research relative to any patterns or process that may take place pertaining to achieving satisfaction with sex relations post injury would be beneficial for counseling purposes. Longitudinal case studies might be one way of conducting research to describe the behaviors, variables, and process that take place.

Future research should also address the need to more accurately define and measure variables in order to better evaluate studies and apply the information obtained.

Counseling Considerations

The results of this study suggest the validity of the underlying basis for sexual counseling for veterans with spinal cord injury; that is, the spinal cord injured can have satisfying sexual relationships. The large percentage of respondents who reported dissatisfaction with their sexual lives also suggests a possible need for counseling.

The results of this study also indicate the complex nature of achieving satisfying sexual relationships. The answers of the respondents indicated that they were dealing with physical, psychological, emotional, and relationship

issues relative to their sexual relations. Therefore, it is suggested that initial rehabilitation counseling could have informational, educational, and therapeutic components pertaining to these areas. The findings of this study would indicate that several factors specifically could be addressed: 1) possible sex role change, 2) relationship building techniques, and 3) encouragement to experiment with a variety of sexual techniques/activities.

Sexual satisfaction incorporates a variety of components and what is important is that throughout any counseling program the veteran be treated as a whole person (Treischmann, 1988). The dynamic, interactive process of sexuality (Berkman, et al., 1978; Trieschmann, 1988) should be respected and sexual relations should not be treated in a mechanistic, technical manner. With this in mind, hopefully, veterans will be able to enhance their ability to adjust to the trauma of spinal cord injury and achieve fulfillment in their sexual relationships.

NOTES

[1]R. Snodgrass, P. Johnson, & G. Bien.

[2]Due to the small size of some of the cells, Blacks and Hispanics were grouped as one category.

REFERENCES

Anderson, T. P., & Cole, T. M. (1975). Sexual counseling of the physically disabled. Postgraduate Medicine, 58(1), 117-123.

Berkman, A. H., Weissman, R., & Frielich, M. H. (1978). Sexual adjustment of spinal cord injured veterans living in the community. Archives of Physical Medicine & Rehabilitation, 59(1), 29-33.

Brown, J. S., & Giesy, B. (1986). Marital status of persons with spinal cord injury. Social Science Medicine, 23, 313-322.

Cole, T. M., Chilgren, R., & Rosenberg, P. (1973). A new programme of sex education and counseling for spinal cord injured adults and health care professionals. Paraplegia, 12(1), 111-124.

Comarr, A. E. (1971). Sexual concepts in traumatic cord and cauda equine lesions. Journal of Urology, 106, 375-378.

Comarr, A. E. (1973). Sex among patients with spinal cord and/or cauda injuries. Medical Aspects of Human Sexuality, 222-238.

Comarr, A. E. (1978). Sex classification and expectations among quadriplegics and paraplegics. Sexuality & Disability, 1(4), 252-259.

Comarr, A. E., & Gunderson, B. B. (1975). Sexual function in traumatic paraplegia and quadriplegia. American Journal of Nursing, 75, 250-255.

Comarr, A. E., & Vigue, M. (1978a). Sexual counseling among male and female patients with spinal cord and/or cauda equina injury. Part I. American Journal of Physical Medicine, 57(3), 107-122.

Comarr, A. E., & Vigue, M. (1978b). Sexual counseling among male and female patients with spinal cord and/or cauda equine injury. Part II. American Journal of Physical Medicine, 57(5), 215-227.

DeVivo, M. J., & Fine, P. R. (1985). Spinal cord injury: Its short-term impact on marital status. Archives of Physical Medicine & Rehabilitation, 66, 501-504.

Geiger, R. C. (1979). Neurophysiology of sexual response in spinal cord injury. Sexualty & Disability, 2(4), 257-266.

Griffith, E. R., Tomko, M. S., & Timms, R. J. (1973). Sexual function in spinal cord-injured patients: A review. Archives of Physical Medicine & Rehabilitation, 54, 539-543.

Halstead, L. S., Halstead, M. M., Salhoot, J. T., Stock, D. D., & Sparks, R. W. (1977). A hospital-based program in human sexuality. Archives of Physical Medicine & Rehabilitation, 58, 409-412.

