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Forging Intimate Relationships Following Spinal Cord Injury:

An Investigation of Individual Factors

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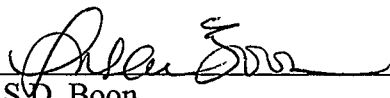
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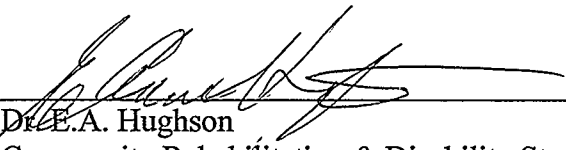
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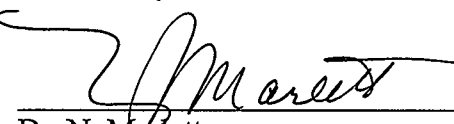
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Abstract

This investigation employed both quantitative and qualitative methods to explore postinjury intimate/romantic relationship satisfaction in 58 single men ($N = 50$) and women ($N = 8$) living with spinal cord injury (SCI). The two major goals of this study were to: (1) explore selected individual factors [i.e., acceptance of disability (AD), interpersonal locus of control (ICS), social anxiety and avoidance (SADS), and perceived risk in intimacy (RII)] as potential predictors of perceived barriers to dating (PBD) and romantic relationship satisfaction (RRS); (2) explore and compare attributions for RRS (or dissatisfaction) and the interpersonal strategies of a subset of individuals ($N = 14$) selected for interview on the basis of relatively high or low RRS.

Two separate sequential (hierarchical) multiple regression analyses found, after controlling for demographic variables, selected individual factors accounted for 35% of the variance in PBD and 19% of the variance in RRS. Not all predictor variables were found to be significant contributors to explained variance. Current dating status, AD and ICS emerged as significant predictors of PBD, whereas social motivation (the subjective importance of and desire for a satisfying intimate relationship), current dating status and ICS were significant predictors of RRS. PBD and RRS were also found to be highly correlated ($r = .69, p = .000$) and post hoc analyses suggested PBD may function as a mediating factor in the prediction of RRS.

Over 67% of participants were not dating or involved in an intimate relationship. Qualitative findings indicated all interviewees (high and low RRS) shared the view that negotiating intimacy post-SCI is a venture fraught with challenges imposed by physical impairment and disability. Three major challenges were identified: sexual difficulties,

accessibility and mobility issues and negative societal attitudes. High RRS interviewees articulated more active problem-solving and interpersonal strategies than low RRS interviewees, demonstrating an internal locus of control orientation. Self-acceptance and enhanced communication skills were identified as important assets for achieving RRS.

Results are discussed within the context of the study's limitations. Suggestions for potential clinical interventions as implicated by the current findings, and future research pursuits are proposed.

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The completion of a dissertation is often a testament to persistence in the face of daunting practical, methodological, time, and psychological challenges. My efforts have been supported and encouraged by many individuals and organizations. I would like to take this opportunity to express my gratitude.

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CHAPTER 1

INTRODUCTION

The biological and psychosocial sequelae of a traumatic spinal cord injury (SCI) that leaves a legacy of permanent paralysis are extensive and, at least initially, catastrophic. In the flash of a moment, life as the individual has known it is brought to a crashing halt. After surviving the medical emergency that SCI represents, this injury places enormous stress, both physical and psychosocial, on the newly disabled person who is faced with the arduous and often daunting process of adaptation and adjustment to life with a severe physical disability (Milligan, 1996).

It is estimated that each year 1,050 Canadians sustain a SCI which results in some level of permanent paralysis and/or neurological deficit. Although there has been no conclusive study to determine the number of Canadians currently living with SCI, a reasoned calculation estimates the national figure at 36,000 (Canadian Paraplegic Association (Alberta), 2000). Up to 85% of SCIs occur in males, the majority of them young and single at the time of injury (Bridges, 1997; Gutierrez, Young & Vulpe, 1993; Trieschmann, 1988). A recent Canadian survey of almost 1,000 individuals with SCI (81% males and 19% females) revealed that these injuries are predominantly experienced by young people, with 78% of the sample reporting they sustained their injury between the ages of 15 and 34 years (Bridges, 1997). Motor vehicle accidents (54.7%) rank as the leading cause of SCI, followed by falls and industrial accidents (17.7%). Other causes include medical conditions, diving, and sports injuries (CPA - Alberta, 2000). To

facilitate the reader's appreciation of the far-reaching effects of SCI, a brief summary of the physical and psychosocial implications of SCI follows below.

Physical Implications of SCI

The biological consequences of SCI are extensive. SCI can produce symptoms that are either temporary or permanent. Physical impairment may be complete (total sensory/motor loss) or incomplete (some nonreflexive sensory/motor functioning) below the level of injury. The location and extent of neurological injury determines the degree of physical impairment. It is important to recognize that the skeletal level of injury does not always directly correspond to the extent of spinal nerve damage from swelling or bruising above or below the bony fracture. With that caveat, cervical injuries (C1 to C8) result in *quadriplegia*, which entails paralysis in both upper and lower extremities. At C6, the potential for independent living exists and at C7, it is probable. Thoracic (T1 to T12), lumbar (L1 to L5), and sacral (S1 to S5) injuries result in *paraplegia*, being paralysis in the lower extremities (Trieschmann, 1988).

To varying degrees, individuals with SCI are challenged in virtually every sphere of their lives by motor and sensory impairment, bladder and bowel dysfunction, and compromised sexual functioning. As well, potential organic problems associated with SCI include: concomitant brain injury; body temperature dysregulation; compromised respiratory function; chronic pain; spasticity; urinary tract infections; skin pressure sores; and other medical consequences, such as hypotension and autonomic dysreflexia: a sudden, severe increase in blood pressure which can be life-threatening (Gutierrez, et al. 1993; Trieschmann, 1988).

During the acute phase of SCI injury, medical management of the physical trauma and mastery of new strategies and techniques to perform the activities of daily living are the focus of rehabilitation.

Psychosocial Implications of SCI

As Trieschmann (1988) asserts, the psychosocial issues of living with a disability, which are paramount to long-term adjustment, are typically inadequately addressed in acute medical rehabilitation programs. Our present understanding of both the short-term and long-term psychosocial consequences of SCI is tentative and based principally on clinical impressions and personal testimony, rather than controlled scientific research (Craig, Hancock, Dickson, Martin, & Chang, 1990).

Discharge from a rehabilitation setting marks a return to the community and a dramatically altered lifestyle. The impact of SCI on an individual's life varies with the level of injury and other demographic variables; however, immediate challenges to be faced include: architectural barriers; increased dependence on others; delay of age-appropriate developmental tasks; inability to fulfill former roles (e.g., vocation); reduced employment prospects; restriction from formerly enjoyed leisure activities; altered sexual identity and body image; social devaluation; and disrupted interpersonal relationships (Allden, 1992; Trieschmann, 1988). Considering the breadth of potential obstacles a person with SCI must face, it is not surprising that many authors have characterized adjustment to SCI as an ongoing developmental process (e.g., Oliver, Zarb, Silver, Moore, & Salisbury, 1988; Sloan, 2000; Trieschmann, 1988; Whalley Hammell, 1992).

Although relatively high levels of life satisfaction and personal well-being appear to be achieved by many individuals with SCI (Carlson, 1979; Crewe & Krause, 1990; DeVivo, Richards, Stover, & Go, 1991; Eisenberg & Saltz, 1991; Kennedy, 2001; Schulz

& Decker, 1985), poor adjustment and psychological morbidity are also suggested by higher rates of suicide, depression, anxiety, self-neglect, and substance abuse as compared to the general population (Craig, Hancock & Dickson, 1994a, 1994b; DeVivo, Black, Richards, & Stover, 1991; Hancock, Craig, Dickson, Chang & Martin, 1993; Heinemann & Hawkins, 1995; Heinemann, Mamott, & Schnoll, 1990; Richards, Kewman & Pierce, 2000; Whalley Hammell, 1992).

There is evidence to suggest that the availability of close interpersonal relationships (social support) may buffer the stress of daily adjustment and coping with a permanent condition such as SCI, mitigating psychological morbidity (Craig, et al., 1990; Elliott, Herrick, Witty, Godshall, & Spruell, 1992; Holicky & Charlifue, 1999; Rintala, Young, Hart, Clearman, & Fuhrer, 1992; Rintala, Young, Hart, & Fuhrer, 1994; Schulz & Decker, 1985; Stambrook, et al., 1991). Furthermore, it is increasingly recognized that the unavailability of close, supportive relationships has significant negative implications for both psychological and physical health post-SCI (Anson, Stanwyck, & Krause, 1993; Berkman, 1995; Rintala, et al., 1992; Elliott, et al., 1992; Stambrook, et al., 1991; Whalley Hammell, 1994), suggesting a potentially important target for psychosocial interventions.

Intimate Relationships and SCI

Among the many concerns confronting the newly injured person with SCI are apprehensions about the potential impact of their acquired disability on present or future intimate relationships. Trepidation about sexual performance and sexual identity, as well as worries that others will perceive them as asexual and/or unsuitable romantic partners,

may significantly interfere with the development of new relationships. The stigmatizing effects of physical impairment are frequently reported by people with disabilities (Driedger & Gray, 1990; Milligan & Neufeldt, 2001) and reflected in empirical findings that they are more readily accepted as co-workers and casual friends than as potential romantic partners (DeLoach, 1994; Olkin & Howson, 1994).

Although the topics of dating, courtship and marriage in the context of disability have recently begun to receive more research attention (e.g., DeVivo, Hawkins, Richards & Go, 1995; Gill, 1996; Howland & Rintala, 2001; Milligan & Neufeldt, 1998; Mona et al, 2000; Nosek, Howland, Rintala, Young & Chanpong, 2001; Rintala, et al., 1997; Yoshida, 1994), there remains a paucity of empirical investigations. Certainly, an important question which remains to be answered is how some individuals with severe physical disabilities, such as SCI, have managed to achieve and maintain satisfying romantic lives (e.g., Kreuter, Sullivan, Dahllöf & Siösteen, 1998; Milligan & Neufeldt, 1998), while others have not (e.g., Milligan & Neufeldt, 2001; Yoshida, 1994.)

At present, our understanding of the factors that may be important to forging satisfying intimate relationships¹ post-SCI remains rudimentary. The extant literature indicates that demographic and injury-related variables are relatively unimportant predictors of most psychosocial outcomes after SCI (e.g., Buckelew, Baumstark, Frank, & Hewett, 1990; Craig, et al., 1990; DeVivo & Fine, 1985; El Ghatit & Hanson, 1975, 1976; Elliott, et al., 1992; Heinemann, 1995; Krause, 1990; Marini, Rogers, Slate, &

¹ Although it is recognized “intimate relationships” can refer to a range of close relationships (e.g., family, friends), throughout this document the term will be used to refer to sexual/romantic relationships.

Vines, 1995; Romeo, Wanlass & Arenas, 1993; Siösteen, Lundqvist, Blomstrand, Sullivan, & Sullivan, 1990; Summers, Rapoff, Varghese, Porter & Palmer, 1991; White, Rintala, Hart, Young & Fuhrer, 1992, 1993), implicating the greater relevance of individual factors as predictors of post-SCI sequelae (Boschen, 1996; Kennedy, 2001; Krause & Dawis, 1992). A number of authors have indeed reported that individual factors may be important to achieving satisfaction within intimate relationships following SCI (e.g., Crewe, Athelstan, & Krumberger, 1979; Crewe & Krause, 1988; Milligan & Neufeldt, 1998; Neumann, 1980, as cited in Neumann, 1991; Nosek, et al., 2001; Simmons & Ball, 1984). The primary impetus for the present study is to specify and test hypotheses related to potentially salient individual factors, as suggested by the extant literature, that may facilitate or inhibit post-SCI satisfaction with romantic relationships. However, before explicating the primary goals of this study, a brief description of the researcher's personal background, as it pertains to the focus of this study, is provided.

Theoretical Sensitivity

Strauss and Corbin (1990), and other authors, have written about the importance of theoretical sensitivity: the personal quality of the researcher that allows for insight, the ability to give meaning to data, and the capacity to understand. A researcher's theoretical sensitivity is derived from a number of sources: the literature, professional experience, the analytic process, and personal experience. To the extent that this researcher has garnered theoretical sensitivity to the focus of this investigation, it has been informed by all four sources.

As an able-bodied woman married (postinjury) to a wonderful man with quadriplegia, the result of a traumatic SCI, I have direct personal experience with the substantive focus of this investigation. Living intimately with disability has informed me on the day-to-day challenges facing individuals living with SCI, their partners, and their families. As well, I have vicariously learned about the architectural and attitudinal barriers that can and do exist. My personal experience has demonstrated to me that satisfying romantic partnerships forged post-SCI can and do exist. This personal context, in conjunction with my professional experience as a training psychologist on a hospital-based SCI rehabilitation unit and my academic review of the SCI research literature, has contributed to the genesis of the questions that underlie this dissertation.

Purpose of Research

Given the paucity of studies that have investigated the interpersonal impact of SCI, a general motive of this research is to contribute to the emergent literature which is beginning to explore dating and romantic relationship satisfaction (RRS) in single men and women living with SCI. More specifically, the two primary goals underlying this investigation are:

1. Establish correlations, if any, between selected individual factors (acceptance of disability, interpersonal control/social impact, social anxiety, and perceived risk in intimate relationships) and perceived barriers to dating (PBD) and overall RRS.

2. Explore and compare the attributions and interpersonal strategies of individuals selected on the basis of high versus low self-reported satisfaction with their romantic relationships.

Chapter 2 will provide a review of the relevant literature and develop a rationale for this project and its guiding research questions.

CHAPTER 2

LITERATURE REVIEW

Introduction

In contrast to the extensive medical research that focuses on the physiology and neurology of SCI, the psychosocial literature remains relatively sparse regarding the subjective experiences of people with SCI as they attempt to cope with the implications of a traumatic injury of this magnitude. The preponderance of empirical investigations within the psychological literature have focused on acute grief reactions to injury, and coping/adjustment to the physical and psychosocial sequelae of SCI (Laskiwski & Morse, 1993), most typically over the first 2 years postinjury.

Until recently, investigations in the area of intimate relationships in the context of SCI have been almost exclusively directed towards the physiological aspects of sexual functioning (e.g., sexual behavior, frequency of activity, and capacity for orgasm), while other components of intimacy have received far less attention (Willmuth, 1987).

Over the past decade, interest in the topic of sexuality and disability has rapidly expanded. By way of illustration, a search of PsycINFO covering the years from 1967 to (April) 2002 using the keywords “sexuality and disability” revealed a total of 234 citations, of which 82% (192/234 articles) were dated 1990 or later. Much of this literature consists of commentaries, literature reviews, or didactic articles based on clinical observations; however, increasingly empirical investigations are focusing on the

subjective and interpersonal aspects of sexual experience for persons with disabilities (PWD) (Milligan & Neufeldt, 2001).

Given the current state of the literature, theory development in the area of intimate relationships post-SCI clearly remains in its infancy. While empirical investigations specific to SCI (and other physical disabilities) and romantic relationships do provide a tentative basis for the hypotheses of interest to this investigation, it is primarily an exploratory approach that has been adopted in this thesis.

As strong theoretical underpinnings specific to disability and intimate relationships are currently lacking, the researcher has drawn from personal observations and the disability and general psychosocial bodies of literature to identify individual factors that may be of import to satisfaction with romantic life post-SCI. The general body of literature on intimate relationships has given little, if any attention to disability. Similarly, until recently, the empirically-based disability literature has had little to say on the topic of intimate relationships. In essence, this study, and others, before it and to follow, are strategically aimed towards incrementally building a theoretical foundation for our understanding of the intersection between two heretofore distinct trajectories of research. Speaking metaphorically, the voyage into uncharted waters can be fraught with challenges and uncertainty as to direction – but the discovery of new destinations seems worth venturing off into the unknown.

The SCI literature suggests a direction for exploration of individual factors through its identification of both acceptance of disability and an external locus of control

as variables that have been demonstrated to be predictive of positive psychosocial outcomes, although these constructs have not been adequately explored in the context of social relationships. Drawing from the general psychosocial literature on interpersonal relationships, both social anxiety and perceived risk in intimacy emerge as individual factors that can have a deleterious influence on relationship initiation and development. The latter findings are echoed faintly within the SCI literature. Although the linkages are tentative and speculatively related, these intersecting literatures (i.e., selected individual factors and disability) will be a focus of the review that is to follow.

This chapter will also review the extant literature on romantic relationships in the context of SCI. While the emphasis is decidedly on the SCI literature, when warranted, this review also expands to include research that has focused on a broader range of severe physical disability². Every attempt will be made to be clear as to when the literature is restricted to the SCI population (e.g., using terms like *post-SCI*), and when a broader scope of disability is referred to (relating to PWD). It is intended that this review will logically develop a rationale for the current study.

Before proceeding, the terminology which is to follow should be clarified. Trieschmann (1988) has emphasized the important distinctions between three components of sexual functioning: sex drives (interest), sex acts (behavior) and sexuality. She has defined sexuality as:

² Severe physical disability is defined here as substantive physical impairment that is socially visible, interferes with multiple areas of biological and social functioning, and challenges occupational and/or domestic role performance (e.g., cerebral palsy, multiple sclerosis).

...the expression of a sex drive, through sex acts, within the context of the personal identity of the individual: the maleness and femaleness of the individual that is so heavily influenced by past cultural learning, one's self-image, and the expectations that others have of the person (p. 159).

Trieschmann's definition of sexuality, adopted in this thesis, emphasizes the salience of the person-environment interaction (Milligan & Neufeldt, 2001).

As well, throughout this document, the terms sexual relationship, intimate relationship and romantic relationship will be used interchangeably to refer to a primary attachment relationship, whether it be heterosexual or homosexual in nature.

Disability and Romantic Relationships

As indicated previously, the majority of individuals who acquire a SCI are young, male and single (Bridges, 1997; Gutierrez, et al., 1993; Trieschmann, 1988). As such, traumatic SCI typically occurs at a time when many of these young people are engaged in the developmental tasks of early adulthood, including the pursuit of a close attachment relationship with a significant other - a mate.

At present, the impact of SCI on pre-existing relationships and the potential barriers to forging new romantic relationships postinjury are not well understood. At best, the current literature only suggests the interpersonal sequelae of traumatic SCI. Particularly striking has been the historical absence of women's experience in both the SCI and physical disabilities literatures (Tilley, 1998). It is encouraging to note this

neglect is being addressed, as evidenced by the recently burgeoning literature focused on women and sexuality in the context of disability (e.g., Nosek, et al., 1996; Quintiliani, 2000; Richards, Tepper, Whipple & Komisaruk, 1997; Rintala, et al., 1997; Sipski, Alexander & Rosen, 2001; Sipski, Rosen, Alexander & Hamer, 2000; Tepper, Whipple, Richards & Komisaruk, 2001; Westgren & Levi, 1999; Yoshida, Li, & Odette, 1999).

One potential indicator of interpersonal adjustment is marital status. Although cross-sectional investigations of marital status do not adequately represent the qualitative aspects of marriage (e.g., satisfaction, stability), they do provide gross indices of the social impact of SCI on the most intimate of relationships. Recent investigations of marital status for persons with SCI indicate that they are significantly less likely to marry, at least in the short term, and when they do, they are more likely to divorce than the general population (Brown & Giesy, 1986; DeVivo & Fine, 1985; DeVivo, et al., 1995; DeVivo & Richards, 1992). For example, in their investigation of divorce following post-SCI marriages ($N = 622$), DeVivo, et al. (1995) found men and women with SCI reported 1.7 times more divorces than expected based on the United States population divorce rates. Although the longer term effect of SCI on marital status is less clear, it appears that after a period of elevated risk lasting a few years post-SCI, the divorce rate begins to decline towards the normal rate expected for the general population (DeVivo, et al., 1991; DeVivo & Richards, 1992).

It appears that women with SCI may experience even greater marital disadvantage than men with SCI. Brown and Giesy (1986) compared rates of marriage and divorce in

men and women with SCI to expected values, based on 1980 U.S. Census data, and found significant differences. They reported that 39% fewer women with SCI married than expected versus 22% fewer men with SCI who were married. Furthermore, 25% more women with SCI were divorced than expected versus men, who were 9% more likely to be divorced. Other authors have speculated about women's romantic disadvantage, offering the greater cultural emphasis on women's physical attractiveness (aesthetics) and a perceived inability to fulfill traditional female roles, such as caring for partners, children and/or performing domestic duties (function) as potential explanations (Gill, 1996).

These empirical findings are consistent with clinical reports that the sequelae of SCI, in combination with its stigma inducing properties, can impose challenging barriers to both the maintenance and initiation of intimate relationships (i.e., DeLoach & Greer, 1981; Hahn, 1981; Lemon, 1993; Oliver, et al., 1988; Vash, 1981; Wright, 1983).

A number of recent investigations have highlighted the positive impact having an intimate partner can have on emotional well-being. Married or partnered persons with SCI, relative to their unmarried peers, have been documented to report greater life satisfaction and quality of life (Chase, 1998; Holicky & Charlifue, 1999; Kreuter, Sullivan, Dahllöf & Siösteen, 1998; Post, de Witte, van Asbeck, van Dijk, & Schrijvers, 1998; Putzke, Elliott & Richards, 2001), higher levels of social integration (Putze, et al., 2001), lower levels of depression (Holicky & Charlifue, 1999) and self-reported handicap (Putze, et al., 2001).

Romantic relationships in the context of disability are likely influenced by societal attitudes towards PWD. It seems the stigmatizing effects of disability can lead to reduced social acceptance, avoidance, and/or rejection from nondisabled persons. PWD have been found to be more readily accepted as co-workers and casual friends than as dating or marriage partners (DeLoach, 1994; Gill, 1996; Olkin & Howson, 1994; Phillips, 1990; Trieschmann, 1988; Yoshida, 1994). Potential explanations for decreasing social acceptance as the level of intimacy increases include nondisabled persons' social discomfort, stereotypes of PWD, expectations of stigmatization of the self by others, often referred to as *stigma spread* (Gordon, Minnes, & Holden, 1990; Fichten, Goodrick, Amsel, & McKenzie, 1991) and/or the sense of reduced social worth of PWD. Certainly the extensive work of Fichten and her colleagues (i.e. Fichten, 1986; Fichten & Amsel, 1986; Fichten, et al., 1991; Fichten, Robillard, Judd, & Amsel, 1989; Fichten, Robillard, Tagalakis, & Amsel, 1991) has attested to the interactional awkwardness and discomfort nondisabled college students experience when in the presence of peers with physical disabilities.

Anecdotal reports and personal testimonies have highlighted the strong social message PWD receive about their unsuitability as romantic partners (Gill, 1996; Hahn, 1981; Milligan & Neufeldt, 2001; Stohl, 1996). Historically, social ideals for a romantic mate have not included a partner who is severely physically disabled. The personal narratives of PWD, cultural images of PWD, and the empirical literature attest to the persistence of a myth of asexuality: that PWD lack the desire, ability and/or capacity for

sexual relationships (Milligan & Neufeldt, 2001). Unfortunately, this societal view is frequently internalized and shared by the person with an acquired disability (Drench, 1992; Kettl, et al., 1991; DeLoach, 1994; Pearson & Klook, 1989; Wada & Brodwin, 1975).

In her recent review of dating and romance in the context of disability, Olkin (1999) declared: "For people with disabilities, dating is Mount Everest" (p. 223). In light of apparently significant social barriers, some persons with SCI may not even attempt to forge intimate relationships, considering themselves unlikely to be successful (Yoshida, 1994). Kreuter, et al. (1998) reported 25% of single persons with SCI in their sample ($N = 167$) indicated they neither had the time nor interest in having a sexual relationship. It is unclear whether or not this adoption of a nonsexual lifestyle represents an emotional defense and/or a self-fulfilling prophecy in response to actual and/or perceived rejection. DeLoach (1994) has argued that unless an individual with a disability can successfully negotiate the initial stage of a relationship when personal appearance and other superficial characteristics are important, it is unlikely that a desired relationship will develop.

To date, very little has been written about the specific nature of the difficulties, if any, persons with SCI experience in meeting potential romantic partners and/or developing intimate relationships. The extant literature, albeit limited, suggests that sexual/intimate relationships are indeed a significant challenge for most individuals with physical disabilities such as SCI, and a source of considerable dissatisfaction (Bozzacco,

1993; Carlson, 1979; Drench, 1992; Krause, 1992; Mackelprang & Hepworth, 1990; Miller, 1988; Povolny, Kaplan, Marme', & Roldan, 1993; Rintala, et al., 1997; Taleporos & McCabe, 2001; Tepper, 1992; Trieschmann, 1988).

Recently Rintala and her colleagues (1997) reported on their landmark, exploratory study of dating issues for single women with physical disabilities (WWD), a component of a larger study of women's psychosexual development ($N = 900$). To examine dating issues, a subset of data from the larger study was extracted ($N = 430$; 250 WWD and 180 women without disabilities). This investigation was well conceived and included a control group of able-bodied women. Twenty-five percent of the WWD in the sample had a SCI. The questionnaire designed for the larger study, and the dating issues component, was based on interviews with 31 WWD (Howland & Rintala, 2001) and input obtained from national and local advisors (e.g., medical professionals, consumers, researchers).

Rintala and her colleagues (1997) found WWD were significantly "...less satisfied with their dating frequency, perceived more constraints on attracting dating partners, and identified more societal and personal barriers to dating" (p. 239) as compared to women without disabilities. Despite significantly poorer dating outcomes, which were associated with lower self-esteem, many WWD also reported forming a long-term intimate relationship with a partner who accepted their disability (Center for Research on Women with Disabilities, 1999).

In an exploratory investigation, Yoshida (1994) found the 28 men with SCI she interviewed characterized their experiences in meeting women postinjury in two primary ways, "...either as not a problem or difficult" (p. 181). While some men in her sample reported returning confidence and success in attracting members of the opposite sex, others experienced ongoing concerns about their attractiveness, difficulties with sexual communication and "interactional awkwardness" (p. 182), sometimes leading to major reservations about initiating or even looking for a relationship. A number of participants stated a lack of companionship represented a significant void in their lives (Yoshida, 1994). In the face of a presumably uniform social context, Yoshida's (1994) results suggest an interaction between disability and individual factors that may, in part, account for the dichotomous perspective on meeting potential romantic partners post-SCI. Another possible explanation for Yoshida's results is that the men in this sample who reported no difficulties in meeting women post-SCI were influenced by impression management strategies designed to maintain a positive self-image and present themselves to a female interviewer as sexually attractive.

Despite the challenges outlined above, there is also evidence to suggest that satisfying romantic and/or marital relationships can and do develop post-SCI (Crewe, et al., 1979; Crewe & Krause, 1988; DeVivo & Fine, 1985; DeVivo, et al., 1995; El Ghatit & Hanson, 1976; Kreuter, et al., 1998; Kreuter, Sullivan, & Siösteen, 1994; Milligan & Neufeldt, 1998; Simmons & Ball, 1984).

At present, our understanding of the variables that may be important to forging intimate relationships post-SCI remains rudimentary. Some authors have suggested individual factors that may be important to relationship development in the context of SCI (Crewe, et al., 1979; Crewe & Krause, 1988; Milligan & Neufeldt, 1998; Neumann, 1980, as cited in Neumann, 1991; Simmons & Ball, 1984) and these will be examined next.

Individual Factors

The extant research directly and indirectly implicates the role of individual variables in many post-SCI psychosocial outcomes. A robust finding is the lack of a significant relationship between level of SCI and/or functional disability and a wide range of rehabilitation outcomes, including life satisfaction, adjustment, productivity, marital status, and sexual or marital satisfaction (Buckelew, et al., 1990; Craig, et al., 1990; DeVivo & Fine, 1985; DeVivo & Richards, 1992; Elliott, et al., 1992; El Ghatit & Hanson, 1975, 1976; Hampton, 2000; Heinemann, 1995; Krause, 1990; Marini, et al., 1995; Nosek, et al., 2001; Post, et al., 1998; Romeo, et al., 1993; Siösteen, et al., 1990; Summers, et al., 1991; White, et al., 1992, 1993).

As Krause & Dawis (1992) have argued, it appears that demographic and injury-related variables are relatively unimportant predictors of life satisfaction or other psychosocial outcomes after SCI, suggesting the greater relevance of individual factors, such as adjustment, as predictors. Similarly, Boschen (1996) provided evidence that the variables most strongly correlated with life satisfaction were personal characteristics,

such as self-concept ($r = .77, p < .01$) an internal locus of control ($r = -.35, p < .01$), health ($r = -.53, p < .01$) and income ($r = .42, p < .01$) and not variables directly related to the extent of injury. In fact, on the basis of her correlational analyses Boschen (1996) concluded that given the high correlation between self-concept and life satisfaction “...life satisfaction was virtually synonymous with self-concept” (p. 230).

