PEER RELATIONSHIPS IN SPINAL CORD INJURY RECOVERY:
PATIENT PERSPECTIVES

by

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B.S.N., The University of British Columbia, 1987

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE IN NURSING

in

THE FACULTY OF GRADUATE STUDIES
(School of Nursing)

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

July 1995

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Abstract

The importance of understanding the psychosocial adaptation to spinal cord injury (SCI) is well documented. From a symbolic interactionist perspective, peer interaction is relevant because it is through socialization that meaning is shared, allowing one to develop a sense of self (Chenitz & Swanson, 1986). Despite this, very little is known about the relationships that develop among persons with SCI. The purpose of this study was to reveal the perceptions of spinal cord injured patients of the relationships formed with their peers.

Grounded theory was the research method used in this study. Interviews were conducted with seven people who were recovering from a SCI in a rehabilitation institution. The interview transcripts were analyzed using the methods described by Corbin (1986) and Strauss and Corbin (1990). Data analysis resulted in a description of the meaning of peer relationships to these SCI patients.

Sample subjects provided a context through which the remainder of the data were viewed. Findings that contributed to this context were that subjects formed peer relationships in the rehabilitation setting and developed relationships only with staff while in acute care. As well, the development of peer relationships was strongly influenced by the maturational stage of each participant.

With this context, the remainder of the data comprised the description of the participants' perceptions of peer relationships. The description encompassed two categories. The first described the variety of causal conditions under which peer relationships developed and was called Conditions for Peer Relationships. The second category, named Consequences of Peer Relationships, described the ways in which the SCI patients interacted.
and the results of those interactions. The data in this category fell into two sub-categories which were called Information Sharing and Gathering, and Caring.

Analysis of the data about SCI peer relationships revealed that the subjects viewed these relationships as meaningful to their recovery process. Subjects identified tangible outcomes of their peer relationships which assisted them in coping from day to day. Further interpretation of the data revealed that peer relationships also contributed to the development of the new sense of self that the subjects were forming which incorporated their SCI.
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Acknowledgements

There are many people who made the completion of this thesis possible. First, thanks to my committee, Marilyn Dewis, Sally Thorne and Wendy Hall. Their guidance at all stages of the research process was invaluable and their encouragement of me made it easier to keep working during the occasional moments of desperation.

Special thanks to the seven individuals who agreed to participate in the study. Their willingness to share very personal feelings at a traumatic time in their lives made this research possible.

I appreciate all my family and friends who have helped me through this process. Special thanks to my parents, Jill and Frank Allder who have encouraged and supported my lifetime of educational efforts. Most importantly, thanks to my husband, Bob, who cared for me so much during this time...providing perspective, reading chapter drafts, formatting the document, and making me laugh, he never allowed me to doubt myself. Finally, to our son Harris, born mid-Masters, thanks for being such a wonderful baby. Now that this is finished I can play with you every day!
CHAPTER ONE
Introduction

This thesis describes a research study that examined the perceptions of spinal cord injured patients of the relationships they form with spinal cord injured peers. Chapter One provides the background to the study.

Background to the Problem

Spinal cord injury (SCI) is a devastating event that affects all aspects of an individual's existence. It is "an impairment or loss of motor and/or sensory function due to damage to the spinal cord" (Spinal Cord Injury Prevention Program (SCIPP), 1988). People who sustain spinal cord injuries change in an instant from independent, contributing members of society into dependent, hospitalized patients. They can expect to spend from two months to two years in various hospital settings working to regain independence within the limits of their injury.

Each year there are 6,000 to 10,000 new spinal cord injuries in North America (Cook, 1976). British Columbia recorded 194 SCI's during the year April 1993 through March 1994 (Canadian Paraplegic Association of B.C.) which is greater than the rates of any other geographic area reported in the international medical literature. The group most effected by SCI is males between the ages of 15 and 25 (SCIPP, 1988). As yet there are no cures for spinal cord injury, but advances in medical and surgical techniques have improved the rates of survival after SCI and more people with severe spinal injuries are living for longer (Cook, 1976).

The people who survive SCI often endure long periods of waiting when they are initially hospitalized. It may take weeks or months for medical or surgical interventions to stabilize the spinal injury. Rehabilitation begins during this waiting period but cannot be started in earnest until the patient's
spine is strong enough. Patients are in bed most of the time during this initial treatment and spend their days participating in nursing routines, watching television, and sleeping, as well as interacting and observing fellow patients, and talking with visitors. Once mobilization is permitted, rehabilitation progresses more rapidly. In British Columbia, patients are transferred to a rehabilitation centre once the spinal column is considered stable by medical staff. Another period of waiting may occur at this point, depending on bed availability at the rehabilitation hospital.

I have observed the initial weeks and months of hospitalization and the periods of waiting experienced by patients in my role as a staff nurse on a Spinal Cord Unit. It appeared to me that SCI patients developed relationships with their injured peers and it seemed that these relationships may have been important sources of social support for the patients. In my subsequent role as a researcher I recognized that I had assigned meaning to my observations and that my interpretation of them was true for me (Munhall, 1989). Because nursing is a humanistic profession that "adheres to a basic philosophy that focuses on individuality" (Munhall, 1989, p. 21), what is important to reveal is the patient perception of the phenomenon. So, it was the SCI patients' perceptions of the development of their relationships with their SCI peers that was the phenomenon of interest for this study.

I have also observed some nursing staff incorporating peer relationships into their plans for nursing care. An assumption (based on symbolic interactionism theory (Craib, 1992)) is that if relationships do exist among SCI patients, they are serving some purpose and may be beneficial to the psychosocial adaptation of SCI patients to their injury. Using the assumption that "nursing's unique function is to nurture individuals experiencing critical periods in the life cycle" (Campbell, 1987, p. 6), it makes
sense for nurses to assist patients to maximize effective coping behaviours. Accordingly, it follows that empirical data about the relationships that develop among SCI patients will assist nurses who care for those patients.

The review of the literature contained in Chapter Two of this document describes the existing published work related to the psychosocial aspects of SCI patients. It is important to note that nursing literature devoted to the psychosocial aspects of SCI patients is sparse. Much of the literature (Bourdon, 1986; Friedman-Campbell & Hart, 1984; Frye, 1986; Richmond & Metcalf, 1986; Richmond, Metcalf & Winterhalter, 1987; Theuerkauf & Stewart, 1992) regarding the psychosocial aspects of SCI is anecdotal and not research based. While a few authors (McNett, 1987; Piazza et al., 1991) have conducted research studies that are concerned with social support, it is only recently that some Level I studies concerned with the psychosocial adaptation of the SCI experience have appeared in the literature (Dewis, 1989; Laskiwski, 1990a, 1990b; Nelson, 1990).

The background information indicates that there is a need for further nursing research regarding the psychosocial adaptation of SCI patients to their injury. The results of this study provide nurses with information that will assist them to facilitate the adaptation of SCI patients to their injury. The research also contributes substantive theory to the small body of knowledge that exists regarding the psychosocial aspects of SCI patients. In addition, further important research questions are identified.

The phenomenon of interest of this study was the SCI patients' perceptions of their relationships with their peers during the acute stage. By understanding the meaning of such relationships more fully, it should be possible to assist in the patients' psychosocial adaptation process. It was
important to establish the meaning of such relationships through research before the implications could be stated and acted upon with confidence.

**The Problem Statement and Research Question**

The lack of knowledge about the relationships developed among SCI peers during the initial weeks and months after injury is the problem that was addressed in the study. Nurses caring for SCI patients need to know, from the perspective of the patient, how such relationships develop, if patients perceive such relationships as important and, if so, what meaning these relationships have in the context of their psychosocial adaptation to SCI. The question that guided this research was:

What are the perceptions of SCI patients of the relationships formed with SCI peers during the acute stage?

**Definition of Terms**

1. Spinal cord injury: an impairment or loss of motor and/or sensory function due to damage to the spinal cord (SCIPP, 1988).

2. Acute stage: the period of time spent on the inpatient unit after leaving the spinal cord intensive care unit and before moving to a rehabilitation centre.

3. Spinal cord injured peers: fellow patients in the acute stage of SCI.

**Theoretical Framework**

The theoretical framework of a research study provides the rationale for developing the research question (Brink & Woods, 1983) and, in the case of this study, it also supported the use of the chosen research method: grounded theory. The theory of symbolic interactionism was suited to the phenomenon of interest. This was because symbolic interactionism is based on the belief that it is through interactions with others that humans learn about objects, events and their idea of self; it is through peer relations that individuals come
to view themselves as society does (Chenitz & Swanson, 1986; Craib, 1992; Denzin, 1989).

Blumer (1969) used Mead's (1934) work to develop the three premises upon which symbolic interactionism theory is based:

1. Human beings act toward things on the basis of the meanings that the things have for them.

2. The meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows.

3. These meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he encounters. (Blumer, 1969, p. 2)

These premises provided a context for the research study in that the research question was concerned with the perceptions of social processes, that is, relationships formed among SCI peers. Symbolic interactionism provided the theoretical starting point for this study and, as suggested by Bohny (1980), the theory provided new ways to view the phenomenon of interest and new hypotheses were generated and tested as the research process progressed.

This preliminary theoretical perspective added to the theoretical sensitivity I employed during the research process by augmenting my insight and my ability to give meaning to the data (Strauss & Corbin, 1990). It was expected that other applicable theoretical and/or conceptual frameworks would be identified as data analysis progressed (Chenitz, 1986a), and they were incorporated into the emerging grounded theory.

Assumptions

I proposed the research question based on the assumption that there were no formulated or documented concepts about the relationships formed
among SCI peers. In addition, it was assumed that these relationships are significant to SCI individuals and have an impact on their recovery.

**Limitations**

There were several factors which were potential limitations to my use of the grounded theory method. First, it was important to acknowledge that I had some knowledge of developed concepts/theories that were related to the phenomenon of interest. According to Strauss and Corbin (1990) "If you begin with a list of already identified variables (categories), they may -- and are indeed very likely to -- get in the way of discovery" (p.49). I believe that my recognition of the background information I brought to the research enhanced my theoretical sensitivity rather than impeded creativity in developing new theory.

In addition to the possible limitations posed by my knowledge of literature and theory, I recognized that I was working within a pre-existing personal framework or fore-structure. I agree with Addison (1989) who notes that one of the limitations of the grounded theory method is that the influence of the researcher's preunderstandings is not accounted for when reporting the results of data analysis, that is, the grounded theory. He suggests that the researcher is "predisposed to looking for certain aspects and away from others in the situation, and having a taken-for-granted way of doing research, of being a researcher, and of interacting with the participants involved" (p. 52).