Halstead, L. S., Halstead, M. M., Salhoot, J. T., Stock, D. D., & Sparks, R. W. (1978). Sexual attitudes, behavior and satisfaction for able-bodied and disabled participants attending workshops in human sexuality. Archives of Physical Medicine & Rehabilitation, 59(11), 497-501.

Hanson, R. W., & Franklin, M. R. (1976). Sexual loss in relation to other functional losses for spinal cord injured males. Archives of Physical Medicine & Rehabilitation, 57(6), 291-293.

Held, J. P., Cole, T. M., Held, C. A., Anderson, C., & Chilgren, R. A. (1975). Sexual attitude reassessment workshops: Effect on spinal cord injured adults, their partners and rehabilitation professionals. Archives of Physical Medicine & Rehabilitation, 56, 14-18.

Higgins, G. E., Jr. (1979). Sexual response in spinal cord injured adults: A review of the literature. Archives of Sexual Behavior, 8(2), 173-196.

Hohmann, G. W. (1966). Some effects of spinal cord lesions on experienced emotional feelings. Psychophysiology, 3(2), 143-156.

Lamid, S. (1986). Nocturnal penile tumescence studies in spinal cord injured males. Paraplegia, 24, 26-31.

Larsen, E., & Hejgaard, N. (1984). Sexual dysfunction after spinal cord or cauda equine lesions. Paraplegia, 22, 66-74.

Lindner, H. (1953). Perceptual sensitization to sexual phenomena in the chronic physically handicapped. Journal of Clinical Psychology, 9, 67-68.

Money, J. (1960). Phantom orgasm in the dreams of paraplegic men and women. Archives of General Psychiatry, 3, 373-382.

Phelps, G., Brown, M., Chen, J., Dunn, M., Lloyd, E., Stefanick, M. L., Davidson, J. M., & Perkash, I. (1983). Sexual experience and plasma testosterone levels in male veterans after spinal cord injury. Archives of Physical Medicine & Rehabilitation, 64(2), 47-52.

Rabin, B. J. (1980). The sensous wheeler. Long Beach, CA: Author

Ray, C., & West, J. (1984). Social, sexual and personal implications of paraplegia. Paraplegia, 22, 75-86.

Sidman, J. M. (1977). Sexual functioning and the physically disabled adult. American Journal of Occupational Therapy, 31(2), 81-85.

Sjogren, K., & Egberg, K. (1983). The sexual experience in younger males with complete spinal cord injury. Scandinavian Journal of Rehabilitation Medicine (Suppl)., 9, 189-194.

Steger, J. C., & Brockway, J. (1980). Sexual enhancement in spinal cord injured patients: Behavioral group treatment. Sexuality & Disability, 3(2), 84-96.

Stewart, T. D. (1977). Coping behavior and the moratorium following spinal cord injury. Paraplegia, 15, 338-342.

Talbot, H. S. (1971). Psycho-social aspects of sexuality in spinal cord injury patients. International Journal of Paraplegia, 9, 37-39.

Teal, J. C., & Athelstan, G. T. (1975). Sexuality and spinal cord injury: Some psychosocial considerations. Archives of Physical Medicine & Rehabilitation, 56, 264-268.

Tomko, M. S., Timms, R. J., & Griffith, E. R. (1972). Sexual adjustment counseling with the spinal-cord-injured male. Journal of Applied Rehabilitation Counseling, 3, 167-172.

Trieschmann, R. B. (1980). Spinal cord injuries: Psychological, social and vocational adjustment. Elmsford, N.Y.: Pergamon Press.

Trieschmann, R. B. (1988). Spinal cord injuries: Psychological, social, and vocational rehabilitation (2d ed.). New York: Demos Publications.

Urey, J. R., & Henggeler, S. W. (1987). Marital adjustment following spinal cord injury. Archives of Physical Medicine & Rehabilitation, 68(2), 69-74.

Weiss, H. D. (1973). Mechanism of erection. Medical Aspects of Human Sexuality, 7(2), 35-36.