A criticism of past research has been its focus on disability as a defining variable of persons with physical disabilities, to the neglect of potentially salient individual personality and attitudinal characteristics (Fine & Asch, 1988). Furthermore, the investigation of static variables (i.e., level of injury, age, sex), while informative and useful for theory building, ultimately leads to findings which are not amenable to intervention. To address psychosocial problems facing individuals with physical disabilities, such as SCI, it is critical that investigations attempt to isolate conditions and variables which are potentially amenable to change and/or therapeutic influence (Kerr & Bodman, 1994). In light of the virtual absence of empirical literature addressing the development of romantic relationships in the context of either congenital or acquired physical disabilities, it remains highly speculative to hypothesize the potential individual factors which may be influential.

In the literature on interpersonal attraction, four causal conditions have been described in a model proposed by Kelley, et al. (1983, as cited in Simpson & Harris, 1994): (1) person variables (individual attributes of an evaluator); (2) environmental variables (the physical and social contexts in which interactions take place); (3) other

variables (attributes specific to the target of evaluation, such as physical attractiveness and personality); and (4) the dynamic interaction of person by other variables (e.g., similarity). Of particular interest to this investigation are individual factors (person variables) - the attributes which individuals bring to interpersonal encounters. Past research has demonstrated that social motives (the need and desire for intimacy and/or affiliation), social deficiencies (social anxiety, loneliness, and depression), and interpersonal expectancies (perceptions of others, physical attractiveness, and beliefs about whether others like us) which individuals bring to encounters can have a dramatic impact on the degree to which one person is attracted to another (Simpson & Harris, 1994) and ergo, the initiation of a potential romantic relationship.

Given the previously described social barriers to romantic relationship initiation and development for persons with SCI, the contribution to the interpersonal situation by a person with SCI would seem to be of prime interest. Unfortunately, few studies have actually dealt with this issue (Yuker, 1994). One could speculate that an individual's greater acceptance of their acquired disability, perceived capacity to have impact on interpersonal situations (i.e., an internal locus of control), diminished social anxiety and/or avoidant behaviors, and lower perception of risk in intimate relationships would enhance opportunities for the development of romantic relationships and, attenuate social barriers. In contrast, individuals who have struggled to accept their disability, maintain a negative self-image, and experience distress in social situations, may feel powerless (external locus of control) to overcome perceived barriers to intimacy, withdraw and/or

avoid social contact, and perceive greater risk in intimate relationships, resulting in a reduced likelihood of initiating and/or developing a desired romantic relationship. In this way, acceptance of disability, interpersonal control, social anxiety and/or avoidance, and the perception of risk in intimacy may be important to both the perception of barriers to forging romantic relationships and to satisfaction with one's romantic life. These individual factors of interest will be discussed at greater length below.

Acceptance of Disability

Acceptance of loss theory (Dembo, Leviton, & Wright 1956/1975; Wright, 1960, 1983) has occupied a central position within the rehabilitation literature (Keany & Glueckhauf, 1993). Within this theoretical framework, Wright (1983) has stressed the importance of self-acceptance for positive adaptation to disability, and proposed conditions which facilitate “. . . acceptance of one's disability as nondevaluing” (p. 159). While a preference for disability is not realistic, Wright (1983) emphasized that acceptance must go beyond resignation. While the disability may always be viewed as inconvenient and limiting, acceptance of loss as nondevaluing is critical to overcome feelings of shame and/or inferiority. Four major, interdependent changes which are theorized to facilitate acceptance have been delineated, as outlined below. It should be noted that these value changes are not posited to occur in an orderly progression of stages (Keany & Glueckhauf, 1993).

- (1) *Enlargement of Scope of Values*: The extent to which a person is able to recognize the importance of values (e.g., abilities, goals) other than those that have been presumed to be lost or in direct conflict with the disability.
- (2) *Subordinating of Physique Relative to Other Values*: The extent to which a person is able to de-emphasize aspects of physical ability and appearance and focus on other valued characteristics (e.g., intelligence, personality, creativity).
- (3) *Containing Disability Effects*: The extent to which a person is able to avoid the *spread effect* (Wright, 1983, p.23), which refers to the power of a single characteristic (i.e., disability) to dominate inferences about a person. Because not all aspects of life are disability connected, avoiding spread beyond actual physical impairment to other aspects of the self represents an important value change.
- (4) *Transforming Comparative-Status Values into Asset Values*: The extent to which a person is able to avoid comparing him/herself to others (i.e., relative status judgments) in terms of areas of limitation, but instead emphasizes assets and abilities (Linkowski, 1971; Wright, 1983).

Acceptance of disability, a purported important aspect of self-concept and positive adjustment to disability (Linkowski & Dunn, 1974; Wright, 1983), appears to have implications not only for the individual with a disability, but for the attitudes of

nondisabled persons as well. The disability literature reflects findings that the attitudes of nondisabled persons are heavily influenced by the characteristics of persons with disabilities. In his review of the research, Yuker (1994) comments:

Positive attitudes of disabled people toward their disability (as reflected in self-acceptance, disability acknowledgment and disclosure) often have a positive effect on the attitudes of others toward them....Disabled people with good social skills are generally positively evaluated by others...

(p. 9-10).

It seems, at least to some extent, that PWD's self-presentation, adjustment and behavior influences evaluations by nondisabled persons (Shurka, Siller, & Dvorch, 1982).

More specific to romantic relationships in the context of SCI, Bozzacco (1993) suggested on the basis of his in-depth interviews with a small sample of men with SCI ($N = 5$) that "...the extent to which the spinal cord man was able to regard himself as acceptable to a partner and to himself influenced the establishment of intimate relationships." (p. 85).

A recent exploratory study (Milligan & Neufeldt, 1998) emphasized the significant role of positive adjustment to SCI in successful courtship experiences leading to marital commitment. The able-bodied women participating in this study emphasized their mates' positive attitudes toward their life and disability as important factors in both their attraction to their future husband and their ultimate decision to marry. A number of participants expressly speculated that they might have been disinclined to become

romantically involved if their partner had not displayed such a positive adjustment to their SCI.

The adjustment to SCI literature is compromised by definitional and measurement diversity across studies, variously conceptualized as, degree of life satisfaction, degree of emotional distress, degree of disability acceptance, etc. (Livneh & Antonak, 1997).

Although our current understanding of the psychosocial factors associated with positive adjustment to disability remain tentative, (Craig, et al., 1990; Hanson, Buckelew, Hewett, & O'Neal, 1993), it appears greater disability acceptance is related to being younger at the time of onset, increased time since injury, ego resiliency and use of effective coping strategies, stable and positive social support, work and/or productivity and an internal locus of control (Craig, et al., 1990; Crewe & Krause, 1990; Elliott, 1999; Heinemann, 1995; Heinemann, Bulka, & Smetak, 1988; Kennedy, et al., 2000; Krause & Anson, 1997; Krause, Stanwyck & Maides, 1998; Krause & Sternberg, 1997; Livneh & Antonak, 1997; Marini, et al., 1995; Woodrich & Paterson, 1983). The locus of control construct is one of primary interest to this investigation.

Locus of Control

General theory and issues. Since Rotter's (1966) explication of the locus of control (LOC) construct, it has been the basis for both extensive research and controversy. Rotter (1966) conceptualized LOC as a generalized expectancy an individual has about whether or not the rewards/reinforcements in the environment are influenced by his own behavior or attributes. Individuals who believe that

reinforcements are determined primarily by personal effort, ability, initiative, or other relatively permanent characteristics, are classified as *internal*; whereas a belief that reinforcements are noncontingent on personal behavior but rather the result of luck, chance, fate, or the actions of powerful others, are classified as *external*. It is important to emphasize that this hypothesis focused on an individual's learned belief or expectancy, not the reality of control over rewards (Trieschmann, 1988).

A plentitude of research has attested to the utility of the LOC construct as a conceptual tool (Lefcourt, 1991). For example, use of this orientation leads to predictions about behavior, particularly in the face of challenge or adversity. It is anticipated that individuals with beliefs in personal control over the reinforcements in their life (an internal LOC) will engage in and persist at goal-directed behavior to fulfill their needs. In contrast, individuals who have come to believe that outcomes are not determined by their personal efforts would be less likely to be resilient or active in dealing with stressful life experiences, and subsequently more prone to negative emotional states (e.g., anxiety, depression, etc.).

Convergent empirical findings have led to the general consensus that LOC appears to have a multidimensional rather than unidimensional structure (as proposed by Rotter, 1966), however, agreement on the nature and number of subfactors remains elusive (Paulhus, 1983). As well, researchers have distinguished between perceived sources of control, goal areas, and the behavioral spheres wherein control beliefs apply (Parkes, 1988). For example, Paulhus and Christie (1981), taking an interactionist

perspective (person by environment), hypothesized that individuals might maintain different expectancies of control within different behavioral spheres, specifically intrapersonal, interpersonal and sociopolitical domains. These authors' theory and subsequent scale development (Spheres of Control) addressed the "...conspicuous absence of a device for assessing interpersonal control" (p. 166).

More problematic has been terminological and conceptual confusion between LOC and similar constructs. Within the interpersonal context, the convergent and discriminant validity of measures of interpersonal (locus of) control, social self efficacy, perceived control, interpersonal competence, and interpersonal power has been questioned (Leone & Burns, 1997; Palenzuela, 1987). Based on factor analyses of commonly used scales of contingency, interpersonal power, and social self-efficacy (all specific to social relationships, settings and interactions), Leone and Burns (1997) concluded that the underlying dimension is best described as *perceived social impact* - a single construct.

LOC and SCI. There are a limited number of published studies that have investigated the relationship between SCI and LOC (Boschen, 1996, Hancock, Craig, Tennant & Chang, 1993). Those that exist have primarily focused on the correlation between LOC and adjustment outcomes (e.g., psychological distress, life satisfaction, quality of life). Rare is the investigation which has directly explored LOC and SCI in an interpersonal context. Before reviewing this research, the stability of LOC after SCI will be discussed.

Rotter (1966) conceptualized LOC as a stable orientation; however, Lefcourt (1979, as cited in Boschen, 1990) has pointed out that major life changes could be expected to result in shifts in LOC. Boschen (1990) suggested that the traumatic onset of SCI, resulting in permanent quadriplegia or paraplegia, could be expected to alter LOC orientations, at least temporarily (estimated range - 3 months to 2 years postinjury)³. Although the impact of SCI on a person's perceptions of control has not been systematically studied, Hancock and his colleagues (1993) concur that one would suspect an individual's sense of personal control would be affected by the far-reaching sequelae of SCI. Consistent with this hypothesis, their prospective investigation discovered fluctuations in LOC orientation across the first two years post-SCI. Craig, Hancock and Chang (1994) reported the group with SCI tended to be significantly more externally focused, were lower in self-esteem and had more helpless/hopeless, fatalistic attitudes, when compared to an age-matched, able-bodied control group; however, LOC for the SCI group changed significantly over the 4 assessment periods across the two years. LOC scores did not steadily decrease (high scores of the measure used represents external orientation) over time. Offering a potential explanation, the authors attributed the obtained increase in the mean scores for Time 3 (vis-à-vis Time 2) to the participants' recent return to the community following rehabilitation discharge and perhaps the many

³ The author points out, however, that one of the characteristics of adjustment to a permanent disability is the return of preinjury perspectives about oneself and the world (Shadish, Hickman & Arrick, 1981; Trieschmann, 1988).

changes they faced may have decreased their feelings of control. At Time 4, mean LOC scores returned to lower pre-discharge (Time 2) levels.

Preliminary evidence suggests that LOC in individuals with SCI is modifiable through intervention. In their investigation of the effects of a hospital-based group psychological intervention targeted towards the perceptions of control in people with SCI, Craig, Hancock, Chang and Dickson (1998) found that both groups (treatment and control) tended to acquire a more internal locus of control over time. This finding suggests that as a function of time since injury and with the acquisition of greater independence through the rehabilitation process, the person with SCI's feelings of control over his or her life may be enhanced. Furthermore, Craig, et al. (1998) found that for the substantial minority of their sample (30-40%) who were at risk of feeling helpless (i.e., an external LOC), the psychological treatment resulted in a significant mean shift from external to internal locus of control posttherapy and two years following. Although the sample was relatively small ($N = 28$), this controlled study suggests psychological intervention in the rehabilitation stage may be beneficial for many persons with SCI who feel they have little control over their lives (Craig, et al., 1998).

Similarly, Fiedler (1998) demonstrated that a psycho-educational group intervention was efficacious for increasing the perceived control of patients with SCI during their initial rehabilitation. Compared to the control group, the treatment group participants showed greater improvement in rehabilitation outcome as measured by level of independence in activities of daily living.

An internal LOC appears to be an asset when faced with the onset of SCI as it has been shown to be associated with better rehabilitation outcomes and may be important for achieving a productive, satisfying, and meaningful life postinjury (Boshen, 1996; Carroll, 1999; Craig, et al., 1990; Krause, 1997; Krause, et al., 1998; Mazzulla, 1984; Schulz & Decker, 1985; Schulz, Tompkins, Wood, & Decker, 1987; Trieschmann, 1988; Whalley Hammell, 1992). Persons with SCI and an internal health orientation have been found to report less distress and depression than those with an external health LOC (Frank & Elliott, 1989; Frank, et al., 1987). On the basis of their findings, Frank, et al. (1987) suggested that "...an important aspect of emotional recovery is moving the injured person toward a belief in internal resources" (p. 730). In his recent review of the literature, Livneh (2000) concluded the extant research is generally consistent in finding that persons with SCI who demonstrate an internal locus of control report lower levels of psychosocial distress and better adaptation to life postinjury.

External LOC individuals with SCI have been found to experience more psychological problems following SCI than internal LOC peers, even when they have been injured longer (Shadish, Hickman, & Arrick, 1981). Craig, Hancock and Dickson (1994b) found feeling out of control (external LOC) prior to hospital discharge was predictive of high levels of depression two years postinjury. Chan, Lee and Lieh-Mak (2000), in their study of Chinese (Hong Kong) adults with SCI, found that individuals at risk for developing psychological difficulties (e.g., depression, social role dissatisfaction,

low levels of life satisfaction) were characterized by an external locus of control, inadequate coping styles and low perceived social support.

LOC, SCI and social relationships. There exists a paucity of studies which have focused on the correlation, if any, between LOC and satisfaction with social relationships. Swenson (1976, as cited in Heinemann & Shontz, 1984) found an internal LOC was related to greater involvement in social pursuits. In what appears to have been the first published empirical investigation of its kind, Linton (1990) found a moderate correlation ($r = .35, p < .001$) between sex-related LOC and sexual satisfaction. The investigator concluded that, in part, sexual satisfaction post-SCI was dependent upon individuals taking an active role in shaping their sexual life - an internal LOC. More recently, Mona, et al. (2000) found that after controlling for the severity of injury, internal personal control was predictive of better sexual adjustment. Although empirical exploration of the LOC disposition and intimate relationships in the context of SCI remains inadequate; these findings are suggestive of the importance of believing in the power to influence and/or direct one's romantic life and implicating LOC as a potential individual factor that may facilitate postinjury satisfaction with intimate relationships. For this reason, LOC has been selected as an individual factor of interest for this study.

Social Anxiety and Intimate Relationships

Whether one has a disability or not, the ability to interact effectively with others is a fundamental social skill that is important for good adjustment (Glass, Merluzzi, Biever & Larsen, 1982) and a satisfying interpersonal life. Anecdotal reports of individuals with

SCI have attested to the challenges of social adjustment to life with a SCI. One could speculate that social apprehensions may increase in even those individuals with SCI who were formerly self-confident and, in the extreme, may come to pervade interpersonal interactions, contribute to withdrawal from social life and thereby inhibit the development of sexual relationships.

Social anxiety in the general population. The literature on social anxiety has documented the significant interference this disposition, and its behavioral correlates, can have on the initiation and/or development of intimate relationships. Various referred to in the literature as shyness, embarrassment, communication apprehension, social phobia, dating anxiety, etc., social anxiety is defined here as the subjective experience of distress, discomfort, fear, anxiety, etc. within interpersonal settings, excessive concern about the evaluations of others, and/or the deliberate avoidance of social situations because of anticipatory anxiety (Watson & Friend, 1969).

Inhibitory social anxiety has been found to be related to having fewer friends, lower dating frequencies, and lower relational satisfaction (Jones, Rose & Russell, 1990). According to Leary (1986, as cited in Johnson, Aikman, Danner & Elling, 1995), not only are socially anxious individuals less likely to date, they are more reluctant to initiate and/or respond to sexual overtures, with the result that, over time, they come to doubt their desirability as a romantic partner. Recently, LeSure-Lester (2001) reported on the results of her study of social assertion and social anxiety in 217 college students. The author reported findings that social anxiety (as measured by the Social Avoidance and

Distress Scale; Watson & Friend, 1969) is moderately, and negatively, correlated with dating competence in college students ($r = -.43, p < .01$). Furthermore, empirical studies have consistently yielded correlations of .40 or greater between loneliness and social anxiety, with longitudinal investigations, although scarce, suggesting that social anxiety precedes and more strongly predicts loneliness than vice versa (Jones, et al., 1990).

Simpson and Harris (1994) have identified social anxiety as one of three major social deficiencies (along with loneliness and depression) that impede the development of interpersonal attraction. The behavioral correlates of social anxiety (e.g., poor eye contact, fewer facial expressions, restriction of interpersonal approaches, and nervous self-manipulations) suggest ineffective interpersonal styles (Jones, et al., 1990). The socially anxious person's greater reliance on avoidant coping strategies may be expected to limit opportunities for proximity and the initiation of attraction. Fears of negative evaluation and inhibition in taking interpersonal initiative may be inaccurately interpreted by a potential partner as disinterest and, to the socially anxious person, provide reinforcing evidence to support their self-focused, negative attributions and predictions, even in ambiguous social situations (Downey & Scott, 1996; Vorauer & Ratner, 1996).

Schneier, et al. (1994) reported that more than half of their relatively small sample of individuals with social phobia ($N = 46$; 32 with social phobia; 14 controls) acknowledged at least moderate functional impairment in their marriages/romantic relationships (and other social relationships) at some time during their lives due to social anxiety.

Dating anxiety, a more specific form of social anxiety (which also refers to anxiety in nondating situations), is recognized for its disruptive impact on the development of sexual relationships. Dating anxiety appears to be associated with poor social performance, although it is not clear if dating anxiety is attributable to social skills deficits or whether dating anxiety merely impairs performance. There is some evidence to suggest that individuals who are anxious about dating respond inadequately to important social cues, perhaps because of cognitive disruption (e.g., excessively self-focused negative thoughts leading to faulty appraisal and negative outcome predictions). Unfortunately, research on dating anxiety has almost exclusively focused on heterosexual male college students, limiting its generalizability to other populations (Hope & Heimberg, 1990).

Social anxiety and SCI. Most studies examining the short-term psychological consequences of SCI have focused on depression and paid very little attention to anxiety (Craig, et al., 1990) despite evidence this is also a significant problem, at least in the short term (Craig, et al., 1994a; 1994b; Hancock, et al., 1993; Scivoletto, Petrelli, Di Lucente, & Castellano, 1997). Certainly empirical exploration of social anxiety has been largely ignored within this population.

The physical and psychosocial consequences of traumatic SCI, particularly in the absence of positive adjustment, may leave some individuals with SCI at risk to develop social anxiety. An individual using a wheelchair for mobility is highly visible and feeling in the social spotlight could conceivably contribute to either the onset or exacerbation of

social anxiety. Considering the previously described social barriers to forging and/or maintaining intimate relationships, and the apparent potential for stigmatization and rejection, individuals with SCI may experience distress in social situations, withdraw from social life and/or inhibit relationship initiation efforts. As discussed, the repercussions of social reticence or avoidance include fewer opportunities to succeed interpersonally and may contribute to loneliness, especially when accompanied by a strong desire for affiliation. Furthermore, social discomfort/anxiety may make those interpersonal transactions that do take place not only uncomfortable but also less rewarding for all parties involved (Brown & Giesy, 1986).

At present, there is only very limited empirical support for the contention that social anxiety represents a significant interpersonal problem for individuals living with SCI. At least one study within the general disability literature has been offered as disconfirming evidence. Fichten, et al. (1989) found nondisabled students and those with physical disabilities did not differ significantly on measures of social anxiety, self-esteem, dating anxiety, dating frequency, or satisfaction with dating. Considering the sample consisted of 221 nondisabled students and only 32 students with disabilities, the research design appears to have insufficient power to detect differences, particularly given the number of measures employed. Therefore a Type II error cannot be ruled out as an explanation for these findings.

Dunn (1977) analyzed anxiety and avoidance in social situations in 40 male inpatients with SCI. He included demographic variables in his analyses, specifically age,

type of injury (paraplegia versus quadriplegia) and time since injury. He discovered that social anxiety was related to age, with older individuals endorsing more social distress than younger people; regardless of the level of injury or time since injury. Participants reported the most social discomfort in situations concerned with elimination functions, public embarrassment and refusing unwanted help. The author reported a modest but significant negative relationship ($r = -.31, p < .05$) between perceived social discomfort and adjustment.

Ray and West (1984) explored social relationships and adjustment problems experienced by persons with paraplegia (11 men and 11 women), using an unstructured interview format. Nine participants found it more difficult to meet people since their injury and beyond physical and practical problems, cited a lack of self-confidence. Talking about meeting others and developing friendships, one participant was quoted as follows:

I think to myself, what have I got to offer a person. Not a lot really...Now, I find everyone is looking at me.....Some days I am full of confidence and can go out, but other days I have a hard time going out and end up in tears. I'm afraid I might drop something or something will go wrong and everyone will look at me...I just hate to be so conspicuous (p. 78).

This individual's experience suggests that, at least for some persons with SCI, social anxiety may be a significant interpersonal impediment.

Risk in Intimacy

Many people (with or without disabilities) welcome the opportunity to establish intimacy in relationships and consider these emotional connections to represent one of the most rewarding experiences in life, and therefore a highly desirable goal. Certainly, Baumeister and Leary (1995) have argued that the desire for interpersonal attachments is a fundamental human motivation that is essential for emotional well-being. However, the literature also suggests that there is considerable variance in the experience of and desire for intimacy (Pilkington & Woods, 1999). For some people, the perceived *risk in intimacy* (Pilkington & Richardson, 1988) is considerable and therefore interpersonal closeness is to be avoided or reduced to protect against the potential dangers associated with it. To become intimate is to become vulnerable to a range of negative outcomes, including becoming defenseless by revealing one's inner self, losing control of emotions and/or sense of individuality, exposing personal faults, and facing potential rejection (Nezlek & Pilkington, 1994).

Pilkington and Richardson (1988) introduced the construct of *perceptions of risk in intimacy* based on their theory that people differ in their awareness of and sensitivity to the hazards associated with intimacy, which may be an important component of their attachment style (Nezlek & Pilkington, 1994). These authors developed a scale to measure this construct, the Risk in Intimacy Inventory, which will be utilized in this study and described in greater detail in the next chapter.

Pilkington and Richardson (1988) demonstrated that when compared to individuals who perceive less risk in intimacy, individuals who perceive intimacy as a unsafe venture tend to distance themselves from others, have fewer close friends, and a reduced likelihood of current romantic involvement. As well, they were found to be less assertive in dating situations, have lower self-esteem and trust in others, and appear to be less extraverted and sociable than individuals who perceive fewer risks.

In general, people who perceive greater risk in intimacy report attitudes and behaviors that are consistent with their perceptions. Pilkington and Woods (1999) found they are more likely to interpret ambiguous situations as threatening and potentially negative, for example, predicting rejection as a likely interpersonal outcome. Furthermore, it seems plausible that people who perceive intimate relationships as perilous are likely to withdraw from intimacy opportunities that may present, thereby diminishing the rewards (and, as is their objective, the punishments) to be derived from emotional closeness (Pilkington & Richardson, 1988; Pilkington & Woods, 1999).

The writer is unaware of any published investigations that have focused on the risk in intimacy construct within a context of disability or, more specifically, SCI. It seems a relevant factor to consider in assessing RRS post-SCI in that the resultant social reticence can interfere with potential opportunities to achieve intimacy. The perception of high risk does not axiomatically preclude a subjective desire for intimacy, but conflicting motivations and behaviors may represent the inherent ambivalence some people wrestle with in the pursuit, or lack thereof, of romantic relationships.

Summary

There is considerable evidence, both anecdotal and empirical, which indicates that, for many people, forging intimate relationships represents a significant challenge post-SCI. Considering the apparent importance of having a partner for emotional well-being, and perhaps social integration, it is incumbent on researchers to enhance understanding of the barriers to intimacy as well as the factors which minimize these impediments. Certainly some individuals with SCI do report both the achievement and maintenance of satisfying romantic lives. It is likely that the person-environment interaction plays a role in these varied outcomes. This investigation will focus on individuals factors, specifically, acceptance of disability, social anxiety and avoidance, interpersonal control and risk in intimacy and their relationship to the perception of barriers to dating and RRS.

Purpose of Research

To briefly review, the primary goals of this study are to establish correlations, if any, between the selected individual factors and the specified outcome variables, perceptions of barriers to dating and overall RRS. The specific hypotheses to be tested are explicated below.

Quantitative Research Hypotheses

1. Based on previous findings reported in the literature, as discussed previously, it is anticipated that acceptance of disability (AD) will be found to be significantly related to some demographic variables. Specifically, it is hypothesized that AD will be:

- a) significantly (positively) correlated with time since injury; reflecting that the more time an individual has had to adjust to SCI, the greater their AD;
 - b) significantly (negatively) correlated with age-of-onset of SCI; reflecting the greater adjustment difficulties of individuals who are older at the time of injury;
 - c) not significantly related to the level of SCI
- 2. It is hypothesized that AD, interpersonal control (ICS), social anxiety and/or avoidance (SADS), and perceived risk in intimate relationships together will be predictive of PBD. It is expected that individuals with SCI who have achieved greater AD, report an internal control orientation within interpersonal contexts, are not constrained by SADS, and perceive fewer risks in intimate relationships, will report fewer PBD. As visually displayed in Figure 1, it is predicted that the following (statistically significant) specific bivariate correlations will be found:
 - a) AD will be positively correlated with ICS and negatively correlated with SADS, risk in intimacy (RII) and PBD;
 - b) RII will be positively correlated with SADS and PBD and negatively correlated with ICS;
 - c) SADS will be positively correlated with PBD, and negatively correlated with ICS;
 - d) ICS will be negatively correlated with PBD.

3. It is hypothesized that AD, ICS, SADS, and RII together will predict self-reported satisfaction with romantic relationships. It is expected that individuals with SCI who have achieved greater AD, report an internal control orientation within interpersonal contexts, are not constrained by SADS, and perceive lower RII, will report greater satisfaction with romantic relationships. As visually displayed in Figure 2, it is predicted that the following (statistically significant) additional bivariate correlations will be found:

- a) AD will be positively correlated with RRS;
- b) RII will be negatively correlated with RRS;
- c) SADS will be negatively correlated with RRS;
- d) ICS will be positively correlated with RRS

4. Finally, it is hypothesized that individuals with SCI who perceive more barriers to dating, will report lower satisfaction with their romantic relationships. Specifically, it is predicted that:

- a) PBD will be negatively correlated with RRS.

