THE EFFECTS OF AN ATTRIBUTION BASED THERAPEUTIC
RECREATION PROGRAM ON THE PERCEIVED
FREEDOM IN LEISURE OF SPINAL
CORD INJURY PATIENTS

DISSERTATION

Presented to the Graduate Council of the
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By

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Forty spinal cord injury (SCI) patients were studied in order to determine the effects of an attribution based therapeutic recreation program on their perception of freedom in leisure. Perception of freedom in leisure of SCI patients was measured by a seventy-two item scale. This scale was translated into Spanish, adapted, revised, validated, and tested for reliability. The reliability of the Spanish Version of the scale was very similar to the English Version of the scale.

Twenty spinal cord injury patients (control group) were involved in a traditional program. Subsequently, inservice training based on attribution theory was given to the therapeutic recreation staff of the Veterans Administration Hospital. The next twenty admissions were then involved in a therapeutic recreation program based on these principles (experimental group). The main hypothesis of this study stated that controlling for pretest scores, there would be no difference between the control and experimental group in posttest scores of perceived freedom in leisure. This
hypothesis was rejected. It was thus concluded that a therapeutic recreation program based on attribution theory can increase the perception of freedom of spinal cord injury patients and could do so in this particular setting more effectively than a more traditional program.
ACKNOWLEDGMENTS

I would like to acknowledge and thank the individuals that contributed their time and efforts to the realization of this study. In order to compile all this information the assistance of Mr. Carlos Velez (Chief of Staff, Veterans Administration Hospital, Therapeutic Recreation Section) and Mr. Manuel Rivera (Veterans Administration Hospital, Therapeutic Recreation) was extremely valuable. Dr. Joseph Caroll and Mrs. Maritza Duran from the Social Science Computer Center of the University of Puerto Rico who patiently ran and ran . . ., the data of this investigation. Dr. Miguel Angel Rivera for his tolerance, comments, and time sharing allotments. Finally, a special thank you is given to all the Spinal Cord Injury patients of the Veterans Administration Hospital, and to everyone who directly or indirectly helped in this investigation.
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CHAPTER I

INTRODUCTION

In 1978, the National Spinal Cord Injury Model Systems Conference estimated that there were 150,000 persons with spinal injuries in the United States and that 7,000 to 10,000 new spinal cord injuries occur each year. This means that at the present time we may expect to find from 180,000 to 190,000 persons with this disability.

A spinal cord injury (SCI) is a low incidence disability that usually requires tremendous changes in a person's lifestyle (2, 18). After a SCI, the person will have to learn to adapt and see the world from a different perspective. For the individual with a SCI, it may seem like everything has changed. The environment, family, the meaning of work and leisure, self image, and many other factors of daily life are of particular importance. The individual is likely to undergo changes in the way he/she perceives his/her own abilities and possibilities. Because of the new limitations the individual is likely to perceive himself as helpless, with a concomittant perception of less freedom and control over his/her life.

Of particular importance to the current study is the effect that a SCI has on leisure. The most important
condition in perceiving leisure is the perception of freedom (10). This perception of freedom could be high if a person attributes the initiation of leisure behavior to self, or low if a person ascribes the source of behavior to external factors. This relationship has been looked at conceptually via the application of attribution theory to the understanding of leisure (10).

Attribution theory defines the process by which a person obtains information about an act and then makes inferences about the cause of the act (8). Attributional approaches are based on the assumption that people are motivated to seek meaning in their own behavior as well as in the world about them. Based on how one perceives a given situation the outcome can be attributed to one of several "causes." Individuals can attribute outcomes to self, someone else, or their environment. In other words, causes can be divided into internal causes and/or external causes.

The particular impact of SCI on perceived freedom depends on the type of lesion that the injury produces. Hermann and Stancil (7) stated that the effects of a SCI can be roughly divided into extrinsic (physiological) and intrinsic (psychological) lesions. Extrinsic lesions may produce symptoms that are temporary or permanent and can cause complete or incomplete impairment of motor and sensory function. The intrinsic lesions are psychological reactions
resulting from the SCI and can range from fear of not being able to cope with the environment to guilt feelings about the disability.

During the rehabilitation process it is important to consider the effects of these lesions on perceived freedom and assist the individual to cope and adjust with any "real" decrement in ability to function. Too often, however, attention is only paid to what is real. Perceptions of reality are also critical to adjustment.

The rehabilitation literature has stressed the role of a variety of professions in the rehabilitation of SCI patients. One of these fields, although given less mention, is therapeutic recreation (TR). TR is a specialized area of the recreation field that deals with the provision of recreation services for special types of populations. Frye and Peters (4) define TR as a process which utilizes recreation services for purposive intervention in some physical, emotional, and/or social behavior to bring about a desired change in the behavior and to promote the growth and development of the individual. Other authors like Avedon (1), Gunn and Peterson (5), Kraus (12) and O'Morrow (15) define TR in a similar way. In summary, they all characterize TR as a planned, purposeful intervention aimed at improving the individual's quality of life through the medium of recreation and leisure services. In addition, TR includes
the improvement of leisure functioning itself through such means as leisure education, activity adaptation or skill learning.

Since the second World War, TR has been increasingly recognized as a vital part of the overall rehabilitation process (6, 13, 16). TR programs are thought to assist the entire rehabilitation process by providing several kinds of benefits to the patient. Nesbitt (14) suggests that these benefits can be divided into those that are (1) compensatory (providing means of overcoming limitations and architectural and attitudinal barriers), (2) therapeutic (relief of physical pain and mental anguish), (3) educational and/or vocational (providing opportunities for learning new skills or relearning old ones), and (4) personal fulfillment (providing opportunities to obtain personal satisfaction). Helping patients to receive these benefits is thought to facilitate the success of the entire rehabilitation process.

Traditionally, the work that has been done in TR has dealt with the provision of activities, adapted games and sports, and the development of skills to increase participation and expand the leisure repertoire of the individual. Therapeutic recreation services for SCI patients has concentrated a great deal of attention on the social and locomotive area, but the effects of services on perceived freedom in leisure is unknown. To find out what are the
effects of TR on perceived freedom in leisure it is necessary to test the relevance of an attribution approach to TR services. Thus, this study will incorporate the conceptual basis of attribution theory into TR services. The application of attribution theory to TR has been discussed over the past decade (9, 10, 19), but the implementation of programs based on this theory still needs to be tested. Utilizing attribution theory, TR services will hopefully go beyond the simple provision of activities for the sake of the participation by concentrating on perception of freedom in leisure.

Statement of the Problem

The problem of this study was to determine the differential effects of a TR program based on an attributional (experimental) versus a traditional or regular (control) approach upon SCI patient's perception of freedom in leisure.

Purpose of the Study

The purpose of the study was to analyze the effects of a therapeutic recreation program conducted according to the principles of attribution theory on the perception of freedom in leisure of SCI patients. This information will be used to recommend potential approaches to serving the needs of SCI patients, and to better prepare them to make adjustments in their lifestyles.
Research Questions

The following questions were developed in order to guide this investigation:

1. Controlling for pretest scores, do significant differences exist between the control and experimental group in posttest scores of perceived freedom in leisure?

2. Do significant differences exist in the control group between pretest and posttest scores of perceived freedom in leisure?

3. Do significant differences exist in the experimental group between pretest and posttest scores of perceived freedom in leisure?

4. Do significant differences exist between the control and experimental group in pretest scores of perceived freedom in leisure?

Hypotheses

The following hypotheses were developed to guide the investigation:

1. Controlling for pretest scores, there will be no difference between the control and experimental group in posttest scores of perceived freedom in leisure. If this hypothesis is retained, then the following hypotheses will be tested.

2. There will be no difference in the control group between pretest and posttest scores of perceived freedom in leisure.
3. There will be no difference in the experimental group between pretest and posttest scores of perceived freedom in leisure.

4. There will be no difference between the control and experimental group in pretest scores of perceived freedom in leisure.

Basic Assumptions

This study was based on the assumption that subjects responded honestly to the instrument used to measure perceived freedom in leisure.

Delimitations

This investigation was delimited to a study of male SCI patients in one hospital in Puerto Rico that (1) had suffered the SCI at least two years before the study, and (2) could read and/or understand Spanish.

Definitions of Terms

The following terms had restricted meanings and were defined for this study.

1. Attribution.—The everyday process of interpreting social events, including perceptions of the characteristics of other persons and explanations of their behavior. The explanation of causes of behavior includes external (condition of the environment) and internal (nature of the person) factors (11).
2. **Helplessness**.--A psychological state that frequently results when events or behaviors are perceived as uncontrollable (17).

3. **Perceived freedom**.--The feelings of control over one's own behavior (3). This concept is composed of locus of control and intrinsic motivation (10).

4. **Spinal cord injury**.--An injury to the spinal cord, which results in trauma. This trauma will result in the individual being classified as a paraplegic or quadraplegic.

5. **Therapeutic recreation**.--A process which utilizes recreation service for purposive intervention in some physical, emotional, and/or social behavior to bring about a desired change in that behavior and to promote the growth and development of the individual (4).
CHAPTER BIBLIOGRAPHY


CHAPTER II

REVIEW OF LITERATURE

The purpose of this chapter is to review the literature concerning physical and psychological aspects of SCI's and TR services for SCI patients. The reviewed material is divided into the following sections:

1. Physical aspects of spinal cord injuries,
2. Psycho-social aspects of spinal cord injuries,
3. Role of therapeutic recreation as a part of the rehabilitation process, and
4. Attribution theory as a conceptual base for therapeutic recreation.

Physical Aspects of SCI

The spinal cord consists of a column of bones that are called vertebrae. The thirty-three vertebrae include seven cervical, twelve dorsal (also called thoracic), five lumbar, the sacrum, consisting of five segments, and the coccyx with four or five segments (10).

An injury to the spinal cord may produce symptoms that are temporary or permanent and impairment of function that may be complete or incomplete. Resulting motor and sensory functioning will vary depending on the level of injury. As
a result, the person becomes dependent to varying degrees on other people for the completion of daily life activities.