APPENDIX A

Interviewer: _____
Date: _____

CODE NUMBER: _____ _____ _____ _____
(Make up you own Code Number using two letters & two numbers, e.g., R G 7 1)

GENERAL INFORMATION

1. Please check your hignest level of injury--if you do not remember, then the diagram on the next page may help you.
___C1-4 ___C5-6 ___C7-8 ___T1-6 ___T7-12 ___L1-5 ___S1-5

2. ____Complete ____Incomplete

3. ____SCI Service Connected ____SCI Non-Service Connected

4. Your age at injury: ____ years old

5. How many years have you been injured? ____ years

6. How many hospitalizations have you had during the past three (3) years; including this one, if you are an inpatient now? ____

7. How many days have you spent in the hospital during the past twelve (12) months; including this stay, if you are an inpatient now? _____ days

8. How many days per week do you usually go outside your residence in the summer? ____ days

9. How many days per week do you usually go outside your residence in the winter? _____days

10. Are you employed, self-employed, or involved in any variety of business activity? ___ Yes ___ No

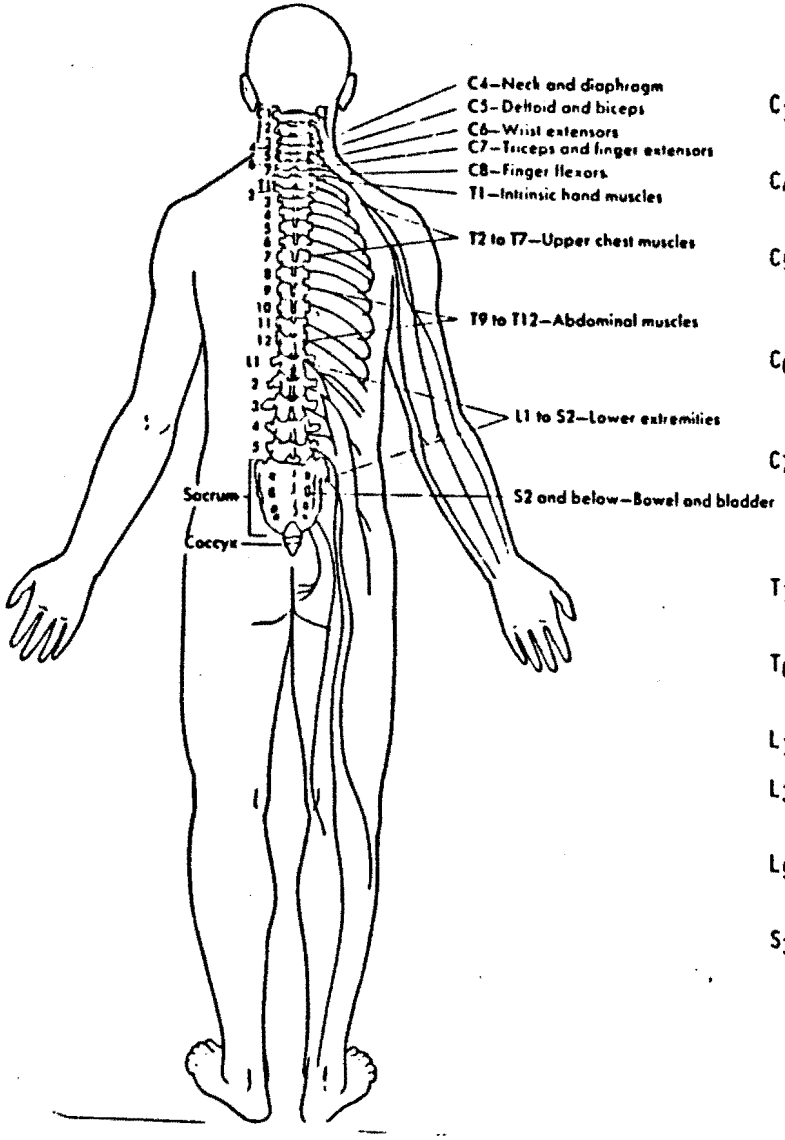
11. If the answer to #10 is "Yes", then how many hours a week do you usually involve yourself with these activities? ____ hours

12. How many years of education have you completed? ____ years

13. What was your religion before your injury? ___ Catholic; ___ Mainline Protestant; ___ Evangelical/Charismatic/Pentacostal; ___ Jewish; ___ Muslim; ___ None; ___ Other:_____

14. What is your religion currently? ___ Catholic; ___ Mainline Protestant; ___ Evangelical/Charismatic/Pentacostal; ___ Jewish; ___ Muslim; ___ None; ___ Other:_____