Figure 1

Hypothesized Bivariate Correlations Between Individual Factors and Perceptions of Barriers to Dating (PBD)

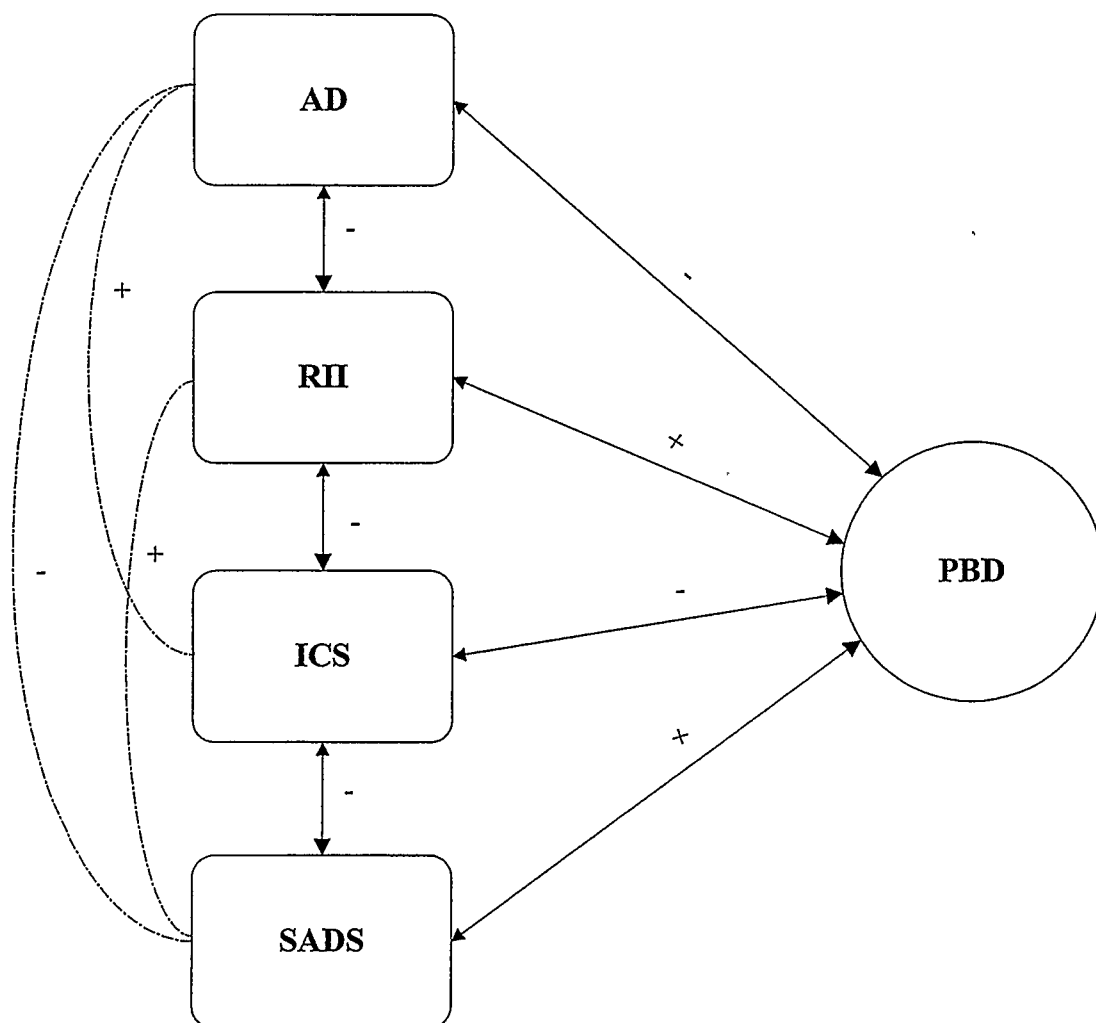
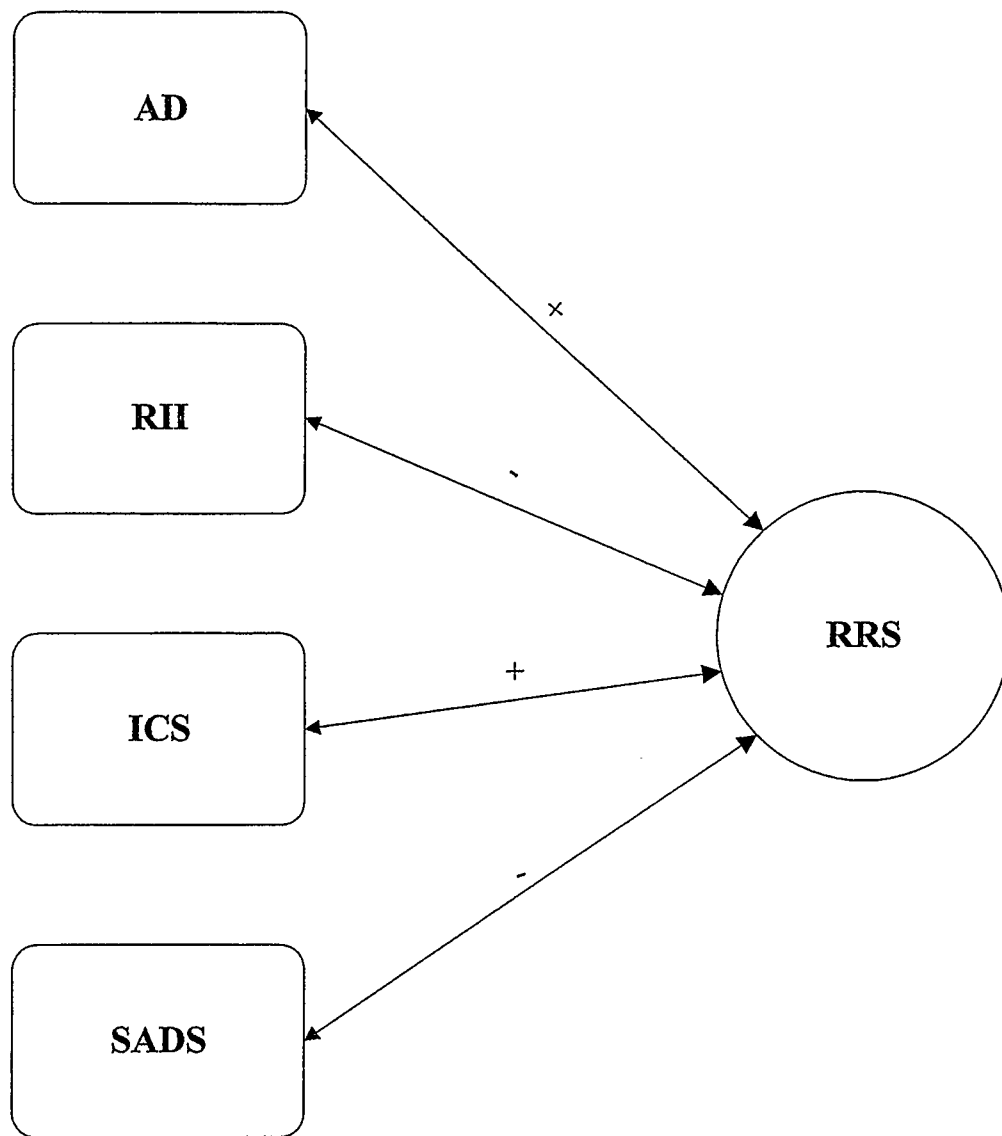


Figure 2
Hypothesized Bivariate Correlations Between Individual Factors⁴ and Romantic Relationship Satisfaction (RRS)



⁴ The hypothesized bivariate correlations between individual factors have been presented in Figure 1

CHAPTER 3

METHOD

Research Design

This investigation employed a mixed research design, including the collection of both quantitative and qualitative data. The quantitative design represented a non-experimental (between subjects) correlational approach with the specific goal of testing the research hypotheses of interest, as described in the previous chapter. All study participants answered a series of questionnaires/measures (described in detail below) which were presented in random order to counterbalance potential order of presentation effects.

The qualitative portion of the study was designed to both enhance understanding and interpretation of the quantitative data, but also to compare and contrast, in greater depth, the subjective experiences of a subsample of participants reporting relatively high and low RRS. As such, a purposive, extreme case sampling approach was used to select the subsample of interviewees to participate in a semistructured interview, which included both open and closed questions. The goal of this approach was to capture and describe the common and divergent themes across the most and least satisfied participants in the study.

Participants

Participant Recruitment and Selection

The primary resource for the recruitment of volunteers for this study was the Canadian Paraplegic Association [Alberta] (CPA), a provincial chapter of the national agency dedicated to assisting and advocating for persons with SCI. A standardized recruitment letter (see Appendix A) explaining the study and inviting participation was forwarded blind (to the investigator) to all 1,450 registered members of the CPA. The letter campaign consisted of three successively targeted mailings to: (1) the Calgary and surrounding area in May, 1999 (CPA Calgary office); (2) the Southern Alberta region in January, 2001 (CPA Lethbridge, Medicine Hat and Red Deer offices); and (3) Northern Alberta in May, 2001 (CPA Edmonton and Grand Prairie offices). In each case, if recipients were interested in learning more about the study, they were invited to complete and return an enclosed pre-stamped postcard addressed to the investigator, stipulating their preferred method of contact or, alternatively, they could contact the researcher directly at the contact numbers provided.

Although the CPA database has improved substantially over the last 5 years, it is important to point out that, at the time of recruitment, demographic information to facilitate the systematic identification of potential candidates for participation was not available. For example, apriori the current marital status and specific type of physical disability (e.g., multiple sclerosis, spinal cord injury, cerebral palsy, etc.) of the membership was not necessarily known. It was therefore decided to send letters to all

registered CPA members to ensure every potential volunteer was invited to participate.

Data on returned or undeliverable mail due to outdated addressing is not available. As a result, it is not possible to accurately assess the response rate, as the denominator value remains unknown.

In addition, a number of alternate recruitment strategies were employed. On two separate occasions, recruitment notices were published in two community agency publications: specifically, *Spinal Columns* (a quarterly publication of the CPA, refer to Appendix B); and *Chapters* (a Calgary Handi-Bus publication for customers and friends of the organization, published three times a year, refer to Appendix C). Information flyers and posters (refer to Appendix D) were displayed at The University of Calgary Disability Centre and Olympic Oval Fitness Centre, the Disabled Sailing Association (Calgary chapter) and in Alberta CPA offices. As well, the researcher attended public and staff training meetings organized by CPA and invited attendees to become involved. Finally, as participants were recruited into the study they were invited to refer anyone they knew who might be eligible and interested. A \$500 cash prize, to be randomly drawn upon completion of data collection, was offered as an incentive to participation. Additionally, participants were informed they would be provided with a summary of the research findings upon completion of the project.

In total, 100 responses to recruitment efforts were obtained from all sources indicated above. Of those, 24 respondents did not meet the established criteria for participation.

Participants were eligible to volunteer for the study if they were:

- (1) at least 18 years of age;
- (2) acquired permanent paraplegia or quadriplegia resulting from a traumatic SCI (and requiring an assistive walking device if ambulatory);
- (3) at least 2 years postinjury;
- (4) currently single (i.e., not living with a partner, either married or common-law); and
- (5) did not have cognitive impairments severe enough to interfere with comprehension of questionnaires (based on self-report and observation).

Of the 76 remaining respondents, 3 subsequently declined to participate and 15 people did not complete the study for a number of reasons (i.e., they could not be contacted, did not return mailed questionnaire packets, and/or repeatedly missed or cancelled appointments). Ultimately, 58 participants were recruited and completed all required elements of the study.

Sample Description

Of the 58 participants, 50 (86%) were men and 8 (14%) were women; 41 (71%) were single, 16 (27%) were divorced, and 1 (2%) was separated. The participants were primarily self-identified as Caucasian ($N = 50$, 86%), with some representation of other racial/ethnic backgrounds, specifically Native Indian ($N = 2$, 3%), Asian ($N = 2$, 3%), Middle Eastern ($N = 1$, 2%) and East Indian ($N = 1$, 2%). The majority of the sample identified themselves as heterosexual ($N = 55$, 95%), but also included three individuals

who identified themselves as bisexual ($N = 2$, 3%) or homosexual ($N = 1$, 2%). The participants' ages ranged from 18 to 68 years, with a mean age of 41.2 years ($SD = 12.03$). Age at the time of injury ranged from 3 to 60 years, with a mean age of 26.2 years ($SD = 10.80$).

Thirty participants had quadriplegia (52%) and 28 had paraplegia (48%). Half the sample ($N = 29$, 50%) were injured as a result of a motor vehicle accident, 14 participants (24%) sustained sports related injuries, 5 participants (9%) had a fall, and 4 participants (7%) were involved in an industrial accident. The remaining 6 participants (10%) reported "other" causes of their injury. Twenty-six informants (45%) sustained complete SCI, while 32 (55%) sustained incomplete injuries. The predominant aid to mobility was the wheelchair ($N = 44$, 76%), while 9 participants (15%) relied on their wheelchair and other forms of assistance (e.g., braces and crutches) and 5 participants (9%) were ambulatory with either a cane, braces & crutches, or a walker. Time since injury ranged from 2 to 43 years, with a mean of 14.72 years ($SD = 9.96$).

With respect to weekly hours of assistance with activities of daily living (ADL), an indicator of functional independence, 26 participants (45%) required none, 8 participants (14%) required less than 5 hours, 18 participants (31%) required between 5 and 30 hours, and 6 participants (10%) required more than 30 hours. Forty-three participants (74%) rated their current health status as good to excellent, 13 participants (23%) characterized their health as "stable", while 2 volunteers (3%) indicated they were in "poor" health.

Educational levels ranged from 6 to 21 years, with a mean of 14.29 years ($SD = 2.73$). Twenty participants (35%) were employed (full or part-time), 12 (21%) were students (full or part-time), 24 (41%) were unemployed, and 2 (3%) were retired. It is noteworthy that over half the sample ($N = 31$, 54%) were involved in some kind of volunteer work.

All participants were asked to identify their current dating status. The majority reported they were not currently dating or involved with anyone ($N = 39$, 67%). Eleven informants (19%) described themselves as “casually dating”, 8 (14%) were “exclusively dating” and none were “engaged”.

Instruments

To quantify the independent and dependent variables of interest to Phase I of this study (hypothesis testing), every attempt was made to locate and utilize well-established scales with a body of literature to support their reliability and validity. For most variables, appropriate extant scales were identified and employed; however, given the paucity of investigations that have explored dating and romantic relationships post-SCI, it is not surprising that for some variables, relatively less researched and/or new measures were used in this study. These instruments are described in detail below.

All instruments were consistent in their use of Likert Scale responses, with the exception of the demographic information questionnaire. The title names of most measures were amended to make the focus of the questionnaires less transparent (e.g., Living with a Disability rather than the Acceptance of Disability Scale).

Questionnaires and Measures

Demographic information. A Personal Information questionnaire was specifically designed for this study to collect demographic information for sample description and analyses. Please refer to Appendix F to review this questionnaire.

Acceptance of disability. The construct of disability acceptance was measured using Linkowski's (1969, revised 1981) Acceptance of Disability Scale (AD). The AD was developed based on Dembo, et al.'s (1956/1975) empirically derived theory of acceptance of loss. The AD is a 50-item self-report measure with a 6-point Likert response format (ranging from *I disagree very much* to *I agree very much*). Reverse scoring to minimize response bias is a feature, although the extent to which social desirability influences self-ratings has not been explored (Heinemann, 1995). Scores range from 50 to 300, with higher scores representing greater disability acceptance. For this investigation, the wording of two items (#7 and #22) was changed to enhance understanding for community-based individuals (the target of recruitment) who would likely have completed all aspects of their formal rehabilitation programs. For both items, the phrase "...the progress I am making in rehabilitation" was changed to read "...the progress I am making or have made in rehabilitation".

The AD functions as a measure of self-esteem in PWD (Heinemann, 1995) and continues to be considered an effective measure of broad-based AD (Keany & Glueckauf, 1993) and psychosocial adjustment (Mpofu & Houston, 1998). Linkowski (1971) has reported good internal consistency (.86 split half) and full-scale reliability (.96

using Spearman-Brown correction). Reliability analysis for this investigation obtained excellent inter-item consistency ($\alpha = .96$). Evidence of content validity was determined by expert opinion and acceptable construct validity has been supported by correlations with other measures of self esteem and the Attitudes Toward Disabled Persons Scale, although there is a paucity of studies on the factorial structure of the scale (Mpofu & Houston, 1998). However, over 62 published studies have used the AD scale (Heinemann, 1995), attesting to its ongoing usefulness to researchers. Please refer to Appendix G to review this measure.

Interpersonal locus of control. The Spheres of Control-3 (Paulhus, 1983; revised 1990) is a three-dimensional battery designed to measure locus of control in the domains of personal efficacy, interpersonal control, and sociopolitical control. To measure the construct of interpersonal control the 10-item Interpersonal Control Subscale (ICS) was used in this study. The emphasis of this scale is on perceived competence rather than contingency (Palenzuela, 1987; Paulhus & Van Selst, 1990) and as indicated previously, is likely best conceptualized as a measure of *social impact* (Leone & Burns, 1997). Respondents rate their agreement/disagreement to declarative statements on a 7-point Likert response scale (ranging from *totally inaccurate* to *totally accurate*). ICS scores range from 10 to 70, with higher scores representing greater perceived interpersonal efficacy. Positively and negatively keyed items are balanced and correlation with social desirability was minimized during the original scale construction. Items for both the

personal and interpersonal subscales were intermixed and administered to obscure the intent of the latter subscale. As a result, only the even numbered items were scored.

The ICS has good internal consistency. The originating authors reported an alpha reliability of .77 (Paulhus & Christie, 1981) and subsequent alpha coefficients with a variety of samples have ranged between .55 and .85 (average = .73) (Paulhus & Van Selst, 1990). For this investigation, the reliability analysis obtained a coefficient alpha of .86. Test-retest reliabilities above .80 at 4 weeks were also reported in the original development of the scale (Paulhus & Christie, 1981). Factor analyses have confirmed the three-factor structure of the full scale, although the personal and interpersonal subscales have been found to be closely related (Parkes, 1988). Adequate support for the convergent and discriminant validity of the scale has been provided (Lefcourt, 1991; Paulhus, 1983; Paulhus & Christie, 1981; Paulhus & Van Selst, 1990). Please refer to Appendix H to review this measure.

Social anxiety and avoidance. The Social Avoidance and Distress Scale (SADS; Watson & Friend, 1969) was used to assess subjective anxiety in social interactions (distress - 14 items) and avoidance (behavioral response - 14 items). The SADS contains 28 items, with an equal number of positively and negatively worded items. Consistent with the recommendations and precedents set by previous investigators, the original true-false response format was modified to provide a 5-point Likert scale (ranging from *never* to *always*) to broaden the range of possible responses (Leary, 1991; Segal & Shaw, 1988). Total scores on the SADS range between 28 and 140 with higher scores

representing greater levels of distress and avoidance. Additionally, Item 18 was slightly reworded to delete the reference to walking, given the primarily non-ambulatory sample. Rather than “I would avoid *walking up* and joining a large group of people” this item was amended to read “I would avoid *approaching* and joining a large group of people”.

Reviewed as an unusually well-designed measure, the SADS’ internal consistency is very high (Cronbach’s alpha with a five-point scale is close to .90) (Leary, 1991). Reliability analysis completed for this investigation indicated excellent internal consistency ($\alpha = .95$). Elsewhere, factor analysis has confirmed the scale structure for avoidance and distress, although the total scale appears to tap social avoidance more strongly than social anxiety. Test-retest reliability is acceptable (.68 over 4 weeks). Evidence of good convergent and discriminant validity has also been reported (Leary, 1991). The SADS is one of the most widely used measures of general social functioning (Fichten, et al., 1989), attesting to its clinical utility in a variety of contexts (Leary, 1991). Please refer to Appendix I to review this measure.

Perceptions of risk in intimacy. To assess individual differences in the perception of risks associated with intimacy, a slightly amended version of the Risk in Intimacy Inventory (RII) (Pilkington & Richardson, 1988) was used. For this study, a 7-point likert response was offered (ranging from *strongly agree* to *strongly disagree*) to increase consistency across measures, rather than the 6-point likert employed by the original

authors. The RII has 10 items that are positively and negatively worded. Total RII scores range from 10 to 70, with higher scores representing greater perceived risk.

The RII is an empirically derived measure. Pilkington and Richardson (1988) reported that factor analysis validated only one principal factor for the final 10-item scale and a Cronbach's alpha of .80 was obtained. The reliability analysis for this investigation found a Cronbach's alpha of .79. The unidimensional structure of the scale has been confirmed in a subsequent investigation (Nezlek & Pilkington, 1994). RII scores were not found to be significantly related to social desirability and the authors have provided evidence to support the convergent and divergent validity of the instrument. For example, in their reliability/validity study of the RII, Pilkington and Richardson (1988) found a significant negative correlation between the RII and measures of dating assertiveness, current involvement and emotional trust. Please refer to Appendix J to review this measure.

Social desirability. Given the self-report nature of the data collected, the impression management scale of the Balanced Inventory of Desirable Responding (BIDR-IM) (Paulhus, 1984, 1988, as cited in Paulhus, 1991) was utilized to assess the extent, if any, that this response set may have influenced respondents' completion of the questionnaires. The full scale BIDR measures two constructs: self-deception (the tendency to give self-reports that are honest, but positively biased) and impression management (purposeful self-presentation to create the most positive social image to others). Self-deception has been found to bear "...a strong positive relation with

adjustment whereas impression management bears little relation” (Paulhus, 1991, p. 22). Given that one of the major variables of interest in this investigation (disability acceptance) essentially represents an adjustment variable, it was decided to only utilize the Impression Management subscale.

The BIDR-IM scale was rationally developed on the assumption that some informants consciously and systematically over-report desirable behaviors and under-report undesirable behaviors. The 20 subscale items are stated as propositions to which respondents rate their agreement on a 7-point likert scale (ranging from *not true* to *very true*). The statement claims involve overt behaviors (e.g., “I have taken sick-leave from work or school even though I wasn’t really sick”) and therefore any distortion is presumed to be a conscious lie. The scoring key is balanced with negatively and positively keyed items. Only extreme responses (6 or 7 on the 7-point scale) are scored to ensure that high scores are attained only by informants who provide exaggerated responses to highly desirable items (Paulhus, 1991). BIDR-IM scores range from 0 to 20, with higher scores reflecting greater attempts at impression management.

Paulhus (1988, as cited in Paulhus, 1991) has reported a test-retest correlation of .65 over a 5-week period for the BIDR-IM scale. This relatively low finding is perhaps understandable considering that impression management is considered to be highly influenced by situational demands (Meston, Heiman, Trapnell & Paulhus, 1998). Good internal consistencies have been reported for the BIDR-IM, with coefficient alphas ranging from .72 to .86 (Holden, Starzyk, McLeod & Edwards, 2000; Kroner & Weekes,

1996; Paulhus, 1991). The coefficient alpha reliability estimate obtained for the current study was .81.

Convergent validity has been evidenced by findings that the BIDR-IM scale has been found to correlate highly with a cluster of measures traditionally known as lie scales (e.g., Eysenck's Life Scale, MMPI Lie Scale) (Paulhus, 1991). Holden, et al. (2000) reported data which build toward the construct validity of the BIDR and the authors recommend its continued use in research and applied settings. Please refer to Appendix K to review this measure.

Social motivation. Included in the dating questionnaire (described below) were two statements constructed specifically for this study to assess the importance of a romantic relationship to the participants. Specifically, the social motivation statements were: (1) "I would like to be involved in a satisfying romantic relationship"; and (2) "It is very important to my personal happiness that I be involved in a satisfying romantic relationship". Respondents were asked to rate their concurrence with the statements on a 7-point likert scale, ranging from *very untrue* (1) to *very true* (7). Scores on Social Motivation range from 2 to 14, with higher scores representing greater desire for involvement in a satisfying romantic relationship.

Rotter (1975) has emphasized the importance of including the reinforcement value in any exploration of control expectancies. Furthermore, some research has suggested that a significant percentage of single persons with SCI may proclaim limited interest in pursuing a sexual relationship (Kreuter, et al., 1998).

Perceptions of barriers to dating. A 15-item dating questionnaire developed by Rintala, et al. (1997) was used to measure Perceived Barriers to Dating (PBD). This scale was developed as part of a larger questionnaire generated to study the psychosexual development of WWD. Item content was determined on the basis of interviews with 31 women (Nosek, et al., 1994), expert opinion, and issues raised within the literature. Raters are asked to indicate how true statements are for them on a 7-point scale (anchored at *very untrue* and *very true*). Factor analysis completed by the authors yielded a four-factor solution: (1) perceived constraints on attracting dating partners; (2) perceived societal barriers to dating; (3) perceived communication problems; and (4) perceived personal barriers to dating (Rintala, et. al, 1997). The psychometric properties of the PBD have yet to be fully investigated. PBD scores range from 15 to 105, with high scores representing greater PBD. The coefficient alpha reliability estimate based on the current study was .90. The PBD was imbedded in a general Dating Questionnaire that also collected information about current dating status and dating experience. Please refer to Appendix L to review this questionnaire.

Satisfaction with romantic life. A Romantic Relationship Satisfaction scale (RRS) was created specifically for use in this study. The original 5 questions were rationally derived to assess general satisfaction with post-SCI romantic life, satisfaction with frequency of dating, duration of relationships, quality of partners, and quality of relationships postinjury. Of the original 5 questions, 4 questions were ultimately retained to constitute the final version of the scale used in the data analyses. Reliability analysis

indicated improved internal consistency of the scale (α increased from .77 to .83) with the deletion of Item 4, the quality of partner question [“The people I have dated since my injury come very close to my ideal for a romantic partner”]. Please refer to Appendix M to review this measure.

Semistructured interview. The investigator conducted follow-ups interview with a nonrandom (purposive) subset of 14 participants reporting highest and lowest RRS (7 informants from each end of the continuum). A semistructured interview guide was used to ensure coverage of specific content areas but still allow opportunities to follow topics introduced by the interviewees. The primary focus of the interview guide was (a) cognitive attributions for high or low relationship satisfaction; (b) personal strategies for negotiating interpersonal intimacy; and (c) predictions for future satisfaction.

Initial interview questions were designed to elicit premorbid RRS and establish an interpersonal context around the time of the individual’s SCI (i.e., marital/dating status). Postinjury inquiries focused on involvement, if any, in subjectively significant relationships, attributions for relationship break-ups, continuation, and/or lack of romantic involvement. Interviewees were asked to identify the major factors or issues contributing to their current satisfaction/dissatisfaction with their romantic lives and to comment on how, if at all, their disability has impacted their dating relationships. A set of questions was targeted to eliciting and assessing the ways in which interviewees had attempted to deal with the challenges they faced in forging intimate relationships. Interviewees were also asked about any experience they may have had dating someone

else with a disability, and their willingness to do so in the future. Finally, interviewees were invited to share their personal expectations for their romantic life in the future. The interview drew to a conclusion with an invitation to offer advice to a hypothetical individual who had recently sustained a SCI and was preparing to return to the dating scene. Finally, interviewees were given an open-ended invitation to reflect on their dating/relationship experiences and make any additional comments that had not been specifically asked about.

With the permission of participants, all interviews were audio taped to preserve the integrity of the data and aid in theme analysis. Refer to Appendix 13 to review this interview guide.

Procedure

Initial Contact & Quantitative Data Collection – Phase I

As indicated above, original recruitment letters mailed to CPA members were blind to the investigator and relied on the potential participant initiating contact to indicate interest in the research project. The most common method for doing so was to return the self-addressed stamped postcard enclosed with the letter inviting participation. In some instances (i.e., in response to publication notices) volunteers contacted the investigator by electronic mail or telephone.

The researcher spoke with all prospective volunteers by telephone to thank them for their interest, further explain the study, answer any questions, and invite participation. Participants were advised that an anticipated time commitment of not more than 1.5 hours

was necessary to complete the paper and pencil measures. It was also explained that there was a 25% likelihood that they would be subsequently contacted for a follow-up interview, which could involve up to another 1.5 hours of their time. All individuals who volunteered to participate were questioned to ensure their eligibility and willingness to participate in both phases of the study (questionnaires and follow-up interview, if selected). Mutually convenient arrangements to facilitate participation were then concluded.

Whenever feasible, data were gathered in person by the researcher in order to offer assistance with completing the forms (although this was only necessary in two instances) and to avoid the low response rate typically associated with return mail data collection. A mutually convenient time and location was negotiated to meet participants (typically at a private meeting room at the University of Calgary, the participant's home, or another convenient and private location). When this was not reasonable, questionnaire packets were mailed to volunteers for their completion and return.

Of the 58 participants, 23 completed questionnaires in a formal meeting with the investigator (21 independently, 2 with physical assistance) and 35 completed and returned questionnaires by mail. One-way analyses of variance for all independent and dependent variables of interest revealed no significant differences between the mail-out and in-person groups.

All participants provided written informed consent (see Appendix E) to participate in the study and were provided with a copy of this document for their records.

The order of presentation of all self-report instruments was randomly varied across participants. In the case of mailed questionnaires, volunteers were specifically asked to answer the scales in the order they were presented.

Follow-up Interviews with a Subsample – Phase II

In order to minimize the time between the quantitative and qualitative data collection, three consecutive sets of 4 interview candidates were selected on the basis of high and low RRS scores (2 highest scores and 2 lowest scores) whenever 16 participants had completed Phase I of the study ($N = 48$). When it was determined that data collection would cease, 2 remaining interviewees were selected from the final 10 participants to complete Phase I. In total, 14 participants were interviewed, 7 reporting high RRS and 7 reporting low RRS.

Once selected, interviewees were contacted by telephone to arrange a mutually convenient time and location for the interview. In only one instance, the selected interviewee could not be recontacted despite numerous attempts over a one-month period. In this case, the individual who scored next highest in RRS was contacted and agreed to be interviewed.

All interviews were conducted by the investigator. For interviewees outside Calgary, the researcher traveled to facilitate in-person interviews whenever possible. Eleven interviews were conducted face-to-face, while 3 participants were interviewed by telephone. In-person interviews took place either at the University of Calgary in a private meeting room or in the participant's home. As stated, with the permission of the

participants, all interviews were audio-taped. As well, the interviewer/researcher took brief handwritten notes during the meetings. The length of the interviews ranged from 20 to 80 minutes, with an average duration of 43 minutes.

CHAPTER 4

QUANTITATIVE RESULTS

This chapter will describe the statistical analyses undertaken and present the obtained quantitative results. More specifically, a discussion of the data screening process and a post hoc consideration of statistical power will precede presentation of the correlation and multiple regression results in the context of the study's hypotheses. Finally, post hoc analyses will be discussed.

Please note that an alpha level of .05 was established apriori for all statistical tests. The quantitative analyses were conducted using SPSS Base 9.0 (Windows).