To address this potential problem I identified a fore-structure that included my ideas about how I imagined SCI patients feel during the acute stage: hopeless, lonely, powerless, and victimized. I also had the idea that it is logical for these patients to turn to each other to develop a communal understanding of their circumstances and to develop unique ways of coping with those circumstances. As the data were collected I found that more of my
fore-structure was revealed and I repeatedly questioned the influence that the fore-structure exerted on my interpretation of the data and the evolving theory. Recognition of my fore-structure, as well as techniques to maintain rigor such as memoing, maintaining an audit trail and consulting with my committee, helped to limit the influence of my predisposed framework.

A further limitation of the study was the fact that I was a novice researcher. As Burns (1989) notes, this may affect the scope and density of the categories identified as well as the degree to which the categories are integrated. In recognition of this limitation, members of my thesis committee guided me through some of the analysis. As well, I had a limited amount of time available to devote to the research project because I was enrolled in a graduate program and had to complete the degree requirements by a specific date. Occasionally this affected my ability to perform complete analysis of each transcript prior to interviewing a subsequent subject. Again, I received guidance from my thesis committee as to reasonable amounts of data collection and timing of analysis in terms of the validity of results versus my time limitations.

**Significance of the Study**

The proposed research resulted in a grounded theory about the perceptions of spinal cord injured patients of the relationships they develop with their spinal cord injured peers during early recovery. This substantive theory adds to the limited amount of research based information available to nurses about the psychosocial adaptation of patients to SCI. In addition, it raises further research questions. It is anticipated that the findings of the study will lead to the design of nursing interventions for use in assisting SCI patients to cope successfully with their injury.
Summary

This chapter described the background to the problem and stated the problem and research question. The terms relevant to the research question were defined. The theoretical framework was described as were the assumptions and limitations of the study as they were viewed from the outset. The significance of the study was briefly described and will be elaborated on in the final chapter of this thesis. The research question is placed in the context of current literature in Chapter Two.
CHAPTER TWO
Review of Related Research

The literature reviewed in this chapter provides a framework for the research by evaluating the current knowledge base and providing background for the study. The literature will be discussed according to the three methodological categories into which it falls: 1) non-research literature; 2) quantitative research findings; 3) qualitative research findings.

Non-Research Literature

Published non-research articles are of two main types: anecdotal descriptions of experiences with SCI patients and suggestions for nursing interventions, and opinion-based articles that link experience with theory. The experiential/nursing intervention articles give an indication of what practising nurses are observing and what interventions they are providing. Several articles in this category identify common psychosocial nursing diagnoses which include:

1) Disturbance in self-concept (Bourdon, 1986; Kurtz, 1993; Richmond & Metcalf, 1986; Rutledge & Dick, 1983),
2) Powerlessness (Richmond, 1990; Richmond & Metcalf, 1986), and
3) Grieving related to multiple losses (Bourdon, 1986; Friedman-Campbell & Hart, 1984; Richmond & Metcalf, 1986).

These articles are useful in the context of this research because they depict common reactions of SCI patients to their injury and indicate a need for research based information for nurses to assist patients to cope with these reactions.

Social support is a theme common to several of the anecdotal articles (Bowers et al., 1987; Cook, 1985; Richmond, Metcalf & Winterhalter, 1987). These authors have identified the need for social support among both patients
and their families. They all describe support group interventions and associate observations of decreased anxiety, increased feelings of support, less acting out of some adolescent patients and more sharing of information among patients with those involved in the support groups. The perceived "need" for social support is identified by the authors rather than the patients themselves and the support groups were not set up or evaluated in research studies. These problems need to be addressed through qualitative research aimed at discovering subjects' perceptions regarding the context of social support. Subsequent research can then be undertaken to study the effectiveness of support groups.

The opinion based non-research articles make links between practice and various theories. For instance, Nelson (1984) uses principles of normalization (Wolfensberger, 1972) to provide a framework for social skills training after SCI. Theuerkauf and Stewart (1992) also refer to the idea of "normalization" in their article which describes nursing interventions for increasing feelings of dignity and self-worth in SCI patients. In her 1986 article, Frye develops a theoretical model of indicators of wellness-seeking behaviour in SCI patients. She uses a variety of other theories to develop this model, none of which have been developed using SCI patients. Keegan (1989) explores the potentials of SCI patients in terms of "The Circle of Human Potential" (p. 3) and suggests ways to assist SCI patients to achieve fulfillment. French and Phillips (1991) describe the use of Grunbaum's (1985) phases of body image recovery to facilitate adjustment to SCI.

All of these authors are making attempts to frame some of the psychosocial aspects of SCI both in terms of nursing theory (French and Phillips, 1991; Keegan, 1989) and borrowed theories (Frye, 1986; Nelson, 1984; Theuerkauf & Stewart, 1992). Certainly using theory from other fields is
valuable to nursing and contributes to the theoretical sensitivity of the researcher, but the profession needs to continue to strive to develop knowledge and theory that is unique (Johnson, 1968). This study aims to generate theoretical knowledge about SCI patients from a nursing perspective.

Quantitative Research

To date there has been little quantitative nursing research concerned with the psychosocial aspects of SCI. A recent descriptive study (Richmond, Metcalf, Daly & Kish, 1992) investigated the frequency and characteristics of the nursing diagnosis of "powerlessness" in an acute SCI population, hypothesizing that these patients can be expected to have feelings of powerlessness and that this diagnosis may impede their progress. Using a convenience sample of 50, clinical nurse specialists determined the presence or absence of the nursing diagnosis powerlessness. Findings of interest to this study are that powerlessness was strongly associated with acuity, occurring more frequently in the most acute patients. Using Johnson (1967), the authors remind the reader that powerlessness may be associated with poor knowledge acquisition and less goal directed behaviour, both of which are important to the successful rehabilitation of SCI patients. The fact that these authors tracked the diagnosis of powerlessness in SCI patients has implications for nursing interventions directed at empowering patients.

Two researchers use the variable of social support in their studies. McNett (1987) conducted a study that tested a causal model of the relationships between a number of variables: perceived availability of social support, perceived effectiveness of social support, perceived personal constraints to the use of social support, threat appraisal, coping responses and coping effectiveness. The researchers who designed this complex study collected data using three instruments with well established reliability as well as two
interview questions with a sample of 50 wheelchair bound patients. The data were analyzed using path analysis. Most of the results are consistent with Lazarus' (1966) theory of psychological stress and coping which the author uses as a theoretical framework. The findings reveal that perceived availability of social support was significantly positively related to effective coping.

Piazza et al. (1991) conducted a study with SCI patients (N=17) to determine the relationships among the variables of hope, social support and self-esteem. Using three tools with established reliability the authors found relationships among the variables of social support and hope, social support and self-esteem, and, hope and self-esteem. Together, the variables of self-esteem, social support and education accounted for 89% of the variance in hope. Both of these studies demonstrate the relevance of the variable of social support in SCI patients although the researchers did not seek descriptions of social support from the patients' perspectives.

Nieves, Charter and Aspinall's (1991) study assessed the relationship between effective coping and perceived quality of life in SCI patients using a sample of 40 and two tools with established reliability and validity. A significant correlation with "r" ranging from .535 to .606, (p = .05), was found between coping effectiveness and perceived quality of life. The authors make the logical suggestion that it is important to find effective methods of facilitating coping skills. Developing relationships with SCI peers may be an important aspect of coping for SCI patients.

Qualitative Research

It is the qualitative research performed to date that provides the most useful context for the study described in this thesis. This is because the
philosophy, and therefore the methodologies, of these studies are similar to the one described herein.

The purpose of Dewis' (1989) study was to describe, from the SCI patient's perspective, the meaning of body changes and strategies used to respond to these changes. Themes that arose through content analysis of semi-structured interviews with 15 subjects were: concern with normalcy and being valued, and the use of independently developed coping strategies in the effort to normalize. The researcher suggests that support groups occur naturally among SCI patients.

Bozzacco's (1993) qualitative study used open-ended interviews to try to understand the subjective impact of SCI on psychosocial development in young and middle adulthood. The author uses Erikson's developmental tasks to frame the results. Despite the fact that Erikson (cited in Beck, Rawlins & Williams, 1984) describes the task of young adulthood as establishing relationships with persons of both sexes, the author focuses the discussion only on the establishment of intimate relationships with the opposite sex. The logical extension of this research is to investigate other types of relationships among SCI persons.

Several ethnographies attempt to describe the experience of SCI from the SCI person's perspective. Laskiwski (1990a) conducted an ethnography of a spinal cord unit because "knowledge of behavioural consequences of spinal cord injury patients is incomplete" (p. 14). The purpose of her study was to develop an understanding of the experience of being a patient on a SCI unit (Laskiwski & Morse, 1993). Findings of interest are that patients maintained a group identity (in this case by swearing), they observed each others' ways of coping with difficult situations, they talked about their progress amongst
themselves, and they learned ways of managing activities of daily living from each other (Laskiowski, 1990a, 1990b; Laskiowski & Morse, 1993).

Nelson's (1990) ethnography of a spinal cord injury unit was comprehensive in that she used ethnographic interviews, participant observation and document review to gather data. Through analysis of the data she developed a theory of the phases of reintegration of SCI patients into the community. Nelson notes that patient peers participate in all phases of the process of reintegration. The informal support systems between patients develops into a "patient community" and has the following functions:

(1) enculturate new injuries to the unit and to live with a SCI
(2) support 'the guys to look out for one another'
(3) assure adequate patient education
(4) allow the patient to ask another patient questions he/she would not ask staff. (p. 48)

Among her implications, Nelson (1990) notes the critical importance of facilitating relationships between the newly injured and those less recently injured to "optimize opportunities to teach as well as to learn; to share their lifetime of experience, frustration, and sorrow, and skills for survival" (p. 60).

Spencer, Young, Rintala and Bates (1995) used ethnographic methods to study the experiences of an individual patient with SCI. Their purpose was to discover, from the patient's perspective, how adaptation to the injury occurred. The authors describe socialization to the culture of a rehabilitation hospital as one of the major interpretive themes that arose from the data. The five aspects of this socialization are the physical surroundings, the system for providing care, the scheduled round of activities, the staff members and the fellow patients. The authors place socialization to the rehabilitation setting
into the larger context of the process of learning a new identity as a disabled person.

Two studies written from an adult learning perspective contribute information about psychosocial adaptation to SCI. Payne (1993) conducted a triangulated study about the contribution of group learning to the rehabilitation of SCI individuals in which both quantitative and qualitative methods were used. Although the author was most interested in the effectiveness of group learning, the qualitative data collected from open-ended questioning of SCI persons, their families and health care professionals, revealed the importance of peer interaction in adjustment to injury. Implications of the study focused on its application to adult learning but much of the patient data collected is also useful for understanding the psychosocial adjustment to SCI.