15. How important was religion to you in adjusting to your SCI?
Very Somewhat Somewhat
___Important ___Important ___Important ___Unimportant ___Unimportant



RELATIONSHIP OF SPINAL NERVES TO GROSS MUSCLE FUNCTION

LEVEL OF SPINAL CORD LESION AND FUNCTIONAL LOSS

C_1-C_4 Quadriplegia: no respiratory function intact, sensory and motor loss below level of lesion

C_4-C_5 Quadriplegia: head control, phrenic nerve partially spared

C_5-C_6 Quadriplegia: gross arm movement, phrenic nerve intact, intercostals absent, diaphragmatic breathing present

C_6-C_7 Quadriplegia: most upper arm and shoulder movement(biceps) present, intercostals absent, diaphragmatic breathing present

C_7-C_8 Quadriplegia: some control of upper and lower arms (biceps and triceps intact), limited hand movement, intercostals absent, diaphragmatic breathing

T_1-T_6 Paraplegia: loss of all functions below midchest, intercostals partially impaired

T_6-T_{12} Paraplegia: sensory and motor function losses below waist

L_1-L_2 Paraplegia: loss of most leg control

L_3-L_4 Paraplegia: trunk-pelvic stabilizers; hip flexors and abductors; and quadriceps intact

L_5-S_3 Paraplegia: hip extensors and abductors: knee flexors; and ankle control present

S_3-S_5 Paraplegia: varying degree of motor and sensory loss with loss of sensation in perianal area

IF YOU NEED HELP INDICATING YOUR LEVEL OF INJURY, PLEASE USE THIS SHEET TO ASSIST YOU IN ANSWERING QUESTION NO. 1

16. Ethnic background: ___Caucasian ___Black ___Hispanic ___ Oriental American Indian ___Other:_____

17. What was your marital status at the time of your injury? ___ Single ___ Married ___ Separated/Divorced ___ Widowed ___ Living with Someone

18. What is your marital status currently? ___ Single ___ Married ___Separated/Divorced ___ Widowed ___ Living with Someone

19. Are you with the same person you were with at the time of your injury? Yes ___ No ___

20. The number of times you have been married? ___

21. How many children do you have? ___ children

22. How many children did you have after your injury? ___ children

23. If you had children after your injury, how were they conceived? ___ natural conception ___ adoption ___ artifical insemination with your sperm ___ artificial insemination with a donor's sperm

24. Is the person doing your regular personal care the same as your sex partner?
___ No, I'm independent in personal care
___ Yes, my sex partner sometimes assists with my bowel & bladder care during the week or only infrequently
___ No, they are different persons
___ Yes, they are usually the same person

25. Are you satisfied with this arrangement about personal care givers?
Very Satisfied ___ Somewhat Satisfied ___ Neither ___ Somewhat Dissatisfied ___ Very Dissatisfied

26. Do you think there would be or is a more active sex life when your sex partner is not involved in you usual personal care? (Please answer this question even if you do your own care.) ___ Yes ___ No

MEDICAL INFORMATION

1. Which of the following GU or sexual complications or surgery have you had? ___ Sphincterotomy ___ Penile Implant ___ Kidney Stones ___ Bladder Problems ___ Penile-scrotal fistula ___ Epididymitis ___ None ___ Other(s) _____

2. In your opinion, did any of the above interfere with your sex life? How?

_____

_____

3. In your opinion, did any of the above help with your sex life? How?

_____

_____

4. What is your current GU status?
___Foley ___Suprapubic ___External ___Intermittent Cath ___No Cath

5. Do you feel that any medication(s) you have or are now taking has interfered with your sex life? If so, how? _____

_____

6. Do you feel that any medication(s) you have or are now taking has helped with your sex life? If so, how? _____

_____

SEX COUNSELING

Since your SCI, have you discussed your sexual abilities/experiences, asked for assistance with the sexual aspect of your life, or received sexual counseling with any of the following? If so, to what extent were they helpful?