The physiological dysfunction produced by SCI requires a great amount of attention by medical personnel. Several authors like Bishop (1), Epstein (10), and Ince (17) have noted that the types of dysfunction that are most expected to appear are the following:

1. Loss of motor function—motor performance will decrease considerably in the area below the injury.

2. Sensory impairment—the sense of touch may decline. Usually the SCI patient will lose all sensation below the level of the affected area.

3. Ulcerations—this is directly related to sensory impairment because the individual will not feel when the body is making contact with hard or uncomfortable objects.

4. Loss of bladder and bowel control.

5. Kidney damage.

6. Considerable decrease in sexual functions.

7. Muscle spasms.

8. Temperature regulation—the body temperature will not adjust to environmental changes.

These dysfunctions not only effect the physical functioning of the patient, but they also influence the intrinsic lesions of the individual. After a SCI the patient will have to deal with a series of circumstances that before the injury were assumed to be under his/her control.
Social Psychological Aspects of SCI

An injury to the spinal cord usually has implications beyond those of a purely physical nature. Einsenberg and Gilbert (9), Freeshafeer (11), Cook (5), Siller (37), and Wiley (43), for example, emphasize the social-psychological implications of a SCI. The shock of disability onset can produce discomfort that will be reflected in the patient's behavior. In addition, extreme initial dependence threatens perceived freedom. Adjustments will be necessary in order to cope with a future life style that has not been freely chosen by the individual. The perception of being in control of one's life and environment is diminished.

One factor that has been widely discussed is the depression reactions which the SCI patient goes through. Cosgwell (3) states that depression is thought to result from the anxiety caused by changing roles. Sakinofsky (33) states that depression sometimes appears only weeks after the trauma, and may last as long as two years. The patient "grieves" for his past and future life and shows sorrow for the sudden unimaginable gulf between them. Weller and Miller (41) regard depression as essential to the "work of mourning" and the prelude to eventual acceptance and adjustment.

Heron (15) and McDaniel (25) in separate investigations observed the depressive stage that SCI patients go through during the period of adjustment. They suggested that it
may be a result of cognitive deprivation, sensory and social isolation, and restricted mobility, instead of psychological adaptation.

Some authors like Davis (6) and Schontz (34), divide the SCI patient's reactions into stages. The first stage, shock, can be described as a depersonalized emergency reaction marked by feelings of detachment. The second stage, impact, is observable behaviorally when the individual panics; disorganization and helplessness that might have been expected to surface during shock manifest themselves during this stage. The next stage typically observed is a type of avoidance referred to as retreat. One extreme form of retreat is complete denial by refusing to admit the existence of implications. The final stage, adaptation, can be the longest in duration. During this stage, the individual begins to accept the existence of the injury and will start interacting with the staff and other patients.

Siller (37) noted that SCI patients experienced multiple reactions as a result of injury. Those reactions included the following: (1) altered reality, (2) depression, (3) dependency, (4) feeling of helplessness, (5) generalized frustration, (6) embarrassment, and (7) uncertainty. These reactions occur to varying degrees for each SCI patient and should be taken into consideration when planning the rehabilitation program.
Kalb (21) studied the relationship between noncooperative and depressive behavior during hospitalization. He found that subjects with lower socioeconomic status had greater depression than the rest of the group.

Other indicators in Kalb's study were school and employment status in which more noncooperation was associated with poorer performance. It is important to note that Nickerson (28) found that adjustment to paraplegia was significantly related to education and occupation. In addition, she found that these factors also correlated with the socioeconomic level and that financial resources were important to the adjustment of SCI patients.

Wilcox and Stauffer (42) noted that older injured persons seemed to be the least affected by vocational and social rehabilitation efforts. All of these factors need to be studied and be considered in the rehabilitation of SCI patients. Therapeutic recreators must also be aware of these findings in order to deliver effective services.

Role of TR as a Part of the Rehabilitation Process

Therapeutic recreation has been claimed to be an effective means by which individuals with disabilities can overcome self-consciousness and develop self-confidence and skills (30). Recreation is also seen as a vehicle of integration (12, 16) if it is used properly.
Meyer (26) has analyzed the statement of purpose for TR proposed by a variety of authors. He found that these statements had a great degree of interrelationship. Four of these statements are as follows:

1. To eliminate significant barriers to leisure fulfillment and to facilitate leisure development and expression (for particular groups of consumers) (4).

2. To enable (a particular group of recipients) to meet the basic needs for recreative experience (13, 3).

3. To bring about behavioral change in (a particular group member) and to assist the member to move toward achieving the fullest recreative experience possible (31).

4. To enable (particular grouping of persons) to gain leisure skills and/or to exercise recreative abilities in order to enable or encourage recreative experiences (32).

These four purposes are directed toward the leisure involvement of the disabled individual and help define the role of TR in the provision of services.

TR services have been reported to be one determining factor in the success of SCI patients' rehabilitation process. However, this conclusion has been substantiated mainly by clinical and field experience or beliefs rather than by controlled analysis.

For example, Nesbitt (27) states that one of the basic explanations of why it is important to provide recreation
was given by Dr. Frank Krussen when he said, "We have put years into life; now, we must put life into years." For many years the goal of medical treatment was to keep patients alive; now, the issue has changed. It is necessary to provide services that will also increase the quality of life.

In addition it is thought that SCI patients must learn new types of recreation and leisure activities (38). Udin and Keith (39) believe that the objective of rehabilitation is to encourage the SCI patient to live a lifestyle that is as normal as possible, stating that recreation is one of the predominant areas in which this is possible.

Guttmann (12) has recognized the importance of recreation for SCI patients. He believes that involvement can improve self-confidence and become an avenue through which the person can re-enter community life. He concludes that participation in recreation and sport activities by paraplegics and quadriplegics can have permanent and stabilizing effects on rehabilitation results.

Following the same trend, Labanowich (23) recommends that it is important to provide leisure activities for the SCI person, with little (if any) adaptations. The leisure experience should be as close as possible to how the activity is participated in by "normal" people.

The integration of disabled individuals through TR has been a concern of many authors in the recreation field. Hutchison and Lord (16) focus their discussion toward the
provision of leisure services for disabled people in community settings. They state that the leisure experience in institutions should have the primary function of upgrading abilities and skills. Institutions need to focus on educating the patient about the leisure opportunities available in the institution and in the community.

The beliefs and experiences of practitioners in a variety of settings have led to the development of a theoretic base which has been reflected in a model depicting levels of service. The model (see Appendix B) helps illustrate the types of services that need to be delivered at each patient's level of functioning. At the beginning of the treatment the provider (TR specialist) will have a great amount of control over the procedures utilized and the way the patient interacts with these services. Over time the provider will help lead the patient across the continuum with resulting changes from provider to patient control.

As the patient moves along the continuum he/she should experience the following changes in involvements:

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<tr>
<td>Extrinsically motivated</td>
<td>Intrinsically motivated</td>
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<td>Control by provider</td>
<td>Control by patient</td>
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<tr>
<td>Dependence</td>
<td>Independence</td>
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<tr>
<td>Low level of functioning</td>
<td>High level of functioning</td>
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<td>and skills</td>
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<td>Low level of competence</td>
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In total, the main objective of TR services are to increase the patient's perception of control and mastery over the environment and to prevent him/her from inferring helplessness (20) due to their SCI.

Attribution Theory as a Conceptual Basis For Therapeutic Recreation

In order to fully appreciate this view of TR's mission, it is necessary to understand the basic elements of attribution theory. Attribution theory has gained strong theoretic and methodologic attention over the past several decades. Heider has been credited with the initial conceptualization in the early 1920's. The first attempt to discuss the issue was in 1926 with the presentation of his paper "Thing and Medium" (14). The "medium" is that which allows us to get information about things. Later the label "attribution" theory appeared and became a major area of study among psychologists. Kelly (36) "defined attribution as the process of perceiving the dispositional properties of entities in the environment."

Attribution theory defines the process by which a person obtains information about an act and then makes inferences about the cause of the act (18). Attributional approaches seem to assume that people are motivated to seek meaning in their own behavior as well as in the world about them. Based on how one perceives a given situation the outcome can be attributed to one of several "causes." Individuals
can attribute outcomes to self, someone else, or their environment. In other words, causes can be divided into internal causes and/or external causes.

In the social-psychology literature, evidence has started to accumulate which indicates that the subjective sense of freedom has important consequences. People frequently make inquiries and attributions about their state of freedom in various social situations, and their feelings about freedom often represent a matter of considerable importance to them. In his essay on attributional theory, Kelly (22) used Brehm and Cohen's definition of freedom as the feeling of control over one's own behavior, and compiled from their analysis a series of general conditions necessary for a high perception of subjective freedom. Examples of these conditions include:

1. When the constraints against a person's leaving a situation (of neutral or negative attractiveness) are low, and the person stays in the situation.

2. When the strength of illegitimate forces (to comply) is high, and the person complies.

In Kelly's analysis, these conditions are explicitly related to self-attribution. Kelly hypothesized that the individual "feels" more freedom when he deliberates longer and/or experiences high uncertainty and conflict in making a choice. As Lefcourt (24) noted, "the sense of control,
the illusion that one can exercise personal choice, has a
definite and positive role in sustaining life."

Individuals form attributions in order to explain
outcomes. These outcomes may be explained by four cognitive
elements. These elements include whether the outcome of an
event is due to one's (1) ability, or (2) effort, as well
as (3) the difficulty of the task, or (4) luck, chance or
fate (29). Weiner (40) developed a two dimensional repre-
sentation of casual attribution which in turn has been
adapted to leisure type situations by Niles, Ellis, and
Witt (29). See Figure 1.

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<td>Physical Capabilities</td>
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<td>Fate</td>
<td>Barriers</td>
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<tr>
<td>Luck</td>
<td>Task Difficulty</td>
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<td>Chance</td>
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Fig. 1--The two dimensions of attribution in leisure
situations.