Carpenter's (1994) retrospective study places SCI persons' conceptualization of their injury into a lifelong learning framework. Subjects were interviewed three or more years post-injury and three categories of meaning arose from the data. Interestingly, the influence of peers was relevant to the category of establishing a new identity. Subjects talked about the effects of comparing themselves to their peers and the help that expert peers have provided over the years since injury.

These qualitative studies contribute to the body of knowledge of SCI patients at a descriptive level and provide insights into their experience from the patient perspective. Some of the descriptions that arose from previous research indicate the relevance of peer relationships. The study described in this thesis sought to add to the current knowledge base about psychosocial adaptation to SCI by revealing more specific information, from the patient perspective, about peer relationships in the early post-injury stage.
Summary

The literature concerned with SCI focuses on the physical aspects of care of SCI patients. There is widespread recognition in the literature that more needs to be known about psychosocial adaptation to SCI. While current literature does provide some information about the psychosocial adaptation of patients with SCI, very little is known about the impact of peer relationships on that adaptation.

The study described in this thesis sought information, from the patient's perspective, about peer relationships. The paucity of research about this phenomenon indicated that a Level I study was necessary. The methodology of this study is described in detail in Chapter Three.
CHAPTER THREE
Methods
Research Design

Qualitative methods in nursing research are particularly appealing because they tend to emphasize the subjects' perspective of reality (Polit and Hungler, 1991) which is in keeping with the humanistic outlook of the nursing profession. The research design of a study should suit the question being asked and, for several reasons, grounded theory is the qualitative method most appropriate for answering the research question, "What are the perceptions of SCI patients of their relationships formed with SCI peers in the acute stage?"

The literature review in Chapter Two demonstrates the minimal descriptive research about the phenomenon of interest. The existing SCI literature also lacks consistent development or use of theory; the grounded theory method generates theory "based on the study of human conduct and the contexts and forces that impinge on human conduct" (Chenitz & Swanson, 1986, p. 14). My personal observations indicated that a social process existed between SCI individuals and "grounded theory provides a way to study human behaviour and interaction" (Chenitz & Swanson, 1986, p. 7). In addition, grounded theory is seen as a method appropriate for use by practicing professions to develop science relevant to practice (Chenitz & Swanson, 1986; Hutchinson, 1986; Strauss & Corbin, 1990).

As discussed in Chapter One, symbolic interactionism provides the theoretical framework for the study as well as the theoretical orientation for the grounded theory method (Chenitz & Swanson, 1986). The inter-relatedness of the chosen theoretical framework with the research question and the research method make grounded theory the logical choice of method.
Sample Selection

Grounded theory research uses theoretical sampling which is sampling guided by the results of analysis (Corbin, 1986; Strauss and Corbin, 1990). Initial informants are chosen because they are deemed by the researcher to provide the best opportunities for collecting the most information about the phenomenon of interest. As categories are developed through data analysis, theoretical sampling continues based on the results of analysis with the purpose of developing the density of the categories and achieving saturation.

In the case of this research the subjects were recruited at G.F. Strong Centre. This setting was chosen because it is a tertiary rehabilitation facility where people with all levels of SCI receive treatment during early recovery, after their injury has stabilized. The choice of G.F. Strong Centre as the research setting was appropriate for me because it was not a familiar workplace. Chenitz and Swanson (1986) recommend that the researcher be fresh to a clinical area in order to minimize taking information for granted and maximize openness to the phenomenon under study. As well, it was anticipated that prospective participants would be easily accessible through the G.F. Strong Centre.

The participants were selected using the following requirements, with rationale provided:

1. The individual sustained a spinal cord injury during the last two years.

Rationale: The phenomenon of interest was relationships formed during the acute stage and it was more likely that the interviewees would have clearer recollections of and perspectives on those relationships if they had occurred in the last two years.
2. The individual was willing to divulge, through interviews, his or her perceptions of the relationships formed with SCI peers during the acute stage. 
Rationale: Participation in the study was voluntary.

3. The individual was able to communicate clearly in English. 
Rationale: The researcher speaks only English.

Selection Procedure

To recruit participants, the Clinical Nurse Specialist (CNS) at G.F. Strong was informed of the proposed research, received a copy of the research proposal and discussed the project with me. She also received copies of the Information Letter (Appendix A) which outlined the study. She identified and approached potential participants with information about the study. Those interested in being a participant gave permission to the CNS for me to discuss the study with them. The CNS then gave the subject's name to me and I set up an initial information interview in which I provided further explanation and answered questions. Those interested in participating then signed a consent (Appendix B).

Data Collection

All interviews were the unstructured type of formal interview as I wanted to obtain in-depth information (Swanson, 1986). An interview guide containing general questions and topic themes (see Appendix C) was used for the initial interviews. As each interview progressed I took direction for questioning from arising themes and views of the phenomenon. In keeping with the principle of concurrent data collection and analysis, inductive interpretation of common themes arising from the initial round of interviewing generated conceptual categories that were used to develop a more focused interview guide for subsequent interviews (see Appendix D). While early interviews tended to include accounts of peer relationships in the
context of the overall experience of early recovery from SCI, the later interviews provided an opportunity for an in-depth description of the meaning and role of these relationships. All interviews were audio taped and then transcribed verbatim.

A total of seven participants were recruited, six were inpatients and the seventh was living in the community. Interviews were conducted in patient rooms, in a conference room and in the outpatient's home. All but one interview took place in total privacy. Interruptions by visiting family was the cause of lack of privacy in that situation.

Chenitz (1986b) notes that interviewing and participant observation are used conjointly in grounded theory as, together, they improve the researcher's ability to collect and validate data. In this research project participant observation was conducted and field notes concerning this data were recorded. As well, I kept field notes describing each interview and my immediate reflections on the data.

The final source of data was the literature which was incorporated because in grounded theory, literature is viewed as data (Chenitz, 1986a). Literature was used during the analysis phase to verify and elaborate on categories and to learn about related subjects (Chenitz, p. 45).

Data Analysis

Data analysis was guided by the works of Corbin (1986) as well as Strauss and Corbin (1990). In grounded theory, data analysis is ongoing and occurs on a continuum with data collection. As Corbin (1986) describes it, the researcher should progress from inductive thinking to deductive and back to inductive as the theory develops. So, although the process of analysis is described in a linear fashion, in reality I moved back and forth between various processes as I collected data.
I used open coding to begin the analysis by examining interview data line by line, searching for incidents and facts and labeling these as concepts. Concepts that seemed to pertain to the same phenomena were then grouped within categories which I labeled differently from the concepts contained within the category. In the early stages of data analysis categories developed very quickly which is what Corbin (1986) describes as the expected course of analysis. Categories were developed by identifying their properties and the dimensions of those properties. Early analysis revealed that the subjects did not develop significant peer relationships in the acute stage, rather, peer relationships viewed as meaningful were formed after arrival at the rehabilitation centre. This finding shifted the focus of subsequent data collection away from the acute stage after SCI and towards the early rehabilitative phase.

While open coding continued, axial coding was begun. The purpose of axial coding is to specify what defines a category and make connections between categories. Strauss and Corbin's (1990) paradigm model was used to guide the linking of categories. This model helped the researcher to systematically think about the data. It forced organization of the data in terms of a set of relationships including, causal conditions, strategies and consequences. Using inductive and deductive thinking, I asked specific questions about the data, seeking to build descriptions of categories. This questioning was reflected in the theoretical sampling and interviewing which was ongoing. I also used constant comparison, to look for similarities and differences between cases and categories. At this stage, categories were becoming saturated and no new information was arising from interview data.

As the core categories within the data were clarified, it became apparent that they formed a description of the phenomenon of peer
relationships from the perspective of patients currently embedded in the subjective experience of SCI rehabilitation. The data therefore yielded a beginning conceptualization of what such relationships might mean in the context of the larger phenomenon of recovery from SCI. Description of the conceptualization of SCI peer relationships is located in Chapter Four.

Literature was incorporated into the discussion of findings when it assisted in verifying and elaborating on categories, and when it helped to understand related subjects.

**Rigor**

Recognizing that qualitative research should demonstrate reliability, validity and objectivity I used Sandelowski's (1986) recommendations for achieving rigor in this study. To achieve consistency of findings I ensured the auditability of my study in several ways. First, I described and justified the research problem in a research proposal and, again, in Chapter One of this document. Then, I described the process of data collection and analysis in detail in this chapter of the thesis. As well, I have maintained my records of data coding, memos and field notes. Finally, the presentation of findings in Chapter Four describes the decision trail used in analysis and is verified with quotations from the data. This decision trail was discussed with members of the thesis committee as it progressed.

Sandelowski (1986) suggests that credibility and fittingness be used to ensure the truth and applicability of a qualitative study. To achieve credibility I obtained validation from subjects about the categories as they were emerging. I also continually questioned the influence of my forestructure on the analysis and attempted to bracket my beliefs about the experience of the SCI individuals prior to the interviews. Members of the thesis committee were
consulted throughout the analysis process to ensure that the arising categories could be recognized as being derived from the data.

To ensure fittingness, field notes were taken after each interview, prior to transcription. These notes were used to aid in validating the interview transcriptions. Sandelowski (1986) says that this triangulation of data helps to ensure congruence of findings. Finally, during the analysis, several health care professionals who are experts in the area of SCI were consulted to check the applicability of the findings from their perspective. Sandelowski suggests that a study meets the criteria of fittingness when others recognize the findings as meaningful to their experience.

**Ethical Considerations**

The participants in this study discussed personal information and shared their feelings and ideas with me. To ensure that their rights and privacy were maintained, the following protocol was followed:

1. The research project gained ethical approval from the University of British Columbia Behavioural Sciences Screening Committee for Research and Other Studies Involving Human Subjects as well as the G.F. Strong Research Committee.

2. A written explanation of the study was provided to each participant (see Appendix A). The study was also described verbally by the researcher with opportunities for questions prior to the consent (Appendix B) being completed.

3. Tapes and transcriptions were coded so as to remove any identifying characteristics. Once transcribed, the tapes were erased. Access to the tapes and transcriptions was limited to the thesis committee and me.

It was anticipated that the research would not harm the participants and it was expected that the subjects might benefit from the opportunity to
discuss one aspect of their injury experience in detail. I was aware of the fact that previously unidentified concerns of the respondent might emerge during data collection (Ramos, 1989). In one case the subject had a specific concern for which he was seeking help and I encouraged him to continue working on gaining assistance.

**Summary**

This chapter outlined the methodology of the study which is based on the research design. The sample selection, selection procedure, data collection and analysis were described. Aspects of rigor and ethical considerations were also discussed. Chapter Four presents and discusses the interpretation of the findings of the study.
CHAPTER FOUR
Findings and Interpretation

In this chapter the results of data analysis are presented and interpretation of those findings are interwoven into the discussion of the data. The interpretation incorporates relevant literature that was reviewed in Chapter Two. As well, additional literature is used to enrich the discussion and place this research into the context of relevant, current theory and research.