	No, Did Not Discuss	Yes, Some Help	Yes, Alot of Help	Yes, Not Helpful
1. Partner(Wife/Lady/Girlfriend).....	____	____	____	____
2. Relative.....	____	____	____	____
3. Friend.....	____	____	____	____
4. Physician.....	____	____	____	____
5. Psychologist.....	____	____	____	____
6. Social Worker.....	____	____	____	____
7. Nurse.....	____	____	____	____
8. Rehab Therapist(PT/OT/CT).....	____	____	____	____
9. Clergy(Priest/Minister/Rabbi).....	____	____	____	____
10. Other(s) _____...	____	____	____	____

ATTITUDES

A. Money Matters	B. General Medical Condition	C. Social Life
D. Sexual Ability	E. Job	F. Bowel and Bladder Control
G. Use of Legs	H. Use of Hands	I. Appearance

Please rank order the above 9 items in terms of relative importance to you in daily living. That is, how badly would you want these functions back if this were possible? Please rank order all nine items for each of the following three time periods -- with 1 being the most important and 9 the least important.

1. How important are they to you currently?

Most Important Least Important

___1st ___2nd ___3rd ___4th ___5th ___6th ___7th ___8th ___9th

2. How important were they to you before your injury?

___1st ___2nd ___3rd ___4th ___5th ___6th ___7th ___8th ___9th

3. How important were they to you the first and second year after injury?

___1st ___2nd ___3rd ___4th ___5th ___6th ___7th ___8th ___9th

4. How long after your injury did you begin wondering if you could be sexually attractive? _____

5. How long after your injury did you feel like you could be a sexual person that others might be attracted to? _____

6. How long after your injury did you do anything to try and find out if you were a sexually attractive person? _____

7. Check the strength of your sexual desire or usual wish for sexual satisfaction for each of the three time periods:

	Very Weak	Weak	Moderate	Strong	Very Strong
Currently	___	___	___	___	___
Pre-Injury	___	___	___	___	___
1-2 Years After Injury	___	___	___	___	___

8. Check the strength of your feelings of sexual adequacy for each of the three time periods:

	Very Weak	Weak	Moderate	Strong	Very Strong
Currently	___	___	___	___	___
Pre-Injury	___	___	___	___	___
1-2 Years After Injury	___	___	___	___	___

7. To what extent are/were you satisfied with the QUALITY of your sexual relations for each of the three time periods:

	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied
Currently	____	____	____	____	____
Pre-Injury	____	____	____	____	____
1-2 Years After Injury	____	____	____	____	____

8. To what extent are/were you satisfied with the FREQUENCY of your sexual relations for each of the three time periods:

	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied
Currently	____	____	____	____	____
Pre-Injury	____	____	____	____	____
1-2 Years After Injury	____	____	____	____	____

RELATIONSHIPS

1. How do you feel about your overall relationships with women since your SCI?

____Very Satisfied ____Somewhat Satisfied ____Neither ____Somewhat Dissatisfied ____Very Dissatisfied

2. How does this compare with your overall relationships with women before your injury?

____Much Better Now ____Better Now ____Same as Before ____Better Before ____Much Better Before

3. If you have been single prior to your injury or at any time after your injury, did/do you have a problem finding dates or partners? Please indicate your answer for each of the three time periods:

	Yes	Sometimes	No
Currently	____	____	____
Pre-Injury	____	____	____
1-2 Years After Injury	____	____	____

4. If you have been or are single since your injury, where did/do you find **dates**/partners? Rate each of the following:

	Very Few	Few	Some	Many
Through Family/Friends	____	____	____	____
At Work/School	____	____	____	____
At Church/Synagogue	____	____	____	____
Through Community Activities	____	____	____	____
Through Sports/Recreational Activities	____	____	____	____
At Bars/Lounges	____	____	____	____
Other(s) where you do find dates/partners; List & Rate:_____	____	____	____	____

5. Have you had a sexual experience since your SCI? ____Yes ____No

If you have answered "Yes", continue on to next question. If you have answered "No", skip questions #6-15 and continue with question #16.