The individual will recollect information and interpret
it from other results of the act and will attribute outcomes
to internal and/or external controls. The danger of making
attributions in leisure activities is that the individual
could generalize the leisure act to his entire life, thus, developing feelings of incompetence and helplessness if the leisure experience is negative.

Recent literature on attribution theory (20, 44) has indicated that there are several identifiable conditions which are present when an individual has achieved leisure. The most important of these conditions is the perception of freedom. An individual's perceived sense of freedom appears to be a critical regulator of the leisure experience. Iso-Ahola (19) noted that the perception of freedom is the result of an individual's perceived sense of control, perceived competence, and degree of intrinsic motivation. Deci (7) suggests that personal control and competence are internal needs that are intrinsically motivated. If this is so, the perception of freedom is the result of perceived control and perceived competence. Therefore, collectively, perceived competence, perceived control, and intrinsic motivation form the concept of perceived freedom. Attribution theory plays a critical role in the development of TR service because it implies a conceptual basis for overcoming helplessness and improving overall functioning. The helplessness theory proposed by Seligman (35) states that "helplessness is the psychological state that results when events and behavior are uncontrollable." Behavior is uncontrollable when something happens, regardless of a
person's attempts to stop it; in other words, the person's actions are perceived as making no difference. According to Seligman (35) the major consequences of experience with uncontrollable events are (1) motivational—there is a reduced motivation to initiate voluntary responses that control other events; (2) cognitive—when a person has had the experience of uncontrollability, he has trouble learning that the new response has succeeded when it actually did—there is a distortion of the perception of control; and (3) emotional—initially there is a heightened state of emotionality (fear) which, with further experience with uncontrollability changes to depression. Once a person has inferred helplessness, motivation is drastically reduced, consequently, the individual is likely to give up or become passive.

Learned helplessness implies a drastic loss in one's perceived freedom (2, 45). An example of this would be the once "healthy" individual who is left paralyzed as a result of an automobile accident. It is clear that many of the activities of life that were once readily available for such a person are now totally beyond his/her reach. It is assumed that the person's perceived freedom will be extremely low if compared with what it might have been prior to the accident. Brehm (2) noted that this loss of perceived freedom often generates strong "psychological reactance" and a need to regain the lost freedom.
The above concepts pertain to the situation that the therapeutic recreation specialist is exposed to when dealing with SCI patients. Therapists need to assist the patient in coping with the inferences of generalized helplessness, thereby helping the patient to perceive himself as competent and in greater control. Thus, the sense of perceived freedom will increase.

Dinardo (8) studied 26 persons with SCI in terms of their locus of control and tendency to be a repressor of a sensitivity in emotional situations. He found that the individuals with internal control had a higher self-concept than patients with external control.

At the present time, the theoretic application of attribution theory to the clinical practice of therapeutic recreation has not reached a high state of development, nor has its full impact been felt within the rehabilitation field. Unfortunately, little has been written about TR as a means of increasing personal perceptions of freedom. Most TR literature focuses on providing diversionary activities or activity skill training, outside of any consistent rehabilitation philosophy. It must be understood that the application of the attribution theory to TR practices is a relatively new approach. More research in relation to this area is needed in order to add and discover new methods and principals for preventing inferences of generalized helplessness and increasing perceived freedom.
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CHAPTER III  

METHODS AND PROCEDURES

The purpose of this study was to evaluate the differential effects of a traditional and an attribution theory based TR program on the perceived freedom of SCI patients in a VA hospital. This section will discuss the methodology and procedures involved in the study. The discussion will include a description of the subjects utilized in the study, the research design of the study, the description of the implemented TR program, the development and validation of the instruments, the collection of the data and the procedures for data analysis.

Subjects in the Study

The subjects of this study were drawn from the SCI patients of the Veterans Administration Hospital of Puerto Rico that were designated on admission to receive TR services. A total of forty-three consecutive admissions were considered for this study. Three SCI patients died due to causes that were non-related to the investigation. Thus, forty subjects actually comprised the subject pool. These SCI patients were either classified as paraplegics (28 cases) or quadraplegics (12 cases). Some of them needed assistance in filling out the PFL Scale.
The first twenty cases admitted after September 1, 1982 made up the control group. After the last of these individuals had been discharged from the VAH (January, 1983) the next twenty cases admitted to the hospital made up the experimental group. The first patient for the experimental group was admitted in February, 1983 and the last discharged in July, 1983. Each patient was tested when admitted and discharged. Testing did not occur for all the patients at the same time or place. Instead, each patient was tested as he entered and left the program.

For example,

<table>
<thead>
<tr>
<th>Patient #</th>
<th>Pretest Date</th>
<th>Posttest Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>September 1, 1982</td>
<td>October 7, 1982</td>
</tr>
<tr>
<td>2</td>
<td>September 12, 1982</td>
<td>October 23, 1982</td>
</tr>
<tr>
<td>3</td>
<td>September 14, 1982</td>
<td>November 30, 1982</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>May 7, 1983</td>
<td>July 21, 1983</td>
</tr>
</tbody>
</table>

The SCI section of the VAH has the capacity to accommodate twenty SCI patients in the hospital at the same time. These patients were normally in the hospital for a period that ranges between six to twelve weeks, with a mean length of stay of nine weeks. All the participants of the study were volunteers (see consent form in Appendix D).

Design of the Study

The design used in this study was a pretest-posttest control group design. The experimental design was adapted
(a) to account for the available number of SCI patients who were in the VAH at any one time, (b) to avoid interaction between subjects exposed to the experimental and control conditions, (c) to avoid contamination of the results by the therapist, and (d) to facilitate inservice training for the TR staff between the end of the control and the beginning of the experimental conditions.

The design was as follows:

Control Group: Inservice Training: Experimental Group

\[ O_1 \times_1 O_2 \quad O_5 \times_3 O_6 \quad O_3 \times_2 O_4 \]

- \( O_1 \) designates the pretest for the control group.
- \( O_2 \) designates the posttest for the control group.
- \( O_3 \) designates the pretest for the experimental group.
- \( O_4 \) designates the posttest for the experimental group.
- \( O_5 \) designates the pretest for the inservice training.
- \( O_6 \) designates the posttest for the inservice training.
- \( \times_1 \) designates the treatment for the control group.
- \( \times_2 \) designates the treatment for the experimental group.
- \( \times_3 \) designates the inservice training for the TR staff.

Fig. 2—Research Design

Description of the Program

There were two different TR programs presented during the study period. The first was the "regular TR program" which was presented during the control phase of the study. The "Attribution Based TR Program" was presented after the staff training phase of the study.
Regular TR Program (Control)

During this program phase, TR services for SCI patients were provided by the TR staff. The regular TR program generally offered by the hospital was left in place. This program consisted primarily of a wheelchair sports program. This program's format had been in existence for about seven years.

Each patient was informed of the availability of recreational activities at the VAH. The TR specialist helped the patients with the acquisition of skills and while practicing offered activities. This program required the patients to participate in activities which were prescribed to them (i.e., attend the swimming pool, wheelchair basketball practice, etc.). The patients were verbally encouraged to participate in recreational activities. These activities were led mainly by the therapist, but in some instances other SCI patients led the activities.

The SCI patients that participated in this program were involved in different wheelchair sports activities such as basketball, track and field, marathon, weightlifting, and swimming. The wheelchair sports SCI athletes have a training program which provides them with transportation or travel money to assist in getting them to practice sessions which are held three (3) times a week.

The staff that delivers TR services to the SCI patients counted on the assistance of the other wheelchair sports
athletes during team practices and skill development sessions. The wheelchair sports program was expected to cause some effect on the perception of freedom in leisure, due to the amount of time that is spent in participation and the peer pressure that exists to participate in the program.

The SCI patients also had an aquatics program which took place in the hospital. This program took place on Tuesday and Thursday evenings. These activities were programmed specifically for SCI patients. Some other activities which are available at the VAH include volleyball, basketball, physical fitness, picnics, cookouts, music, and art. A summary of the other TR services available at the VAH is included in Appendix C.

Inservice Training Program (ITP)

An ITP was conducted by the researcher for the seven TR staff members at the VAH. Inservice training was given over a period of six weeks and consisted of a total of fifteen contact hours of meetings. The main objective of the ITP was to teach the basic constructs of attribution theory and their implications for TR.

The inservice training for the staff of the VAH consisted of the following:

A. Attribution theory and TR,

B. Goals of leisure education,
C. Methods of leadership and programming based on attribution theory, and

D. Planning and implementation of the new (experimental) TR program.

The inservice training program content was selected in accordance with the position statement of the National Therapeutic Recreation Society (5), Ball and Cipriano's (2) suggestions on leisure education, and Mundy and Odum's (6) comments on leisure education programs. All these references were consulted to design the inservice training program curriculum.

The ITP curriculum objectives are included in Appendix H. A brief description of each section of the inservice training is included below.

Section A: Attribution theory and TR

This section introduced the concept of attribution theory and how it relates to the provision of TR services. The topics discussed were as follows:

1. Attribution theory
2. Compton-Witt Service Model for TR
3. Implications of attribution theory for TR

Section B: Goals of leisure education

This section introduced the concept and goals of leisure education.

1. What is leisure education?
2. Goals of leisure education
3. Method for developing leisure skills
4. Identification of facilities and equipment for leisure pursuits.