The chapter begins with a description of the participants and presents the context in which the sample subjects described peer relationships. The description of the subjects' perceptions of their peer relationships is then outlined. Two categories which together provide an understanding of the meaning of peer relationships are then presented in detail. First, Conditions for Peer Relationships are described and then Consequences of Peer Relationships are outlined. Within the category of Consequences of Peer Relationships the discussion is divided into the following two sub-categories: Information Sharing and Gathering, and Caring. A summary interpretation of the findings concludes the chapter.

Context of the Participants' Descriptions

The participant description contained in this section outlines demographic data which is relevant to understanding these subjects' perceptions of their situation. It also includes a discussion of three findings that provided a context from which the remainder of the data were viewed and analyzed.

Seven people volunteered to be interviewed for the study. The sample was comprised of five men and two women which is representative of the fact that a higher percentage of men sustain SCI's compared to women (SCIPP, 1988). Participants ranged in age from 18 to 53 years old; two participants
were married and the remainder were single. Six of the subjects were Caucasian and the seventh was Native Indian. Prior to the injury, three of the participants lived in the Lower Mainland of Vancouver, while four lived in other areas of the province of British Columbia.

Injuries of the participants had been sustained in a variety of ways. Three subjects were involved in motor vehicle accidents. One subject was hit by a vehicle while cycling, one had a skiing accident, another a diving accident and one person fell down some stairs. Injury levels ranged from T12 to C4, with two subjects sustaining resultant paraplegia and five subjects, quadriplegia. Three of the injuries were complete and four were incomplete. The term complete refers to total transection of the spinal cord while incomplete refers to a partial tearing (Phipps, Long & Woods, 1987).

Subjects spent varying lengths of time in acute care depending on their condition, surgical interventions performed, and medical complications such as the necessity of artificial ventilation. Acute care stays of these seven patients ranged from 1 to 3 months. When interviewed, participants were in varying stages of rehabilitation. One subject had been at GF Strong for 1 1/2 weeks, other subjects had been there for 1, 2, 2 1/2, and 6 months. The subject who had recently moved into the community had spent 8 1/2 months as an inpatient at GF Strong.

All of the subjects were keen participants and answered questions freely. They elaborated easily when I asked for more detail about particular responses. Some participants indicated that they welcomed the opportunity to speak to someone at length about their situation.

Data analysis revealed three findings about the sample subjects that provided a context within which the remainder of the data were viewed. These findings included the discovery that peer relationships were not formed in the
acute care phase of recovery, that subjects did develop relationships with staff in acute care and that maturational stage influenced the development of peer relationships. A description of these findings provides an understanding of the context of the data, so that the subjects' perceptions of peer relationships can be appreciated.

Most of the persons with SCI described their experience in acute care as a time when they felt disconnected. They said things like:

At first I was just, you know, kind of out of it for a while.

I don't remember much, you know, the morphine and all that stuff, it just sort of flew by.

I was in bed most of the time, I can't even tell you anything, I don't remember anything.

This state of haziness and unreality is also documented by Laskiwski and Morse (1993). As a result of such experiences, none of the subjects had formed a significant relationship with a peer during their stay in acute care. The following comments illustrate this point:

You sort of meet your room-mates, but you don't. Like, I had some conversations with my room-mates but you're not really up and able to, you're going through some pretty weird states.

Not until GF Strong did I make friends with actual other patients.

Although the SCI patients did not form peer relationships while in the acute setting they did develop relationships with staff members who cared for them during that time. Friedman-Campbell and Hart (1984) state that most SCI patients develop their first significant post-injury relationships with nursing staff. Nelson (1990) found that patients appreciate staff who are over-involved as opposed to under-involved. Several subjects described when they felt especially cared for by nurses:

Some of the nurses were friendlier and they did things, like turn me and just little things like that.
There are certain ones that are extra special, they go out of their way to just take one step extra.

They'd (the nurses) spend a lot of time, clipping my nails and shaving my neck and doing me a really good turn, you know. She (the nurse) was really nice to me, you know, and she'd touch my face and she was a really caring person.

The patients found these relationships meaningful, in retrospect, to their experience in acute care. However, none of the subjects in this study had maintained contact with staff they had known in acute care.

The sample was composed of people with a range of ages and in varying maturational stages. The importance of recognizing the developmental stage and determining the existence and availability of the support networks of SCI patients is well documented in the literature (Bowers et al., 1987; Friedman-Campbell & Hart, 1984; Richmond, 1990). In this study it was found that because of the diversity of pre-injury characteristics, the subjects were relying on varying types of support networks.

For example, one middle-aged person, who had a strongly established network of friends and family, including adult children, said:

I've got my family. And they definitely have been my biggest support group for sure, and friends.

This patient's use of an existing support network fits logically with her developmental stage. Many middle-aged people have a partner, adult children and numerous friends and associates from whom they draw support (Murray & Zentner, 1979). Experiencing an unpredictable event such as SCI would result in the use of that support system.

In contrast, one teenage person with SCI talks about his family visiting him:

I was really happy, you know, when it comes down to it, to see them. They were really, really supportive to me. But sometimes I wished they would just cool it...they'd be trying to help a little too much at times...always just really babying me.
This description of conflicting feelings between the need for support and the need for independence from family are typical for an adolescent (Nolan et al., 1979). Later, he describes how he talks about his injury with his SCI friend:

As much as your parents help, you just don't talk to them about it. But, you know, this person's gone through the same thing as you have so it's a lot easier to get it out in the open.

Knowing that SCI incidence affects those between ages 15 and 24 at a rate of 30-50% of the total incidence emphasizes the importance of recognizing the needs of adolescents as they adjust to their injury (Cook, 1985; Dewis, 1989; Rutledge & Dick, 1983). Association with a peer group is important in adolescence, as peers help define an individual's identity during a time of rapid physical and emotional change (Nolan et al., 1979). During this time of adjustment to SCI, it is logical for adolescents to turn to peers for support.

The context provided by the participants has been explained. It is important to understand this context because it influenced the subjects' perceptions of their peer relationships. The meaning that the subjects ascribed to their peer relationships can now be described in detail.

The Meaning of Peer Relationships

The analysis procedures discussed in Chapter Three of this thesis produced a description of the meaning of peer relationships for these SCI patients. Two categories of data comprise this description. The first category encompasses the data which explains the conditions under which peer relationships developed and is called, Conditions for Peer Relationships. The second category, named Consequences of Peer Relationships, describes the ways in which the SCI patients interacted and the results of those interactions.

The categories arose through use of the Strauss and Corbin (1990) paradigm mentioned in Chapter Three. Aspects of the paradigm which were congruent with this data were causal conditions, strategies, and consequences.
The data revealed that there are conditions under which peer relationships form. Once the relationships exist there are two sub-categories of strategies used by the patients which are information sharing and gathering, and caring. The consequences of these activities for the SCI patient are assistance in day to day coping and assistance in achieving a new sense of self.

The following discussion of Conditions for Peer Relationships and Consequences of Peer Relationships describes the participants' perspectives of their relationships with their peers. The meaning of these relationships is revealed through analysis of their descriptions.

**Conditions for Peer Relationships**

It was apparent from the data that there were a number of causal conditions that resulted in the formation of peer relationships among SCI patients in the rehabilitation setting. These conditions will be described in detail in this section. The development of these relationships led to the consequences outlined in the following section.

This research is focused on peer relationships in general but it is important to note that subjects clearly differentiated between peer acquaintances and peer friends. This is exemplified by the following transcript excerpts:

I made lots of acquaintances. But I only made the one friend while I was here.

It's like anything else, it's like a friend, you're going to get closer to some people and warm up to them more than you do others.

Just the same, I think, as with a regular friendship, some people you really click with and some people you don't.

Because the subjects were definitive in their distinction between peer friends versus peer acquaintances the following discussion of conditions for peer relationships distinguishes between the two types of relationships. The subjects identified several factors as precursors to the formation of a
friendship with a SCI peer. These factors included shared experience, common age, gender and culture, common interests, personality traits, proximity of other patients, available time and the use of humour. While some of these factors were specifically enabling or inhibitory to the development of peer friendships, others also influenced the development of acquaintances, depending on circumstances.

It was evident that the common experience of having sustained a SCI functioned as one of the conditions which resulted in peer relationships. In general, patients made comments about the effect of the shared experience of SCI on developing relationships. When talking about their peers they said things like:

Everyone's going through the same things.

Everyone is pretty much in a wheelchair so we get along.

We're in the same boat. We can tell each other our own experiences but, I mean, you live with them, so you talk back and forth and tell stories.

For some it was important that the injury level be similar in order to develop an acquaintance:

There isn't anybody that I've talked to yet that we've made comparisons but, uh, I guess because my injury has been different than anyone else I've been around.

For others, the type of injury was insignificant as exemplified by one paraplegic subject who associated with patients with varying levels of SCI injury. It was clear from what the subjects said that having a SCI in common was not a reason in itself to develop a peer friendship. For example, when describing a room-mate who had a similar level of injury, one subject said:

I didn't really care for her company too much. I mean, we just didn't click.

Although similar injuries were important, they were considered an insufficient basis on which to form a friendship. In contrast, such qualities as
common age, gender and culture were generally seen as prerequisites to peer friendship. Subjects described most of the friends they had made while at GF Strong as in the same maturational stage as themselves. One adolescent subject compared talking with a peer to talking with his family:

In a way it's almost easier talking with him cause you can be really open, you can, you know, if you ever use foul language you can use foul language or whatever. It's a lot easier, I don't mind taking it out on him, like getting angry.

Feelings of anger are common in adolescents and young adults with SCI (Dewis, 1989) and this subject used his peer as an empathetic listener with whom he could vent frustration. Interestingly, the use of swearing arose with only this subject which is in contrast to Laskiwski and Morse's (1993) finding that swearing amongst inpatients was considered the "badge of membership" (p. 148) of the SCI peers. These authors state that swearing was the behaviour that maintained SCI group identity and camaraderie. Two middle-aged subjects in this study had strong feelings about the younger patients:

There's a lot of young guys here, young punks.

It's very difficult...we're talking a difference between a 19 year old and someone who is middle-aged, there's a fair big difference...two different scenes.

It was also obvious from the data that the SCI patients had made most of their friends with people of the same gender. One of the female subjects described how being in the minority was difficult:

The people who are my age are all guys...I think it's even harder here to develop a relationship because I find them (males) more, uh, I guess determined to work out more so they're always busy doing something, trying something new and it's not the same and you can't really talk to them.

Culture arose as an issue for one patient. While making some general recommendations as to how he thought peer relationships could be fostered, he mentioned that room-mates should be close in age and of the same culture. He had observed some situations in which tensions arose between patients and
families when traditional cultural practices were undertaken and were bothersome for room-mates.