Data Screening

Pre-analyses screening of the quantitative data was guided by Tabachnick and Fidell's (1996, 2001) protocol. All data entries were checked for any recording errors, and any necessary corrections were made. Univariate descriptive statistics were inspected for plausible means and standard deviations and were found to be appropriate. The continuous data were examined for univariate outliers via two sequential methods: (i) graphical displays (SPSS boxplots and histograms) were examined to identify potential outliers, locating a few possible cases (e.g., educational level achieved = 6 years); (ii) standardized scores (z scores) were created and examined to detect cases in excess of 3.29 ($p < .001$, two tailed test) (Tabachnick & Fidell, 2001). Based on the standardized scores obtained, no univariate outliers were detected. Fortunately, missing values were not a feature of the data set.

The data set was next explored to determine how appropriately it met the assumptions of the intended correlational and regression analyses (i.e., normality, linearity and homoscedasticity). Normality of the demographic variables and independent variables of interest was initially assessed by visually examining frequency histograms (with a superimposed normal curve) and subsequently, by an evaluation of the ratio of skewness and kurtosis values. When a distribution is normal, the values of skewness (symmetry of the distribution) and kurtosis (peakedness of a distribution) are zero (Tabachnick & Fidell, 2001). The ratio of each statistic to its standard error (i.e., a *z*-score) can be used as a test of normality, rejecting the assumption of normality if the ratio is less than -2 or greater than $+2$ (SPSS Base 9.0, 1999).

Three variables did not meet the assumption of normality; specifically, Time Since Injury, Age-at-onset of SCI, and Social Motivation. Tabachnick and Fidell (2001) have argued that, with ungrouped data, "...unless there are compelling reasons not to transform, it is probably better to do so" (p. 77). The Time Since Injury variable was positively skewed ($z = +2.50$), with 74% of the sample injured 20 years or less (Range = 2 - 43 years). This variable was transformed (square root transformation; $z = +.46$) to satisfy the assumption of normality in the data analyses. The Social Motivation distribution was negatively skewed ($z = -3.27$), with 62% scoring 10 or above (Range = 2-14) indicating relatively high motivation to be involved in a satisfying romantic relationship. This finding is not particularly surprising and raises a question as to whether this construct is in fact normally distributed in the population. For example, it is

anticipated that 90% of young people will eventually marry (Brehm, 1992), suggesting human motivation to intimately partner is high. However, to facilitate the data analyses, the Social Motivation variable was transformed (reflected Log 10; $z = -.68$) to satisfy the assumption of normality. Lastly, the Age-at-onset of SCI distribution was positively skewed ($z = +2.47$), with 74% of the sample being injured before the age of 30. This non-normal distribution is not particularly surprising given the well-established finding that SCIs are sustained primarily by young males, with 50-60% of injuries occurring between the ages of 16 and 30 (Go, DeVivo & Richards, 1995, as cited in Richards, et al., 2000; Gutierrez, et al., 1993; Trieschmann, 1988). To satisfy the assumption of normality, a range of transformations were attempted; however, none effectively produced a normal distribution. As a result, the Age-at-onset variable was dichotomized into *early* (≤ 24 years) and *late* (> 24 years) onset using a median split procedure and then dummy coding for the data analyses.

Linearity was assessed by visual inspection of bivariate scatterplots and this assumption appeared to be satisfactorily met. For ungrouped data, the assumption of homoscedasticity refers to the supposition that variability in scores for one continuous variable is roughly the same across all values of another continuous variable. While heteroscedasticity, the failure of homoscedasticity, is not fatal to an analysis of ungrouped data, the analysis is weakened (Tabachnick & Fidell, 2001).

Homoscedasticity was also evaluated through visual inspection of bivariate scatterplots,

and, with transformation of the above-mentioned variables that did not meet the assumption of normality, this assumption appeared to be satisfactorily met.

Mahalanobis distance statistics were used to screen for multivariate outliers. Each case statistic was evaluated using conservative Chi-square distribution (χ^2) critical values for each regression analyses (for RRS, $\chi^2 (10, N = 58) = 29.59, p < .001$; for PBD, $\chi^2 (9, N = 58) = 27.88, p < .001$). No multivariate outliers were identified.

Finally, the variables were evaluated with SPSS collinearity diagnostics. Obtained tolerances were satisfactory and were not suggestive of collinearity problems. As a further screen, condition indices and variance proportions were inspected. According to Tabachnick and Fidell (2001), and the SPSS manual (SPSS Base 9.0, 1999), the criteria for multicollinearity are a conditioning index greater than 30 for a given dimension, coupled with at least two variance proportions for an individual variable greater than .50. Diagnostics indicated no cause for concern of multicollinearity in the data analyses.

Post Hoc Statistical Power

Statistical power [hereinafter referred to as power], the probability of rejecting the null hypothesis when an alternative hypothesis is true (i.e., the probability of not committing a Type II error) is an important consideration for both research design and the evaluation of obtained results. The probability of finding existing effects is a function of sample size, alpha (the probability of a Type I error) and effect size (Kosciulek & Szymanski, 1993). In planning this study, an apriori recruitment target of 85 participants

was established⁵; however, this proved a very challenging sample size to obtain. With a final sample size of 58, post hoc estimation of power becomes important for the interpretation of results (Stevens, 1992). Such an analysis indicates that this study has adequate power to detect large effects (i.e., $r \geq .50$; or $f^2 \geq .35$) and therefore it is not warranted to draw firm conclusions about any failure to detect small and/or medium effects (Cohen, 1992).

Correlational Analyses

Zero-order correlations (Pearson product-moment) were computed to detect the presence and magnitude of bivariate relationships and to test, in part, the research hypotheses between identified demographic variables, the independent variables and the dependent variables. Dichotomous categorical variables (i.e., age-at-onset; sex; level of injury; and current dating status) were entered into the analyses using a dummy coding method.

As can be seen in Table 1, both predicted and unpredicted significant bivariate correlations were obtained. First, hypothesized correlations will be examined, followed by a presentation of unpredicted correlational findings. The reader will recall that it was hypothesized AD would be (significantly) positively correlated with time since injury, reflecting greater acceptance with longer adjustment time (Hypothesis 1a). Although

⁵ The proposed sample size was based on a power analysis using a speculated medium effect size, a significance testing criterion of .05, and a desired power of .80, as per Cohen (1992).

Table 1: ZERO-ORDER PEARSON CORRELATIONS between Demographic Variables,
Independent Variables and Dependant Variables:

	<i>Age</i>	<i>Sex</i>	<i>Educ</i>	<i>Time</i>	<i>Level</i>	<i>AD</i>	<i>RII</i>	<i>SADS</i>	<i>ICS</i>	<i>PBD</i>	<i>BIDR</i>	<i>Soc Mot</i>	<i>Age @</i>	<i>Dating Status</i>	<i>RRS</i>
Age	1.0														
Sex	-.233	1.0													
Educ	.163	-.080	1.0												
Time	*.531 .000	-.099	.049	1.0											
Level	-.097	-.114	.041	.112	1.0										
AD	-.050	.209	.205	.201	-.134	1.0									
RII	*.303 .021	-.153	.109	.023	-.024	*.599 .000	1.0								
SADS	.196	-.125	-.070	-.093	.010	*.572 .000	*.655 .000	1.0							
ICS	*.289 .028	.201	-.053	-.055	-.177	*.523 .000	*.619 .000	*.751 .000	1.0						
PBD	.150	*.260 .049	.010	-.056	.141	*.734 .000	*.625 .000	*.646 .000	*.705 .000	1.0					
BIDR	.236	.219	-.022	.163	.102	.144	-.174	-.224	*.284 .031	-.258	1.0				
Soc Mot	.148	-.039	-.151	.203	-.180	.013	-.021	-.021	.179	-.115	.153	1.0			
Age @	*.519 .000	-.073	-.050	-.175	-.136	*.323 .013	*.290 .027	*.278 .034	-.219	.129	.220	.019	1.0		
Dating Status	-.125	.147	.006	-.065	-.134	*.423 .001	*.316 .016	*.269 .041	*.316 .016	*.541 .000	.011	.006	-.062	1.0	
RRS	-.051	*.264 .046	.031	.016	-.102	*.453 .000	*.414 .001	*.356 .006	*.574 .000	*.694 .000	.162	*.276 .036	-.029	*.464 .000	1.0

* $p < .05$ (with actual probability noted below)

Age = Current Age

Sex = Male or Female

Educ = Years Of Education Achieved

Time = Time Since Injury

Level = Level of Injury

AD = Acceptance of Disability Scale

RII = Risk in Intimacy Inventory

SADS = Social Avoidance & Distress Scale

ICS = Interpersonal Control Scale

PBD = Perceived Barriers to Dating

BIDR = Impression Management

Soc Mot = Social Motivatri

Age @ = Age @ onset of SCI

Dating Status = Current Dating Status

RRS = Romantic Relationship Satisfaction

AD was found to be positively correlated with time since injury ($r = +.20, p = .129$ *ns*) this relationship was not significant and therefore this hypothesis was not supported.

It was expected that AD would be (significantly) negatively correlated with age-at-onset of SCI (Hypothesis 1b), reflecting the greater adjustment difficulties of individuals who are older when injured, as reported in the literature. The obtained bivariate correlation between AD and age-at-onset of SCI was significant in the direction predicted ($r = -.32, p = .013$) and this hypothesis was therefore supported by the data.

Consistent with Hypothesis 1(c), essentially a null hypothesis that predicted no significant relationship between AD and level of injury, a nonsignificant negative correlation was obtained ($r = -.13, p = .315$ *ns*).

The bivariate correlations hypothesized between the predictor variables (AD, ICS, SADS, and RII) and PBD (Hypotheses 2a to 2d inclusive) were all supported by the data. As anticipated, AD was positively correlated with ICS ($r = +.52, p = .000$) and negatively correlated with SADS ($r = -.57, p = .000$), RII ($r = -.60, p = .000$) and PBD ($r = -.73, p = .000$) (Hypothesis 2a). RII was found to be positively correlated with SADS ($r = +.66, p = .000$) and PBD ($r = +.63, p = .000$) and negatively correlated with ICS ($r = -.62, p = .000$) (Hypothesis 2b). SADS was positively correlated with PBD ($r = +.65, p = .000$) and negatively correlated with ICS ($r = -.75, p = .000$) (Hypothesis 2c). Lastly, as predicted, ICS was negatively correlated with PBD ($r = -.71, p = .000$) (Hypothesis 2d).

The bivariate correlations hypothesized between the predictor variables (AD, ICS, SADS and RII) and RRS (Hypotheses 3 a to 3d, and 4a), were also fully supported by the

data. As hypothesized, AD was found to be positively correlated with RRS ($r = +.45$, $p = .000$) (Hypothesis 3a). The predicted negative correlations between RII and RRS ($r = -.41$, $p = .001$) (Hypothesis 3b) and between SADS and RRS ($r = -.36$, $p = .006$) (Hypothesis 3c) were found to be significant. As anticipated, ICS was positively correlated with RRS ($r = +.57$, $p = .000$) (Hypothesis 3d). And lastly, PBD was negatively correlated with RRS ($r = -.69$, $p = .000$), supporting Hypothesis 4a.

A number of unpredicted correlations involving demographic variables were obtained. Longer time since injury ($r = +.53$, $p = .000$) and later age-at-onset of SCI ($r = +.52$, $p = .000$) were both significantly associated with currently being older. As well, being older (current age) was also associated with greater perceived RII ($r = +.30$, $p = .021$) and lower ICS ($r = -.29$, $p = .028$). Women (sex) reported significantly fewer PBD ($r = -.26$, $p = .049$) and greater RRS ($r = +.26$, $p = .046$). Being older at age-of-onset of SCI was significantly related to the perception of greater RII ($r = +.29$, $p = .027$) and increased SADS ($r = +.28$, $p = .034$).

Current dating status was significantly related to all selected independent variables (i.e., AD, RII, SADS and ICS) and dependent variables (i.e., PBD and RRS) in this investigation. Individuals who were currently dating reported greater AD ($r = +.42$, $p = .001$) and ICS ($r = +.32$, $p = .016$). Currently dating was also significantly associated with lower perceived RII ($r = -.32$, $p = .016$) and SADS ($r = -.27$, $p = .041$). And finally, individuals who were currently dating reported fewer PBD ($r = -.54$, $p = .000$) and greater RRS ($r = +.46$, $p = .000$).

The social motivation measure (i.e., the subjective desire for and importance of being involved in a romantic relationship) was not significantly correlated with any of the demographic or independent variables. However, social motivation⁶ was found to be modestly associated with RRS ($r = +.28, p = .036$), reflecting that greater desire for a satisfying intimate relationship is related to lower RRS.

Notably, the correlations between the impression management measure (BIDR-IM) and demographic, dependent and, with one exception, independent variables, were low and nonsignificant (i.e., r ranged from .01 to .26). BIDR-IM was found to be significantly correlated with ICS ($r = +.28, p = .031$) indicating that higher impression management scores were associated with higher interpersonal control scores, suggesting this variable may, in part, be influenced by a participant response style. For other variables, it would appear this response style did not unduly influence findings.

Multiple Regression Analyses

Two separate sequential (hierarchical) multiple regression analyses were conducted to test the hypothesized relationships between the predictor variables of interest (individual factors) and the two criterion variables: PBD and RRS. To review, it was hypothesized that AD, ICS, SADS, and RII together would predict PBD (Hypothesis 2) and RRS (Hypothesis 3).

Conservative procedures were adopted to enter some variables in earlier steps of the analyses to control for any variance in the criterion variables that were attributable to

⁶ The social motivation data was transformed using reflection and a logarithm procedure, and therefore, it is important to reverse the direction of any interpretations as well.

these factors. Given the significant bivariate correlations between Sex and both criterion variables (PBD and RRS) and between Social Motivation and RRS, these variables were entered into the first step of the regression analyses. Other variables that were significantly correlated with independent variables (i.e., Current Age, Age-at-onset of SCI, and BIDR-IM) were also entered in the first step to allow for the examination of individual factors above and beyond the variance attributable to these demographic and response set variables. Three demographic variables were not included in any of the regression analyses because of their very low, nonsignificant correlations (i.e., $r < .25$) with both the predictor and criterion variables. Specifically, time since injury, education, and level of injury were excluded from both sequential multiple regression analyses.

It is important to emphasize that whenever the predictor variables are correlated with each other, as they are in this study, the assessment of the relative importance of variables is more ambiguous than if they were uncorrelated. According to Tabachnick and Fidell (1996, 2001), the squared semi-partial correlation (sr^2) is the most useful measure of the relative importance of an independent variable in the regression. In the case of sequential regression, the semi-partial correlation addresses how much the independent variable adds to multiple R^2 after independent variables with higher priority have contributed their share to the prediction of the dependent variable. As a result, the apparent importance of an independent variable may well depend on its point of entry into the equation.

As can be seen in Table 2, for the first hierarchical regression analyses, PBD was used as the criterion variable to test Hypothesis 2. In the first step, sex, current age, age-at-onset of SCI, social motivation and BIDR-IM were entered into the regression equation and resulted in a nonsignificant multiple correlation coefficient ($R^2 = .16$, $F_{(5,52)} = 1.92$, $p = .106$ ns). An examination of the beta weights indicated that none of the variables contributed significantly to the variance in PBD.

As it was anticipated apriori that an individual's current dating status could potentially be associated with their PBD (and RRS), and given the significant bivariate correlations obtained and described above, this variable was entered into the equation in Step 2, resulting in a significant increase in the multiple correlation coefficient ($R^2 = .40$, $F_{(6,51)} = 5.76$, $p = .000$). Dating, whether casually or in an exclusive relationship, appears to be associated with lower PBD. An examination of the beta weights shows that dating status ($\beta = -.51$, $t(47) = -4.60$, $p = .000$); ($sr^2 = .25$) is a significant contributor to PBD at Step 2.

In the third and final step, the four predictor variables (AD, RII, SADS and ICS) were entered into the regression equation and resulted in a significant increase in the multiple correlation coefficient ($R^2 = .76$, $F_{(10, 47)} = 14.61$, $p = .000$), providing evidence to support Hypotheses 2. However, not all independent variables were significant contributors to the variance in PBD. The major contributors to prediction in this final step were AD

Table 2
Summary of Hierarchical Regression Analysis for Variables Predicting
Perceived Barriers to Dating ($N = 58$)

Variable	<u>B</u>	<u>SE B</u>	<u>β</u>
<i>Step 1</i>			
Sex	-8.57	6.95	-.17
Current Age	.19	.23	.13
Age @ Onset SCI	3.77	5.28	.11
Social Motivation ⁷	-5.54	7.02	-.10
BIDR-IM	-1.09	.58	-.26
<i>Step 2</i>			
Sex	-5.40	5.94	-.11
Current Age	.12	.20	.08
Age @ Onset SCI	3.72	4.48	.11
Social Motivation ⁷	-4.86	5.96	-.09
BIDR-IM	-1.08	.50	*-.26
Dating Status	-18.85	4.09	**-.51
<i>Step 3</i>			
Sex	-2.42	4.04	-.05
Current Age	.11	.15	.07
Age @ Onset SCI	-5.78	3.33	-.17
Social Motivation ⁷	-3.16	4.15	-.06
BIDR-IM	-.18	.36	-.04
Dating Status	-8.03	3.06	*-.22
AD	-.19	.05	**-.43
RII	.13	.19	.07
SADS	.10	.12	.11
ICS	-.43	.20	*-.27

Note. $R^2 = .16$, $p = .106$ *ns* for Step 1; $\Delta R^2 = .25$, $p = .000$ for Step 2; $\Delta R^2 = .35$, $p = .000$ for Step 3.

$R^2 = .76$, $p = .000$

* $p < .05$; ** $p < .01$

⁷ The social motivation data was transformed using reflection and a logarithm procedure and, therefore, it is important to reverse the direction of any interpretations as well.

($\beta = .43$, $t(47) = -3.91$, $p = .000$); ($sr^2 = .08$), and interpersonal control ($\beta = -.27$, $t(47) = -2.14$, $p = .037$) ($sr^2 = .02$).

As can be seen in Table 3, a similar approach was used to predict RRS in the second sequential regression analysis designed to test Hypothesis 3. Again, the demographic, response set and reinforcement value variables were entered in the first step and did not account for a significant amount of the variance in RRS ($R^2 = .16$, $F_{(5,52)} = 1.95$, $p = .102$ *ns*). An examination of the beta weights at this step revealed that social motivation⁸ significantly contributed to the prediction of RRS ($\beta = .28$, $t(52) = 2.16$, $p = .036$); ($sr^2 = .08$). At this step, greater importance of and desire for involvement in an intimate relationship was predictive of lower RRS.

At Step 2, current dating status was entered into the regression equation and contributed to a significant change in the variance accounted for ($R^2 = .34$, $F_{(6, 51)} = 4.36$, $p = .001$). Examination of the beta weight at this step reveals that current dating status significantly predicts RRS ($\beta = .43$, $t(51) = 3.74$, $p = .000$); ($sr^2 = .18$), with individuals who are currently dating reporting greater satisfaction with their romantic lives.

As above, when the predictor variables (AD, RII, SADS and ICS) were entered in the third and final step of the regression analysis, a significant change in the variance accounted for in RRS was obtained ($R^2 = .53$, $F_{(10, 47)} = 5.19$, $p = .000$). These results provided adequate support for Hypothesis 3. However, in terms of relative importance of the independent variables in this step, examination of the beta weights indicates that only

⁸ As discussed earlier, the social motivation data was transformed using reflection and a logarithm procedure and, therefore, it is important to reverse the direction of any interpretations as well.

Table 3

Summary of Hierarchical Regression Analysis for Variables Predicting
Romantic Relationship Satisfaction ($N = 58$)

Variable	<u>B</u>	<u>SE B</u>	β
<i>Step 1</i>			
Sex	4.36	2.44	.25
Current Age	-.03	.08	-.05
Age @ Onset SCI	-.09	1.85	-.01
Social Motivation ⁹	5.31	2.46	*.28
BIDR-IM	.12	.21	.08
<i>Step 2</i>			
Sex	3.41	2.19	.19
Current Age	-.04	.07	-.01
Age @ Onset SCI	-.08	1.66	-.01
Social Motivation ⁹	5.11	2.20	*.27
BIDR-IM	.11	.18	.08
Dating Status	5.66	1.51	** .43
<i>Step 3</i>			
Sex	2.90	1.98	.16
Current Age	.06	.07	.12
Age @ Onset SCI	1.03	1.63	.08
Social Motivation ⁹	3.40	2.04	.18
BIDR-IM	-.14	.17	-.09
Dating Status	3.39	1.50	*.26
AD	.02	.02	.13
RII	-.07	.09	-.12
SADS	.07	.06	.22
ICS	.30	.10	** .53

Note. $R^2 = .16, p = .102, ns$ for Step 1; $\Delta R^2 = .18, p = .000$ for Step 2; $\Delta R^2 = .19, p = .003$ for Step 3

$R^2 = .53, p = .003$

* $p < .05$; ** $p < .01$

⁹ The social motivation data was transformed using reflection and a logarithm procedure and, therefore, it is important to reverse the direction of any interpretations as well.

ICS ($\beta = .53$, $t(47) = 3.02$, $p = .004$); ($sr^2 = .09$) significantly contributed to the prediction of RRS at this step.

Post Hoc Analyses

Beyond testing the hypotheses of interest, post hoc procedures provide the opportunity to explore the relationships between identified variables and outcomes. The planned regression analyses tested the hypothesized relationships between the selected predictor variables (AD, ICS, RII and SADS) and the two criterion variables (PBD and RRS) separately. As predicted, the correlational analyses obtained a (large) negative correlation between PBD and RRS ($r = -.69$, $p = .000$), suggesting each variable may be an important predictor of the other.

Although this study is restrained by its sample size from using more sophisticated statistical procedures (i.e., path analysis or *SEM*), the obtained pattern of bivariate correlations suggests PBD may function as a mediating factor. Larger correlations were consistently obtained between individual factors (AD, RII, SADS and ICS) and PBD, as compared to lower, albeit significant, correlations obtained for these same variables and RRS. In the original conceptualization of this research, the investigator's speculative, albeit unarticulated, theoretical model imagined PBD as a potential mediating variable between individual factors and RRS.

Structural equation modeling is generally required for mediational analyses (Kenny, Kashy & Bolger, 1998); however, Baron and Kenny (1986) have outlined regression methods to test for mediation. The basic mediational model is visually

presented in Figure 3. A variable, in this case PBD, may be said to function as a mediator to the extent that it accounts for the relationship between the predictor variable and the criterion variable (RRS). *Complete mediation* is the case where the predictor variable no longer affects the criterion variable after the mediating relationship has been controlled for and so path C' (in Figure 3b) is zero. *Partial mediation* is the case where path C (in Figure 3a) is reduced in absolute size but is still different from zero when mediation is controlled (Baron & Kenny, 1986; Kenny, et al., 1998).

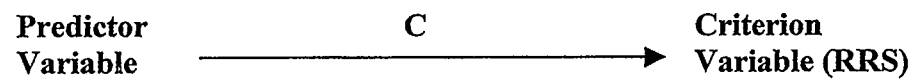
According to Baron and Kenny (1986), to establish mediation the following conditions must be met: (1) the predictor variable must significantly affect the mediator (path A); (2) the mediator variable must be shown to significantly affect the criterion variable (path B); and (3) controlling for paths A and B, a previously significant relationship between the predictor variable and the criterion variable is no longer significant. If all three of these conditions hold in the predicted direction, then the data are consistent with the mediation hypothesis.

Using Baron and Kenny's method, regression analyses were conducted to explore the possibility that PBD operates as a mediating/intervening variable between individual factors (AD, ICS, SADS and RII) and RRS. As can be seen in Table 4 all three of the conditions described above as necessary to support a partial mediation hypothesis are met. In all cases, the previously significant relationship between the predictor variable and the criterion variable (RRS) is no longer significant in the presence of the mediator, PBD (path C').

Figure 3

A Visual Representation of a Basic Mediation Structure (3b)

(a)



(b)

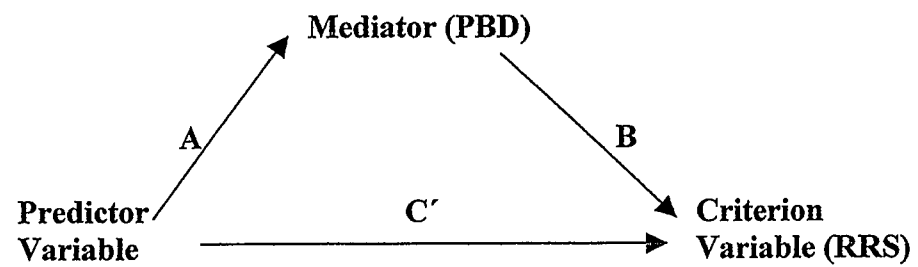


Table 4

Testing Basic Mediational Models

[Using Barron & Kenny's (1986) Change in Standardized Beta Coefficients (SBC)
Method with PBD as the Mediator Variable and RRS as the Criterion Variable]
(refer to Figure 3 for visual presentation of the Mediational Model)

Predictor Variable	Path A SBC	Path B SBC	Path C SBC	Path C' SBC	Partial Mediation (C - C')
Acceptance of Disability (AD)	-.734**	-.783**	.453**	-.122	.575
Interpersonal Control (ICS)	-.705**	-.575**	.574**	.168	.406
Risk in Intimacy (RII)	.625**	-.714**	-.414**	-.032	-.446
Social Avoidance and Distress (SADS)	.646**	-.796**	-.356**	.158	-.514

** $p < .01$

Another indication of a mediation can be found through an examination of partial correlations. If the partial correlations between individual factors (AD, RII, SADS and ICS) and RRS, controlling for PBD, are rendered nonsignificant, this finding would be consistent with a mediational hypothesis. (Pedhazur, 1982).

Obtained partial correlations between all individual factors and RRS, when controlling for PBD, were suggestive of mediation. The obtained partial correlations between individual factors and RRS (controlling for PBD) were nonsignificant and ranged in absolute value from .05 to .17, a substantial reduction from the zero-order correlations obtained and presented in Table 1.

In contrast, partial correlations generated between individual factors and PBD, when controlling for RRS, did not suggest mediation by RRS, with all significant zero-order correlations retaining their original level of significance. Similarly, analyses following Barron & Kenny's (1986) protocol resulted in findings that were inconsistent with a mediational hypothesis (i.e., RRS as a mediating variable between individual factors and PBD).

Qualitative analyses from the interview data will be presented in the next chapter.

CHAPTER 5

QUALITATIVE RESULTS

Introduction

The explicit goal of the qualitative analyses was to enhance understanding of the quantitative findings and to give a voice to the selected interviewees' experiences, attributions for their satisfaction/dissatisfaction, personal strategies, and future expectations in negotiating intimacy post-SCI. By selecting participants with extreme scores on RRS, it was anticipated that the comparative pattern analysis approach adopted would be best facilitated.

All audio-taped interviews were reviewed and notes were taken to facilitate identification of convergent and divergent themes across cases. Verbatim transcriptions were limited to participant quotations that were central to the emergent themes and/or deemed illustrative.

It is important to point out that interviewees demonstrated a range of articulateness in responding to the questions posed to them. Throughout the interviews, there were many opportunities to make reasonable inferences which will be entertained in the discussion chapters that follows, however, the results reported within this chapter represent the themes that have emerged directly from the participants' verbalizations.

Demographic information is provided for all interview participants in Table 5. Pseudonyms have been used to protect the anonymity of interviewees. To assist the

Table 5
Selected Interviewees' Demographic Information

Name	RRS	Age in Years	Race	Level of Injury	Time since Injury (Yrs)	General Health	Daily Assistance	Employment
Art	High	68	Caucasian	Para	43	Good	< 5 hours	Retired
Alisa	High	21	Caucasian	Para	3	Excellent	None	Student
Anne	High	39	Caucasian	Para	12	Excellent	None	Unemployed
Alan	High	28	Caucasian	Quad	3	Excellent	None	Unemployed
Alex	High	38	Caucasian	Quad	23	Excellent	< 5 hours	Student
Aaron	High	55	Caucasian	Quad	35	Good	21-30 hours	Full-Time
Anthony	High	44	Caucasian	Para	4	Stable	None	Part-Time
Bob	Low	32	Metis	Quad	11	Good	11-20 hours	Full-Time
Bill	Low	45	Asian	Para	5	Stable	< 5 hours	Unemployed
Bruce	Low	27	Caucasian	Quad	5	Good	> 30 hours	Full-Time
Brian	Low	58	Caucasian	Quad	19	Good	> 30 hours	Unemployed
Brett	Low	53	Caucasian	Quad	8	Stable	None	Unemployed
Brad	Low	23	Caucasian	Quad	3	Very Good	5 -10 hours	Student
Ben	Low	40	Caucasian	Para	19	Very Good	None	Unemployed

reader in distinguishing between high satisfaction and low satisfaction respondents in the table, and text that follows, the former have been given pseudonyms that begin with the letter A (e.g., Anne), whereas the latter's pseudonyms begin with the letter B (e.g., Bob). These interviewees represent a nonrandom subsample and therefore it was not anticipated they would necessarily be representative of the sample as a whole. As can be seen, the age range of both high and low satisfaction interviewees appears to reasonably reflect the age range of all participants (Range = 18 to 68 years). All interviewees declared their sexual orientation to be heterosexual (not reported in Table 5) and the majority self-described themselves to be of Caucasian descent. As a group, low satisfaction interviewees had sustained more quadriplegic injuries ($N = 5$) and, as would be expected, generally required more hours of daily assistance. On average, high satisfaction interviewees had been injured longer, although this mean has been heavily influenced by two participants who had been injured for 35 years or more. As well, high satisfaction interviewees were more likely to report themselves to be in excellent health.