Section C: Methods of leadership based on attribution theory

Leadership techniques were discussed in reference to an attributional TR program. Instruments were introduced and discussed that could help assess SCI patients. The topics discussed in this section were as follows:

1. Methods of attributional leadership
2. Assessment instruments
   a. Perceived freedom in leisure scale (see Appendix A)
   b. Other resources: Avedon's Interaction Patterns (1)
   c. Activity Analysis Worksheet (4)
   d. Activity Analysis Rating Form (4)

Section D: Planning and implementation of the new TR program

The Leisure Diagnostic Battery (LDB) remediation process was analyzed step by step in this section and its usefulness as a treatment modality was discussed. A model attributional TR program was planned. The topics discussed in this section were as follows:
1. The LDB remediation process
2. Means of implementing an attributional TR program
3. Attributional planning of the TR program

Pretest and Posttest for the Inservice Training Program

All participants in the ITP were given a pretest and posttest (see Appendix E) to assess the impact of the program. The test was a fifteen (15) item true or false format test that had fifteen (15) points as the highest possible score. This test consisted of statements related to attribution theory, leisure, and TR that were related to material included in the ITP. The ITP test was developed by the researcher and was employed as a tool to evaluate the knowledge gain due to the ITP. This test was not the central point of the study or the ITP. The pretest was given at the beginning of the ITP. The researcher used the results to help guide the ITP toward problem areas for the participants. The test was taken again at the end of the ITP.

Attribution Based TR Program (Experimental)

The second approach to TR services utilized in this study was based on an attribution theory approach. This approach utilized the same activities that were available in the first program. The difference in this treatment was in how TR services were delivered. Some of the
strategies utilized in this treatment were (1) reducing psychological reactance of the SCI patients by having them know the rules and regulations of the TR services; (2) assessing the patient via leisure counseling sessions; (3) providing the SCI patient opportunities to make choices—instead of requiring the patients to attend specific sessions, they were oriented toward different activities and given their choice of what they wanted to do; (4) having the activities posted and/or announced throughout the ward so the SCI patient could be better informed of possible activities; (5) consulting the patients regarding their interests; (6) teaching SCI patients skills that could be used in their home communities; (7) providing alternatives for participation in order to provide choices; and (8) doing planning "with" the patient instead of "for" the patient.

An example of the things that were done by the activity leader was providing the SCI patients with the opportunity of going to the swimming pool. Instead of saying "I'll pick you up next Tuesday at 6:15 P.M.," the leader said, "I'll be at the pool next Tuesday, you're welcome to join us if you want to." Another example of the approach taken was a leader meeting a SCI patient at the hospital bowling alley and dealing with the patient's expressed desire to play "dominoes." The activity leader agreed, but reminded
the patient that he needed to do some type of activity that would use his upper body. Another example was giving opportunities to the patient to have some input in the planning of activities.

During the experimental period practices, trips and events still were held. However, participation was voluntary and leadership was aimed at enhancing personal competence and a sense of control.

Development and Validation of the Data Collection Instruments

The Perceived Freedom in Leisure Scale used in this study was developed by Witt and Ellis (7). It was translated into Spanish by the researcher. This instrument went through various revisions based on field testing and review of several individuals. It was evaluated by (a) an expert translator from the Language Department of North Texas State University, (b) six (three undergraduate and three graduate) Spanish-speaking students that scored 550 points or more on an English proficiency test (TOFEL) from the same university, and (c) a faculty member and expert translator from Inter-American University of Puerto Rico. Each individual compared the English version with the Spanish version of the scale. They indicated whether they agreed or disagreed with the translations. A consensus of four out of six was necessary for the acceptance of each item.
The instrument was a seventy-two item scale which measures perceived freedom in leisure and was developed in the Division of Recreation and Leisure Studies at North Texas State University as a part of the Leisure Diagnostic Battery (LDB) Project (3). This project was funded by a federal grant and its main purpose was to develop a tool to assess leisure functioning of handicapped children and youth with subsequent versions to be developed for adults.

The current instrument was adapted from an adult version of the LDB which had been shown to be reliable in use with VA hospital clients in various situations. Alpha reliability was .90 for a longer version of ninety items. The scales have gone through a process of establishing face validity by being reviewed by experts in the leisure studies field. Factor analysis has also provided strong evidence of construct validity (26). A slightly different version had been used in studies for the Veterans Administration (1982) and another version had been used with an older population of group home residents in the state of Missouri (7). The items were answered on a three point scale of doesn't sound like me, sounds a little like me, and sounds a lot like me. Scoring was done on a 1 to 3 basis for each item with high scores reflecting more perceived freedom in leisure.

Procedures for Data Collection

This study took place at the Veterans Administration Hospital (VAH) at San Juan, Puerto Rico. The VAH serves
veterans that live in Puerto Rico and/or the United States Virgin Islands that need medical assistance. The investigator received written permission to conduct the study in September, 1982.

This investigation began with the administration of the Perceived Freedom in Leisure Scale to the control group. This group was subjected to the existing TR program of the VAH and then posttested. Twenty consecutive admissions were evaluated. Testing did not occur for all patients at the same time. Each patient was tested as he entered and again as he left the program. After conclusion of this phase of the project the researcher conducted an inservice training program for the staff and monitored the implementation of the TR program based on attribution theory for the experimental group. When the inservice training was concluded the experimental TR program was implemented and the next twenty admissions were pretested. Again, each patient in this group was administered the posttest during discharge procedures.

Procedures for Data Analysis

Data generated from the SCI patients were analyzed as follows:

1. All the scores on the pretest and posttest were transferred onto IBM Cards for processing at the Computer Center of the University of Puerto Rico.
2. A reliability check was done for the "Perceived Freedom in Leisure Scale."

3. The impact of the inservice training program was analyzed utilizing a t-test with the level of significance set at the $p \leq .05$.

4. Hypothesis number one was tested utilizing analysis of covariance with pretest scores as the covariate. The level of significance was set at the $p \leq .05$ level.

5. Hypotheses two, three and four were to be analyzed only if $H_1$ was retained by utilizing t-tests with the significance level set at $p \leq .05$.

Follow-up analyses were made to determine if several additional or explanatory variables (i.e., age, disability, etc.) could explain differences in control versus experimental group perceived freedom in leisure scores.

Summary

This chapter has described the methods and procedures utilized in this investigation. A total of forty consecutive admissions to the VAH in Puerto Rico were the subjects for this study. In order to test the hypothesis, the subjects were divided into two groups (control and experimental) utilizing a pretest, posttest research design. Each group of subjects was submitted to one of the two different TR programs and was tested with the "Perceived Freedom in
Leisure Scale." The data were collected and analyzed and will be presented in the next chapter.


CHAPTER IV

ANALYSIS OF THE DATA

This investigation studied the differential effects of a traditional TR program and a TR program based on the principles of attribution theory on the perception of freedom in leisure of SCI patients. Twenty clients from the VAH in Puerto Rico were tested before and after the regular TR program offered at the institution. After staff training a new TR program was implemented for the next twenty admissions to the VAH. Again clients were tested before and after their involvement in the program. More specifically, this investigation examined the following: (1) the reliability of the Perceptions of Freedom in Leisure (PFL) scale consisting of seventy-two items, (2) the analysis of pretest versus posttest mean scores of the inservice training fifteen-item test, (3) the analysis of pretest and posttest mean scores on the perception of freedom in leisure scale for the clients receiving the two different TR programs, and (4) the relationship between changes in the perceived freedom in leisure mean scores to client age, disability and participation in wheelchair sports. This chapter presents the results of this investigation.
Descriptive Data

Table I shows selected demographic characteristics of the forty clients participating in this study.

**TABLE I**

DESCRIPTIVE DATA CONCERNING THE SPINAL CORD INJURY PATIENTS

<table>
<thead>
<tr>
<th>Variables</th>
<th>Traditional N = 20</th>
<th>Contemporary N = 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (in years):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>46.7</td>
<td>46.6</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>9.0</td>
<td>8.7</td>
</tr>
<tr>
<td>Range</td>
<td>38</td>
<td>36</td>
</tr>
<tr>
<td>Minimum</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>Maximum</td>
<td>68</td>
<td>68</td>
</tr>
<tr>
<td>Educational Level (years in school):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>12.6</td>
<td>12.1</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.8</td>
<td>1.4</td>
</tr>
<tr>
<td>Range</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Minimum</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Maximum</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Disability:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quadraplegia</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Paraplegia</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Participation in Wheelchair Sports:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

Every subject that participated in this study had received at least two years of rehabilitation services prior to the study. Their SCI was not a new one. The patients
were in the hospital for a minimum of six weeks. Mean length of hospitalization was 9.5 weeks in the control group and 9.4 weeks in the experimental group. Some of them were hospitalized as a part of their yearly checkup and follow-up precautions. All patients were familiar with the hospital lifestyle and were on government pensions.

Reliability of the Perceived Freedom in Leisure Scale

The PFL scale was analyzed for reliability. The Alpha reliability coefficients ranged from .80 to .92 for the pre and posttest for each group. These coefficients are similar to those obtained for the English adult version (1). See Table II.

<table>
<thead>
<tr>
<th>Alpha Reliability Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
</tr>
<tr>
<td>Posttest</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perceived Freedom</th>
<th>Items</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group</td>
<td>72</td>
<td>.92(N=20)</td>
<td>.80(N=20)</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>72</td>
<td>.80(N=20)</td>
<td>.90(N=20)</td>
</tr>
</tbody>
</table>

Even though the alpha coefficients are high, they could have been increased by removing several items. Problems
with these items might have been caused by language factors due to semantic problems and/or translation of concepts. However, given the acceptable level of the reliability based on alpha coefficients, the entire scale was used in this study.

Inservice Training Test

During this investigation a fifteen-item knowledge test was administered to the TR Service Staff at the VAH. Seven TR staff members went through the inservice training. Each therapist had a minimum of three years of experience with the VAH. Five had obtained their Bachelor's degrees in physical education, one of them had a Master's degree in therapeutic recreation. One of them earned a Bachelor's degree in music education.

A knowledge test was given before and after the inservice training program. Even though this test is not the central point of the study, it was analyzed with a t-Test as shown in Table III. The obtained t of 5.21 was significant at the .01 level. Thus, the inservice training program had a significant effect on the knowledge of the TR staff.