Common interests were also viewed as prerequisites to friendship. This finding is consistent with those of Spencer et al. (1995). The following subjects' comments exemplify the importance of mutual interests other than SCI:

He's 17 and I'm 18, so we're pretty much interested in the same thing. We get along really well.

So, because he was a skier and he lived in my town, you know, we had things in common.

One subject summarized the effect of the commonalties of the SCI population in this way:

I mean, it's high risk, young men, skiing, driving fast, doing something, you know, stupid and just ending up, you know, with a spinal cord injury. And that in turn, I mean, those sort of people do have a lot in common other than their injury so you do have a lot to talk about just to take your mind off of it as well.

Personality traits were also important to friendship building. As one subject said:

He's (the friend) a really open person and I've always been really open too. We have no problems relating.

Well, I've always been considered a rescuer. There's two men especially (friends). One that everyone gives a really bad time to and, uh, so I likely go out of my way to be extra friendly to him.

Nelson (1990) found that patients considered depressed or angry were approached less often by peers than those who were viewed as personable and having a good sense of humour.

Proximity of other patients had varying effects on these subjects. All the persons with SCI mentioned how proximity of others in education sessions, on the ward, in the building and as room-mates resulted in making acquaintances. One person described how he spent his free time:
I like to go down to the lobby and I sit and watch the people come in and sometimes if I see somebody sitting by themselves I'll go over and say Hi to them.

Another described his perception of the environment at GF Strong:

There's people around you when you want to go talk to people or you want to go just hang out, you know, that sort of stimulation is around you all the time. It's a very accessible lifestyle.

Some subjects said that it was the proximity of a room-mate in combination with shared pre-injury interests that led to friendship. One subject found the lack of privacy in a shared room led to irritability which hindered the development of relationships. Rutledge and Dick (1983) suggest that peer interaction is facilitated by placing patients of the same age in the same room. Nelson (1990) found in her ethnographic study that staff made room assignments to promote socialization to the unit and to provide role models for newly admitted patients. Another subject in this study who was immobilized for a prolonged period in acute care described his circumstances in a unique way:

You don't really strike up much of a friendship with anybody when you're laying on your back all day. I couldn't even turn my neck to see who was next to me. One guy I met over there, I had no idea what he looked like until I came over here (GF Strong). I never saw him sitting up.

Another condition influencing the development of peer relationships was the considerable amount of time that patients had to spend in the rehabilitative phase of their recovery. Socialization with peers was considered an important way to pass that time. The atmosphere at GF Strong is very sociable. This was evident from my observations of the setting as well as from the comments of the research subjects. Subjects' perceptions of time while at GF Strong varied. For example one person talked about how he felt that he had a lot of time to spend alone, "You have so much time on your hands for thinking." In contrast, another subject denied having time to spend with
other patients because, "We have a pretty busy schedule." However, I observed this subject in interactions with other patients and he also described involvement in activities with peers during the interview. These findings are similar to Dewis' (1989) in that her subjects also had concerns about highly organized rehabilitation schedules. However, conversely, she found that lack of privacy was a problem for SCI patients who felt they needed some alone time to deal with their emotions. Although there were varied views of time, the data revealed that the subjects spent much of their free time with peers.

It was evident that subjects passed time by talking with peers. People said things like:

We see each other (peer acquaintances) in the hallways, we stop and talk for a while.

I enjoyed just talking to people. It really helped take my mind off things.

I spent a lot of time just talking to other people, it took my mind off of what was going on right at the immediate time.

When asked how they spent their free time the interviewees had a list of activities like the following:

Going to the shopping mall, renting some movies and they always have something going on here, like they rent movies, they always have some sort of sport thing or something...I play hockey once in a while and basketball...my room-mate and I will just sort of like, snooze, read, watch T.V.

The following excerpts are descriptive of how time was passed with peers:

I was getting out on every rec outing I could get out on, into the community or just getting out. I came in at a time when there was a lot of people that seemed to be pretty outgoing and, uh, around the same age group. So it was a lot easier, we really formed a pretty tight knit bond.

I went to the football game for my first time in the Halo and it was quite an experience. But he (SCI peer) was with me, you know, I went just with him, no attendants or nurses or family or friends and it was quite a step but I felt comfortable because he was there. I couldn't use my hands or my arms and he gave my ticket to the guys and stuff and showed me where to go.
Several consequences of passing time with peers are evident in these excerpts. It seemed that having time to pass was a condition for the development of peer relationships and, once relationships were established, the act of passing time with peers became one of the strategies used by the subjects to cope day to day. Consequences of passing time such as learning will be elaborated on in the section on Information Sharing and Gathering. Emotional support as alluded to in the statement about forming a "tight knit bond" will be discussed in the Caring section.

The data also revealed that humour was integral to the context of peer relationships. Subjects talked about humour as a personal strategy as well as one that they used when spending time with peers. One subject described her use of humour as follows:

> It's something that I hear from everybody, is "I can't understand your humour." It's just that being in the condition that we are now, people don't expect this. You do use humour because it makes it easier. I don't make fun of my condition at all, but humour, you know, as far as being humourous, I try to joke and I try to be in a good mood because if I didn't I know I wouldn't get through this.

This excerpt shows the close association between humour and positive thinking, which is discussed as a personal coping strategy later in this chapter. Another patient echoes the importance of humour:

> But you have to laugh at yourself, you've got to laugh at the situation you're in, you never think...you would never even think that you'd be in a situation like that ever in your life.

The use of humour amongst peers spending time together was very clear in the data. As with passing time, use of humour seemed to be a prerequisite for developing peer relationships and, once relationships existed, humour was used as a strategy to cope day to day. It's use and positive effects were described by one subject as follows:

> You make humour up cause everyone around you can relate to it...there's so many shocking things going on with you. Everyone's going through it. So you can sit down at the lunch table and just go off
(joking) and it's a release, and that humour, everyone laughs at it but it's something that's bothering them inside but they need to release it...you can't talk with your family and your friends about stuff like that. And these are people that you can just sit down and let it out. That humour helps. So, it's healthy.

In this case humour is used as a tension release. Spencer et al. (1995) also found that their case subject used humour to deal with the frustrations of daily life.

The above discussion describes the conditions influencing the formation of peer relationships. Most of the conditions facilitated relationships and some of them also inhibited relationships. Knowledge of the conditions of peer relationships helps to understand the context in which relationships seemed to become an important part of the experience of SCI recovery. Although the subjects clearly differentiated between friends and acquaintances, it became evident that their day to day coping strategies were undertaken with both friends and acquaintances. The meaning of these interactions is further revealed in the next section which describes the consequences of peer relationships. The data showed that the formation of friendships and acquaintances among SCI patients had positive effects on their recovery process.

**Consequences of Peer Relationships**

The conditions that give rise to peer relationships among SCI individuals comprise the first part of the description of the subjects' perceptions of their peer relationships. The second part of that description is contained in this section which examines the interactions within the relationships and the outcomes of those interactions. It is an understanding of both the conditions for the relationships and the consequences of the relationships that enables their meaning to be revealed.
Nelson (1990) notes that SCI patients require physical and emotional resources to cope with the day to day stressors of their situation. The data from this study revealed that interactions with peers meant that patients were able to cope on a day to day basis. Interpretation of the data has led me to believe that peer relationships also contribute to the development of a new sense of self which incorporates the SCI. These findings are consistent with a symbolic interactionist perspective in which it is thought that it is through social interaction that one achieves a sense of self (Chenitz & Swanson, 1986).

The SCI peers were able to describe tangible outcomes of their interactions which, when analyzed, fell into two sub-categories which I named, Information Sharing and Gathering, and Caring. These consequences of peer relationships reflect the impact that peer relationships have on the larger experience of early recovery from SCI in that they demonstrate how such relationships play a role in assisting patients to cope day by day. Because of their present-moment orientation at this phase in the recovery process, living day by day was a characteristic priority for all of these patients. Their accounts reflected richness and detail as to this aspect of their recovery. What was less explicit in their accounts was the issue of working toward the future and rebuilding new identities. While it was apparent to me as the researcher that such processes were occurring, they were not the immediate focus of the subjects of my research. In this discussion, therefore, I have distinguished the immediate short term outcomes that the subjects articulated in their descriptions from the more long term implications of relationships that I can infer from my interpretations of the accounts in general. The interactions and the specific consequences of them are described and discussed in this section.
Information Sharing And Gathering

It was clear from the data that the subjects discussed several aspects of their injuries amongst themselves. When asked a general question regarding what they talked to peers about, the subjects responded in the following ways:

I ask what happened to them and I tell them that.

We talk about what you go through and what you deal with.

It's like Hi, how are you?, you know, what's you're name and then you sit there and talk about your injury...what happened and what's your level of injury and basics.

It is likely that this sort of discussion helps the person with SCI gain perspective on their condition. Payne (1993) found that contact with other SCI persons helps them to feel that they are not alone and in Rutledge and Dick's (1983) article regarding adolescents and SCI, they state that "adolescents like to know that others have similar feelings and concerns" (p. 21). Spencer et al. (1995) say that their case study subject used socialization to gauge his new identity as a disabled person. In keeping with the symbolic interactionist perspective of this study, Keegan (1989) describes the benefits of peer association: "The camaraderie that comes from meaningful interaction among SCI individuals can provide them with the support they need to reintegrate into the environment" (p. 6). It is logical that all persons experiencing SCI would find it helpful to share the meaning of the experience with peers in an effort to form a new sense of self. Nelson (1990) refers to this as enculturating recently injured persons to living with an SCI.

The subjects also mentioned how they talked about their perceptions of their immediate circumstances. For example:

Oh yeah, their experiences, well not just what happened to them, but what they were going through now.
This focus on the present and coping day to day was pervasive throughout the interviews. When asked about their plans for the future, subjects readily admitted that they were very present-focused and this was exemplified by phrases like: "I don't think too far ahead," "It's too soon to think about it," "I just take it day by day." One subject was very descriptive about this approach:

No, I don't plan ahead, I just take it day by day and just see how things go each day and take it to the next.

This focus on living one day at a time was widely used by the subjects as a personal strategy in coping with their situation.

The patients also assisted each other to live day by day in various ways. One of these strategies was the sharing of information about coping with the physical practicalities of their condition. Dewis (1989) found that some SCI patients feel overwhelmed by the magnitude of the tasks they need to learn to gain independence. One patient was specific about the topics of conversation:

Um, everything from, uh, you know, getting in and out of bed, to even bowel and bladder management, uh, the sexual area, pretty much everything.

Bowers et al. (1987) and Payne (1993) both document a similar sharing of information between patients in the context of support groups in a rehabilitation setting. Nelson (1990) documents how patients ask other patients questions they feel unable to broach with staff. Cook (1985) suggests that socializing with SCI peers provides opportunities for the development and practice of skills as well as information exchange.