The qualitative results will be presented and organized around the central foci of the semistructured interview, namely satisfaction, attributions, challenges and strategies, future expectations, and lastly an analysis of the interviewees' advice for pursuing intimate relationships to a hypothetical individual who has recently experienced a SCI (referred to as *hypothetical advice*).

Romantic Relationship Satisfaction

Participants maintained varied criteria for what constituted *satisfaction* with their romantic lives, providing evidence this assessment is uniquely defined and subjectively evaluated on the basis of the congruence between relationship desires or aspirations/goals as compared to achievement. For example, of those interviewees reporting high satisfaction, Alisa, who aspires to a committed relationship and marriage in the future, was exclusively dating and described herself and her boyfriend as “...very much in love”. In contrast, another highly satisfied interviewee, Anne, who was 12 years postinjury at the time of our discussion, reported making a conscious decision that she was not “relationship material” and would not date, adding she continues to be very satisfied with that choice – “...I have absolutely no interest in it at all.” It would seem that for both of these participants, their present dating status is in keeping with their longer term goals. Still others described satisfaction with casual dating, preferring companionship without, what one interviewee, Art, referred to as “...emotional entanglements”.

In contrast, incongruence between relationship aspirations and current reality was reflected in low RRS. For example, wanting an intimate partner and yet remaining single was a common theme in the dissatisfaction expressed by low satisfaction interviewees.

Of the 7 interviewees who rated their satisfaction as relatively high, 2 were currently dating; 2 were not dating by their own choice; and 3 were not currently dating. All but one of the high satisfaction interviewees reported they had been involved in at

least one (subjectively) serious relationship postinjury, the exception being, as indicated above, Anne, who has chosen not to date at all.

The 7 interviewees who reported relative dissatisfaction with their romantic lives were typically not dating ($N = 6$; 86%) and yet desired an intimate partner. Three of these individuals (Brian, Brett and Brad) indicated they have not been involved in a serious relationship since their injury and one participant, Brian, has not had a date in the 19 years (at the time of interview) since his injury.¹⁰ As an example, Bob continued in his common-law relationship for 7 years following his injury. In the 4 years since that relationship ended he has dated but claims to have not found anyone "...I could see myself falling in love with". He explained he would love to "meet the right person", although for now he focuses on other aspects of his life that he finds satisfying.

Half of those interviewed ($N = 7$, 50% - reporting both high and low current satisfaction), described a period of time following their injury when they gave up on trying to have a romantic life. Respondents cited initial fears about their sexuality and a prioritized focus on physical rehabilitation as the two primary reasons for "giving up". For most individuals, this avoidance during the acute stage of postinjury recovery and rehabilitation did not last very long. For some interviewees, romantic interest expressed by others interrupted their personal fears about being sexually marketable, providing validation that they were still perceived as sexual beings. For example, Alisa described her fear that no one would be sexually attracted to her. This apprehension quickly

¹⁰ It is noteworthy that within the entire sample ($N = 58$), nine participants (16%) reported they had not had a single date since their SCI.

dissipated when she became involved in her first serious relationship only 3.5 months post-SCI. She commented:

...the person I was with then I think was very good for me – and I definitely cared about him a lot and he cared about me a lot...he made me feel sexy still...like I still turned him on...It just really made me feel good to know that someone could look at me in that same way again.

According to Alisa, this experience influenced her self-image in a way that encouragement from nursing staff, family members and friends could not because, as she explained, she doubted the veracity of their reassurances, which she believed were well-intentioned, but likely not realistic. Her first postinjury relationship experience provided compelling evidence to her that others could indeed find her attractive.

For other interviewees, a stance to avoid the pursuit of a romantic life has continued. For Anne that decision represented a conscious choice, while for others (Brian and Brett) this strategy was adopted because they thought it was apparent that no one was interested in them in that way. Brian remarked:

For a couple of years I tried but couldn't find anybody who really wanted to go out with me...Had three of them tell me that if I wasn't sitting in a chair it wouldn't be a problem... [After a few years] "I decided it was game over there – time to quit...[Now] I'm too old to even think about it.

Brian characterized himself as someone who would "...date all I could" prior to his injury at age 39; however, he admitted that postinjury he felt rejected and, to some extent, he lost interest - accepting the notion that nobody would be interested in dating him.

All interviewees were asked to describe their overall level of preinjury satisfaction. The 7 high satisfaction interviewees reported neutral (i.e., a self-rating of 5/10) to positive levels of preinjury satisfaction with their romantic lives; whereas quite a few low satisfaction interviewees ($N = 4$, 57%) expressed at least some dissatisfaction prior to their SCI. For example, Brian had been married and divorced three times before his injury and he characterized his love life as riding the "ups and downs". Three low satisfaction interviewees reported being satisfied with their preinjury romantic lives. Prior to their SCI, both Bob and Brad were planning to marry their partners and Bruce was exclusively dating.

For low and high satisfaction interviewees who were involved in exclusive dating or committed relationships at the time of their SCI ($N = 7$, 50%), without exception these relationships subsequently ended. All four high satisfaction interviewees attributed the break-up of their relationships to pre-existing interpersonal difficulties unrelated to their SCI, citing their injury as having negligible impact, if any. For example, Alan had been married for "3 or 4 years" when he was injured in an industrial accident. He described his marriage as strained by conflict prior to his injury. Alan acknowledged that his SCI added further stress to the couple's relationship; however, he denied that it played a major role in their ultimate decision to break-up a year later. He stated:

We were fighting all the time...just didn't want to cut it anymore". Alan remarked he and his wife were "...both ready for it to end", adding "...it was good for both of us...we're both fulfilling our lives now and that's the way it should be...my injury didn't really bother me too much – its weird eh...didn't skip a beat, just kept going.

Of the three low satisfaction interviewees who were romantically involved at the time of their injury (Bob, Bruce and Brad), Bruce and Brad both identified their SCI as the major reason for the dissolution of their relationships and cited their partners as unilaterally ending the relationship. As an illustration, Bruce, had just graduated from university and had recently settled into exclusive dating with someone when he was injured in a diving accident. He characterized himself as becoming "...clingy.... professing undying love...[and] it scared her". Bruce described his girlfriend's inability to "deal with it [SCI]" and he summarized the dissolution of the couple's relationship, stating "I broke my neck but she sorta broke my heart is how I felt [and]...now you sorta keep your guard up...."

For Bob, his SCI was described as playing an insignificant role in the dissolution of his intimate relationship. As indicated previously, Bob was in a common-law relationship at the time of his SCI that continued for 7 years postinjury. From his perspective, the couple had successfully adjusted to the many implications of his disability. He struggled to specify the reasons the couple eventually broke-up, characterizing them as two individuals who "grew apart" and the relationship "eroded

over time”. Although Bob has dated, he has not been involved in a serious relationship since that relationship break-up.

For those respondents who reported involvement in a serious relationship that developed after injury but subsequently ended ($N = 9$, 64%), all high satisfaction interviewees attributed the dissolution of the relationship to individual and interpersonal factors rather than their disability. Aaron has actively dated and been involved in many serious relationships over the 35 years since his injury. He reflected that although he could not categorically rule out his disability playing some role in his relationship breakups, he believes it was more likely related to interpersonal difficulties. He commented, “I’ve never really blamed the end of the relationships on my disability – I could blame it on my other problems...I don’t last long in relationships – as soon as they become trying they end”, often at his initiative. Similarly, Art spoke about his “rather unhappy” 3 year postinjury marriage to a woman with two teen-aged daughters when he was 41 years old. He explained a major contributor to the problems in his marriage was his difficulty, after so many years on his own, adjusting to having a wife and step-children. Since then he has made a “...habit of trying to keep my relationships on a casual basis...I’m not keen on commitments anymore”.

Two of the 4 low satisfaction interviewees who had serious post-SCI relationships that broke-up considered that their disability played a major role. Bill described his relationships as lasting approximately 6 months. He highlighted mobility issues as most

problematic, stating his relationships typically end “...because you can’t do the things she likes to do.”

Attributions for Satisfaction

Personal Qualities and Behaviors

In general, high satisfaction interviewees predominantly made attributions which identified their personal qualities and/or behaviors as highly influential, reflecting a primarily internal locus of control orientation. Maintaining positive self-esteem and self-confidence was most frequently mentioned as being critical for achieving RRS. As well, making a positive adjustment to life with a SCI was considered by many to be a foundational ingredient. For instance, Art talked about “...breaking out of my doldrums” after his accident by fulfilling personal goals and getting on a “road of achievement” (i.e., getting an education, finding gainful employment and “earning a good dollar”) all contributed to feeling good about himself, which then allowed him to enter into community/social activities and personal relationships with confidence. His maxim has been that “...if you don’t like yourself, no one else is going to like you”. Similarly, Alan highlighted the importance of self-confidence, stating “I’m a totally confident person” which he believes contributes to his stated willingness to take personal risks and capitalize on spontaneous opportunities to ask someone out. Idiosyncratically mentioned personal qualities and/or behaviors that high satisfaction interviewees believed contributed to their satisfaction included personality (i.e., outgoing, intelligent, and open-minded) and self-knowledge (i.e., knowing yourself and what you want).

Partner Qualities and External Validation

A number of high satisfaction interviewees also acknowledged external factors that contributed to their satisfaction, specifically qualities in others and validation as a sexual being. Three respondents described the positive characteristics of the people in their romantic lives as significant facilitators of satisfaction. Alisa spoke about the importance of being able to trust the person you are with. For her it was important to know:

...that they are not with me to fill any weird sexual fantasies, curiosities they might have about being with a disabled person. They want to find ways to pleasure me sexually...that they really cared about me and my disability doesn't matter...it has nothing to do with why they are interested in me.

Aaron illustrated the inter-relatedness of external validation and self-esteem. He characterized his self-esteem as substantially increased by the intimate relationships he forged at the auxiliary hospital where he resided following his SCI. He also took sexuality education courses which he considered very beneficial. Aaron stated that, from his perspective, when self-esteem is high, relationships happen naturally and expectations are more optimistic.

Anthony was the only high satisfaction respondent who exclusively attributed his satisfaction to the qualities of his partner and their relationship. He described the woman

he is currently involved with as “...very accepting of the way I am” and his satisfaction was founded on the fact that “we get along reasonably well I guess”.

Minor Themes

Other attributions for satisfaction mentioned by respondents included: (1) being socially active and therefore in a position to meet people; (2) containing disability effects (as exemplified by Aaron’s statement “I never go into a relationship thinking that I have a disability”; or Art’s comment “I am not my wheelchair”); and (3) getting educated about sex.

Attributions for Dissatisfaction

Disability

Representing the predominant theme, all low satisfaction interviewees identified their disability as a major factor contributing to their current dissatisfaction with their romantic lives. Specific disability-related issues articulated included physical dependence, sexual dysfunction, negative body image, role dissatisfaction, negative comparisons to preinjury life, and a perceived responsibility to compensate for the disability. A number of these issues are highlighted in Bruce’s attributions for why he remains dissatisfied. He recognizes that “reminiscing about my old role” contributes to his unhappiness with his romantic life. Bruce admitted he has had few complaints from the women he has dated, but he often discounts compliments thinking to himself “...if you like me now boy you should have seen me before”. He explained:

You're always comparing yourself to the person you were 6 years ago...[and there are a] multitude of medical problems that can interfere with dating....

You plan to go out and there are, for example, skin problems or back problems. Or things haven't gone well during the day and you're exhausted.

Considering himself well-schooled in dating etiquette, Bruce is frustrated by his physical inability to do the simple things he used to enjoy, like picking up his date, opening doors for her, etc., but now "...they're picking you up". He particularly "...hates it" when a woman cooks dinner for him because "...you can't do anything". He feels self-conscious not being able to "...open the wine" and would prefer to go out to eat to avoid these circumstances.

Bruce also expressed his desire to maintain privacy and secrecy about some of the physical implications of his disability, making sexual intimacy very "stressful" for him, like "...planning a tactical mission". He stated his caregivers are the only people who know about his bowel, bladder and/or skin issues because "...why would I want to bring anyone into my nightmare of a world". Because of his disability and all that it entails, Bruce doubts his capacity to attract a desired partner who meets his criteria, as exemplified in his comment:

The sad thing is my sort of ideal woman has not changed – I mean my ability to attract that woman has changed but like I say...I know what I like

in girls.....but there's still a sort of image of what I'm looking for in a girlfriend.

Bob attributed part of his dissatisfaction to not finding "...someone who could put up with the chair and the things you have to go through – day to day stuff". He also described feeling like he has to "...work harder to make the person comfortable, or make the person [pause] or make sure the person is enjoying the relationship".

Societal Attitudes

The second most frequently mentioned explanation for romantic relationship dissatisfaction was societal attitudes. Most dissatisfied interviewees made reference to the reduced pool of potential partners they encountered because of people's general attitudes towards PWD. As well, the cultural standards for physical attractiveness were specifically identified by a number of interviewees as a social factor in their dissatisfaction. For instance, Bill has a life-time of experience dealing with societal attitudes towards those who are different. A self-described "little person" (congenital dwarfism), since his SCI approximately 5 years prior to our interview, he considers that he now has "...two strikes against me" - his height and his disability. Bill explained that generally people are not comfortable interacting with someone with a disability because "...they aren't used to it". Furthermore, he believes women are often afraid to get involved with him because they fear leaving him in the future, and their concern about "leaving someone who is in a wheelchair" promotes avoidance in the beginning stages of a relationship. Bill described his height and disability as the central issues impacting on

his dissatisfaction, particularly situated in a context of a "...society of physical appearance...can't argue with that".

Echoing Bill's experience in facing negative societal attitudes, Ben identified the major reason he is unsatisfied with his romantic life is the "three foot barrier" (referring to his height in a wheelchair). He stated:

Most people don't penetrate that [barrier] they won't get that close to me because of disability I guess. And then the ones that do get closer than that, I assume they like me but then like three-quarters of the time they have - what do you call - direct contact with other disabled people, like in a wheelchair, so they actually go...they overcompensate and I just read the signals as wrong....they're overly being nice. They don't actually mean it....

Similarly, Brad described his biggest obstacle is for others "getting over that I'm sitting in a chair....I'm not as approachable – some people feel uncomfortable". In the extreme, Brian felt rejected and unacceptable as a potential partner and, it appears, internalized the attitudes he perceived:

I don't think I could really expect a woman to stick around with some kinda lazy bum who sits around and does nothing but asks for help all the time...yeah, I think that's what a lot of them look at so I kinda look at it that way now too – I don't blame 'em.

Risk in Intimacy

A number of low satisfaction interviewees indicated that getting close to others can be uncomfortable, and even risky (i.e., risk in intimacy). Although Brian has not dated since his injury, he told cautionary tales about other men in wheelchairs that he knew who had been financially and/or emotionally exploited in their personal relationships. In Bruce's case, he acknowledged that "for some strange reason" women want to become involved with him; however, he admitted that if a relationship gets to the point where it might become long term – "it totally scares ya". Typically he unilaterally makes a decision to create emotional distance. For him, progressing to greater intimacy would mean letting down his guard and involving a woman with the details of his life as a disabled man, rather than feeling he needs to maintain an image shrouded in some degree of secrecy. To date he has not met a woman he is prepared to do that with.

Loneliness/Social Isolation

Four of the 7 low satisfaction interviewees identified loneliness and/or social isolation as one of the reasons for their romantic relationship dissatisfaction. Brad moved to a Northern Alberta city three years ago to attend school. Not knowing very many people, and without family in the city, he has only recently begun to feel integrated into his community. Brett is unemployed and recently began volunteering at his local community food bank to enhance his opportunities for meeting people, and he hopes that "...somebody [special] might come along". He recognized that his lifestyle, since his SCI 8 years ago, has been an isolating one, staying home to watch movies and focusing on his

adolescent son. Although Bob does not feel socially isolated, and he currently focuses on the many enjoyable aspects of his life, he acknowledged that having a partner in his life is important to him. He is disappointed that he has not found “...the right person yet” – someone who is comfortable with him and his chair. He described what he is looking for: “...it’s a cliché, but just to see past the chair...not having that play any part in the relationship...you know just there.” Bob accepts that this may or may not happen. Brian also identified his feelings of loneliness as a major contributor to his ongoing dissatisfaction. He misses the emotional warmth and connection of “...having someone to put my arms around”.

Personal Qualities and Behaviors

Finally, many of the low satisfaction interviewees, like their more satisfied counterparts, identified personal qualities and behaviors as factors contributing to dissatisfaction. For a number of these interviewees, it was difficult to tease apart their acknowledged shyness and/or social anxiety from the disability factors discussed above and identified as central to dissatisfaction. For example, Bob characterized himself as shy, never “...the go out and grab it kind of guy” when it came to dating. He had limited dating experience prior to his common-law relationship (pre and postinjury) and is left wondering “...is it the chair or my nature” that makes finding someone a challenge. More conclusively, Brett identified his shyness and self-consciousness as major impediments to dating. The most mobile participant, Brett ambulates with the assistance of a cane. His impairments are less socially recognized than those of other participants, although his

injury has left him with intense sensation and circulation problems. One of his arms and hands is always cold and he wears a glove to compensate. Brett described himself as very self-conscious and he uses flesh colored gloves to minimize the social impact. In our interview, he emphasized that he was shy before his injury, and his preinjury wife initiated their relationship and "...did the chasing".

Negative Self-Talk

Uniquely, Bruce explicitly identified his "stinkin' thinking" as a contributing factor in his relatively low satisfaction, suggesting he was aware of some of the cognitive distortions that were noticeable in his use of catastrophic and extreme language to describe his dating experiences. For example, he talked about going from "...a girl worshipping you...big man on campus..." to a postinjury situation that "...was horrible", with dates that "...were a catastrophe".

Challenges and Strategies

Three major areas of disability-related challenges in forging intimate relationships emerged from the interview data: sexual difficulties, accessibility and mobility issues, and societal attitudes. In general, these interrelated challenges were equally articulated by both high and low satisfaction interviewees; however, differences in personal approaches to coping with these difficulties emerged across the two groups of participants. High satisfaction interviewees articulated more strategies than low satisfaction interviewees. Furthermore, high satisfaction interviewees reported direct, proactive approaches in dealing with the challenges they faced, as compared to more

indirect and/or passive methods employed by many low satisfaction interviewees.

These challenges and attendant strategies are discussed below.

Sexual Difficulties

The most frequently mentioned challenge was, what Art referred to as, “problems with sex”. High and low satisfaction interviewees alike depicted sexual relations as compromised by restricted mobility, reduced or absent sensation and/or ability to orgasm, lack of spontaneity, bowel and bladder concerns, and body image concerns. Despite these difficulties, a number of high satisfaction interviewees reported subjective sexual satisfaction. These individuals experimented with sex and actively sought out sexual information. As mentioned, Anthony took sexuality courses, while others educated themselves about their altered bodies and sexual response through printed materials. For Alisa, her most important resource was a married female friend with a SCI with whom she could talk openly about sex.

Another strategy emphasized by high satisfaction interviewees was the importance of open communication with partners. Alisa, a particularly articulate interviewee, takes personal responsibility to act as an educator and guide for her dates/partners. For example, she gave her boyfriend an explanatory manual she received in her rehabilitation program to provide information in “layman’s terms” and showed him her catheters, explaining how she uses them. Alisa said:

I guess I try to alleviate their fears by trying to initiate talking about some of this stuff...communication is so much more important now than its ever

been in a relationship before – very important – because they need to know where I’m coming from...how I’m feeling sexually about the things we are doing...If there are areas of concern about my disability and how we’re going to you know do things, how we’re going to do stuff, that we talk about it and figure it out....It must be really kind of strange to be in their position. Like for me, I deal with my disability every day and its you know right up front in my mind and so talking about it makes me feel a lot better, it makes me feel good that I don’t have to keep certain things from them you know. And just being able to talk about it...feels so much better...I always say, like you know if ever you’re curious about something like just ask me and we’ll talk about it. It doesn’t matter – like I don’t want you to feel that there are certain things we can’t talk about or certain things you know that are just like untouchable subjects....[Even though] discussing the bladder and bowel issues with partners [explaining potential accidents] is tough ...because that is something that is difficult for me to accept about myself.

Alisa’s approach is very different than the one adopted by Bruce, a low satisfaction interviewee who finds sexual intimacy very “stressful”. Bruce talked about his frustration with “sex in one position” and his need to have a caregiver help him get into bed. He likened having sexual relations to “...planning a tactical mission...[which] takes away all the fun of it”. Bruce maintains privacy concerns, particularly about

bladder and bowel issues, and he prefers not to communicate directly with a partner about any toileting activities he needs to complete. He admitted he continues to experience discomfort, which has not diminished since the onset of his SCI, in dealing with these issues in a sexual context. He explained that sometimes, if he thinks the relationship is heading in the direction of sexual intimacy he begins to emotionally withdraw from the relationship, becoming less available, avoiding and not returning phone calls.

You can't really you know enjoy the moment...it almost feels like its so stressful in some cases that its hard to really enjoy yourself....If I want to go into the bedroom [in a sexual situation] you gotta get transferred into bed and you know...to make sure whether it be catheterization or leg bag situations to get everything organized is, you know is, stuff that you don't want to be explaining that the very first time. You know, I guess sometimes I'm naïve as to the girls don't know what they're getting into. But I think sometimes you still want to keep a few cards close to the vest...you know you don't want to scare people off....I know in my mind the scenarios of horrible things that can go wrong I guess whether it be an accident or ... a spasm or things and you don't want to freak people out. And you know there's a short window where you have - until you might need assistance, whether it be catheterization or different things and you don't want to rush things...as much as you'd like to cuddle for 6 or 8 hours

you're like 'you better go'...or you make an excuse when really you just need to see your assistant for 30 seconds...and I guess explaining to a girl you know 'can you please leave I need to go to the bathroom' or something...you know [facially grimaces]....

Mobility and Accessibility

Not surprisingly, the second most frequently mentioned disability-related challenge for dating was the restriction imposed by mobility and accessibility factors. Low satisfaction interviewees ($N = 6$) were twice as likely to identify this specific challenge as high satisfaction interviewees ($N = 3$). To varying degrees, primarily depending on the level and completeness of injury, interviewees' physical limitations had a significant impact on their sexual functioning (as discussed above), their capacity to participate in shared recreational and leisure activities, and to a lesser extent, attendance at social events and venues (e.g., crowded bars). As well, for a few interviewees, mobility restrictions represented control and trust issues, either for themselves or others. For Anne, her physical limitations have heightened her sense of personal vulnerability, another factor which may have influenced her decision not to date.

I feel much more vulnerable....I'm very cautious about getting into situations where I feel like – I have control issues – and I'm very aware of getting myself into a situation where I might not have control, both physically [pause] and I don't think emotionally anymore, but physically...getting somewhere where I can't get out on my own, or you

know being dependent on someone else to leave when I want to leave....I

just...I wouldn't do it.

Alex pointed out that because of his physical limitations, there was some “advantage” in his relationships with women. He stated that the women he dates do not have to feel fear as he is not physically intimidating, which gives them some “...control, which generally they don't have.”

Despite significant architectural improvements over the last few decades, it appears accessibility continues to be an issue that can limit social participation. For example, stairs can represent a major barrier. As Brad mentioned, he “...can't just go and hang out at anyone's house”.

Neither low nor high satisfaction interviewees specifically identified strategies they employed to overcome mobility and accessibility concerns, although disability acceptance and maintaining a positive attitude, together with the frequently described importance of good communication with partners, are tacitly implicated.

Societal Attitudes

Beyond the physical barriers, a significant number of interviewees identified societal attitudes as a third major challenge to forging intimate relationships. Again, low satisfaction interviewees ($N = 4$) more frequently identified attitudinal challenges than did high satisfaction interviewees ($N = 2$). As discussed above, a number of low satisfaction interviewees pinpointed these attitudinal barriers (e.g., reduced pool of potential partners, being viewed as asexual, and cultural standards for physical

attractiveness) as a major contributor to their dissatisfaction with their romantic lives.

These issues will not be reiterated here; however, the articulated strategies to overcome societal attitudes are discussed.

Most high satisfaction interviewees indirectly revealed their containment of the effects of their disability and demonstrated a refusal to assume it as an personal identity. For instance, Aaron claimed “I never go into a relationship thinking I have a disability”. If he detects discriminatory attitudes from others he would never get involved with them, stating he would not personalize their ignorance as he sees it as more reflective that “...there is something wrong with them”. Art succinctly pronounced “I am not my wheelchair!” And Alan clearly does not think of himself as disabled, recognizing that it is his attitude that will ultimately handicap him.

The chair doesn't even bother me...my biggest insecurity is me balding...just because you're in a wheelchair doesn't mean you have a disability...I don't find myself disabled...its your mind that makes you disabled.

Focusing on developing a friendship first and demonstrating interest in the other person was mentioned by both high and low satisfaction interviewees as a conscious dating strategy. Art's 43 years of experience in a chair have taught him the need to break out of focusing on oneself, explaining “...once you start getting interested in others they'll be interested in you and they won't see the wheelchair so much...they'll see you.” However, for some interviewees, this strategy is not always the most effective. Making a

subsequent transition to something sexual was identified by a few low satisfaction interviewees as problematic. Ben has abandoned his former “frontal attack” of making sexual comments to present himself as a sexual being, which he came to recognize as appearing “vulgar”. Now he does not know how to “...take it to the next step” and deepen the friendship into something more. Similarly, Brett described his problem with women is that he gets to be “..too much of a friend” and his shyness works against him taking action to change that status.

Ben, Bob and Brett described a wishing coping style, remaining hopeful that someone will come along and it will be different. As Brett stated: “It would be nice to meet somebody...but I just don’t have the gumption to get out there....”

In contrast, high satisfaction interviewees (primarily) tended to emphasize their willingness to take personal risks (e.g., potential rejection) in forging intimate relationships, even in the face of attitudinal barriers. Art stressed it was important to “...go out there and make an ass of yourself [and if you fall]...then get up and do it again”. Alex reported he very seldom misses an opportunity to communicate his interest if he is attracted to someone, as does Aaron, who described himself as very direct in expressing his interest in dating someone, noting he is more than willing to pursue a potential date – “...I do chase”. Similarly, Alisa is not afraid to take the initiative and ask someone she is interested in out for a casual date, often relying on “...do you want to go for coffee” as a good start. Alan feels self-confident and sees opportunities to meet women everywhere and he has even dabbled with Internet dating. Bill, the only low satisfaction interviewee

who expressed a personal willingness to risk, stated he is not defeated by rejection.

He characterized the outcome of his rather direct approach as follows: “Nine out of 10 women are going to slap you in the face, but one will have sex with you”.

As mentioned above, low satisfaction interviewees were more limited in their responses when asked to articulate their strategies for meeting dating challenges in the context of disability. Brian appears to have decided the attitudinal challenges he faces cannot be overcome. He has accepted his fate and has given up trying to invite a woman into his life. Brad wants to be viewed as “...a person just like anyone else” but admitted that if others seem uncomfortable with his disability “...I just don’t really have the time or patience” to deal with it, so he just focuses on “trying to be myself”.

Future Expectations

All interviewees were asked about their expectations for their romantic life in the future. Five of the 7 high satisfaction interviewees, expected no change in the future. That is, they anticipated their subjective satisfaction would continue, and their current relationship status to remain unchanged, whether it be not dating, casual dating, or exclusive dating, although Anthony conceded he might marry his exclusive girlfriend at some time in the future. For instance, Art replied “same old, same old” reflecting his expectation that he will continue to date casually with no serious emotional entanglements. As he ages, he acknowledged “I should have some more companionship” but he also believes with some certainty that he would “...be very difficult to live with on an ongoing basis” because of his longtime patterns and lack of flexibility.

Two low satisfaction interviewees also indicated they did not anticipate any change in the future. For example, Bill reasoned that given his age (45 at the time of interview), and the fact that he “...hasn’t found anyone yet,” he believes it is “...very unlikely that I will”, particularly as he considers himself less flexible and “...pretty set in my ways”. Therefore, he expects he will remain dissatisfied with this area of his life.

Four interviewees (2 low satisfaction and 2 high satisfaction) anticipated a change in their marital status in the future, expecting to marry at some point, and in some cases, have children with their future partner. These interviewees tended to be younger (Range = 21 to 28 years) as compared to the 7 interviewees who anticipated they would remain single (Range = 38 to 68 years) and/or those who, as discussed below, remained uncertain about the future (Range = 32 to 53 years).

The remaining 3 low satisfaction interviewees declared themselves as uncertain about the future. Although none of them were particularly optimistic about finding a partner, based on their experience to date, they maintained some hope that they would meet someone they could partner with in the future. For example, Ben explained “...I can get sex, but not the relationship – the person that I want”. He admitted he would like to marry and have children some day, but added “If I don’t do it in the next ten years, probably not”.