The pretest score for TR staff of the VAH was $\bar{X} = 10.42$ which could be considered high. Even though staff members scored high on the pretest, the posttest scores were higher ($\bar{X} = 14.00$). This illustrates the effects of the inservice training.
TABLE III
T-TEST FOR INSERVICE TRAINING KNOWLEDGE TEST

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Score</td>
<td>10.42</td>
<td>14.00</td>
</tr>
<tr>
<td>t obtained</td>
<td>5.21*</td>
<td></td>
</tr>
</tbody>
</table>

* p ≤ .01

Pretest and Posttest Mean Scores of Perceived Freedom in Leisure

The mean scores on the pretest and the posttest of the PFL for the control and experimental groups are shown in Table IV. The control group's mean score of PFL on the pretest was $\bar{X} = 2.19$ on a scale of 1 to 3 where high scores were indicative of more perceived freedom in leisure. The mean score on the posttest was $\bar{X} = 2.26$. The treatment for this group does not seem to have affected the PFL of SCI.

TABLE IV
CONTROL AND EXPERIMENTAL GROUP PRETEST AND POSTTEST
MEAN SCORES AND STANDARD DEVIATION OF PERCEIVED FREEDOM IN LEISURE

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>2.19</td>
<td>0.31</td>
</tr>
<tr>
<td>Posttest</td>
<td>2.26</td>
<td>0.20</td>
</tr>
<tr>
<td>Experimental Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>2.33</td>
<td>0.20</td>
</tr>
<tr>
<td>Posttest</td>
<td>2.50</td>
<td>0.26</td>
</tr>
</tbody>
</table>
patients. Perceived freedom in leisure did not significantly increase, but it did not decrease either with treatment.

The mean scores of PFL in the experimental group on pretest were $\bar{X} = 2.33$ and $\bar{X} = 2.50$ on the posttest. The treatment for this group seemed to affect the mean scores of the posttest.

**Test of Hypotheses**

The hypotheses of this investigation were tested at the .05 level of significance. The central hypothesis of this study was as follows:

$H_1$ Controlling for pretest scores, there will be no difference between the control and experimental group in posttest scores of perceived freedom in leisure.

This hypothesis was tested utilizing an analysis of covariance with the pretest score as the covariate. The hypothesis was rejected due to the $t$-value obtained, $t = 2.93$, which indicates differences in PFL of the posttest scores for the two groups. (See Table V.) These results indicate that the attribution-based treatments affected the PFL of the SCI patients.

Hypotheses two, three, and four were not tested due to the rejection of hypothesis one. These hypotheses were alternative explanations of the results had hypothesis one been retained.
TABLE V

ANALYSIS OF COVARIANCE FOR CONTROL AND EXPERIMENTAL GROUP POSTTEST SCORES

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Experimental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted Means</td>
<td>2.31</td>
<td>2.45</td>
</tr>
<tr>
<td>t-value</td>
<td></td>
<td>2.93</td>
</tr>
<tr>
<td>Significance of t</td>
<td></td>
<td>0.006</td>
</tr>
</tbody>
</table>

The Relationship of Perceived Freedom in Leisure and Age, Educational Level, Disability, and Participation in Wheelchair Sports

Even though PFL increased in the experimental group there are some underlying questions about differences in PFL scores between the two groups due to other variables. In order to analyze if PFL scores were a function of age, educational level, disability or participation in wheelchair sports, correlations were done between PFL scores and these variables.

PFL scores of patients were correlated with the three above variables to see if any relationship existed. Pretest and posttest scores and the variables such as age, educational level, disability, and participation in wheelchair sports were correlated as follows:

A. Age and PFL scores
B. Educational level and PFL scores
C. Level of disability (low to high) and PFL scores
D. Current versus no participation in wheelchair sports and PFL scores

None of the four variables was significantly related to pre or posttest PFL scores (see Table VI) for the control or experimental groups. Thus, PFL scores were seen as independent of these variables.

**TABLE VI**

CORRELATION COEFFICIENTS FOR AGE, EDUCATIONAL LEVEL, DISABILITY AND PARTICIPATION IN WHEELCHAIR SPORTS WITH PERCEIVED FREEDOM IN LEISURE SCORES*

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th></th>
<th>Experimental</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Posttest</td>
<td>Pretest</td>
<td>Posttest</td>
</tr>
<tr>
<td>Age</td>
<td>.03</td>
<td>.11</td>
<td>.18</td>
<td>.12</td>
</tr>
<tr>
<td>Educational Level</td>
<td>.07</td>
<td>.09</td>
<td>.13</td>
<td>.16</td>
</tr>
<tr>
<td>Level of Disability</td>
<td>.15</td>
<td>.11</td>
<td>.31</td>
<td>.23</td>
</tr>
<tr>
<td>Participation in</td>
<td>.03</td>
<td>.06</td>
<td>.05</td>
<td>.09</td>
</tr>
<tr>
<td>Wheelchair Sports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All p > .05

Other variables that were controlled in this study were time since injury (at least two years) and level of income (all SCI patients were on pensions).

Summary

This chapter discussed the data for this study. The control and experimental groups did not differ from one
another on variables such as age, educational level, disability and participation in wheelchair sports. However, when pretest scores were controlled, posttest scores for the two groups differed significantly. This difference in PFL scores may be attributed to the attribution-based TR program.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to study the differential effects of a traditional TR program and a TR program based on the principles of attribution theory on the perception of freedom in leisure of SCI patients. Forty SCI patients who were either quadriplegics or paraplegics were the subjects for the study. The first twenty consecutive admissions participated in the control group which was exposed to the TR program offered at the VAH. The next twenty admissions participated in the experimental group which received a TR program based on attribution theory.

Perceived freedom in leisure was measured with a seventy-two item scale. This scale was translated into Spanish obtaining high reliability coefficients. Each participant was tested before and at the end of his stay in the hospital using this scale.

The subjects of this study were experienced patients, their SCI happened at least two years previously, and they had all previously been in a hospital setting. These subjects were either paraplegics or quadriplegics; therefore, some of them needed assistance in filling out the PFL scale.
Each individual in the control group was pretested, submitted to treatment and posttested. After each person in the control group was posttested, inservice training was given to the TR staff of the VAH. An "Inservice Training Knowledge Test" was also administered on a pre and post basis. The difference in scores on the knowledge test were statistically significant when tested by a t-Test indicating that the inservice training affected the staff's knowledge. Following the inservice training the experimental group participated in a TR program based on attribution theory.

The main hypothesis of this study was rejected. This hypothesis stated that "controlling for pretest scores there will be no difference between the control and experimental group in posttest perceived freedom in leisure scores. The experimental group posttest scores were greater than the control group. Based on these results there was no need to test the other study hypotheses.

The experimental group was treated with an attribution theory approach based on the LDB remediation process. (See Appendix I.) Although the VAH staff learned about this process during inservice training it was not used on a step-by-step basis because it was considered time consuming. However, the TR staff was aware of the total process and applied each area according to specific patient needs. The assessment of the SCI patient's leisure status was done by
the therapists. This assessment started with an interview of the SCI patient by the TR specialist. During the interview the TR specialist used aspects of leisure counseling and leisure education with the clients.

The SCI patient was also informed about the leisure opportunities available at the TR center, the hospital and the community. At the VAH, TR consisted of a number of activities which included volleyball, basketball, swimming, bowling and softball as part of the adapted sports program. In addition to these activities a wheelchair sports program was offered on a voluntary basis for each SCI patient.

The experimental TR program was different from the control one because it did not have a preset program to which the SCI patient was expected to adapt. Instead, the program adapted to the SCI patient. This program emphasized freedom, choice by patients, and patient control of activity participation.

In addition, changes made in leadership methods were perhaps also responsible for changes in perceptions of freedom in leisure. For instance, during swimming pool sessions, the SCI patient had the option of (a) bringing his own towel or using ones at the pool and (b) having a choice of being assisted when entering the water or using the ramp. After the SCI patient was in the water he swam on his own or could ask for assistance and instruction. At the end of the session safety vests were provided in order
to play water basketball. All SCI patients had to use the water vests to play but participation in the water basketball game was totally voluntary.

Wheelchair sports is a strong area of the VAH TR service. Participation in this program requires a great deal of time, especially if the patient gets involved in team sports.

During the inservice training sessions the staff was urged to include in the leisure education program information about the leisure opportunities available in the community where the SCI patient lived. This was strongly suggested because the researcher found that some of the SCI patients in the traditional group were being geared towards activities that were almost impossible to find in the community outside the hospital. For example, there were individuals that were involved with bowling and they did not have access to bowling alley facilities.

The attribution-based TR program turned out to be significantly different from the control treatment. These results suggest the following.

1. TR based on attribution theory has some value and can provide SCI patients the opportunity to perceive themselves in a different way.

2. The perception of freedom in leisure may be increased by a program based on attribution theory, even though the same basic activities are utilized in the program.
3. The increase of perception of freedom is a matter of delivery approach and not a matter of activities. In other words, swimming, wheelchair sports, weightlifting, etc., by themselves will not increase perceived freedom, unless they are delivered properly.

4. Activity provision for SCI patients is useless, unless it has some specific goals.

The following statements can also be made as a result of this study.

1. The perception of freedom in leisure of SCI patients did not differ because of age.

2. The perception of freedom in leisure of SCI patients did not differ because of education level.

3. The perception of freedom in leisure of SCI patients did not differ because of level of disability.

4. The perception of freedom in leisure of SCI patients did not differ because of participation in wheelchair sports.

Conclusions

The following conclusions were reached based on this study:

1. The perception of freedom in leisure of SCI patients can be increased utilizing a TR program based on attribution theory.

2. The perception of freedom in leisure of SCI patients will not increase with the delivery of leisure
activities alone. In order to increase perceived freedom in leisure these activities need to be delivered utilizing an attributional approach.

3. Success of a TR program for SCI patients should not be measured by counting participation in various activities. Rather, patients' perceptions are the critical variable of interest.

Recommendations

Based on this study the following recommendations were made. Also, some possible research areas that should be investigated in the future are discussed.

1. Therapeutic recreation programs should create TR services based on attribution theory. The delivery of TR services should be specifically directed to increasing the perception of freedom in leisure.