Another, recently discharged patient, talked about how he continues to give and seek practical information:

When I go back to GF Strong now I get in the door and people are like, How are you doing? How's your new place? you know, What're doing? And I go through and talk to them about it, they ask me questions about how I do certain things, little things, you know, How are your attendants going? How you eat for yourself? How do you get in your door, utilize your ramps? And you learn from other people. Right now
In their article on the impact of SCI on body image, French and Phillips (1991) point out the importance of encouraging communication between inpatients and those who have successfully reentered society. They suggest that the discharged patient provides the new SCI patient with assurance and hope for the future. Dewis (1989) found that SCI subjects shared information about ways to create normalcy in their lives. Nelson (1990) says that those who have been SCI injured for longer are the most adept at helping more recently injured people deal with social and physical barriers. She says that peers assist the newly injured person to place their "experiences into perspective and develop strategies to combat them" (p. 49).

Another patient described how he went beyond helping others with information about physical practicalities because he had particular concerns about patient rights. He explained how he spent a lot of time talking to fellow patients about their rights.

All of the subjects described how, at some point during their hospitalizations, they compared their injury to others'. This behaviour is also documented by Carpenter (1994). Comparison was done in terms of symptoms and abilities. When patients were unsure of a symptom they often checked their experience with a peer's. For example:

Once in a while you'd ask a few questions and, I'd be stiff or something and I'd ask them (peers) if they, you know, geez do you ever get this way?

Patients also described situations in which they compared abilities. It is interesting to note that they always spoke in terms of abilities rather than deficits or disabilities which are the common terms used by health care professionals. For instance one patient described another in the following way:
He's walking a little bit, uses his hands pretty well, you know he can feed himself and stuff like that and he can use the manual chair which is a big plus. He can transfer in and out of cars, I can't.

Subjects were very candid in admitting envy of others' progress and described how they felt when peers were improving:

I can't say it didn't bother me, I didn't begrudge them getting it back, but I envied them, that's human nature.

He was doing good, it was pissing me off (laughs), because he was 77 and he was doing better than I was.

The following excerpt shows how this patient used envy as a motivator:

You've seen guys get better, you just have to realize that that's the injury that you've sustained. They're not working that much harder. There's a lot of people that don't work very hard and get a lot of return, you know, that's frustrating to see, that pisses me off worse than seeing someone who'd be working very hard and getting it back, then you admire that and you feed off of that and work hard too, you know, oh, okay I'm going to get there I see this person doing this, they don't have that much function but they're accomplishing their goals that they're setting for themselves.

Dewis (1989) also mentions that some subjects felt encouraged when they saw others working hard and improving.

Another patient described how he initially felt that he was competing with other patients but found that that strategy was not useful:

You try too hard to compete and to stay in the pack and it just doesn't work. So, I just set my own pace, and that's all there is to it. No-one seems to care, you know, if you were faster or slower, it's just that everyone's at different stages, everyone's got different abilities.

The following excerpt shows how one patient used comparing with positive outcomes:

We always compared, you know, how am I doing, how's he doing, kind of thing and if I improved he would say, "Whoa, this is happening for you" so it sort of gave him some hope too.

All of these excerpts describe outcomes from the strategy of comparing injuries. Envy was seen as natural and, in some cases, a motivator to continue working. Nelson (1990) also found that patients compared themselves to others with the result that they felt encouraged. She says that some patients felt
"shamed" into working harder which was not a finding of this study. Comparing through competition was found by subjects to be a non-useful strategy and so was abandoned. Comparing and then supporting a peer's progress was viewed as positive. Support of peer success is also one of the strategies that falls under the Caring category to be discussed in the next section.

A likely consequence of comparing was to contribute to the new sense of self that the SCI patients were developing, it provided a context within which the newly injured persons could place themselves. Shared meaning was accomplished by socializing through comparison which is consistent with a symbolic interactionism perspective (Chenitz & Swanson, 1986).

Another common strategy used by the SCI patients was to compare their condition to someone who was viewed as worse off than themselves. This strategy helped them in their day by day approach. It was described most succinctly as follows:

But there's always someone else that's worse than you and when you're a patient and you're in the hospital, it doesn't matter how bad you are, you always see someone else...if you happen to be feeling sorry for yourself, that's what feels good, is to see someone that you know has had a harder time.

Interestingly, Dewis (1989) had informants who stated that they felt depressed and discouraged when they saw others who were in worse condition than themselves.

Comparing oneself to a worse off peer is also an example of how patients maintained a positive attitude. It was evident from the data that positive thinking was used by these SCI persons to cope on a day to day basis. Although it was not clear from the data whether or not this was an interactive strategy, it is important to mention because it contributed to the subjects' ability to cope day to day. Several subjects in this study talked about other patients who they
believed carried negative attitudes. These people viewed that attitude as ineffective for themselves as described in the following excerpts:

I see some people so bitter and so angry and I hope I'll never be that way because it would just be that much worse for me.

They (other patients) let the negative side of this whole situation outweigh everything else and there are a lot of positive things I've found. Well, that's what I've had to look at.

Another way that information was shared amongst patients was through an informal orientation of newcomers. Subjects described how they had received helpful information from other patients when they first arrived at the rehabilitation facility. The following quote is an example of that:

Well, at first I can remember, distinctly just one person who really, in the first week or two, helped me out, just with little things.

Laskiwski and Morse (1993) and Nelson (1990) also found that new patients were socialized to unit routines by patients who had been there longer. Subjects described how they, in turn, helped new arrivals once they were established as patients themselves. This subject described how he tried to orient a fellow patient when they were both in Intensive Care:

So in ICU, at first he didn't know who I was. He wouldn't answer me and stuff but I would still tell him what I needed to tell him: Don't worry about it, it's because of the accident, you're not going crazy, you're in hospital. He thought he was someplace else for a while and he didn't know where he was and stuff like that. I was like that too.

Another subject talked about why he told his newly arrived room-mate about what to expect:

They (health care team) come in and they tell you all this wonderful stuff, they don't tell you exactly what happens, what its like, you know. I don't know if it helped him adjust but at least he knew exactly what was going to happen to him.

Again, symbolic interactionism fits with this data because it holds that for social life, individuals have to align their behaviour with those around them (Chenitz & Swanson, 1986). The peer orientation of newcomers contributed to the ability of new patients to integrate into the social milieu of
the institution. French and Phillips (1991) advocate a formalized buddy system for patients new to a rehabilitation setting in which the new patients are paired with others who have been there for longer. They state that this socialization results in the sharing of experiences and a sense of peer support.

A final method of information sharing and gathering that the subjects used was to discuss future plans. Although patients did approach life on a day to day basis, as was discussed earlier in this section, they also described how they occasionally talked about the future together. As one subject said:

I spent time just talking to other people about their...plans in the future, you know, just basically taking their minds off, and my mind off of what was going on right at the immediate time.

This strategy served as distraction for the subjects and they were also able to share ideas about how they would cope outside of the institution.

Related to discussion about the future was the emphasis that each subject placed on their hopes for the future. The data showed that this was another personal rather than interactive coping strategy but its pervasiveness throughout the interviews demonstrated its importance. Laskiowski and Morse (1993) also found that hope was an integral aspect of existence for a person with SCI and Payne (1993) found that these individuals feel hopeful when they see others making progress. Interestingly, research (Piazza et al., 1991) has shown that higher levels of hope are found in SCI subjects with higher levels of social support and self-esteem.

Several patients specifically mentioned hope for a cure for SCI and said things like: "They might come up with some sort of cure to regenerate nerves...it's not that far off," and "In a couple of years they're talking they're going to have a cure for it." Some subjects indicated their hope for returned function with statements like: "Your body might heal itself," and "You always
have that hope that that part of you (his legs) won't always be like this." Maintaining hope helped these patients to go forward.

This section has described the strategies used by persons with SCI to gather and share information. Discussion of the consequences of those strategies has shown that in addition to the tangible goal of gaining knowledge, there are a number of corollary outcomes of the strategies. Clearly, the processes of information gathering and sharing contributed to the ability of these subjects to live better day to day. As well, from my perspective as the researcher, it appeared that the processes of information gathering and sharing were also contributing to the longer term consequence of creating a new identity. These consequences are meaningful to the recovery process of these patients.

**Caring**

Throughout the interviews subjects described being the recipient of the caring behaviours of their peers. The data also revealed how each of the subjects had behaved in caring ways toward others. This caring and its consequences are described in this section.

Caring attitudes were evident when the interviewees described their responses to the improving conditions of their peers. One person talked about his friends' return of function in the following way:

A couple days ago, he finally got the movement in his foot and could move his toes. So that was, you know, we were both really excited about it.

This subject was genuine in his happiness for his peer despite the fact that his own injury was a complete injury and there was little likelihood that he would regain any function.
Subjects also evidenced caring when they talked about how they supported each others' success. For instance, one patient described his interaction with a peer:

I encouraged him. I kept telling him, you'll get there, you'll get there. And then, well, he's doing it.

Another subject was specific about how a group of patients supported each other during a physiotherapy class in which they were learning to go up stairs in a wheelchair:

If one person couldn't make it totally, everyone's cheering them on and really helpful and as soon as they make it, then they're really happy for that person.

Nelson (1990) documents the positive effect of staff praise and encouragement on motivating SCI patients but, in contrast to this study, she does not discuss the impact of peer support on motivation.

The caring demonstrated by happiness for recovery and support of peer success resulted in a positive atmosphere for all. It follows that this type of atmosphere would make day to day life more bearable. In addition, subjects felt that caring for others reduced the emphasis on themselves and this was viewed as positive. One subject described how he oriented a new patient to the hospital, reassured the patient's family and encouraged his recovery. He viewed the outcomes of these behaviours in the following way:

That sort of gave me a little bit of a reason to, you know, to feel a little bit better about myself. Or to stop thinking about myself.

Subjects who described being happy for peer success and recovery extended their caring in the opposite direction when they talked about their concerns for those worse off than themselves. This strategy is related to the information gathering strategy of comparing to someone worse off and in this case caring behaviours are an extension of that strategy. The following
excerpt describes the behaviours of one subject toward a peer she viewed as being in a worse situation:

Everyone gives him a really bad time and so I likely go out of my way to be extra friendly to him. He touches me because I think he's very lonely and very unhappy. Today, I had one spare hour this afternoon. So I asked him, come on let's go outside and take the wheelchair path. Well, the look on his face was like, someone cared, someone bothered to ask him to do something.

The final strategy encompassed under the Caring category is what can be described as reciprocal caring. The context for this strategy is found in the subjects' descriptions of how much they appreciated the caring they received from family, health care staff and peers. One person simply said, "I needed people being nice to me."