Interviewees were also asked about their willingness to date someone with a disability. Individuals currently reporting low satisfaction were more likely to say, without qualification, that they would date a person with a disability ($N = 6, 86\%$) in the

future. Some interviewees currently reporting high satisfaction ($N = 3$, 43%) were hesitant and reluctant, stating they might consider it, depending on what the disability was. For example, Alisa shared her ambivalence when someone in a chair asked her out. “I kinda thought about it a lot...I don’t want to have the same prejudices that I can’t stand that other people might have”. She ultimately declined the invitation because she decided she was not romantically interested in this man; however, when she contemplates dating someone with a disability in the future, she indicated that although she might consider someone with a disability different than her own, she would probably not date someone in a wheelchair because of the mobility restrictions. Alisa described her enhanced physical freedom with her current able-bodied boyfriend, who compensates for her mobility limitations:

...he told me ‘there’s nothing that we can’t do’ and really, I feel like there isn’t. You know like any activity we wanted to do, there’s gonna be barriers a lot of times. But he always helps me around them, always. Like nothing stands in the way....yeah, I really do feel like when I’m with him I’m really not limited in the activities that I can do...its wonderful.

She admitted she would be hesitant to give that physical freedom up to date someone in a chair. As well, Alisa, tacitly highlighted the social barriers to dating someone who is also in a chair. She commented as she wondered what it would be like: “...would people always be looking – oh there’s the couple with the wheelchairs”.

Five interviewees (4 high satisfaction/1 low satisfaction) categorically stated they would not date anyone who was in a wheelchair, predominately citing mobility and accessibility challenges. Alex commented that dating someone with a similar disability was “...a little more stress than I need...that’s unfair to her – that’s unfair to me”. Alan said “...it would be too hard – sexuality, getting around” .

Hypothetical Advice

All interviewees were asked to give their best advice to a hypothetical newly injured individual who was preparing to return to the dating scene. This question was designed to provide another opportunity to identify what interviewees considered were the most salient factors in, presumably, achieving satisfaction and success in forging intimate relationships. In general, interviewees’ advice reflected their personal experience in dating and their own strategies and attitudes. Not surprisingly, much of the pro-offered guidance echoed the perspectives of the interviewees as previously articulated. Having confidence in yourself, believing that there are people who will still find you attractive, maintaining a good attitude, and communicating about your disability were the major themes of the interviewees’ recommendations. However, new insights were identified. For example, Alan warned about the dangers of alcohol, urging the hypothetical individual with a SCI to be active, remain independent and maintain their personal appearance.

Don’t expect people to do things for you...always keep your independence.

Nobody wants to be a babysitter either you know...Keep up your

appearance – nobody wants to be with a bum...don't be a couch potato – go out and do things...and lots of people get on the bottle...and that's a [self] pity thing...don't get stuck in that 'cause there's too much to do out there...

Although many low satisfaction interviewees endorsed many of the central themes proposed by high satisfaction interviewees, the former uniquely also offered some cautionary warnings about entering the dating world with a SCI. Anne urged the hypothetical individual to enter into any intimate relationship for the “right reasons”, not because of a need for assistance or fear of being alone. Both Bruce and Ben evidenced guarded optimism about the prospects of dating, characterizing this area of post-SCI life as a significant challenge. Although Bruce encouraged a positive attitude, he also warned:

..its manageable – there are still people who aren't just focused on body image that will be attracted to you. Everything else falls into place...but girls...this [dating and relationships] is one of the most difficult things...it takes a strong girl...it's going to take a person that sees your vulnerability and falls in love with the person – not the situation.

Similarly, Ben urged the adoption of an optimistic attitude, but he pointed out “...the odds are against you...probably 7 to 3 you won't be successful”.

Two of the more defeated low satisfaction interviewees, Brian and Brett, offered succinct advice which was based on encouragement. Despite their own frustration with their romantic lives, they attempted to motivate. Brian, who has never dated in the 19

years since his SCI was encouraging: "...best of luck – give it all you got!". Brett also urged the hypothetical individual with SCI to "...definitely go for it...there's lots of great people - just meet 'em – get out there". Certainly, this has been the challenge that Brian has identified for himself, as discussed above.

CHAPTER 6

DISCUSSION

Introduction

In addition to a general desire to contribute to the emerging research focused on dating and intimate relationships within the context of SCI, this study has been guided by two primary objectives. First, the project was designed to test the hypothesized relationships between selected individual factors and both PBD and overall RRS. Specifically, it was anticipated that individuals reporting greater disability acceptance and a more internal interpersonal locus of control, and lower levels of social anxiety/avoidance and perceived risk in intimate relationships would report lower PBD and higher RRS. Second, this research planned to explore and compare the attributions and interpersonal strategies of a subset of interviewees, selected on the basis of either high or low satisfaction with their romantic lives. It was anticipated the qualitative findings would enhance the interpretation of the quantitative findings and provide an opportunity to identify other factors that may contribute to our understanding of the inhibitory and facilitative factors in achieving RRS.

In the discussion that follows, it is important to remain cognizant of the correlational design of this study and the inherent preclusion of any and all causal interpretations of the data. This chapter will provide an integrated discussion of the major quantitative and qualitative findings (presented separately as they relate to the two criterion variables: PBD and RRS) and consider them within the context of the extant

literature. Following this presentation, a more speculative discussion of the possible relationship between PBD and RRS will ensue. The implications of these findings, taking into account the limitations of this study, will be also discussed. And finally, indications for future research will be considered.

A Discussion of the Major Findings

It is particularly noteworthy that all interviewees shared the view that negotiating intimacy post-SCI was a venture fraught with challenges imposed by their impairment and disability. High and low satisfaction interviewees alike identified sexual difficulties, accessibility and mobility issues, and negative societal attitudes towards PWD as the primary obstacles to negotiating intimacy post-SCI. Consistent with previous empirical findings and anecdotal reports (Milligan & Neufeldt, 2001), it would appear that there are indeed actual barriers to dating for individuals with a SCI; however, the perception of these barriers, and their manageability, varies across individuals. Both the quantitative and qualitative data support the notion that individual attitudes, beliefs and behaviors likely interact with actual environmental barriers, contributing to the variance in both the PBD and RRS.

Overall, the multivariate research hypotheses were supported for both PBD and RRS, suggesting the potential importance of these individual factors (i.e., AD, ICS, SADS and RII) in forging intimate relationships post-SCI. As predicted, the hypothesized supporting bivariate correlations were also found to be statistically significant.

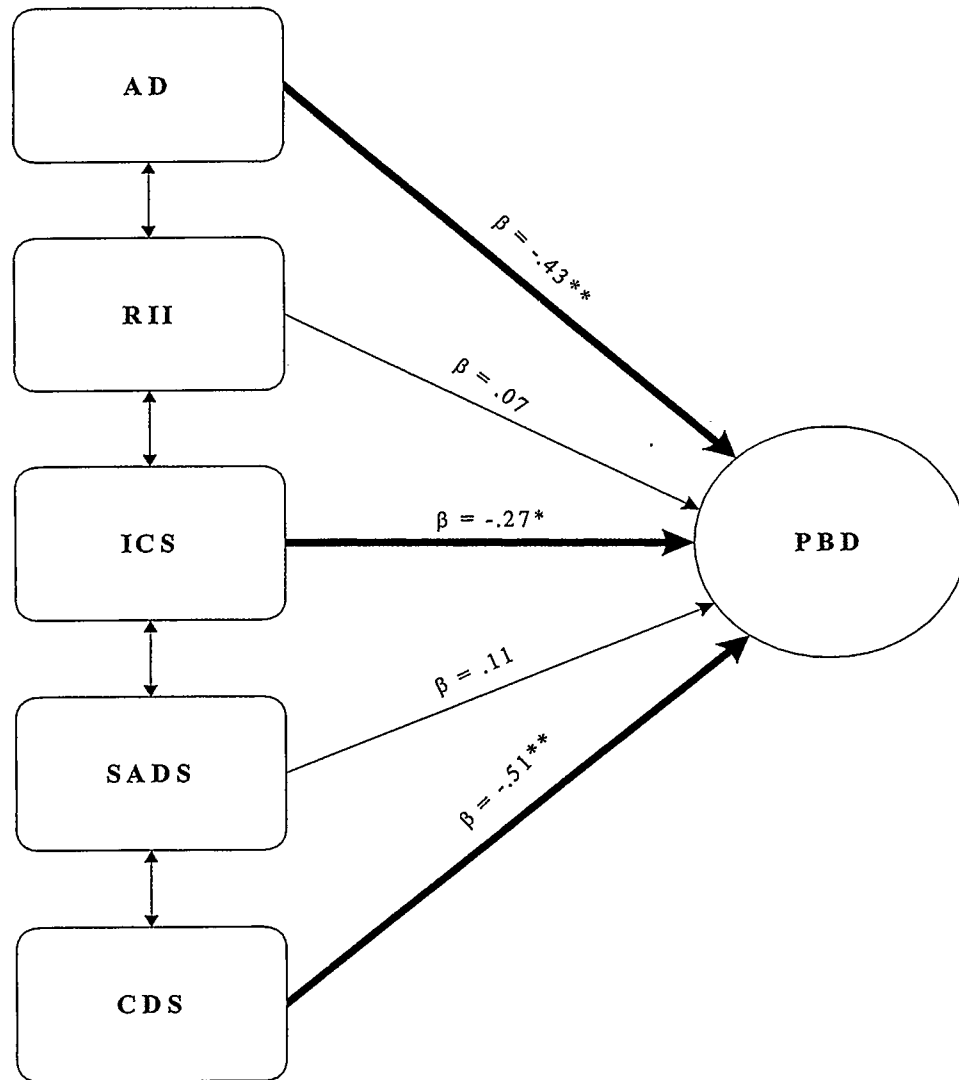
Similarly, the interview data highlights the contribution of individual factors.

A number of interviewees (both high and low satisfaction) directly acknowledged their personal contribution to barriers that interfere with the development of intimate relationships. For example, a number of (high and low satisfaction) interviewees in this study recognized that their own negative thinking has the potential to exacerbate the barriers to intimacy that they face. Bruce admitted he continues to compare himself to memories of his former sexual life without physical restrictions, and this increases his disappointment and frustration with the limitations he now experiences in dating. Despite his awareness, he admits he still struggles with his “stinkin thinking”, suggesting an ongoing battle to come to terms with his disability. He acknowledged his own perception of “...my nightmare world” is not necessarily shared by the women he has been involved with postinjury. This finding is consistent with a recent report by Taleporos and McCabe (2001), who have suggested that negative thinking by PWD can increase their perception of barriers to intimacy.

Perceived Barriers to Dating

As hypothesized, AD, ICS, SADS and RII together contributed significantly to the prediction of PBD and, with demographic and response style (impression management) variables, accounted for a large proportion of the explained variance in PBD (i.e., 76%). As can be seen in Figure 4, not all variables were found to significantly contribute to the prediction of PBD in the regression analyses. Individuals who reported higher AD, were currently dating (CDS), and endorsed greater self-perceived

Figure 4
Visual Display of Hierarchical Regression of Individual Factors on PBD
(Standardized Beta Coefficients (β) indicated)



* $p < .05$

** $p < .01$

interpersonal control (ICS) were found to report significantly fewer PBD. Neither RII nor SADS added significantly to the prediction of PBD.

Although multicollinearity was not declared a statistical problem for the analyses, the high intercorrelations between RII, ICS, and SADS suggests redundancy and likely accounts for the failure of RII or SADS to contribute unique variance when entered into the regression analyses with ICS. For example, the highest bivariate correlation obtained was between ICS and SADS ($r = -.751$), reflecting the strong inverse relationship between these two measures. This finding suggests these constructs may function as quite representative of each other. It follows that individuals who are socially distressed and/or avoidant would be unlikely to experience themselves as having the capacity to influence social outcomes. ICS and SADS appear to represent, for the most part, extremes on a continuum of social functioning.

For this investigation, after controlling for current dating status, the most important predictor of PBD was AD. High AD, which includes maintaining a positive self-concept and de-emphasizing disability salience, was associated with the perception of fewer barriers. As derived from the interview data, feeling good about oneself and life in general post-SCI may reduce the actual barriers to dating. Certainly most high satisfaction interviewees identified acceptance of and adjustment to their SCI, and its implications, as foundational for developing the self-confidence that was deemed necessary for successfully forging intimate relationships postinjury. This finding is consistent with Yunker's (1994) conclusion, based on his thorough review of the attitude

literature, that positive attitudes of PWD toward their disability (e.g., self-acceptance, disability acknowledgement) positively influence how others perceive them. Other authors have also reported that self-acceptance and positive adjustment on the part of men with SCI appears to be facilitative of interpersonal attraction and the establishment of intimate relationships (Bozzacco, 1993; Milligan and Neufeldt, 1998).

It would seem that high disability acceptance – considering SCI as non-devaluing and non-defining - represents an enhanced self-view that may reduce perceived barriers to intimacy by refocusing the individual with SCI on their assets, abilities, and attractive characteristics. To the extent individuals with SCI can believe in their personal value, and see themselves as having something to offer a potential partner, they would seem likely to see fewer barriers to forging and/or maintaining intimate relationships.

Current dating status also made a significant contribution to the prediction of PBD (and was significantly correlated to all individual factors of interest to this study). Information about this demographic variable was collected as it was anticipated dating status could be a potential confounding variable, although no specific apriori hypotheses were made. One interpretation of these findings is that individuals who are currently dating may be more likely to feel positive about themselves (and report higher levels of AD) and perceive fewer barriers to dating. The barriers that do exist may seem more surmountable in the context of current dating and be associated with an enhanced internal locus of control – a sense of social impact. It seems reasonable that dating, or being in a

relationship, can provide direct evidence to an individual with a SCI that he/she is sexually desirable.

The interview data provided evidence that positive dating experiences postinjury (e.g., Alisa and Anthony) may interrupt the development of negative beliefs about one's potential desirability as a romantic partner, and challenge the internalization of negative societal attitudes towards PWD. The existing research, albeit limited, provides some support for the contention that positive relationship experiences contribute to enhanced self-esteem. Taleporos and McCabe (2001) reported that "Positive [intimate] experiences clearly changed these people's [PWD] perceptions of themselves and their feelings of sexual esteem." (p. 140).

It is equally possible that individuals who have higher AD, a greater sense of ICS and report fewer PBD are simply more likely to be dating. Again, the qualitative data provides support for this interpretation. As a group, high satisfaction interviewees explicitly attributed their RRS to preceding disability acceptance, displaying a positive attitude, taking an active approach to achieving a satisfying romantic life, and effectively managing the interpersonal and environmental barriers, to the extent that they exist. For example, Aron, a high satisfaction interviewee, shared his view that with increased self-acceptance and elevated self-esteem, relationships happen naturally and expectations are generally more optimistic. It would seem that Aron's personal conceptualization is that developing intimate relationships is a likely consequence of feeling and thinking positively about oneself. Some high satisfaction interviewees emphasized the importance

of rejecting psychologically disabling attitudes and beliefs (e.g., believing that no one will be sexually interested in them) and focusing on personal assets and strengths. Interviewees providing hypothetical advice to a newly injured person echoed these sentiments, whether they felt they had been personally able to adhere to them or not, suggesting AD, ICS and fewer PBD are important, albeit not necessarily sufficient, components of forging a satisfying romantic life.

The question therefore remains whether persons with SCI have high disability acceptance, a more internal interpersonal locus of control, and report fewer PBD because they are currently dating; or whether they are currently dating because they have high disability acceptance, a more internal interpersonal locus of control and have fewer PBD. It is possible that these relationships are reciprocal in nature, representing in essence a self-fulfilling prophecy. Acceptance of disability and having confidence in one's social impact may reduce the perception of barriers and lead to engagement in social relationships of all types, including intimate ones. Being involved in a desired intimate relationship seems likely to further enhance self-esteem and disability acceptance, empower perceived interpersonal control and reduce the perception of barriers to intimacy. These perceptual consequences have the potential to further increase the probability of being involved in the kind of romantic relationships that meets one's personal goals, whether that be casual dating or being in a committed, exclusive relationship.

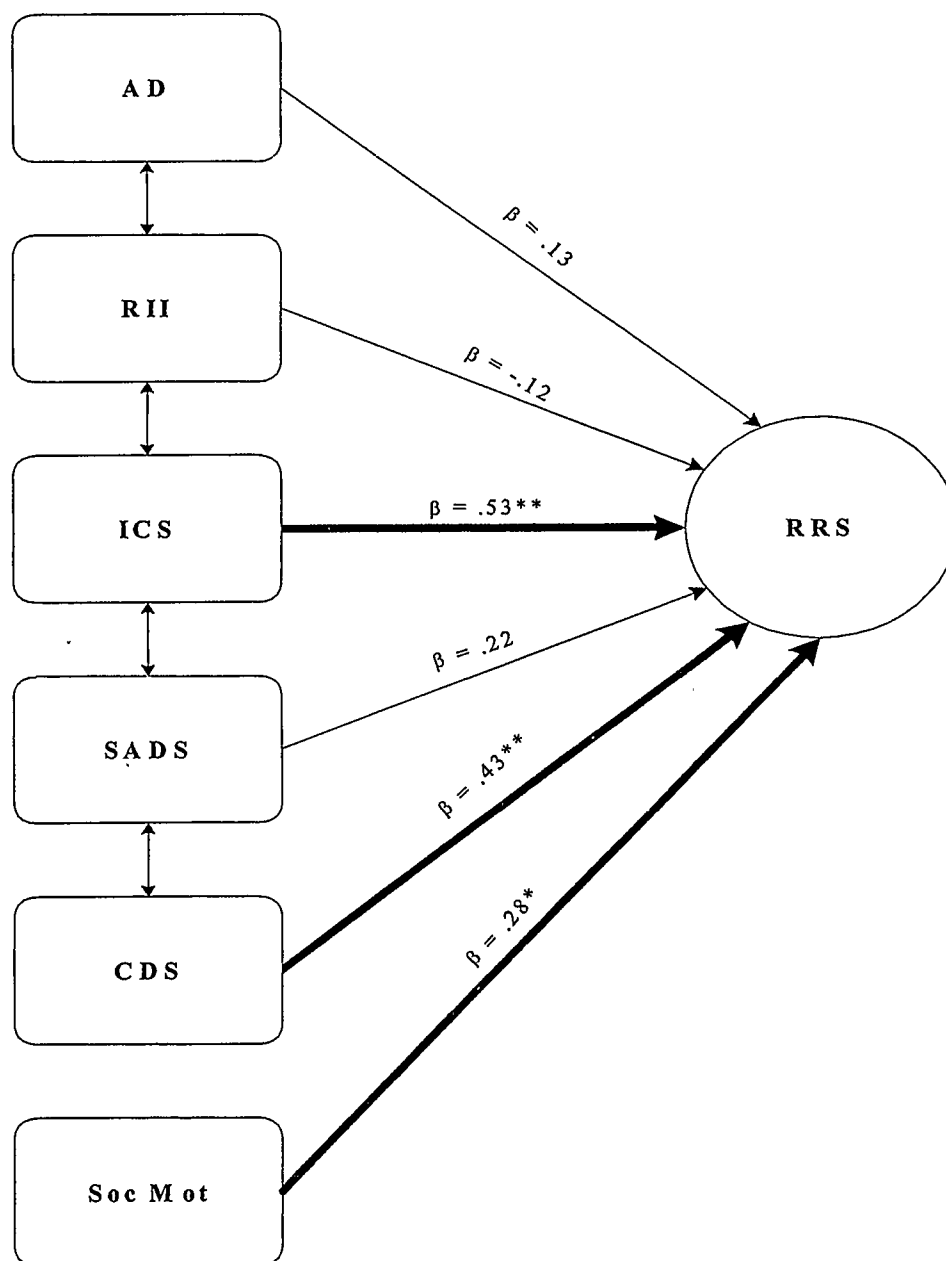
It could also be that CDS is best conceptualized as another component of satisfaction, as evidenced by its significant role in the prediction of RRS. This possibility will be discussed at greater length below.

Romantic Relationship Satisfaction

As hypothesized, AD, ICS, SADS and RII together contributed significantly to the prediction of RRS after the variance associated with demographic (including current dating status) and response style variables was accounted for. Overall, a moderate proportion of the variance in RRS was explained by all variables (including demographic variables) (i.e., 53%); however, as visually displayed in Figure 5, only Social Motivation, ICS and CDS were found to contribute significantly to the prediction of RRS in the regression analyses. Higher social motivation for intimacy was found to be associated with lower RRS. Individuals who endorsed a more internal locus of interpersonal control orientation and were currently dating tended to report greater RRS.

The qualitative findings supported the importance of an internal LOC orientation in achieving RRS. High satisfaction interviewees described taking personal responsibility for attaining satisfaction in this area of their lives, utilizing active problem-solving strategies that appeared to be aimed at enhancing engagement with potential partners. For example, high satisfaction interviewees described seeking sexual information and experimenting with sexual behaviors to increase their own, and presumably their partner's, subjective satisfaction. Taking responsibility for maintaining a positive attitude and self-confidence, de-emphasizing disability and containing its

Figure 5
Visual Display of Hierarchical Regression of Individual Factors on RRS
(Standardized Beta Coefficients (β) indicated)



$^{*}p < .05$
 $^{**}p < .01$

effects, demonstrating interest in others, taking personal risks (e.g., facing possible rejection), being socially active, and communicating openly about one's disability were all noted by high satisfaction interviewees to be important aspects of their interpersonal style in forging intimate relationships. Believing in one's capacity to influence social outcomes and meet the interpersonal and societal challenges and/or barriers that may exist seems important for the achievement of RRS post-SCI in that it leads to active behavioral strategies which facilitate intimacy.

This study extends the extant research that has generally yielded consistent findings that an internal LOC disposition bodes well for many aspects of post-SCI life, including, but not restricted to, psychosocial adaptation, subjective well-being, reduced emotional distress, and fewer health concerns (Craig, et al., 1990; Krause, et al., 1998; Livneh, 2000; Schultz & Decker, 1985; Schultz, et al., 1987). The current finding that an internal LOC is beneficial in the context of forging intimate relationships after a SCI is concordant with previous findings by Linton (1990) and Mona, et al. (2000) that an internal LOC is positively associated with sexual adjustment and sexual satisfaction.

In contrast, it appears that low satisfaction interviewees either utilized fewer active problem-solving strategies, or they were less conscious of and/or articulate about their interpersonal tactics. As a group, low satisfaction interviewees frequently expressed wishful thinking that someone would come along that they could love, and would love them in return. They were less likely to feel efficacious in overcoming the interpersonal

challenges to intimacy (evidencing an external LOC), conceptualizing their disability and societal attitudes towards PWD as major impediments to achieving RRS.

LOC theory, as originally described by Rotter (1966, 1975) predicts that individuals will not persist in goal-directed behavior if they do not consider themselves to have personal control over environmental reinforcements. Consistent with that theory, a number of low satisfaction interviewees explicitly admitted they had surrendered to being alone: considering their previously desired goal of finding a romantic partner as essentially unachievable, they eschewed active efforts in that pursuit. Other low satisfaction interviewees more tacitly implied that their romantic future was dismal based on their relationship experience to date.

Furthermore, low satisfaction interviewees, as compared to their more satisfied counterparts, appeared to rely more frequently on indirect and avoidant coping strategies (e.g., social withdrawal to cope with shyness; reduced risk-taking to avoid rejection; maintaining privacy about disability issues). This interpersonal style likely contributes to disengagement as opposed to engagement with potential partners and therefore could conceivably interfere with both relationship initiation and development.

Given the high social motivation for romantic relationships found in this study and others (Weitzenkamp et al., 2000) it is perhaps, in retrospect, not surprising that, together with current dating status, these variables contributed significantly to the prediction of RRS. The majority of participants in this study rated involvement in a satisfying relationship as desirable and important for their personal happiness and yet

most of the sample (67%) were not currently dating. Although it is conceivable that, at least for a period of time, individuals can be satisfied with not dating despite a desire to be involved in an intimate relationship, a persistent lack of dating relationships could be expected to negatively impact RRS. The only likely exception would be for those individuals who have consciously chosen not to date or be romantically involved, either in the short or long term, and are satisfied with that decision. In fact, 5 of the 7 high satisfaction interviewees were not currently dating, 2 of them by choice, and 3 by circumstance; however, their overall satisfaction was apparently based on their relationship history and ultimate faith in their capacity to be intimately partnered again in the future.

As noted, it may be that current dating status is an important component of RRS and is therefore best conceptualized as an outcome variable. Without a comparison group (i.e., persons without disabilities), this investigation cannot comment on the relative satisfaction/dissatisfaction levels of persons with SCI as compared to the nondisabled population. Given that over two-thirds of the volunteers for this study were not dating at the time of their participation, and considering that dating may be associated with greater RRS (and fewer PBD) one might conjecture that persons with SCI experience relatively low levels of RRS. Of course, this hypothesis would be purely speculative on the basis of this study.

As stated, the proposed individual factors, together with demographic variables, accounted for a significant proportion of the variance in RRS; however, considerable

variation remains unexplained. Clearly persons with SCI experience all the vagaries of romantic life that persons without disabilities face. Most high satisfaction interviewees characterized their intimate relationship problems as primarily unrelated to their disability challenges but rather as the result of intrapersonal and/or interpersonal difficulties.

There was qualitative evidence to suggest that premorbid relationship history may be an important predictor of postinjury RRS; however, this experience was not rigorously assessed in this study. In fact, it might have been very useful to have employed a visual analogue scale to quantify preinjury RRS, albeit retrospectively. It seems likely that the interpersonal problems predating SCI continue to influence satisfaction postinjury. As Aron commented: "...if you had problems with relationships before – you're going to have difficulty after [SCI]...". Overall, all high satisfaction interviewees rated their preinjury RRS from neutral to positive (i.e., satisfying); whereas, over half of the low satisfaction interviewees acknowledged dissatisfaction with this area of their life prior to their SCI. Consistent with the theoretical proposition that premorbid RRS may be an important predictor of postinjury RRS is a recent investigation by Westgren and Levi (1999). These authors concluded, on the basis of their interviews with 8 women with SCI, there is a strong influence of preinjury sexual behavior on postinjury sexual adaptation.

Many other unmeasured factors are likely to influence RRS. Some include, but are certainly not restricted to, personality functioning, partner characteristics, the

presence of substance abuse or other mental health concerns (e.g., depression), conflict resolution and communication skills.

Communication skills. An emphasized theme across the interview data was a recognized need for enhanced communication skills in negotiating intimacy postinjury. Balancing appropriate personal privacy needs with a willingness to be open and provide information about one's disability to prospective partners, particularly around toileting and sexual matters, can represent a serious challenge. The best timing for disclosure is often unclear; however, a number of high satisfaction interviewees described their intention to reduce their non-disabled partner's fears and uncertainties by discussing intimate matters before or as they arose. In contrast, some low satisfaction interviewees spoke about not wanting to frighten off prospective dates/partners and/or, out of personal embarrassment, they avoided disclosure of personal care needs. While the desire to maintain privacy boundaries is understandable, and in many cases, appropriate, withholding disability-related information may interfere with connection and impede understanding on the part of the person without a disability.

Braithwaite and Harter (2000) have described three dialectical tensions within the personal relationships of PWD (that also exist within the general population); autonomy versus connection, openness versus closedness, and predictability versus novelty. The oppositional forces of openness-closedness particularly relates to communication style. Braithwaite and Harter's (2000) review of the sparse literature in this area has led them to suggest that PWD need to develop a wider repertoire of communication abilities as

current knowledge suggests effective communication may be a key factor contributing to successful relationships. More specifically focused on negotiating romantic relationships, Nemeth (2000) has argued that experimentation and discussion become essential in negotiating sexual relations and there is a need to establish boundaries that maintain comfortable levels of tension between autonomy and connection and openness and closedness in relational communication. Similarly, other authors have concluded on the basis of their empirical findings that good communication skills may be essential for favourable sexual rehabilitation outcomes (Howland & Rintala, 2001; Mackelprang & Hepworth, 1990; Westgren & Levi, 1999).

Perceived barriers to dating. When considering factors not included, but that may be potentially important to RRS, the planned regression analyses in this study did not include PBD as a potential predictor of RRS. The significant bivariate correlation obtained between PBD and RRS ($r = .69$) implicates these variables' potential mutual importance as predictors. Although the current sample size precluded the use of more sophisticated statistical methods (i.e., path analyses or structural equation modeling), this strong correlation suggests PBD may be an important variable to consider in exploring RRS.

Post hoc analyses suggested that PBD may act as a mediating variable, as indicated by both the obtained partial correlations between individual factors and RRS (controlling for PBD), and the mediation testing methods as described by Baron and Kenny (1986). It is possible that individual factors may be more directly associated with

the PBD; which in turn accounts for a significant proportion of the variance in RRS.

In this study, AD emerged as the most important of the selected individual factors in predicting PBD, suggesting it may be a consequential determinant of PBD. Clearly, more rigorous and appropriate testing with a larger sample would be necessary before these speculations could be appropriately evaluated.