2. Therapeutic recreators should evaluate success of these TR programs based on the "perceptions" and "feeling" of their patients, instead of activities participation.

3. Leisure and therapeutic recreation researchers should pursue the study and analysis of attribution theory based services in other TR settings.

4. Leisure and therapeutic recreation researchers should investigate the effects of TR programs on other perceptions and feelings of their clients.
5. Leisure and therapeutic recreation researchers should study other types of handicapped and non-handicapped individuals to investigate if the perception of freedom differs in various populations.
APPENDIX A

SECCION A

INSTRUCCIONES

EL PROPOSITO DE ESTA SECCION ES EL DETERMINAR COMO SE SIENTE USTED EN RELACION A SUS EXPERIENCIAS RECREATIVAS. POR FAVOR LEA CADA ORACION Y RESPONDA DIBUJANDO UN CIRCULO ALREDEDOR DE LA LETRA QUE MEJOR REPRESENTE SUS SENTIMIENTOS. NO EXISTEN CONTESTACIONES CORRECTAS O INCORRECTAS.

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<table>
<thead>
<tr>
<th></th>
<th>En acuerdo</th>
<th>Indiferente</th>
<th>Desacuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Soy bueno(a) tomando decisiones sobre que hacer con mi tiempo libre.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>2. Tengo dificultades participando en actividades sociales.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>3. Soy bueno(a) en juegos y deportes activos.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>4. Usualmente pierdo en las actividades recreativas en que participo.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>5. Tengo dificultades participando en actividades fisicas.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>6. Soy bueno(a) participando en actividades de grupo.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>7. Es facil para mi el pensar en cosas nuevas para hacer en mi tiempo libre.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>En acuerdo</td>
<td>Indiferente</td>
<td>Desacuerdo</td>
</tr>
<tr>
<td>---</td>
<td>------------</td>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>8.</td>
<td>Soy bueno(a) en las actividades recreativas en que participo.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>9.</td>
<td>Usualmente soy excluido(a) de las actividades recreativas en que participan mis amigos(as).</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>10.</td>
<td>Conozco mucho sobre diferentes tipos de actividades recreativas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>11.</td>
<td>Soy mejor que la mayor parte de las personas cuando participo en deportes activos o en actividades.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>12.</td>
<td>Considero que soy competente en muchas actividades recreativas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>13.</td>
<td>Conozco mas sobre actividades recreativas que la mayor parte de las personas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>14.</td>
<td>Tengo dificultades en conocer nuevos(as) amigos(as).</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>15.</td>
<td>Tengo dificultades participando en actividades que requieren destrezas físicas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>16.</td>
<td>Soy mejor jugador(a) que la mayor parte de las personas cuando participo en actividades recreativas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>17.</td>
<td>Tengo dificultades para relajarme cuando estoy en grupo.</td>
<td>A</td>
<td>I</td>
</tr>
</tbody>
</table>
APPENDIX A—Continued

SECCION B

INSTRUCCIONES

EL PROPOSITO DE ESTA SECCION ES EL DETERMINAR COMO SE SIENTE USTED EN RELACION A SUS EXPERIENCIAS RECREATIVAS. POR FAVOR LEA CADA ORACION Y RESPONDA DIBUJANDO UN CIRCULO ALREDEDOR DE LA LETRA QUE MEJOR REPRESENTE SUS SENTIMIENTOS. NO EXISTEN CONTESTACIONES CORRECTAS O INCORRECTAS.

CIRCULE LA LETRA "A" SI ESTA EN ACUERDO CON LA ORACION, CIRCULE LA "I" SI LE ES INDIFFERENTE O LA "D" SI ESTA EN DESACUERDO.

<table>
<thead>
<tr>
<th>En Acuerdo</th>
<th>Indiferente</th>
<th>Desacuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cuando estoy cansado(a), el hacer actividades recreativas me ayudan a relajarme.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>2. Cuando estoy enojado(a), las actividades recreativas me ayudan a relajarme.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>3. Cuando he tenido un dia en el que nada parece estar bien, hago una actividad recreativa para sentirme mejor.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>4. Hago actividades recreativas para ayudarme a sentirme menos inquieto(a).</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>5. A menudo hago actividades recreativas que implican sorpresas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>6. Me gustan las actividades recreativas que implican sorpresas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>7. Hago actividades recreativas que me ayuden a hacer nuevas amistades.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td>En acuerdo</td>
<td>Indiferente</td>
</tr>
<tr>
<td>-----</td>
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</tr>
<tr>
<td>8.</td>
<td>A I D</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>A I D</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>A I D</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>A I D</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>A I D</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>A I D</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>A I D</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>A I D</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>A I D</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>A I D</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>A I D</td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX A—Continued

8. Hago actividades recreativas que hagan que yo le agrade más a otras personas.
9. Puedo ser creativo(a) en las actividades recreativas que hago.
10. Hago actividades recreativas que me hacen sentir importante.
11. Hago actividades recreativas que me ayudan a aprender más de mí mismo(a).
12. Cuando he trabajado durante mucho tiempo, las actividades recreativas ayudan a relajarme.
13. Cuando me enojo con alguien, el hacer actividades recreativas me ayuda a sentirme mejor.
14. Cuando he fracasado en hacer algo que he tratado de hacer bien, el hacer actividades recreativas me ayuda a sentirme menos inquieto(a).
15. Cuando estoy inquieto(a), el hacer actividades recreativas me ayuda a calmarme.
16. Estoy muy contento(a) con mis actividades recreativas.
17. Hago actividades recreativas que me ayudan a conocer a otra gente.
18. Hago actividades recreativas para ayudarme a sentirme mejor conmigo mismo(a).
19. Puedo usar mi imaginación en mis actividades recreativas.

   En acuerdo  Indiferente  Desacuerdo
   A           I           D

20. A menudo hago actividades recreativas en las que tengo que resolver difíciles.

   En acuerdo  Indiferente  Desacuerdo
   A           I           D
APPENDIX A—Continued

SECCION C

INSTRUCCIONES

EL PROPOSITO DE ESTA SECCION ES EL DETERMINAR COMO SE SIENTE USTED EN RELACION A SUS EXPERIENCIAS RECREATIVAS. POR FAVOR LEA CADA ORACION Y RESPONDA DIBUJANDO UN CIRCULO ALREDEDOR DE LA LETRA QUE MEJOR REPRESENTE SUS SENTIMIENTOS. NO EXISTEN CONTESTACIONES CORRECTAS O INCORRECTAS.

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<table>
<thead>
<tr>
<th>En acuerdo</th>
<th>Indiferente</th>
<th>Desacuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Puedo hacer cosas en mis actividades recreativas que ayuden a otras personas ganar frecuentemente.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td><strong>2.</strong> Puedo ser tan bueno como deseo en mis actividades recreativas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td><strong>3.</strong> Puedo hacer cosas en una actividad que hara que todos se diviertan mas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td><strong>4.</strong> Puedo hacer cosas para que otras personas disfruten haciendo actividades recreativas conmigo.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td><strong>5.</strong> Usualmente puedo convencer a otras personas a hacer las actividades recreativas que yo quiera.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td><strong>6.</strong> Usualmente decido con quien hago mis actividades recreativas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td><strong>7.</strong> Cuando estoy haciendo actividades recreativas puedo evitar que cosas malas me sucedan.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>Núm.</td>
<td>Enunciado</td>
<td>En</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>8.</td>
<td>Si alguien comienza a discutir conmigo puedo hacer que ellos terminen de discutir.</td>
<td>A</td>
</tr>
<tr>
<td>9.</td>
<td>Puedo hacer cosas en las actividades recreativas que hará que yo le agrade a otras personas.</td>
<td>A</td>
</tr>
<tr>
<td>10.</td>
<td>Puedo hacer cosas en las actividades recreativas que me ayudaran a hacer nuevas amistades.</td>
<td>A</td>
</tr>
<tr>
<td>11.</td>
<td>Puedo hacer cosas que mejoraran las destrezas de las personas con las que hago actividades recreativas.</td>
<td>A</td>
</tr>
<tr>
<td>12.</td>
<td>Puedo hacer cosas que haran a los demas mejores jugadores en sus actividades recreativas.</td>
<td>A</td>
</tr>
<tr>
<td>13.</td>
<td>Puedo hacer que las actividades recreativas sean divertidas para todos.</td>
<td>A</td>
</tr>
<tr>
<td>14.</td>
<td>Puedo hacer casi cualquier cosa divertida para mí.</td>
<td>A</td>
</tr>
<tr>
<td>15.</td>
<td>Usualmente puedo conseguir que las personas hagan actividades recreativas conmigo aun si ellos no quieren.</td>
<td>A</td>
</tr>
<tr>
<td>16.</td>
<td>Puedo hacer que sucedan cosas buenas durante las actividades recreativas que hago.</td>
<td>A</td>
</tr>
</tbody>
</table>
APPENDIX A—Continued

INSTRUCCIONES

EL PROPOSITO DE ESTA SECCION ES EL DETERMINAR COMO SE SIENTE USTED EN RELACION A SUS EXPERIENCIAS RECREATIVAS. POR FAVOR LEA CADA ORACION Y RESPONDA DIBUJANDO UN CIRCULO ALREDEDOR DE LA LETRA QUE MEJOR REPRESENTE SUS SENTIMENTOS. NO EXISTEN CONTESTACIONES CORRECTAS O INCORRECTAS.