Subjects described behaviours in which they gave and received caring from each other on a daily basis. One subject talked about how a group of patients was sitting together in the cafeteria and how he viewed the time devoted by peers to each other as valuable:

Everyone's asking questions, and the reason I brought it up, I think, everyone (the patients) around here is really generous with their time. Another subject recognized the mutual value of caring amongst peers when he said: "It feels good to just talk about things and help guys out." One subject was particularly descriptive when talking about caring behaviours between herself and a peer:

He's always nice to me. He always wheels in here two or three times a day just to say Hi. I appreciate it, you know, I like people too and they make me feel special too, so it's easy for me to return it because they do as much for me as I do for them. Just like, X, will wheel down here at night and say good night and whatever. Yeah, it's nice.

The caring behaviours described in this section have common consequences. As mentioned previously, the atmosphere created by a caring environment inevitably leads to positive outcomes and makes living day to day easier. This consequence of caring was recognized by the subjects in several
ways. For instance, moving one's focus from inward to outward was seen as a very positive outcome of caring for others; subjects seemed happy to have opportunities to act selflessly. Encompassed in this, was the fact that the subjects enjoyed the chance to help others. From my perspective as the researcher, it seemed that the caring behaviours also influenced the long term consequence of creating a new sense of self as they were another way in which patients shared meaning.

The sub-categories of Information Sharing and Gathering and Caring have been described. The strategies of Information Sharing and Gathering and Caring reflected major ways in which participating in peer relationships made a direct contribution to personal coping in the early recovery from SCI. In particular, it seemed apparent that these strategies provided patients with immediate support in a number of ways: gaining perspective on their circumstances, learning practical information about coping with their condition, orientation to the rehabilitation facility, and diverting their focus away from their injury. In addition, although the accounts were less explicit in this area, it seemed quite probable that these relationships were also significant in contributing to long term adaptation. Specifically, they helped patients to develop a new self image that incorporated SCI, and assisted the patients to feel helpful, hopeful and supported by individuals other than those in an existing support network. The next section elaborates on the meaning of the research results.

Interpretation of the Findings

The findings described in this chapter indicated that SCI patients perceived their relationships with their peers as meaningful to their recovery process. The following section briefly synthesizes the aspects of the study which I think hold the most significance.
I found it meaningful that peer relationships were perceived as developing only in the rehabilitation setting since my observations as a staff nurse had led me to believe that peer relationships were formed in the acute care setting. With knowledge of the current study's results it is possible to hypothesize reasons for this finding. For instance, the subjects talked about being "out of it" and the components of this state included receiving analgesia, being in a state of shock and maintaining bedrest. It is understandable that interaction with peers at this stage would be physically difficult and hold little meaning as the individual began the initial stages of coming to terms with the reality of a SCI. Knowing the consequences of peer interaction in the rehabilitative stages of recovery it is conceivable that peer relationships may not assist in the acute stage of recovery. It is also possible that peer relationships that developed in acute care were discounted or de-emphasized by the patient after spending time in the rehabilitation setting.

The results of this study strongly emphasized the significance of maturational stage on the formation and function of peer relationships. This supports all of the current literature about this topic (Bowers et al., 1987; Friedman-Campbell & Hart, 1984; Richmond, 1990). As well, my interpretation of the data resulted in a description of the subjects' differentiation between peer friendships and acquaintances. Subjects clearly described how common age and gender were prerequisites for forming friendships. Even more important to friendship formation were common pre-injury interests; none of the subjects had formed friendships based only on the fact that they had SCI in common. This was an important finding because it has not been documented elsewhere and it has implications for adolescent and young adult patients. Knowing that a majority of SCI patients are adolescents and young adults and that peer relationships positively influence recovery from SCI, it would follow
that promoting friendships among the younger SCI population would serve dual purposes. It would meet the developmental needs of the patients as well as contribute to psychosocial adaptation to the injury.

Another important finding of the study was contained within the data regarding conditions for making acquaintances. The common experience of sustaining a SCI was only one of these precursors; a second was the sociable atmosphere at GF Strong. Other authors (Nelson, 1990; Rutledge & Dick, 1983) mention socialization but no other study reveals the specific aspects of daily life which contribute to a sociable atmosphere. This study found that patients spend time together in formal group rehabilitation sessions and when they have free time. Some of the subjects provided examples of where and when they interact with peers as well as in which types of activities they engage. Given that peer interaction has positive consequences, knowledge of how to promote it is vital.

The findings in this research regarding personal coping strategies hold importance for general knowledge regarding recovery from SCI. Although these findings were not directly related to the peer focus of this study, knowing that SCI patients use a positive outlook, maintain hope and live one day at a time is helpful for understanding their behaviour and assisting them to cope with their circumstances. The positive outlook of these patients may come as a surprise to able-bodied health care workers who try to imagine how they would feel in similar circumstances. The positive attitudes of the patients must be acknowledged and supported by health care workers and the patient's support network. Similarly, if hope and a day by day approach assist the patient in their adaptation they should be encouraged.

The most important findings of this study relate to the meaning that the peer relationships have for the patients in terms of recovery from SCI. The
analysis showed that there are conditions under which the relationships form and there are consequences of those relationships. I categorized the consequences as Information Sharing and Gathering, and Caring. The subjects identified the strategies used within the peer relationships and sometimes they recognized the outcomes of these interactions. For instance, patients recognized that they learned ways to cope with practicalities from each other and that they assisted in orienting others when they first arrived at the rehabilitation hospital.

Analysis of the data enabled me to interpret some of the consequences of peer socialization. I viewed the benefits of interaction as having meaning on two levels, which is consistent with a symbolic interactionist perspective (Chenitz & Swanson, 1986). The first level is behavioural and in this study the behavioural consequence of peer interaction was assistance in day to day coping. Subjects described many of these consequences from their perspective and they included things like comparing abilities, discussing future plans, encouraging peer success and discussing experiences since the injury. Certainly, these outcomes assisted the patients in their recovery process.

The second level of benefits is symbolic and my interpretations led me to believe that the subjects were sharing meaning which influenced the development of a new sense of self. I believe that this process was contributing to the patients' recovery. These interpretations were based on the interview data but were not specifically articulated by the subjects. There are several probable explanations for the discrepancy between my interpretation of the data and the subjects' lack of insight into the meanings of their peer interactions. Most important, is the fact that all of the subjects are very present focused, and this is exemplified by their recognition that
peer interactions do assist them to cope day by day. As well, little is known about the long term trajectory of psychosocial adaptation to SCI. It is possible that psychosocial adaptation requires many years of living with the injury.

Summary

This chapter described the results of data analysis. Interpretation of the results was interwoven with relevant literature to place this study in the context of current research and theory. A summary interpretation synthesized several key aspects of the analysis. In Chapter Five the study will be summarized and conclusions and implications will be discussed.
CHAPTER FIVE
Summary, Conclusions and Implications for Nursing

Summary

The importance of understanding the psychosocial adaptation to SCI is well documented. From a symbolic interactionist perspective peer interaction is relevant because it is through socialization that meaning is shared, allowing one to develop a sense of self (Chenitz & Swanson, 1986). Despite this, very little is known about the relationships that develop among persons with SCI. The purpose of this study was to reveal the perceptions of SCI patients of the relationships formed with their peers during the acute stage.

Due to the paucity of literature about psychosocial adaptation, the grounded theory method of research was chosen. Symbolic interactionism provided the theoretical framework for the study and it is also the theoretical orientation for the grounded theory method. Seven subjects were interviewed and the transcripts were analyzed using the methods described by Corbin (1986) and Strauss and Corbin (1990). Through analysis, it became apparent that the sample subjects provided a context through which the remainder of the data should be viewed. Analysis enabled me to write a description of the meaning of peer relationships to these SCI patients. Two categories of data comprised this description. The first category encompassed the data which explained the conditions under which peer relationships developed and was called, Conditions for Peer Relationships. The second category, named Consequences of Peer Relationships, described the ways in which the SCI patients interacted and the results of those interactions.

Central to understanding the meaning of peer relationships were findings regarding the context provided by the sample subjects. These findings were that subjects did not develop significant peer relationships in
acute care, rather, they formed these relationships only in the rehabilitation setting during early recovery. It was also found that the SCI patients developed relationships with staff while in acute care. As well, the data showed that the development of peer relationships was strongly influenced by the developmental stage of each participant.

As data analysis revealed the subjects' perceptions of the meaning of peer relationships it became evident that the subjects were gaining positive results from their peer relationships. These outcomes were, in general terms, assistance in day to day coping and assistance in achieving a new sense of self.

The category, Conditions for Peer Relationships, described the variety of causal conditions which led to the development of peer relationships. Subjects differentiated SCI peer friends from acquaintances and they elucidated a variety of factors which affected the extent of their relationships. Although friends and acquaintances were clearly distinguished by the subjects, it was apparent that day to day coping strategies were undertaken with both groups. The data showed that conditions for developing peer acquaintances were the common experience of having sustained a SCI and the social atmosphere at the rehabilitation institution. Socialization encompassed passing time with peers in organized sessions and at informal times. Integral to much of the time that the SCI peers spent together was their use of humour.

The Consequences of Peer Relationships fell into two categories. The first was Information Sharing and Gathering. This category encompassed activities in which the subjects discussed their injuries, including their experiences since the injury and practicalities in dealing with their disability. They also compared their situation to others, oriented newcomers and discussed future plans.
The second category of consequences was named Caring as there were a number of activities described by the subjects which indicated they were caring for each other. These behaviours included encouraging and supporting peer success, demonstrating concern for others who were worse off and spending time interacting in a positive way.

Analysis of SCI peer relationships revealed that the subjects viewed these relationships as meaningful to their recovery process. The subjects identified tangible outcomes of their relationships such as learning practicalities, orientation to the institution and reciprocal caring which assisted them in coping from day to day. Further interpretation of the data revealed that peer relationships also contributed to the development of the new sense of self that the subjects were forming which incorporated their SCI.

Conclusions

The meaning of peer relationships to the SCI subjects was viewed within the context of the rehabilitation setting and considering the developmental stage of the subjects. The data indicated that there were a variety of causal conditions under which peer friendships and acquaintances developed. It was apparent that as peers interacted on a daily basis they were able to cope with their situation by learning from each other and caring for each other. These strategies resulted in benefits on two levels. First, the subjects developed a variety of ways to deal with their day to day situation. Second, through their socialization with peers, the subjects began to develop a new sense of self which incorporated their SCI. A symbolic interactionist perspective fits with these findings as it indicates that interaction with people provides situational meaning which results in action and subsequent consequences (Chenitz & Swanson, 1986). Specific conclusions that arose from analysis and interpretation of the data from this study are as follows:
1. The development of peer relationships among SCI patients seems profoundly influenced by an individual's maturational stage. Those subjects in later maturational stages had broadly based pre-injury support networks and were less likely to develop strong peer relationships. Conversely, those subjects in the adolescent and young adult maturational stages developed strong associations with peers.