The regression analyses indicate that almost half of the variance in RRS remains unaccounted for with the present model. The unmeasured variables that may contribute to RRS remain unspecified. As well, measurement error may have contributed to the attenuation of obtained correlational relationships within this study. The major criterion variables were assessed with newly developed scales that have not been rigorously psychometrically evaluated; certainly they have not been tested to the same extent that the individual factor measures have been.

Demographic Variables

The reader will recall that few specific hypotheses regarding demographic variables were advanced. The hypothesis that AD would be (significantly) positively correlated with time since injury (Hypothesis 1a) was not supported. On the basis of previous research findings (e.g., Craig, et al., 1990; Crewe & Krause, 1990; Elliott, 1999; Heinemann, 1995; Krause & Sternberg, 1997; Livneh & Antonak, 1997), it was expected that the more time an individual has had to adjust to the physical and psychosocial sequelae of SCI, the greater their acceptance of their disability would be. It could be that the recruitment criteria for this study, which excluded individuals with SCI who had been

injured less than two years, restricted the obtained variance in AD by ruling out the most acute period of adjustment, and thereby reducing the bivariate correlation between these two variables. Alternatively, or in addition to the foregoing, power constraints previously identified may have contributed to nonsignificant findings, given the current investigation's inability to detect small effects.

As predicted, age-at-onset of SCI was (significantly) negatively related to AD, (supporting Hypothesis 1b). This finding is congruent with previous reports that have indicated individuals who are injured at a younger age make better psychosocial adjustment to their SCI (Craig, et al., 1990; Krause & Crewe, 1991; Trieschmann, 1988) and report greater acceptance of their disability (Woodrich & Patterson, 1983).

As anticipated, level of injury (i.e., paraplegia versus quadriplegia) was not significantly related to AD (or any other variables), consistent with the now robust findings within the SCI literature that suggest psychosocial factors are more closely associated with a range of positive adjustment outcomes, rather than the degree of physical impairment (Boschen, 1996; Craig, et al., 1990; Hampton, 2000; Krause, 1990; Krause & Dawis, 1992; Nosek, et al., 1996, 2001; Siösteen, et al, 1990; Trieschmann, 1988; White, et al., 1992, 1993).

A number of unpredicted (significant) correlations were obtained between demographic, predictor and criterion variables. In the discussion that follows it is important to point out that given the large number of correlations obtained, limited number of apriori hypotheses involving demographic variables, and the modest

correlations obtained for many of these unpredicted relationships, correlations may have been found to be significant purely by chance. In some cases, significant correlations represent artifactual findings. Specifically, longer time since injury and later age-at-onset of SCI were both associated with currently being older (i.e., current age).

The correlational analyses suggest that being older (currently and at age-of-onset of SCI) is associated with greater perceived RII. Considering that the current sample consists of single participants, it is possible that older individuals could have a longer history (relative to younger people) of negative relationship outcomes that may, in turn, contribute to an increased expectancy of risk within intimate relationships. Given the greater adjustment difficulties attributed to being older at the time of injury, it is also conceivable that individuals injured later in life consider themselves to be less suitable candidates for intimacy and at increased risk for rejection and subsequent emotional distress. Older age-at-onset of SCI was also found to be related to increased SADS. The combined findings of greater perceived RII and SADS in individuals with later-onset SCI are consistent with Nezlek and Pilkington's (1994) evidence that individuals who perceive greater risk in intimacy have more limited social interaction.

Current age was also significantly related to ICS, with older individuals reporting less perceived interpersonal control. In conjunction with the above correlational findings related to age and RII, it is also possible that being older is associated with maintaining more realistic appraisals of both RII and ICS. There exists a dearth of contextual research findings in which to consider this proposition. Arguing against this

interpretation is Pilkington and Richardson's (1988) finding of virtually no relationship between age and RII ($r = -.01$, *ns*) obtained during the construction of their RII inventory.

Interestingly, being female was significantly associated with fewer PBD and greater RRS. The modest, albeit significant, obtained correlations are inconsistent with previous reports of greater disadvantage for women with SCI in forging intimate relationships (Brown & Giesy, 1986; Gill, 1996). Given the small number of women who participated in this study, and the acknowledged power constraints, this finding is somewhat surprising. It is possible that the women who volunteered for this study are not representative of women with SCI in general in that they have been particularly successful in achieving satisfying intimate relationships. However, this finding invites future exploration within investigations with sufficient participation by women with SCI to warrant gender comparisons.

Theoretical Implications

As discussed earlier, there has been limited theory development in the area of romantic relationships and SCI and ongoing investigations, such as this one, will continue to be necessary to incrementally build towards a comprehensive theoretical foundation. While this study on its own will certainly not change this situation, its major findings contribute to theory building in a number of areas.

This study has implicated both locus of control theory and acceptance of loss theory as highly relevant for understanding intimate relationships in the context of SCI.

Interpersonal control, a locus of control construct specific to the social realm, was found to be a significant predictor of both PBD and RRS in this investigation, justifying its continued exploration as an individual factor of great interest. Although the specific nature of this relationship remains unclear on the basis of this investigation, there was evidence to support the LOC theoretical expectation that belief in one's capacity to influence social outcomes leads to more direct and active interpersonal behaviors by persons with SCI, thereby enhancing relational opportunities.

On the basis of this study, it appears that AD (as based on acceptance of loss theory) may also play an important role in forging intimate relationships post-SCI. It seems AD, that is assimilation and accommodation of one's disability as non-devaluing and non-defining, while recognizing and emphasizing one's assets and abilities, may be most strongly associated with the perception of fewer barriers to intimacy. A positive self-concept may reduce not only perceived but also actual barriers to achieving a satisfying romantic life postinjury.

The post-hoc finding that PBD may act as a mediating variable between individual factors and RRS also has implications for future theoretical model development and testing. As well, it points to a potential point of intervention to improve RRS.

Current relationship status emerged as an important factor to consider in any research design targeted to exploration of intimate relationships. In this investigation CDS (i.e., dating versus not dating) was significantly related to all individual factors and

criterion variables. Therefore, in future studies, if this variable is not a specific focus of interest in an investigation, it will likely need to be controlled for.

Clinical Implications

The current findings have a number of clinical implications for individuals with SCI and the clinicians who work with them. At a very general level, the more clearly rehabilitation professionals understand the psychosocial variables associated with positive adjustment outcomes, the better equipped they will be to intervene effectively.

This study has highlighted the strong inverse relationship between AD and PBD, reinforcing the importance of acceptance of one's disability for the preservation of self-esteem and self-confidence. Considering the breadth of obstacles a person with SCI must face, it is not surprising that many authors have described acceptance of and adjustment to disability as an ongoing developmental process (Oliver, et al., 1988; Sloan, 2000; Trieschmann, 1988; Whalley Hammell, 1992). Unfortunately, the psychosocial issues of living with SCI, which are paramount to long term adjustment, are typically inadequately addressed within acute medical rehabilitation programs (Trieschmann, 1988).

The writer's clinical experience in a local acute rehabilitation service highlighted the prioritized need for individuals with SCI to maximize their independence by emphasizing physical therapies targeted at improving their functioning and mobility. It is after hospital discharge, and with a return to the community, that the psychological and social issues may come to predominate. Therefore, good access to a range of ongoing outpatient and community-based programs that are targeted to the needs of persons with

SCI is essential. Sufficient evidence exists (cited earlier) to substantiate the contention that individuals experiencing difficulty accepting their disability remain at risk for poor psychosocial outcomes.

Individuals struggling with disability acceptance may also benefit from interventions specifically targeted to interpersonal skill development. For example, in this study, effective communication skills have been identified as an important asset in forging intimate relationships, thereby suggesting interventions aimed at addressing skill deficits may be helpful and ultimately improve AD and reduce PBD. A conspicuous lack of evidence is available to support this hypothesis, although Morgan and Leung's (1980) pretest-posttest control group study of assertiveness training with PWD (university students) found significant improvement in AD and self-concept for their treatment group.

The preliminary evidence offered by this study, together with a limited number of prior investigations (Linton, 1990; Mona, et al., 2000) suggests the potential significance of an internal LOC for achieving a satisfying romantic life postinjury. More specifically, the current research suggests maintaining an internal interpersonal LOC may be important in reducing the perception of barriers to forging intimate relationships (which may or may not represent actual barriers) and is associated with greater RRS post-SCI. It seems that an individual's belief in his or her capacity to influence social outcomes may be associated with engaging in more active and direct interpersonal behaviors that may, in turn, partially explain achievement of higher levels of RRS. Therefore, rehabilitation

professionals would be well advised to routinely assess LOC orientation in their clinical work with individuals with SCI, seeking to intervene with those individuals who are identified as being particularly at risk to feel helpless to impact the future course of their social lives (externality). The efficaciousness of interventions targeted towards increasing internal LOC post-SCI have recently received preliminary support (Craig, et al., 1998; Fiedler, 1998) and initial studies have demonstrated the modifiability of this heretofore considered stable orientation. Cognitive-behavioral therapies may be particularly well-suited to these intervention efforts (Craig, et al., 1998).

Furthermore, the current results suggest that early intervention to interrupt the development of negative expectancies, and establish the development of a satisfying romantic life as a reasonable and achievable goal, is not only warranted, but important. The interview data provided considerable evidence of some participants' negative thinking patterns and self-talk (e.g., use of catastrophic language) that may represent cognitive distortions that perpetuate diminished sexual esteem and interfere with developing intimate relationships. Sexuality information provided on acute rehabilitation units should be expanded beyond a focus on sexual response difficulties to include psycho-education about the potential personal and societal barriers to forging intimate relationships, including dissemination of the factors that may reduce them. Inviting community-based peers (living with SCI) and their partners, who are currently enjoying satisfying romantic lives, to share their experiences and field questions may be a

particularly powerful method of positively influencing expectancies in newly injured people.

Concerns were expressed by some of the interviewees and other study participants who informally and spontaneously lamented a general lack of good quality sexual information. It seems many individuals with SCI continue to report receiving little or no sexual information and/or counseling related to their disability. Furthermore, it appears women are twice as likely as men to be overlooked in the area of sexual education and/or counseling (Donohue & Gebhard, 1995; Tepper, 1992).

Despite pervasive rhetoric within the rehabilitation literature urging the delivery of comprehensive sexual information and counseling programs, there appears to be a very real discrepancy between program description and service delivery. The interviewees in this study have echoed the extant literature that attests to the reality that sexual difficulties are a major concern for individuals with SCI. This poorly addressed need clearly should be the focus of intervention strategies; however, that necessitates both institutional commitment to staff training and service delivery and development of empirically based knowledge as to what constitutes effective and timely intervention (Milligan & Neufeldt, 2001).

Most approaches described within the literature focus on the PWD, sometimes including their partners. An ecological perspective would argue that this only targets half the problem. Community-based programs that focus on public awareness campaigns about sexuality and disability are also needed (Milligan & Neufeldt, 2001).

Limitations of the Study

Several limitations to this study must be borne in mind. First, as noted above, this project applied an ex post facto, quasi-experimental design and therefore it is not possible to derive causal conclusions from the findings.

Second, the sample size is small and restricts the detection of medium or small effects. Despite this weakness, there was adequate statistical power to test the major hypotheses underlying this investigation, highlighting the relatively large effects associated with the identified variables of interest.

A third limitation relates to the non-random sampling method. It is important to re-emphasize that almost all participants in this study were identified and recruited through the CPA, whose membership may or may not be representative of the SCI population residing in Alberta. Furthermore, because the volunteers self-selected themselves, it is possible that this sample represents individuals who were more interested, open and concerned about intimate relationships than other people with a SCI. Given the sensitive topic of this research, it is conceivable that men and women who were guarded about discussing issues related to their sexuality and most intimate relationships may have been less likely to volunteer to become involved. As such, participants are not necessarily representative of the population of men and women with SCI.

Conversely, there is no evidentiary basis for the contention these participants are not representative of the general SCI population. Demographic comparisons suggest the

current sample is reasonably representative of the known demographic characteristics of the general population of individuals with SCI. SCI is a predominately male phenomena, constituting up to 85% of all reported injuries (Bridges, 1997; Gutierrez, et al., 1993; Richards, et al., 2000; Trieschmann, 1988). Men with SCI constituted 86% of the current sample, therefore comparing with the highest estimates of prevalence in the population, and suggesting women may be slightly under-represented. (Given the low number of women who participated in this study, an endemic problem as women represent a small proportion of those living with SCI, meaningful comparisons of gender differences were not possible).

The average age at injury for this sample was 26.2 years. This average is younger than the American mean of 32.1 years, as reported by the National Spinal Cord Injury Statistical Centre (2001, May), an extensive database established in 1973. In contrast, the obtained average age-of-onset is somewhat older than the Canadian estimated median of 24 years (Bridges, 1997) which is derived from a more limited database than its American counterpart. However, the average age-of-onset for this sample seems to be consistent with the established age range of 15 to 34 years at time of injury as documented within the literature (Bridges, 1997; Gutierrez, et al., 1993; Richards, et al., 2000; Trieschmann, 1988).

In terms of race/ethnicity demographics, there is limited Canadian data to draw upon. Bridges (1997) reported 9.7% of their sample ($N = 966$) identified themselves as

members of visible or racial minorities. The current sample consisted of 14% self-identified non-Caucasians (i.e., Native Indians, Asian, Middle Eastern, and East Indian).

Motor vehicle accidents consistently rank as the leading cause of Canadian SCIs, (i.e., 54%, CPA (Alberta), 2000) and half of the present sample (50%) sustained their injury in this manner. In terms of the extent of injury, a relatively even split between quadriplegia and paraplegia types of injury has been reported with a recent trend towards more severe injuries (i.e., quadriplegia) (Bridges, 1997). It appears this sample adequately approximates these demographics with 52% of participants having quadriplegic injuries and the remaining 48% having sustained paraplegic injuries.

To summarize, the current sample reasonably represents the known demographic characteristics of the SCI population. In considering possible sampling limitations, it is also important to recognize the strength of a community-based sample which, in contrast to investigations that have recruited individuals in relatively acute and/or early stages of rehabilitation (i.e., hospital based programs; outpatient clinics), offers enhanced generalizability of findings to those individuals currently living with SCI in the community.

A fourth limitation of this study lies in its exclusive reliance on self-report. Although it would appear that participant efforts at impression management were not a strong influence on the current data, a multi-method research design typically inspires greater confidence in any investigative findings.

Future Research

As Gill (1996) has pointed out, some of the most urgently asked questions of PWD pertain to intimate relationships. How do I maximize my attractiveness to others? How does one navigate the relationship obstacles from attraction to commitment? What are the relationship experiences of homosexual and/or minority individuals with disabilities? How have couples, when both partners have disabilities, managed the practical challenges of raising children? What factors lead to and enhance intimacy between partners with disabilities? What interpersonal skills are important for achieving successful relationships? Increasingly, investigators are turning the research spotlight on romantic relationships and at this time there remain far more questions than answers.

A natural extension of this research would be to recruit a sufficiently large sample size and utilize more sophisticated statistical analyses (i.e., path analysis – SEM) that may better explicate the nature of the relationship between significant individual factors identified in this investigation (and others yet to be specified) as predictors of PBD and RRS. As well, the possible mediation effect of PBD could be more rigorously tested with a SEM analysis.

The independent (predictor) variables in this investigation were highly correlated with each other. Although replication of the current findings is necessary for theory-building, other potentially influential constructs need to be explored to enhance our understanding of intimate relationships following SCI. For example, this study did not include measures of depression and/or substance abuse, two serious mental health issues

that have been found to have higher prevalence rates within the SCI population, as compared to the general population (e.g., Craig, et al., 1994; Hancock, et al., 1993; Heinemann, 1995). Other individual factors that could be of potential interest to future investigators include specific interpersonal skills (e.g., communication, assertiveness, etc.), sexual knowledge and preinjury romantic relationship history.

This investigation has exclusively focused on the self-reported individual characteristics, attributions and attitudes of persons with SCI. By definition, romantic relationships are interpersonal and enhanced theoretical understanding of their nature necessitates the inclusion of other points of view. Future research designs should seek to include or focus on these other perspectives (e.g., current or former dating partners, close friends, and/or family members), moving beyond an exclusive attention to persons with SCI. Given the paucity of investigations that have focused on the intimate partners and/or friends and families of individuals with SCI, qualitative methods of exploration would seem to offer an advantageous initial methodological approach to identify salient themes and dynamic interactions between person and other variables.

In this study, both high and low RRS interviewees consistently identified sexual difficulties as a major challenge to forging intimate relationships post-SCI. A number of interviewees specifically lamented the lack of readily available, informative and practical sexual information that they hoped would assist them in forging more satisfying sexual lives. Further exploration of specific sexual information needs, from the perspective of men and women with SCI, is warranted and needed.

Another important line of research that needs to be pursued relates to the development of sensitive, reliable questionnaires and/or scales that validly assess unique constructs of interest to researchers pursuing questions in the area of disability. For example, although The Acceptance of Disability Scale (Linkowski, 1969, revised 1981), used in this investigation, has a substantial body of empirical literature that supports its psychometric and theoretical merits, it is not without its problems. Developed over 20 years ago, the language used on a number of the scale items does not reflect current sensitivities (e.g., Item 49: Because of my disability, I can never do most things that *normal* people can do). The scale is long (50 items) and the preponderance of items (35/50) are negatively worded, suggesting it has the potential to create a negative emotional reaction within test-takers. In fact, a few participants in this study pointed out that they took some offense to the phrasing of a few of the scale items. Furthermore, limited factor analyses have explored the construct validity of the Acceptance of Disability Scale.

Empirically based refinement of The Acceptance of Disability Scale would seem a desirable goal. Its continuing popularity may reflect researchers' desire to rely on the extant psychometric research and perpetuates the scale's continued use in its present form. Development of a briefer, language sensitive tool with sound psychometric properties and the capability to adequately assess the four value changes that underlie acceptance of loss theory would be a welcomed undertaking.

To address the psychosocial problems of people living with SCI, it is critical that theoretical research translate to meaningful interventions for those individuals with SCI who are at greatest risk for poor rehabilitation outcomes. For example, this investigation has identified AD and ICS as potentially important targets of intervention to reduce PBD and increase RRS. Empirical investigators can play a critical role in the design of efficacious and effective clinical interventions. Some of the questions that need to be addressed relate to content, format of delivery, timing of interventions, modality, etc. Systematic investigations to evaluate therapeutic outcomes will also be needed (Milligan & Neufeldt, 2001).

The pervasive absence of gender comparisons from investigations within the SCI population needs to be addressed. Although it is challenging to recruit sufficient women to allow for meaningful contrasts, this deficiency represents a significant gap in our understanding of the impact of gender on post-SCI life, including the experience of forging intimate relationships.

As well, more studies that include a comparison group, comprised of people without disabilities, are needed and would allow for the investigation of relative satisfaction levels and group differences on variables, to the extent that they exist.

Although this investigation has focused on person-centered characteristics, which may be modifiable, it is essential to maintain a sociocultural context for our understanding of sexuality and disability (Nosek, et al., 1994). Certainly the negative societal attitudes that can and do exist have been highlighted in this research. Our limited

understanding of the important antecedents of these attitudes, the correlates of positive and negative attitudes, and the role of information about disability and contact with PWD in shaping attitudes needs further investigation (Milligan & Neufeldt, 2001).

It is important to remain cognizant that societal attitudes may be more accurately characterized as ambivalent. Positive attitudes are reflected in others' protective, helpful and considerate behavior towards PWD (Ray & West, 1984). Individuals who live effectively with disability can inspire admiration, respect and attraction from others they come in contact with, without undertaking extraordinary feats (e.g., Rick Hansen's Man in Motion Tour). Investigations designed to elicit and explore positive attitudes towards PWD might best focus on able-bodied partners of PWD.

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APPENDIX A

RECRUITMENT LETTER

[Printed on University of Calgary, Department of Psychology letterhead]

VOLUNTEERS NEEDED FOR NEW RESEARCH PROJECT!

Research Project Titled: Forging intimate relationships following spinal cord injury:
An investigation of individual factors.

Principal Investigator: Maureen S. Milligan, Ph.D. Candidate
University of Calgary, Department of Psychology
Program in Clinical Psychology

Sponsor: The Alberta Paraplegic Foundation (Alberta Neurotrauma
Research Grant Program)

Dear CPA Member:

I would like to take this opportunity to invite you to consider participating in a study I am currently undertaking to investigate individuals' attitudes and perceptions, personal experiences, and satisfaction with their romantic life post-spinal cord injury (SCI). Many individuals with SCI (and other physical disabilities) have suggested they face significant personal and social barriers to forging and maintaining a romantic life postinjury. As well, people with SCI have reported success in negotiating and maintaining intimate relationships and satisfaction in this area of their lives. Unfortunately, disability and marital/intimate relationships remains a surprisingly neglected research topic. To date, we have limited understanding of what factors contribute to satisfaction or dissatisfaction as very few research investigations have focused on this issue.

You have valuable information to offer about your experience and your participation in this study will contribute to a greater understanding of romantic/intimate relationships post-SCI. Hopefully research, such as this project, will stimulate other studies and also lead to strategies to reduce personal and/or social barriers to intimacy, thereby improving the quality of life for persons with SCI (and other disabilities).

Volunteers will be eligible to participate in this study if they meet the following criteria:

- 18 years of age or older
- permanent paraplegia or quadriplegia resulting from traumatic spinal cord injury (requiring assistive walking device if ambulatory)

- minimum of 2 years postinjury status
- currently single (not married or living common-law)
- no known cognitive difficulties (e.g. brain injury) severe enough to interfere with understanding and completing questionnaires

Participation in this study would involve meeting with the researcher and/or a trained research assistant to complete a series of questionnaires. It is anticipated completion of these forms will take no more than 60 minutes (on average) of your time. Physical assistance in completing the questionnaires will be provided if necessary. As well, approximately 25% of volunteers will subsequently be contacted to participate in an interview with the principal investigator to further explore this topic. The interviewer is professionally trained to deal with personal and confidential issues in a sensitive manner. It is expected the interview would involve an additional 45 to 60 minutes (on average) of your time. To be included, volunteers must be willing to complete both parts of the study. All participants will be eligible, upon completion of all aspects of the study, to have their name entered in a draw for a cash prize of \$500, to be awarded when all data has been collected.

Whether you are dating, have not dated since your injury, are recently divorced, or engaged, etc., your participation is welcomed! Also, if you know of anyone who would qualify to participate in this study and would be interested, please do not hesitate to recommend they contact me. All responses will be kept in the strictest of confidence and considerable efforts have been made to protect the privacy and anonymity of all participants. This research project has formal approval from the University of Calgary, Joint Faculties Research Ethics Committee.

If you would be willing to be contacted in order to describe this study in greater detail, and/or answer any questions, please either return the self-addressed, stamped postcard which is enclosed, or contact the principal investigator at any of the numbers/addresses given below. Your interest and/or request for further information does not represent a commitment on your part to participate. Thank you for your consideration and I look forward to hearing from you.

Yours truly,

Maureen S. Milligan, M.Sc.
University of Calgary
Department of Psychology - Program in Clinical Psychology
2500 University Drive N.W.
Calgary, Alberta T2N 1N4

University Telephone: (403) 220-2471 [please leave message on voice mail]
E-mail: msmillig@ucalgary.ca
Fax: (403) 686-7373

APPENDIX B

RECRUITMENT NOTICES – *SPINAL COLUMNS*

Spinal Columns (1999 Summer), 13(3), p. 20:

A Calgary researcher has extended an invitation to CPA Members to participate in a research study exploring intimate relationships and spinal cord injury.

Many people with SCI (and other physical disabilities) have suggested that developing a satisfying romantic life can be challenging, and at times, discouraging. At the same time, many individuals with SCI are clearly successful in negotiating and maintaining fulfilling intimate relationships.

Very few research studies have explored the factors that may contribute to satisfaction and dissatisfaction in this important area of post-injury life. A research project being launched by Maureen Milligan, a Doctoral Candidate (Clinical Psychology) at the University of Calgary, proposes to change that. Whether you are dating, engaged, have not dated since your injury, or are separated or divorced, you have valuable information to share. Confidentiality is assured.

If you:

- are at least 18 years of age
- have experienced a traumatic spinal cord injury leading to permanent paralysis
- sustained your injury at least two years ago
- are currently single (not married or living common-law)

then you may be eligible to participate. As an incentive to participate, the researcher is offering one cash prize of \$500, winner to be determined by a draw, to participants.

Calgary residents are currently being recruited; however, it is anticipated the study will expand to include other areas of the province as well.

If you would like more information please contact Maureen Milligan (the principal investigator). She can be reached by phone at (403) 220-2471 (please leave your message on voice mail) or by e-mail (mismillig@ucalgary.ca). Ms. Milligan will be presenting her findings at **Neurotrauma Connections'99**.

Spinal Columns (2000 Winter), 15(1), p. 21:

CPA members: make your contribution to Alberta research projects

At the **University of Calgary**, a researcher is exploring **romantic relationship satisfaction after SCI**.

Many people with SCI report that developing a fulfilling intimate relationships can be both challenging and discouraging, while others with SCI say they are much more successful. There's been little research to identify the factors that may contribute to satisfaction and dissatisfaction in this important area of post-injury life. Maureen Milligan, a doctoral candidate (clinical psychology) who is attempting to shed light on this topic, is seeking CPA members from across Alberta to participate in her study. If you're 18 years of age or older, have experienced a SCI leading to permanent paralysis more than two years ago, and are current single (not living with a partner) you may be eligible to participate. Whether you are currently dating, engaged, separated, divorced or have never dated, you have valuable information to share.

This project is general and non-intrusive in nature, and participants will not be asked to reveal personal details about specific relationships. Confidentiality is assured. All participants will be eligible to win a cash prize of \$500, the winner to be determined by a draw.

For more information, contact Maureen Milligan at (403) 686-3984 or by e-mail (mmilligan@home.com).

APPENDIX C

RECRUITMENT NOTICES - *CHAPTERS***Winter, 1999****Research volunteers needed!**

Maureen Milligan is a University of Calgary Ph.D. Candidate (Clinical Psychology) who is conducting a study focusing on romantic relationship satisfaction following spinal cord injury (SCI). If you are at least 18 years old, have experienced a SCI leading to permanent paralysis (at least 2 years ago) and are not currently living with a partner, then you have valuable information to offer. Whether you are currently dating, have never dated, are recently separated, etc., your participation is welcome. Time commitment is 1-2 hours. For further information contact Maureen at 220-2471 or by e-mail: msmillig@ucalgary.ca.

Winter, 2000**Interested in Getting Involved?****YOU COULD WIN A \$500 CASH PRIZE**

Maureen Milligan is a University of Calgary Ph.D. Candidate (Clinical Psychology) looking for volunteers to participate in her doctoral research exploring romantic relationship satisfaction following spinal cord injury (SCI).^{*} If you are at least 18 years of age, have experienced a SCI leading to permanent paralysis (at least 2 years ago) and are not currently living with a partner, then you have valuable information to share. Whether you are currently dating, have never dated, recently separated, etc., your participation is welcomed! Time commitment is approximately 1-2 hours. All study participants will be eligible to win a \$500 cash prize to be drawn when data collection is completed. If you would like to learn more about this exciting research project, without obligation, please contact Maureen at 686-3984 or by e-mail:

msmillig@ucalgary.ca or mmilligan@home.com

^{*} Questions are general and intended to be non-intrusive. For example, you will not be asked to reveal personal details about specific relationships.

APPENDIX D

INFORMATION FLYER/POSTER

Invitation

Many people with spinal cord injury (SCI) [and other physical disabilities] have suggested that developing a satisfying romantic life can be very challenging and at times discouraging. As well, many individuals with SCI are clearly successful in negotiating and maintaining intimate relationships! Very few research studies have explored the factors that may contribute to satisfaction and dissatisfaction in this important area of post-injury life. This study would like to begin to change that!

If you are 18 years of age or older, have permanent paraplegia or quadriplegia resulting from a spinal cord injury (SCI) which occurred at least 2 years ago, and are currently single (i.e., not living with a partner), you may be eligible to participate. Whether you are currently dating, have not dated since your injury, are recently separated, divorced, engaged, etc. - you have valuable information to offer and your participation is welcomed. Furthermore, all study participants will be eligible to win a \$500 cash prize!

On the reverse of this flyer you will find brief information about the study and contact numbers if you have any questions and/or would like to participate.

[Side 2 of Flyer]

Research Project Titled:

Forging intimate relationships following spinal cord injury: An investigation of individual factors.¹¹

Principal Investigator:

Maureen S. Milligan, Ph.D. Candidate
University of Calgary - Department of Psychology
Program in Clinical Psychology

Advisor:

Aldred H. Neufeldt, Ph.D., Professor
University of Calgary - Community Rehabilitation
& Program in Clinical Psychology

¹¹ This project has been formally approved by the University of Calgary, Joint Faculties Research Ethics Committee.

Sponsor:

The Alberta Paraplegic Foundation (Alberta
Neurotrauma Research Grant Program)

What would I have to do and how much time will it take?

For most volunteers, participation would involve a one-time meeting with the principal investigator (or a trained research assistant) to complete a series of questionnaires which ask about attitudes, perceptions, personal experiences and satisfaction with your romantic life. The questions are relatively general and non-intrusive and you will not be asked to reveal personal details about specific relationships. It is estimated that completion of these questionnaires will take no more than 60 minutes of your time (on average) and physical assistance completing them will be provided upon request.