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<table>
<thead>
<tr>
<th>Número</th>
<th>Inclusión</th>
<th>A</th>
<th>I</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A veces cuando estoy envuelto(a) en una actividad recreativa puedo olvidar todo lo demás.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>2</td>
<td>Hay veces que realmente me siento poderoso(a) y en control mientras estoy haciendo las actividades recreativas.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>3</td>
<td>A veces, me olvido de mis preocupaciones cuando estoy envuelto(a) en una actividad recreativa.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>4</td>
<td>Me gusta hacer actividades recreativas aunque sepa que no voy a ganar nada.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>5</td>
<td>Pienso menos en mis problemas cuando estoy envuelto(a) en una actividad recreativa.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>6</td>
<td>Usualmente preisto mucha atencion cuando estoy haciendo una actividad recreativa.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
</tbody>
</table>
APPENDIX A—Continued

<table>
<thead>
<tr>
<th></th>
<th>En acuerdo</th>
<th>Indiferente</th>
<th>Desacuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>Cuando me envuelvo en una actividad recreativa me fijo más detenidamente en lo que está pasando.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>8.</td>
<td>A veces cuando estoy envuelto(a) en una actividad recreativa puedo entregarme por completo.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>9.</td>
<td>La razón más importante por la que yo me envuelvo en actividades recreativas es porque me gustan.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>10.</td>
<td>A veces cuando estoy envuelto(a) en una actividad recreativa estoy más consciente sobre lo que mi cuerpo puede hacer.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>11.</td>
<td>A veces durante una actividad recreativa hay momentos que todo va bien y me siento emocionado(a).</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>12.</td>
<td>A veces durante una actividad recreativa hay periodos cortos cuando me siento capaz de hacer cualquier cosa.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>13.</td>
<td>Cuando estoy envuelto(a) en una actividad recreativa a veces me de lo que la otra persona piensa de mí.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>14.</td>
<td>Usualmente me divierto cuando estoy envuelto(a) en actividades recreativas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>15.</td>
<td>A veces pierdo nocion del tiempo cuando estoy envuelto(a) en actividades recreativas.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>16.</td>
<td>A veces hay periodos cortos durante mi actividad recreativa preferida cuando me emociono extremadamente.</td>
<td>A</td>
<td>I</td>
</tr>
</tbody>
</table>
17. Muchas veces el tiempo parece pasar más rápido cuando estoy envuelto(a) en una actividad recreativa. A  I  D

18. Cuando estoy envuelto(a) en una actividad recreativa, a veces me siento libre para hacer lo que yo quiera. A  I  D

19. Cuando estoy haciendo una actividad recreativa, me siento bien por dentro. A  I  D
APPENDIX A—Continued

SCALE A

INSTRUCTIONS

THE PURPOSE OF THIS SECTION IS TO IDENTIFY HOW YOU FEEL ABOUT YOUR RECREATION EXPERIENCES. PLEASE READ EACH STATEMENT AND RESPOND BY DRAWING A CIRCLE AROUND THE APPROPRIATE LETTER THAT BEST REPRESENTS YOUR FEELINGS. THERE ARE NO RIGHT OR WRONG ANSWERS. CIRCLE (A) IF YOU AGREE WITH THE STATEMENT, CIRCLE (I) IF YOU ARE INDIFFERENT, OR CIRCLE (D) IF YOU DISAGREE WITH THE STATEMENT.

1. I'm good at making decisions about what to do with my free time. A I D
2. I have difficulty participating in social activities. A I D
3. I'm good at active sports and games. A I D
4. I usually lose in the recreation activities I participate in. A I D
5. I have difficulty participating in physical activities. A I D
6. I'm good at participating in group activities. A I D
7. It's easy for me to think of new things to do in my free time. A I D
8. I am good at the recreation activities I participate in. A I D
9. I'm usually left out of recreation activities my friends participate in. A I D
10. I know a lot about different types of recreation activities. A I D
11. I'm better than most people when participating in active sports or activities.  
   Agree | Indifferent | Disagree
   A     | I           | D

12. I consider myself to be competent in a lot of recreation activities.  
   Agree | Indifferent | Disagree
   A     | I           | D

13. I know more about recreation activities than most people do.  
   Agree | Indifferent | Disagree
   A     | I           | D

14. I have difficulty meeting new friends.  
   Agree | Indifferent | Disagree
   A     | I           | D

15. I have difficulty participating in activities which require physical skills.  
   Agree | Indifferent | Disagree
   A     | I           | D

16. I am a better player than most people when I participate in recreation activities.  
   Agree | Indifferent | Disagree
   A     | I           | D

17. I have difficulty relaxing when I'm with a group.  
   Agree | Indifferent | Disagree
   A     | I           | D
## APPENDIX A—Continued

### SCALE B

**INSTRUCTIONS**

The purpose of this section is to identify how you feel about your recreation experiences. Please read each statement and respond by drawing a circle around the appropriate letter that best represents your feelings. There are no right or wrong answers. Circle (A) if you agree with the statement, circle (I) if you are indifferent, or circle (D) if you disagree with the statement.

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Indifferent</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When I am tired, doing recreation activities helps me to relax.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>2. When I am angry, recreation activities help me to calm down.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>3. When I've had a day in which nothing seems to go right, I do a recreation activity to make me feel better.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>4. I do recreation activities to help me feel less restless.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>5. I often do recreation activities that are new and different to me.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>6. I like to do recreation activities that involve surprises.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>7. I do recreation activities which help me make new friends.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>8. I do recreation activities which will make other people like me more.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>9. I can be creative in the recreation activities I do.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Agree</td>
<td>Indifferent</td>
</tr>
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</tr>
<tr>
<td>10</td>
<td>I do recreation activities which make me feel important.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>11</td>
<td>I do recreation activities which help me find out more about myself.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>12</td>
<td>When I have been working for a long time, recreation activities help me to relax.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>13</td>
<td>When I get mad at someone, doing recreation activities help me to relax.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>14</td>
<td>When I've failed at something I tried to do well, doing recreation activities helps me feel less restless.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>15</td>
<td>When I'm restless, doing recreation activities helps calm me down.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>16</td>
<td>I am very excited about my recreation activities.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>17</td>
<td>I do recreation activities which help me to get to know other people.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>18</td>
<td>I do recreation activities which help me feel good about myself.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>19</td>
<td>I can use my imagination in my recreation activities.</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>20</td>
<td>I often do recreation activities.</td>
<td>A</td>
<td>I</td>
</tr>
</tbody>
</table>
APPENDIX A—Continued

SCALE C

INSTRUCTIONS

THE PURPOSE OF THIS SECTION IS TO IDENTIFY HOW YOU FEEL ABOUT YOUR RECREATION EXPERIENCES. PLEASE READ EACH STATEMENT AND RESPOND BY DRAWING A CIRCLE AROUND THE APPROPRIATE LETTER THAT BEST REPRESENTS YOUR FEELINGS. THERE ARE NO RIGHT OR WRONG ANSWERS. CIRCLE (A) IF YOU AGREE WITH THE STATEMENT, CIRCLE (I) IF YOU ARE INDIFFERENT OR CIRCLE (D) IF YOU DISAGREE WITH THE STATEMENT.

1. I can do things in my recreation activities that will help other people win more often.
   Agree: A  Indifferent: I  Disagree: D

2. I can be as good as I want to be at my recreation activities.
   Agree: A  Indifferent: I  Disagree: D

3. I can do things in an activity that will make everyone have more fun.
   Agree: A  Indifferent: I  Disagree: D

4. I can do things to make other people enjoy doing recreation activities with me.
   Agree: A  Indifferent: I  Disagree: D

5. I can usually convince other people to do the recreation activities I want to.
   Agree: A  Indifferent: I  Disagree: D

6. I usually decide who I do recreation activities with.
   Agree: A  Indifferent: I  Disagree: D

7. When I'm doing recreation activities, I can keep bad things from happening.
   Agree: A  Indifferent: I  Disagree: D

8. If someone started an argument with me, I could make them stop.
   Agree: A  Indifferent: I  Disagree: D
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Agree</th>
<th>Indifferent</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>I can do things during recreation activities that will make other people like me more.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>10</td>
<td>I can do things in recreation activities that will help me make new friends.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>11</td>
<td>I can do things that will improve the skills of people I do recreation activities with.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>12</td>
<td>I can do things that will make other people better players at their recreation activities.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>13</td>
<td>I can make recreation activities fun for everyone.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>14</td>
<td>I can make almost anything fun for me.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>15</td>
<td>I can usually get people to do recreation activities with me even if they don't want to.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
<tr>
<td>16</td>
<td>I can make good things happen when I do recreation activities.</td>
<td>A</td>
<td>I</td>
<td>D</td>
</tr>
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APPENDIX A—Continued

SCALE D

INSTRUCTIONS

THE PURPOSE OF THIS SECTION IS TO IDENTIFY HOW YOU FEEL ABOUT YOUR RECREATION EXPERIENCES. PLEASE READ EACH STATEMENT AND RESPOND BY DRAWING A CIRCLE AROUND THE APPROPRIATE LETTER THAT BEST REPRESENTS YOUR FEELINGS. THERE ARE NO RIGHT OR WRONG ANSWERS. CIRCLE (A) IF YOU AGREE WITH THE STATEMENT, CIRCLE (I) IF YOU ARE INDIFFERENT, OR CIRCLE (D) IF YOU DISAGREE WITH THE STATEMENT.

1. Sometimes, when I'm involved in a recreation activity I can forget about everything else.  A I D

2. There are times when I really feel powerful and in control while doing recreation activities. A I D

3. Sometimes, I forget my worries when I'm involved in a recreation activity. A I D

4. I like to do recreation activities even if I know I won't win anything. A I D

5. I think less about my problems when I'm involved in a recreation activity. A I D

6. I usually pay close attention when doing a recreation activity. A I D

7. When I get involved in a recreation activity, I notice more details about what's happening. A I D

8. Sometimes, when I'm involved in a recreation activity, I can really let my feelings go. A I D
9. The biggest reason I get involved in recreation activities is just because I like them.  