6. How many ____months ____years after your injury did you have a sexual experience?

7. Was your first sex partner after your injury:

____Your partner before injury
____Someone you knew before injury, but was not a sex partner before
____Someone you developed a relationship with after injury
____Someone who was just your partner primarily for the sex (e.g., "one night stand", surrogate, professional)

8. Who initiated your first sexual experience after your injury? __You __Your Partner __Both

9. Was your first sexual experience since injury a successful one? ___Yes ___Mixed ___No

10. What made the experience positive or negative? Positive:_____

_____

_____

Negative:_____

_____

11. How many ____days ____months ____years after that did you have another sexual experience? ____Never

12. How many lovemaking experiences did it take you before you felt comfortable with your physical performance? _____

13. What are the specific things that particularly helped you in resuming/initiating sexual relationships after your injury? _____

_____

_____

14. How important is the sexual aspect of your relationship with your partner?

____Important ____Somewhat Important ____Neither ____Somewhat Unimportant ____Unimportant

15. How often do you feel your sexual partner is satisfied with your relationship?

____Usually ____Most of the time ____Some of the time ____Hardly ever

16. Can you and your partner each discuss your feelings about sex freely with one another? Check one appropriate answer for each of you.

	Yes	About Some Things, Not Others	No	
You	___	___	___	
Your Partner	___	___	___	___ Do Not Know

17. Do you feel your role as a sex partner has changed since your injury?

____Dramatically ____Definitely ____Somewhat ____Very Little ____Not At All

18. If your role as a sex partner has changed since your injury, overall, do you feel the changes have been:
____More positive than negative ____Even ____More negative than positive

19. If your role has changed, please indicate in what way(s):_____

_____

_____

20. What specific things, if any, hindered you in resuming/initiating sexual relationships after your injury?
_____

_____

_____

21. Indicate anything you wish you would have known at the time that would have helped you in resuming/initiating a sexual relationship after your injury.
_____

_____

_____

PHYSICAL SEXUAL EXPERIENCES

1. What areas of your body do you find to be the most sexually stimulating to you? Rate the following areas:

	Little or no Stimulation	Weakly Stimulating	Moderately Stimulating	Stimulating	Very Stimulating
Anus	____	____	____	____	____
Coronal Edge of Head of Penis	____	____	____	____	____
Ears	____	____	____	____	____
Neck	____	____	____	____	____
Head of Penis	____	____	____	____	____
At Level of Injury	____	____	____	____	____
Mouth and Tongue	____	____	____	____	____
Nipples	____	____	____	____	____
Penis	____	____	____	____	____
Scrotum	____	____	____	____	____
Testicles	____	____	____	____	____
Urethra	____	____	____	____	____
ıer(s) (List & Rate)_____	____	____	____	____	____

2. Check the sensations you feel when your genital area is stimulated: (Check all that apply)

____Touch ____Chills ____Tingling
____Pressure ____Spasms ____Arousal

____None Other(s):_____

3. Your arousal consists of the following: (Check all that apply.)

____Rapid Breathing ____Strong Positive Feelings ____Rapid Heart Beat
____Skin Flushing ____Strong Negative Feelings ____Ejaculation
____Erection ____Pain ____Headache
____Erect Nipplies ____Loss of Erection ____Tension-Relaxation
____Increase in Spasticity ____Decrease in Spasticity ____Presence of Pre-ejaculatory Secretions
____None of the above

4. How would you describe your erections since injury?

____Hard and firm enough for penetration	____Moderately erect; Need assistance for penetration	____Only slight thickening	____I don't get erections

5. Erection can be achieved in many ways. Check all the ways it occurs with you now:

____When having sex-play before your genital area is touched
____Physical stimulation of your genital area
____Seeing or hearing something sexual
____Dreaming about something sexual
____Full bladder
____Empty bladder
____Tight pants
____Using fantasy
____Novel places, positions
____On awakening in morning
____Stroking penis gently
____Stroking penis vigorously
____Pulling pubic hairs
____Vibrators
____Spasticity
____Marijuana/Alcohol
____Oral/genital stimulation
____Internal catheter
____External catheter
____Other(s) (List):_____

6. Have you ever had trouble getting an erection since injury? ____Yes ____No

7. How OFTEN have you had trouble getting an erection?

____80-100% ____60-79% ____40-59% ____20-39% ____0-19%

8. How long are you able to maintain your erections after insertion into the vagina?

____Indefinately or for extended periods of lovemaking	____Satisfactory length of time for intercourse	____Not long enough for intercourse or not at right times	____No erections

9. What percent of the time can you get and maintain an erection when you want?

____80-100% ____60-79% ____40-59% ____20-39% ____0-19%

SEXUAL TECHNIQUES/ACTIVITIES

1. How often do you engage in sexual activities/lovemaking? Check appropriate answer for each of the three time periods:

	No Intercourse	Less than once a month	Once or twice a month	Once a week	Two or three times a week	Four times or more a week
Currently	____	____	____	____	____	____
Pre-Injury	____	____	____	____	____	____
1-2 Years After Injury	____	____	____	____	____	____

2. Are you able to have intercourse by vaginal penetration?

____Usually ____Occasionally ____Rarely ____Never

3. What is the percentage of time that you engage in vaginal intercourse as a part of your lovemaking/sexual activities? Check appropriate answer for each of the three time periods.