Approximately 25% of the volunteers will be subsequently contacted to participate in an interview with the principal investigator to further explore this topic. The interviewer is professionally trained to deal with personal and confidential issues in a sensitive manner. Again, you will not be required to provide personal details about specific relationships. It is expected this interview will involve an additional 45 to 60 minutes of your time. To be included in the study, volunteers must be willing to complete both parts of the study.

PLEASE NOTE: For people who do not reside in Calgary, arrangements will be negotiated to make participation as convenient as possible.

How can I find out more about this project?

Contact the principal investigator at:

Mailing Address: Box 74108, Strathcona RPO
Calgary, Alberta T3H 3B6

Home Telephone: (403) 686-3984
(please leave message on voice mail)

E-mail Address: mmilligan@home.com

It is recognized that your interest and/or request for further information does not represent a commitment to participate. Thank you for your consideration.

APPENDIX E

CONSENT FORM

[Printed on University of Calgary – Department of Psychology letterhead]

Research Project Title:

Forging intimate relationships following spinal cord injury: An investigation of individual factors.

Investigator(s):

Maureen S. Milligan, Ph.D. Candidate

Department of Psychology, Program in Clinical Psychology (Principal Investigator)

Aldred H. Neufeldt, Ph.D., Professor

Faculty of Education and Program in Clinical Psychology (Supervisor)

Sponsor:

The Alberta Paraplegic Foundation - Alberta Neurotrauma (Studentship)

This consent form, a copy of which has been given to you, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, please ask. Please take the time to read this form carefully and to understand any accompanying information.

The purpose of this study is to investigate people's attitudes, perceptions, personal experiences and satisfaction with their romantic life post-spinal cord injury. You have been invited to participate in this study because you sustained a spinal cord injury (SCI) at least two years ago and are not currently married or living common-law. You have valuable information to offer about your experience and your participation in this study will contribute to a greater understanding of romantic/intimate relationships post-SCI, an important topic which has received very limited research attention to date. Hopefully, research such as this project, will also lead to strategies to reduce personal and/or social barriers to intimacy and thereby improve the quality of life for persons with SCI (and other disabilities).

Your participation in this study will involve completing a package of questionnaires, which should take no more than 60 minutes, on average, to complete. Should you require physical assistance completing the questionnaires, this will be provided by the principal investigator or a trained research assistant. Additionally, some participants will be contacted at a later date to complete an interview with the principal investigator to further

explore the positive and/or negative aspects of their experiences. The interviewer is professionally trained to deal with personal and confidential issues in a sensitive manner. It is expected this interview will involve a further 45 to 60 minutes of your time, on average. With your consent, interviews will be audio-taped and interview notes may be taken. To be included in this study, you must be willing to take part in both phases of this study, however, approximately 75% of individuals will only complete the questionnaires.

It is not anticipated that participation in this research project will involve any extraordinary risk to you beyond that which is associated with everyday life. There may be the potential for an emotional reaction to the sharing of personal experiences. Remember, you can refuse to answer any questions you wish during the study, and you are always free to decline participation, at anytime. If the need should arise, the Canadian Paraplegic Association (Alberta) offers an array of personal support services and, if desired, a referral will be arranged. In the event that other professional services are deemed more appropriate, with your consent, the principal investigator will take personal responsibility for arranging an appropriate referral.

All the information you provide will be kept strictly confidential. To protect your identity, none of the information you provide will be linked with your name or with any other identifying information. A single list matching names, contact numbers and a participant code number will be maintained by the principal investigator in a password protected personal computer file. The research materials will be stored with complete security, throughout the study and for five years following its completion. The write-up of the study will not include any information that can be linked directly to you. Any reference to participants in the written report will utilize pseudonyms.

In an effort to thank you for your participation in this study, we will be drawing a name randomly from the list of all those who participated in the study. The lucky winner will receive \$500. Based on the goal that there will be 85 participants in this study, the chances of you winning are 1 in 85. Of course, if fewer participants volunteer, your chances will increase. This draw will take place after all data has been collected for the study and therefore it is not possible to give an exact date at this time. It is hoped the draw will take place by _____. Payment will be made by cheque. Please indicate a phone number here where we can reach you, in the event that your name is drawn: _____.

As another way of thanking you for your time, you may receive a summary of the results of this study when it has been completed. If you would like to receive a copy of this summary, please provide the address to which you would like it sent here.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation. If you have further questions concerning matters related to this research, please contact Maureen Milligan (principal investigator) at (403) 686-3984. If you have any questions concerning your participation in this project, you may also contact the Office of the Vice-President (Research) and ask for Karen McDermid, 220-3381.

Participant signature

Date

Investigator/Witness

Date

A copy of this consent form has been given to you to keep for your records and reference.

APPENDIX F

PERSONAL INFORMATION

Most of the information requested on this form is required to describe the demographic characteristics of the individuals who agree to participate in this study. All information collected will be kept completely confidential within the research team and will be coded (see Participant Number above) to shield your identity. Although it is hoped that these questions will not be considered intrusive, please remember that you are free to leave any questions you do not wish to answer blank. **Please check (☐) the appropriate box or write your answer on the line provided.**

Date of Birth_____
(Month/Day/Year)**Current Age**

Sex☐ Male☐ Female**Sexual Orientation**☐ Heterosexual☐ Bisexual☐ Homosexual**Current Marital Status:**☐ Single☐ Married or Common-Law☐ Divorced☐ Engaged☐ Widow/Widower☐ Separated**Racial/Ethnic Background:**☐ Caucasian☐ Native Indian☐ African American☐ East Indian☐ Middle Eastern☐ Latin American☐ Asian☐ Other**Highest Educational Level Achieved:**☐ no formal education☐ elementary school

Highest grade completed _____

☐ junior high school

Highest grade completed _____

☐ high school or GED:

Highest grade completed _____

☐ trade/technical/business school:

Degree/Diploma obtained (if applicable) _____

Years completed _____

- ☐ community college:
 Degree/Diploma obtained (if applicable) _____
 Years completed _____
- ☐ undergraduate university:
 Degree/Diploma obtained (if applicable) _____
 Years completed _____
- ☐ graduate/professional school:
 Degree/Diploma obtained (if applicable) _____
 Years completed _____

Current School Status

- ☐ Full-time Student ☐ Part-time Student
☐ Not attending school

Current Occupation _____**Current Employment Status:**

- ☐ Employed (Full-time)
☐ Employed (Part-Time)
☐ Unemployed - looking for work
☐ Unemployed - not looking for work

Volunteer Work:

(If applicable, please list any volunteer activities you are involved in)

Current Health Status:

I would presently rate my physical health status as:

(Please circle)

1	2	3	4	5	6
Very Poor	Poor	Stable	Good	Very Good	Excellent

INJURY INFORMATION**Cause of your injury:**

- ☐ Motor Vehicle Accident
☐ Fall
☐ Medical
☐ Sports
☐ Industrial Accident
☐ Other (explain) _____

Month and Year of SCI _____**Age at injury** _____**(Neurological) level of injury:**

- (A) ☐ Cervical - Level _____
☐ Thoracic - Level: _____
☐ Lumbar-Sacral - Level _____

- (B) ☐ Complete
☐ Incomplete

Check any assistive devices you use for mobility:

- ☐ manual wheelchair ☐ walker, cane, braces, crutches
☐ power wheelchair ☐ no assistance necessary
☐ motorized cart

Marital Status at time of injury:

- ☐ Single ☐ Engaged ☐ Married or Common-Law
☐ Separated ☐ Divorced ☐ Widow/Widower

How many hours of assistance with activities of daily living (ADL) do you require in a typical week?

- ☐ 0 ☐ Less than 5 ☐ 5 - 10
☐ 11-20 ☐ 21 - 30 ☐ More than 30

APPENDIX G

ACCEPTANCE OF DISABILITY SCALE

PLEASE READ EACH OF THE 50 STATEMENTS CAREFULLY. CIRCLE OR HIGHLIGHT THE MOST APPROPRIATE NUMERICAL RATING TO INDICATE HOW MUCH YOU AGREE OR DISAGREE WITH EACH STATEMENT. PLEASE MAKE SURE YOU COMPLETE BOTH SIDES OF EACH PAGE.

1. A physical disability may limit a person in some ways, but this does not mean he/she should give up and do nothing with his/her life.

1	2	3	4	5	6
I disagree very much	I disagree pretty much	I disagree a little	I agree a little	I agree pretty much	I agree very much

2. Because of my disability, I feel miserable much of the time.

1	2	3	4	5	6
I disagree very much	I disagree pretty much	I disagree a little	I agree a little	I agree pretty much	I agree very much

3. More than anything else, I wish I didn't have this disability.

1	2	3	4	5	6
I disagree very much	I disagree pretty much	I disagree a little	I agree a little	I agree pretty much	I agree very much

4. Disability or not, I'm going to make good in life.

1	2	3	4	5	6
I disagree very much	I disagree pretty much	I disagree a little	I agree a little	I agree pretty much	I agree very much

5. Good physical appearance and physical ability are the most important things in life.

1	2	3	4	5	6
I disagree very much	I disagree pretty much	I disagree a little	I agree a little	I agree pretty much	I agree very much

6. My disability prevents me from doing just about everything I really want to do and from becoming the kind of person I want to be.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
7. I can see the progress I am making or have made in rehabilitation, and it makes me feel like an adequate person in spite of the limitations of my disability.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
8. It makes me feel very bad to see all the things non-disabled people can do which I cannot.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
9. My disability affects those aspects of my life which I care most about.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
10. Though I am disabled, my life is full.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
11. If a person is not entirely physically able, he/she is that much less a person.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
12. A person with a disability is restricted in certain ways, but there is still much he/she is able to do.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |

13. There are many more important things in life than physical ability and appearance.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
14. There are times I completely forget that I am physically disabled.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
15. You need a good and whole body to have a good mind.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
16. There are many things a person with my disability is able to do.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
17. Since my disability interferes with just about everything I try to do, it is foremost in my mind practically all the time.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
18. If I didn't have my disability, I think I would be a much better person.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
19. My disability, in itself, affects me more than any other characteristic about me.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |

20. The kind of person I am and my accomplishments in life are less important than those of non-disabled persons.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
21. I know what I can't do because of my disability, and I feel that I can live a full and normal life.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
22. Though I can see the progress I am making or have made in rehabilitation, this is not very important since I can never be normal.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
23. In just about everything, my disability is annoying to me so that I can't enjoy anything.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
24. How a person conducts himself or herself in life is much more important than physical appearances and ability.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
25. A person with my disability is unable to enjoy very much in life.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
26. The most important thing in this world is to be physically normal.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |

27. A person with a disability finds it especially difficult to expand his/her interests and range of abilities.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
28. I believe that physical wholeness and appearance make a person what he/she is.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
29. A physical disability affects a person's mental ability.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
30. With my condition, I know just what I can and cannot do.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
31. Almost every area of life is closed to me because of my disability.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
32. Because of my disability, I have little to offer other people.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
33. Besides the many physical things I am unable to do, there are many other things I am unable to do.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |

34. Personal characteristics such as honesty and willingness to work hard are much more important than physical appearance and ability.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
35. I get very annoyed with the way some people offer to help me.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
36. With my disability, there isn't a single area of life that is not affected in some major way.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
37. Though I can see that disabled people are able to do well in many ways, still they can never lead normal lives.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
38. A disability, such as mine, is the worst possible thing that can happen to a person.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
39. No matter how hard I try or what I accomplish, I could never be as good a person as one without my disability.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |
40. There is practically nothing a person in my condition is able to do and really enjoy it.
- | | | | | | |
|-------------------------|---------------------------|------------------------|---------------------|------------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree
very much | I disagree
pretty much | I disagree
a little | I agree
a little | I agree
pretty much | I agree
very much |

41. Because of my disability, I am unable to enjoy social relationships as much as I could if I were not disabled.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
42. There are more important things in life than those my physical disability prevents me from doing.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
43. I want very much to do things that my disability prevents me from doing.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
44. Because of my disability, other people's lives have more meaning than my own.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
45. Oftentimes, when I think of my disability, it makes me feel so sad and upset that I am unable to think or do anything else.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
46. A disability changes one's life completely. It causes one to think differently about everything.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |
47. I feel that I should be as able as the next person, even in areas where my disability prevents me.
- | | | | | | |
|------------|-------------|------------|----------|-------------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| I disagree | I disagree | I disagree | I agree | I agree | I agree |
| very much | pretty much | a little | a little | pretty much | very much |

48. Life is full of so many things that I sometimes forget for brief periods of time that I am disabled.

1	2	3	4	5	6
I disagree	I disagree	I disagree	I agree	I agree	I agree
very much	pretty much	a little	a little	pretty much	very much

49. Because of my disability, I can never do most things that normal people can do.

1	2	3	4	5	6
I disagree	I disagree	I disagree	I agree	I agree	I agree
very much	pretty much	a little	a little	pretty much	very much

50. I feel satisfied with my abilities, and my disability doesn't bother me too much.

1	2	3	4	5	6
I disagree	I disagree	I disagree	I agree	I agree	I agree
very much	pretty much	a little	a little	pretty much	very much

APPENDIX H

INTERPERSONAL CONTROL SUBSCALE (ICS)

PLEASE READ EACH OF THE 20 STATEMENTS CAREFULLY. CIRCLE OR HIGHLIGHT THE MOST APPROPRIATE NUMERICAL RATING, INDICATING HOW ACCURATE OR INACCURATE EACH STATEMENT IS FOR YOU PERSONALLY. PLEASE MAKE SURE YOU COMPLETE BOTH SIDES OF EACH PAGE.

- 1. I can usually achieve what I want when I work hard for it.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

- 2. In my personal relationships, the other person usually has more control over the relationship than I do.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

- 3. I find it pointless to keep working on something that is too difficult for me.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

- 4. I find it easy to play an important part in most group situations.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

5. **Once I make plans I am almost certain to make them work.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

6. **I have no trouble making and keeping friends.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

7. **Most of what will happen in my career is beyond my control.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

8. **In attempting to smooth over a disagreement I sometimes make it worse.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

9. **I prefer games involving some luck over games of pure skill.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

10. **I'm not good at guiding the course of a conversation with several others.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

11. **Almost anything is possible for me if I really want it.**

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

12. I often find it hard to get my point of view across to others.

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

13. I can learn almost anything if I set my mind to it.

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

14. I can usually develop a close personal relationship with someone I find appealing.

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

15. Bad luck has sometimes prevented me from achieving things.

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

16. If there is someone I want to meet I can usually arrange it.

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

17. My major accomplishments are entirely due to my hard work and ability.

1	2	3	4	5	6	7
Totally						Totally
Inaccurate						Accurate

- 18. I can usually steer a conversation toward the topics I want to talk about.**

1	2	3	4	5	6	7
Totally Inaccurate						Totally Accurate

- 19. I usually do not set goals because I have a hard time following through on them.**

1	2	3	4	5	6	7
Totally Inaccurate						Totally Accurate

- 20. When I need assistance with something, I often find it difficult to get others to help.**

1	2	3	4	5	6	7
Totally Inaccurate						Totally Accurate

APPENDIX I

SOCIAL AVOIDANCE AND DISTRESS SCALE (SADS)

PLEASE READ EACH OF THE 28 STATEMENTS CAREFULLY. CIRCLE OR HIGHLIGHT THE MOST APPROPRIATE NUMERICAL RATING, INDICATING HOW ACCURATE OR INACCURATE EACH STATEMENT IS FOR YOU PERSONALLY. PLEASE MAKE SURE YOU COMPLETE BOTH SIDES OF EACH PAGE.

- 1. I feel relaxed even in unfamiliar social situations.**

1	2	3	4	5
Never				Always

- 2. I try to avoid situations that force me to be very sociable.**

1	2	3	4	5
Never				Always

- 3. It is easy for me to relax when I am with strangers.**

1	2	3	4	5
Never				Always

- 4. I have no particular desire to avoid people.**

1	2	3	4	5
Never				Always

- 5. I often find social occasions upsetting.**

1	2	3	4	5
Never				Always

- 6. I usually feel calm and comfortable at social occasions.**

1	2	3	4	5
Never				Always

7. **I am usually at ease when talking to someone of the opposite sex.**

1	2	3	4	5
Never				Always

8. **I try to avoid talking to people unless I know them well.**

1	2	3	4	5
Never				Always

9. **If the chance comes to meet new people, I often take it.**

1	2	3	4	5
Never				Always

10. **I often feel nervous or tense in casual get-togethers in which both sexes are present.**

1	2	3	4	5
Never				Always

11. **I am usually nervous with people unless I know them well.**

1	2	3	4	5
Never				Always

12. **I usually feel relaxed when I am with a group of people.**

1	2	3	4	5
Never				Always

13. **I often want to get away from people.**

1	2	3	4	5
Never				Always

14. **I usually feel uncomfortable when I am in a group of people I don't know.**

1	2	3	4	5
Never				Always

15. I usually feel relaxed when I meet someone for the first time.

1	2	3	4	5
Never				Always

16. Being introduced to people makes me tense and nervous.

1	2	3	4	5
Never				Always

17. Even though a room is full of strangers, I may enter it anyway.

1	2	3	4	5
Never				Always

18. I would avoid approaching and joining a large group of people.

1	2	3	4	5
Never				Always

19. When my superiors want to talk with me, I talk willingly.

1	2	3	4	5
Never				Always

20. I often feel on edge when I am with a group of people.

1	2	3	4	5
Never				Always

21. I tend to withdraw from people.

1	2	3	4	5
Never				Always

22. I don't mind talking to people at parties or social gatherings.

1	2	3	4	5
Never				Always

23. I am seldom at ease in a large group of people.

1	2	3	4	5
Never				Always

24. I often think up excuses in order to avoid social engagements.

1	2	3	4	5
Never				Always

25. I sometimes take the responsibility for introducing people to each other.

1	2	3	4	5
Never				Always

26. I try to avoid formal social occasions.

1	2	3	4	5
Never				Always

27. I usually go to whatever social engagements I have.

1	2	3	4	5
Never				Always

28. I find it easy to relax with other people.

1	2	3	4	5
Never				Always

APPENDIX J

RISK IN INTIMACY INVENTORY (RII)

PLEASE READ EACH OF THE 10 STATEMENTS CAREFULLY. CIRCLE OR HIGHLIGHT THE MOST APPROPRIATE NUMERICAL RATING, INDICATING HOW MUCH YOU AGREE OR DISAGREE WITH EACH STATEMENT. PLEASE MAKE SURE YOU COMPLETE BOTH SIDES OF THIS PAGE.

1. It is dangerous to get really close to people.

1	2	3	4	5	6	7
Strongly Agree			Neither Agree Nor Disagree			Strongly Disagree

2. I prefer that people keep their distance from me.

1	2	3	4	5	6	7
Strongly Agree			Neither Agree Nor Disagree			Strongly Disagree

3. I'm not afraid to get really close to someone just because I might get hurt.

1	2	3	4	5	6	7
Strongly Agree			Neither Agree Nor Disagree			Strongly Disagree

4. At best I can handle only one or two close friendships at a time.

1	2	3	4	5	6	7
Strongly Agree			Neither Agree Nor Disagree			Strongly Disagree

5. I do not find it difficult to trust other people.

1	2	3	4	5	6	7
Strongly Agree			Neither Agree Nor Disagree			Strongly Disagree

6. I avoid intimacy.

1	2	3	4	5	6	7
Strongly Agree			Neither Agree Nor Disagree			Strongly Disagree

7. Being close to other people makes me feel afraid.

1	2	3	4	5	6	7
Strongly Agree			Neither Agree Nor Disagree			Strongly Disagree

8. I'm not hesitant to share personal information about myself.

1	2	3	4	5	6	7
Strongly Agree			Neither Agree Nor Disagree			Strongly Disagree

9. Being close to people is a risky business.

1	2	3	4	5	6	7
Strongly Agree			Neither Agree Nor Disagree			Strongly Disagree

10. The most important thing to consider in a relationship is whether I might get hurt.

1	2	3	4	5	6	7
Strongly Agree			Neither Agree Nor Disagree			Strongly Disagree

APPENDIX K

BALANCED INVENTORY OF DESIRABLE RESPONDING
IMPRESSION MANAGEMENT SUBSCALE (BIDR-IM)

PLEASE READ EACH OF THE 20 STATEMENTS CAREFULLY. CIRCLE OR HIGHLIGHT THE MOST APPROPRIATE NUMERICAL RATING, INDICATING HOW ACCURATE OR INACCURATE EACH STATEMENT IS FOR YOU PERSONALLY. PLEASE MAKE SURE YOU COMPLETE BOTH SIDES OF EACH PAGE.

- 1. I sometimes tell lies if I have to.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- 2. I never cover up my mistakes.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- 3. There have been occasions when I have taken advantage of someone.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- 4. I never swear.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- 5. I sometimes try to get even rather than forgive and forget.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- 6. I always obey laws, even if I'm unlikely to get caught.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- 7. I have said something bad about a friend behind his or her back.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

8. When I hear people talking privately, I avoid listening.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

9. I have received too much change from a salesperson without telling him or her.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

10. I always declare everything at customs.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

11. When I was young I sometimes stole things.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

12. I have never dropped litter on the street.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

13. I have driven faster than the speed limit.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

14. I never read sexy books or magazines.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

15. I have done things that I don't tell other people about.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

16. I never take things that don't belong to me.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- 17. I have taken sick-leave from work or school even though I wasn't really sick.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- 18. I have never damaged a library book or store merchandise without reporting it.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- 19. I have some pretty awful habits.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- 20. I don't gossip about other people's business.**

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

APPENDIX L

PART A: DATING QUESTIONNAIRE

PART B: PERCEIVED BARRIERS TO DATING (PBD)

Whenever the word “dating” is used it is meant to refer to a wide range of romantic relationships, such as going together, going steady, seeing someone, being involved with someone, going out, and other terms indicating getting together socially with someone in whom you have a romantic and/or sexual interest. These can be short (one date) or long-term relationships.

PART A:

1. I have had at least one date since my spinal cord injury. ☐ No ☐ Yes
2. I am currently dating or involved in a romantic relationship? ☐ No ☐ Yes

If so:

How long have you been dating this individual?

_____ (years) _____ (months)

Were you romantically involved with him/her prior to your injury?

☐ Yes ☐ No

Is your current companion/partner?

☐ Able-bodied ☐ Also has a disability (If so, please describe:)

How would you describe your current relationship?

(Please circle or stamp)

1
Casual Dating

2
Exclusive Dating

3
Engaged

8. **People seem surprised that I might be interested in sexual intimacy.**

1	2	3	4	5	6	7
Not True						Very True

9. **I believe that my dating relationships would last longer if I could communicate better.**

1	2	3	4	5	6	7
Not True						Very True

10. **I communicate well with my friends.**

1	2	3	4	5	6	7
Not True						Very True

11. **I never learned how to express my interest to potential dating partners.**

1	2	3	4	5	6	7
Not True						Very True

12. **I feel too self-conscious to approach someone for a date.**

1	2	3	4	5	6	7
Not True						Very True

13. **Family members pressure me not to date.**

1	2	3	4	5	6	7
Not True						Very True

14. **I rarely get out of the house to meet people.**

1	2	3	4	5	6	7
Not True						Very True

15. **Lack of reliable transportation limits my ability to socialize.**

1	2	3	4	5	6	7
Not True						Very True

[SOCIAL MOTIVATION QUESTIONS are below:]

16. I would like to be involved in a satisfying romantic relationship.

1	2	3	4	5	6	7
Not True						Very True

17. It is very important to my personal happiness that I be involved in a satisfying romantic relationship.

1	2	3	4	5	6	7
Not True						Very True

APPENDIX M

ROMANTIC RELATIONSHIP SATISFACTION SCALE (RRS)

PLEASE READ EACH OF THE 5 STATEMENTS CAREFULLY. CIRCLE OR STAMP THE MOST APPROPRIATE NUMERICAL RATING, INDICATING HOW ACCURATE OR INACCURATE EACH STATEMENT IS FOR YOU PERSONALLY.

- 1. In general, I have been very satisfied with my romantic life since my spinal cord injury.**

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree Nor Disagree			Strongly Agree

- 2. I date as often as I would like.**

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree Nor Disagree			Strongly Agree

- 3. In general, my romantic relationships do not last as long as I would like.**

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree Nor Disagree			Strongly Agree

- 4. *The people I have dated since my injury come very close to my ideal for a romantic partner.**

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree Nor Disagree			Strongly Agree

- 5. I have been very dissatisfied with the quality of the romantic relationships I have been involved in since my injury.**

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree Nor Disagree			Strongly Agree

* Note: Item (4) was deleted from the final scale score on the basis of reliability analysis

APPENDIX N
SEMISTRUCTURED INTERVIEW GUIDE

Introduction:

*** Thank you and outline of interview:**

I sincerely appreciate your taking the time to meet with me again. As you may remember, the focus of this interview is on aspects of your romantic relationship experience since your SCI. My primary goal is to gain some understanding your experience as a single person with a SCI. In general, I will be asking you questions about your preinjury satisfaction, postinjury relationship history, your thoughts/experiences in forging and/or maintaining intimate relationships post-SCI, some of the personal strategies you may have tried or considered, and finally I'll ask you about your predictions for the future.

*** If current dating/in relationship:**

Even if you are currently in a steady/serious relationship, I would appreciate your answering my questions based on your general experience, both currently and before you became involved in your present relationship.

*** Limits of confidentiality:**

I hope you will free to discuss anything that you think would be relevant, whether I specifically ask you about the topic or not. Remember, you are always free to decline to answer any questions. I want to assure you that whatever we talk about in this room will remain completely confidential. The only exception being if I were to become aware of the abuse of a child, or I was to become concerned about the potential of harm to another person or to yourself. In that event, I would be legally and ethically forced to break confidentiality.

*** Permission to audiotape:**

Although you have given permission for me audiotape in the consent form you signed for me last time, I would like to ask you again if it is okay with you that I record our conversation. Your identity will be shielded and the only other individuals who will possibly have access to the tape would be members of my academic supervisory and examining committee.

Before we get started, do you have any questions or concerns?

***Test audiotape.**

(A) ESTABLISH PERSONAL [EXPERIENCE] CONTEXT

Participant # _____

Sexual Orientation _____

Time since injury _____

Marital Status @ Injury _____

Dated since injury? _____

Current Dating Status _____

1. How would you describe your level of satisfaction with your dating/romantic life prior to your SCI?

2. At the time of your injury you were (marital status)

In your view, what contributed to the end of that relationship?

What role, if any, did your injury and disability play in the ending of that relationship?

How did you decide as a couple to end your relationship?

3. Have you been involved in a serious [significant] relationship since your injury?

If yes,

With how many different people?

How long after your accident/injury before you became involved?

(If applicable) Why did these relationships end?

What role, if any did your disability play in the breakup(s)?

Who has usually been the one to break off the romantic relationship

If no,

What do you think are the major reasons you have not been seriously involved with someone since your injury?

4. Many people with disabilities have described “giving up” on having a romantic life, deciding not to even try finding a partner. Have you ever felt like that?

If yes,

When?

What led you to adopt that position?

Do you still feel that way?

If no, what helped you change your mind

If no,

What encouraged you to actively pursue a romantic life?

(B) PERSONAL ATTRIBUTIONS FOR HIGH OR LOW ROMANTIC RELATIONSHIP SATISFACTION

5. You have described yourself as generally satisfied/unsatisfied with your romantic life.
Do you still consider that to be a valid assessment today?

6. What do you think are the major factors or issues which have contributed to your current satisfaction/dissatisfaction?

7. In what ways, if at all, has your disability affected your dating relationships?

How is your romantic life different now?

How is your romantic life the same?

8. What are the biggest challenges or difficulties you experience in dating/forging relationships?

(C) PERSONAL STRATEGIES FOR NEGOTIATING INTERPERSONAL INTIMACY

9. [You have described a number of difficulties] How have you attempted to deal with these challenges?

What strategies have been successful/unsuccessful?

In your opinion, what would need to change to overcome these difficulties?

Do you believe it is within your power to overcome these challenges?

Why or why not?

10. What are your main sources of meeting potential dates?

(i.e., church, family/friends, work/volunteer work, social events, personal ads, school, etc.)

11. What approaches, if any, have you used to meet potential dating partners?

Describe any changes in your approach to potential dating partners since your SCI?

12. Have you ever dated someone with a disability?

Were there any advantages or disadvantages?

13. Would you be willing to date someone with a disability?

Why or why not?

(C) PREDICTIONS FOR FUTURE SATISFACTION

What are your expectations for your romantic life in the future?

Would you like to marry someday?

If no - why not

If yes - Do you think that you will

Why or why not?

OPEN ENDED INVITATION

14. If you were asked to give advice to a newly SCI injured person preparing to go back into the dating scene, what would you say to them?

15. I have been asking you a lot of questions, and I really appreciate you following my lead. But now, I'd like to invite you to reflect on your dating/relationship experiences and ask if there is anything you would like to tell me, that you think it would be important for me to know, that I haven't asked you about.