2. Peer relationships do not develop significantly during the acute post-injury phase as the ability and desire to interact is limited. Relationships that develop with staff during this time seem to hold significance for the SCI patient.

3. Similar personal coping strategies are used by SCI patients to deal with their individual situations. These include sustaining a positive outlook, living one day at a time and maintaining hope.

4. Friendships are formed among those SCI patients who are in the adolescent and young adult maturational stages. The formation of these friendships with peers is dependent on common age, gender, personality traits and pre-injury interests.

5. SCI patients make numerous acquaintances amongst their SCI peers and this is facilitated by the shared experience of sustaining a SCI and the sociable atmosphere in the rehabilitation institution.

6. The sociable atmosphere of the rehabilitation institution results in SCI patients spending much time together in formal and informal settings. Humour is integral to much of the peer interaction amongst the SCI. The interactions of the SCI patients seem to fall into two general categories which are gathering and sharing information, and caring for each other.

7. Peer relationships seem to be meaningful in the recovery of SCI patients. It is likely that peer socialization results in shared meaning. There
are two levels of consequences of a shared understanding among SCI patients. The first is the behavioural consequence of assistance in coping day by day. The second consequence is symbolic and this is the effect of shared meaning on developing a new sense of self after SCI.

**Nursing Implications**

There is little known about SCI patient perceptions of their relationships with their peers. This research indicates that peer relationships among SCI patients are meaningful and assist SCI patients to live day by day and contribute to the development of a new sense of self. The conclusions of this study have implications for nursing practice, education and research.

**Implications for Nursing Practice**

Knowledge that peer interaction among SCI patients is beneficial to psychosocial adaptation means that nurses caring for these patients in the rehabilitation setting should foster socialization amongst the patients. There are a number of ways that nurses can encourage peer socialization. First, common areas in rehabilitation facilities should be used as much as possible so that they are viewed by patients as welcoming and appealing places to congregate. Nurses should foster a social atmosphere among the patients by providing opportunities for informal interaction and by encouraging patient participation in recreational activities. Recreational activities that appeal to the patient population, such as movie rentals, are times when patients can meet in a relaxed social atmosphere.

Supportive and encouraging behaviour among the patients is beneficial to peer interaction and the study results indicated that patients recognized a positive atmosphere in the institution. Nursing and other rehabilitation staff can promote this atmosphere amongst SCI patients by role modeling support and encouragement of patients during formal sessions as well as during
informal contact. The use of humour also contributes to a sense of shared meaning and camaraderie among SCI patients. Patient humour should be supported by nursing staff even when, from the nurse's perspective, it may seem inappropriate.

Knowing the Consequences of Peer Relationships, nurses can assess the outcomes of peer interaction. As indicated by the study's results, strategies used by the SCI patients are sharing and gathering information, and caring for each other. Successful socialization can be assessed by observation and questioning patients about the consequences of these peer interactions in terms of assistance in day to day coping. As well, nurses should attempt to determine whether individual patients are developing an understanding of the shared group meaning and if they are developing a new sense of self.

In recognition of the importance of peer interaction among SCI patients, rehabilitation institutions should incorporate socialization into assessment and care planning forms. This formalization of the relevance of patient socialization would reinforce its integration into nursing care. As well, unit philosophies should emphasize the values and beliefs that the staff hold about the importance of peer interaction. Evaluative information should be gathered by rehabilitation institutions about the presence and success of formal and informal peer interaction.

The SCI population is unique in that the majority of patients are adolescents or young adults. Nurses know that one of the developmental tasks of adolescence is the establishment of identity and that, in young adulthood, people are challenged to create lifelong meaningful relationships (Edelman & Mandle, 1990). Results of this study indicate that friendships do develop among SCI peers under certain circumstances. Given these facts, it is vital that nurses caring for adolescent and young adult SCI patients incorporate strategies to
promote peer interaction to further the development of friendships. To foster close associations, nurses should make room assignments based on common age, gender and, where possible, personality traits and pre-injury interests. Staff should also make efforts to introduce patients to each other and foster their interaction during formal rehabilitation sessions.

When caring for SCI patients in middle and later adulthood the nurse must assess the availability of an existing support network. Those who provide social support to the SCI patient should be incorporated into the plan of care. Interaction with peers should also be promoted with this age group as all SCI patients benefit from sharing meaning with their peers, however, close friendships may not be formed.

This study indicates that all SCI patients transferring from acute care will benefit from socialization with peers in the rehabilitation setting as peer orientation is one way that patients share information. Informal orientation among patients can be fostered by nurses making appropriate room assignments as indicated above and by helping newcomers to meet other patients during rehabilitation sessions and during recreational time. As well, peer orientation could be facilitated by setting up a buddy system which pairs an established rehabilitation patient with one who has recently arrived.

Nurses should be aware that SCI patients commonly use the coping methods of sustaining a positive outlook, living one day at a time and maintaining hope. As nurses assess SCI individuals it is important that they consider the existence and effectiveness of these coping strategies. They should foster their use amongst SCI patients as this study has indicated they are helpful in assisting SCI patients to cope with their situation.

A final implication from this study applies to the acute care of SCI patients. Nurses need to recognize the impact they have on SCI patients in the
acute care setting, as patients are vulnerable and desirous of caring
behaviours during this time. Through meaningful caring, nurses can provide
the SCI patient with psychosocial support. Because SCI patients do not develop
peer acquaintances in acute care it is particularly important for nurses to
determine and use the patient's existing support network.

Implications for Nursing Education

Many of the findings of this study are specific to the rehabilitation
nursing of SCI patients. For instance, viewing the Meaning of Peer
Relationships in terms of Conditions for Peer Relationships and Consequences
of Peer Relationships may be useful for inclusion into advanced levels of study
specific to the care of SCI patients. Viewing SCI peer relationships as
influencing day to day coping as well as the formation of a new sense of self
may help nurses ascertain the psychosocial adaptation of their patients. As
well, knowledge of the strategies used by SCI peers in their relationships may
provide some strategies for fostering psychosocial adaptation.

Several findings of this study emphasize the importance of nursing
skills which should be incorporated and emphasized in all basic nursing
programs. Nursing skill in assessing maturational stage was revealed as
highly relevant to the care of SCI patients. All nurses need comprehensive
knowledge about maturational stages and nurse educators should encourage its
inclusion into the nursing process.

The relevance of assessing social support is also highlighted by this
study. In these times of a Closer to Home philosophy, health care workers need
to explore and utilize patients' existing support systems. Basic programs
should educate nurses to assess for the existence of social support and
incorporate it into plans for care.
Finally, findings from this study emphasize the significance of caring behaviours to acute SCI patients. Caring behaviours need to be articulated and demonstrated by nurse educators. Nursing students should incorporate caring into their practice from the first moment they interact with a patient.

Implications for Nursing Research

This grounded theory study resulted in a description of the perceptions of SCI patients of their peer relationships in the rehabilitation setting. The outcomes of this study provide a basis for further research. Suggestions for future research are as follows:

1. While it is likely that this study's subjects are representative of the SCI population, this cannot be assumed. Further research, with a larger sample, will determine the applicability of this study's results to the general population of SCI persons.

2. There was little cultural diversity among the subjects in this study, therefore conclusions regarding the influence of culture could not be made. Given that the SCI population is culturally diverse it is necessary to study the impact of culture on peer relationships.

3. Paraplegic and quadriplegic injuries were represented in this study's sample. Because of their differing abilities it is likely that these two groups have different social experiences while in rehabilitation. It is important to differentiate the experiences of these two groups by studying them separately.

4. There were a wide range of ages amongst the study subjects. This fact resulted in significant conclusions about the importance of maturational stage to the development of peer relationships. In light of this information, studying the perceptions of the development of peer relationships among specific age groups would provide greater depth to the data obtained by this study.
5. Given the importance the subjects placed on the caring behaviours of nurses in acute care it is important to study what comprises these behaviours and compare them to those viewed as uncaring or not helpful.

6. The study finding that adolescent and young adult SCI patients developed significant friendships requires further exploration. The consequences of these friendships were not revealed in this research. Given the importance of peer relationships to people in these maturational stages, it would be worthwhile to further investigate the functions and outcomes of these friendships.

7. The perceptions of the development of peer relationships was studied with a present focus and most of the subjects had been in the rehabilitation setting for less than three months. Given that SCI is a lifelong disability it is vital to undertake longitudinal studies of the outcomes of peer relationships. Findings regarding the long-term psychosocial adaptation to SCI would be valuable to assisting SCI persons in the community.

8. Some of the situations and settings which fostered social interaction among SCI peers were revealed in this study. Based on these findings it would be useful to conduct a qualitative study to discover the best ways to encourage that interaction.

9. Serendipitous to the research question were findings about the personal coping strategies used by SCI patients. Descriptive studies regarding the importance of a positive outlook, living one day at a time, and maintaining hope are required. It may be that there are other common coping strategies used by SCI patients and these would be revealed in a descriptive study.

10. Peer orientation was one of the strategies used by the study subjects to align their behaviour. Research to elucidate the specific contents of this informal orientation is needed.
11. As well, a quantitative study of the outcomes of a formalized buddy system for orientation is required.

12. Now that the importance of peer interaction has been established, it is necessary to determine the best way to achieve that socialization. A study comparing the effectiveness of formalized peer support groups with no support groups would be appropriate for beginning the investigation.

In conclusion, this thesis has described the perceptions of spinal cord injured patients of their peer relationships. It was revealed that peer relationships are important for several reasons. First, they provide an opportunity for information sharing and gathering, as well, they result in caring behaviours amongst SCI peers. The consequences of these interactions are meaningful to recovery from SCI as they assist the individual to live from day to day and contribute to a shared meaning through which a new sense of self is developed. Knowing that patients perceive peer relationships as significant in assisting recovery, nurses must recognize and incorporate peer interaction into their nursing care of spinal cord injured patients.
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Appendix C

Interview Guide I

What was it like for you when you were on the spinal cord unit (after intensive care and before moving to G.F. Strong)?

How did it feel to be in a room with other people who had spinal cord injuries?

Tell me about your roommates on the spinal cord unit.

What kinds of relationships/friendships did you develop while you were on the spinal cord unit?

How would you say these relationships/friendships developed?

What was good/bad about the relationships you formed with other patients?

Can you tell me about one particular relationship with another patient that had a big influence on you?
Appendix D

Interview Guide II

How did you get to know other patients that are at GF Strong?
Tell me about how you interact with other patients on a day to day basis.
What kinds of activities do you do with other patients?
Can you tell me what kinds of things you talk about with other patients?