	80-100%	60-79%	40-59%	20-39%	0-19%
Currently	____	____	____	____	____
Pre-Injury	____	____	____	____	____
1st Year After Injury	____	____	____	____	____

4. Who usually takes the initiative in sex activity?

____You ____Your Partner ____Varies ____Don't engage in sex activities

5. What position is most sexually satisfying in sexual intercourse?

____Male above, usually ____Male and female above equally often ____Usually other
____Female above, uaually ____Side by side ____positions

____Don't engage in sexual intercourse

6. If you have decreased the frequency of your sexual activity (petting, masturbation, intercourse) since your injury, then check all the reasons for this decrease. If your frequency of sexual activity has remained the same or increased since your injury, put a check here ____ and go on to question #7.

___Loss of interest
___Too painful
___Fear of infection
___Doctor's advise
___No partner
___Fatigue
___Lack of privacy
___Spasms during sex
___Physically cannot do it
___Inability to attain erection
___Sex partner assists in personal care
___Partner has lost interest
___Fear of hurting yourself
___Fear of hurting your partner
___Not enough personal satisfaction
___Not as many sexual opportunities
___Don't like the way you get satisfaction
___Fear you won't satisfy you or your partner
___Inability to have an orgasm/climax
___Loss of ability to have children
___Ideas regarding sex differ from partner's
___Not feeling sexually attractive/desirable
___Morally cannot do it
___Too much trouble to remove and replace catheter or condom
___Fear of infecting your partner
___Partner afraid of hurting you
___Don't know how to go about it

List any other reasons that may apply to you:_____

_____

_____

7. On the following pages a variety of sexual techniques/activities are listed that may or may not be included among your personal activities at any of the three time periods indicated. For each of the three time periods rate each activity as to how frequently you personally have experienced the technique/activity and how you feel about each.

7. Sexual Techniques/Activities

		FREQUENCY			FEELINGS ABOUT THIS TYPE OF ACTIVITY (Whether or not you participate.)			
		Almost Always	Sometimes	Rarely	Never	Like	Mixed Feelings	Indifferent	Dislike
Music, candlelight, etc.	Currently								
	Pre-Injury								
	1-2 Years After Injury								
General kissing and caressing	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Deep kissing	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Talking sexy	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Viewing or reading erotic or pornographic materials	Currently								
	Pre-Injury								
	1-2 Years After Injury								

7. Sexual Techniques/Activities

		FREQUENCY				FEELINGS ABOUT THIS TYPE OF ACTIVITY (Whether or not you participate.)			
		Almost Always	Sometimes	Rarely	Never	Like	Mixed Feelings	Indifferent	Dislike
Using fantasy (imagination)	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Manual stimulation of partner's breasts	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Oral stimulation of partner's breasts	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Stroking of penis by partner	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Oral stimulation of penis by partner	Currently								
	Pre-Injury								
	1-2 Years After Injury								

7. Sexual Techniques/Activities

		FREQUENCY			FEELINGS ABOUT THIS TYPE OF ACTIVITY (Whether or not you participate.)			
		Almost Always	Sometimes	Rarely	Never	Like	Mixed Feelings	Indifferent	Dislike
Manual stimulation of partner's clitoris/vagina	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Oral stimulation of partner's clitoris/vagina	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Intercourse	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Stuffing the penis into the vagina	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Female tensing vaginal muscles around the penis	Currently								
	Pre-Injury								
	1-2 Years After Injury								

7. Sexual Techniques/Activities

		FREQUENCY				FEELINGS ABOUT THIS TYPE OF ACTIVITY (Whether or not you participate.)			
		Almost Always	Sometimes	Rarely	Never	Like	Mixed Feelings	Indifferent	Dislike
Private masturbation	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Mutual masturbation	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Use of drugs and/or alcohol	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Different positions	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Novel places	Currently								
	Pre-Injury								
	1-2 Years After Injury								

7. Sexual Techniques/Activities

		FREQUENCY				FEELINGS ABOUT THIS TYPE OF ACTIVITY (Whether or not you participate.)			
		Almost Always	Sometimes	Rarely	Never	Like	Mixed Feelings	Indifferent	Dislike
Spasticity	Currently								
	Pre-Injury								
	1-2 Years After Injury								
A full bladder	Currently								
	Pre-Injury								
	1-2 Years After Injury								
An empty bladder	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Pulling pubic hairs	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Using vibrator	Currently								
	Pre-Injury								
	1-2 Years After Injury								

7. Sexual Techniques/Activities

		FREQUENCY				FEELINGS ABOUT THIS TYPE OF ACTIVITY (Whether or not you participate.)			
		Almost Always	Sometimes	Rarely	Never	Like	Mixed Feelings	Indifferent	Dislike
Using dildo	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Penile prosthesis or support for penis	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Anal stimulation	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Engaging in sex in presence of others	Currently								
	Pre-Injury								
	1-2 Years After Injury								
Three or more people engaging in sex (group sex)	Currently								
	Pre-Injury								
	1-2 Years After Injury								

APPENDIX B

CHANGES IN SEX ROLE POST SPINAL CORD INJURY

I. Physical Limitations Due to SCI

Quadriplegic Veterans:

"Less mobile -- unable to do alot of foreplay (e.g., undressing her)."

"...The physical aspect has dramatically decreased."

"I don't have physical appearance that attracts women the way used to; can't get in some positions."

"No more physical feeling of pleasure in penis."

"Physically I'm less active."

"Can't use my hands; immobility of trunk movement."

"Sexual ability taken away at prime of life."

"Not being able to perform sexual activities as well as before."

"I cannot turn from side to side and I cannot turn on my own."

Paraplegic Veterans:

"No erection; no climax."

"Only to the point of no erection."

"...physical -- can't get erection and perform like used to. Before I could provide more and do more and now the woman has to take over and do more things"

"Disappointment in some ways in my inability to have sexual intercourse."

"I never get an erection."

"High blood medications, g.u. infections have lessened sex drive and infected testicles."

"Sex -- can't have intercourse."

"I can get my partner to have orgasm, but I can't."

II. More Responsiveness to Partner

Quadriplegic Veterans:

"I still initiate sometimes, but not all time now. Talk more about what woman wants."

"In a positive aspect, our mental aspect, love of sexuality has been stronger."

"I think more about the needs of my partner and we talk about sex as we wish. It was not like that preinjury."

"More receptive to my partner's needs and feelings, in turn making experience better for both."

Paraplegic Veterans:

"More attentive and knowledgeable about woman's needs."

"I am unable to get an erection, so I had to find other ways to satisfy my partner."

"Became more aware of my partner's needs."

"You learn to talk about sex; also easy or better way to make love."

"Not being able to have orgasm makes you want to please and experiment more. Being a para all you do is sit around thinking of better ways."

"I have become more sensitive to my partner's needs."

"More talking than before and talking about expectations and what may be possible."

III. Negative Feelings

Quadriplegic Veterans:

"Don't feel I am doing my wife right."

"People, especially women, back off."

Paraplegic Veterans:

"...mental -- don't feel as positive about myself and not being able to perform...."

"Scared or uneasy about being able to relate sexually to woman due to not knowing what I'm capable of doing -- what able to do."

"Married my wife and would not and still cannot accept my paralysis."

IV. Personal Factors

Paraplegic Veterans:

"Not being aggressive."

"I've 'cooled' less often."

"Prior to injury -- dominant partner. Post-injury -- dominant/non-dominant varies, but less dominant."

V. Limited or No Sex Life

Quadriplegic Veterans:

"Don't have partner and don't think about."

"Don't have sex life."

Paraplegic Veterans:

"Eliminated."

"Non-existent."

VI. Other

Paraplegic Veteran:

"Prosthesis."

APPROVAL SHEET

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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore acepted in partial fulfillment of the requirements for the degree of Master of Arts.

Date 7/8/91

Director's Signature