10. Sometimes, when I'm involved in a recreation activity, I'm more aware of what my body can do.  

11. Sometimes, during a recreation activity, there are moments when everything goes right, and I feel excited.  

12. Sometimes, during a recreation activity, there are short periods of time when I feel like I can do anything.  

13. When I'm involved in a recreation activity, I sometimes forget what other people are thinking about me.  

14. I usually have fun when I'm involved in recreation activities.  

15. Sometimes I lose track of time when I'm involved in a recreation activity.  

16. Sometimes, there are short periods of time during my favorite recreation activities when I get extremely excited.  

17. Time usually seems to go faster when I'm involved in a recreation activity.  

18. When I'm involved in a recreation activity, I sometimes feel free to do whatever I want.  

19. When I'm doing recreation activities, I feel good inside.
APPENDIX B

MODEL FOR DELIVERY OF LEISURE SERVICES TO THE HANDICAPPED

Provider (degree of control)

- Extrinsic motivation
- Provider control
- Low level of function and skills (cognitive, affective, and psychomotor)
- Severe and multiple disabilities and dysfunctions
- Controlled/scheduled environment

Consumer (degree of freedom)

- Intrinsic motivation
- Consumer control
- High level of function and skills (cognitive, affective, and psychomotor)
- Mild deficits and disadvantages
- Unbounded/unscheduled environment

Area representing majority of Handicapped consumers

**AREA OF SERVICE:** THERAPEUTIC RECREATION

**ROLES:** Clinician/therapist

**FUNCTIONS:**
- Diagnose individual leisure needs
- Assists cognitive, affective and psychomotor function as a part of total leisure functioning
- Prescribe and direct specific regimen for treatment
- Create specific behaviors which serve as barriers to leisure functioning
- Evaluate success of application of treatment

**LEISURE EDUCATION/FACILITATION**

Facilitator

counselor educator enabler

- Assist in leisure decision making
- Facilitate the development of leisure values and attributes
- Assist in refinement of activity skills necessary to positively engage in leisure pursuits
- Assist individual in transfer of skills, knowledge and values to involvement in activity settings
- Assist individual in identifying and removing barriers to leisure fulfillment

**RECREATION**

Advocate/Program provider

- Promote needs and rights of handicapped to leisure
- Remove ecological barriers to leisure fulfillment, e.g. architectural, economic, etc.
- Advance concepts of positive and dynamic roles for handicapped in society
- Provide opportunities and environments for participation in leisure in context with expressed consumer interests

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Recreation therapy at this hospital consists of the following areas:

1. Adapted Sports
   a. volleyball
   b. basketball
   c. swimming
   d. physical fitness exercise (general fitness and weight lifting)
   e. bowling
   f. softball
   g. bicycling

2. Social activities
   a. special parties (bingo, birthdays, special days, etc.)
   b. table games (pool, ping pong, shuffleboard, cards, dominoes, and many others)
   c. picnics and outings to special events
   d. volunteer programs on the monthly basis

3. Movies (in the theater and on the wards)

4. Music therapy
   a. music listening
   b. instrument instruction (keyboard, strings, woodwind, brass)
   c. vocal instruction
   d. general music appreciation
   e. talent shows, concerts and special programs
   f. music theory
   g. patient plays
   h. music theory

5. Patient radio station
   a. patient disc jockeys
   b. live programs
APPENDIX C—Continued

Hours Recreation Therapy is Open:

- **Monday-Thursday**: 7:30 a.m. - 9:00 p.m.
- **Friday, Saturday, Sunday, & Holidays**: 8:00 a.m. - 9:00 p.m.
I. Physical Fitness Exercises (Courtyard)
   Monday to Thursday  7:30 - 8:30 AM

II. Gymnasium (C-207)
   Monday to Thursday  9:30 - 10:30 AM
                      1:00 - 2:30 PM
   Friday and Saturday (provided attending personnel is available)  1:30 - 2:30 PM

III. Swimming (B-147)
   Monday to Thursday  2:30 - 3:45 PM

IV. Movie Theater (C-203)
   Tuesday, Thursday & Saturday  6:30 - 8:30 PM

V. Bowling Alley (C-204)
   Monday and Wednesday  5:30 - 8:00 PM
   Friday (provided attending personnel is available)  5:30 - 8:00 PM
   Saturday and Sunday  1:30 - 3:00 PM

VI. Recreational Therapy Clinic (C-215)
   Daily  9:00 - 12:00 AM
          1:00 - 4:00 PM
          5:00 - 8:30 PM

VII. Adapted Sports (Courtyard)
    Monday to Thursday  2:30 - 4:00 PM
                        5:00 - 8:00 PM
    Friday, Saturday & Sunday (provided attending personnel is available)  2:30 - 4:00 PM
                        5:00 - 6:30 PM
APPENDIX C—Continued

VIII. Musical Therapy (C-213)

On appointment basis. Patient will be referred by Recreational Therapist to Musical Therapist. All wards are covered by Recreational Therapists.

IX. Radiobroadcast (WSJVA Radio Station) (327)

On appointment basis, authorized by physician at patient's ward.

REMARKS: For other recreational activities, please read the Bulletin Board at your ward, and at the Recreation Therapy Clinic.

Recreational Therapist

*Wednesday, from 12:30 to 3:00 PM, C-15 will be used only by Medicine Department patients.*
**APPENDIX D**

**HUMAN SUBJECTS AGREEMENT FORM**

**PART I - AGREEMENT TO PARTICIPATE IN RESEARCH BY OR UNDER THE DIRECTION OF THE VETERANS ADMINISTRATION**

<p>| | |</p>
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<tbody>
<tr>
<td><strong>1. I.</strong></td>
<td></td>
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<tr>
<td><strong>(Type or print subject's name)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(Title of study)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>2. I have signed one or more information sheets with this title to show that I have read the description including the purpose and nature of the investigation, the procedures to be used, the risks, benefits, side effects and benefits to be expected, as well as other courses of action open to me and my right to withdraw from the investigation at any time. Each of these items has been explained to me by the investigator in the presence of a witness. The investigator has answered any questions concerning the investigation and I believe I understand what is intended.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>3. I understand that no guarantees or assurances have been given me with regard to the results and risks of an investigation are not always known beforehand. I have been told that this investigation has been carefully planned, but that the plan has been reviewed by knowledgeable persons, and that every reasonable precaution will be taken to protect my well-being.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>4. In the event I sustain physical injury as a result of my participation in the investigation, if I am eligible for medical care as a veteran, all necessary and appropriate care will be provided. If I am not eligible for medical care as a veteran, emergency care will otherwise be provided.</strong></td>
<td></td>
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<tr>
<td><strong>5. I realize I have not released this institution from liability for my injury or disease. Compensation may or may not be payable. In the event of physical injury arising from such research, under applicable federal laws.</strong></td>
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</tr>
<tr>
<td><strong>6. I understand that all information obtained about me during the course of this study will be made available only to doctors who are taking care of me and their assistants who have access to this information is appropriate and authorized. They will be bound by the same requirements to maintain my privacy and anonymity as apply to all medical personnel within the Veterans Administration.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>7. I further understand that, where required by law, the appropriate federal agency will have free access to information obtained in this study should it become necessary. Generally, I may request the same access for my privacy and anonymity from these agencies as is afforded by the Veterans Administration and its employees. The provisions of the Privacy Act apply to all agencies.</strong></td>
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<tr>
<td><strong>8. In the event that research in which I participate involves the use of new drugs, information concerning my response to the drug will be reported to the sponsoring pharmaceutical company that made the drug available. This information will be given to them in such a way that I cannot be identified.</strong></td>
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I

**NAME OF VOLUNTEER**

_HAVE READ THIS CONSENT FORM, ALL MY QUESTIONS HAVE BEEN ANSWERED, AND I FREELY AND VOLUNTARILY CHOOSE TO PARTICIPATE. I UNDERSTAND THAT MY RIGHTS AND PRIVACY WILL BE MAINTAINED. I AGREE TO PARTICIPATE AS A VOLUNTEER IN THIS PROGRAM._

**9. Nevertheless, I wish to limit my participation in the investigation as follows:**

<table>
<thead>
<tr>
<th><strong>VARIETY</strong></th>
<th><strong>SUBJECT'S SIGNATURE</strong></th>
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<tbody>
<tr>
<td><strong>WHEN &amp; WHERE (Date or Year)</strong></td>
<td><strong>INVESTIGATOR'S SIGNATURE</strong></td>
</tr>
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</table>

**[Signed information sheet attached. Signed information sheet available on subject's identification O.D. Form 10-1906, or give some other Type form.]**

**THE VETERANS ADMINISTRATION**

**[Name & Title]**

**DATE**

[Form: 10-1906]

[As of 1/1/1975, which will not be used.]

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APPENDIX D—Continued

PART II - AGREEMENT BY SUBJECT'S REPRESENTATIVE TO ALLOW SUBJECT TO PARTICIPATE IN RESEARCH OR UNDER THE DIRECTION OF VETERANS ADMINISTRATION

1. I voluntarily consent for this person to participate as a subject in the investigation described here.

2. I have signed one or more information sheets with this leaf to show that I have read the description including the purpose and nature of the investigation, the procedures to be used, the risks, discomforts, side effects, and benefits to be expected, as well as other rights of which I am aware and my right to withdraw the subject from the investigation at any time. Each of these steps has been explained to me by the investigator in the presence of a witness. The investigator has answered my questions concerning the investigation and I believe that I understand what is intended.

3. I understand that no guarantees or assurances have been given me since the results and risks of an investigation are not always known beforehand. I have been told that this investigation has been carefully planned and that the plan has been reviewed by knowledgeable people, and that every reasonable precaution will be taken to protect the well-being of the subject.

4. In the event the subject suffers physical injury as a result of participation in this investigation, if the subject is eligible for medical care as a veteran, all necessary and appropriate care will be provided. If the subject is not eligible for medical care as a veteran, humanitarian emergency care will nevertheless be provided.

5. I realize I have not relieved this institution from liability for negligence. Compensation may or may not be payable, in the event of physical injury arising from such contact, under applicable federal laws.

6. I understand that all information obtained about the subject during the course of the study will be made available only to doctors who are taking care of the subject and to qualified investigators and their assistants where their access to this information is appropriate and authorized. They will be bound by the same requirements to maintain the subject's privacy and anonymity as apply to all medical personnel within the Veterans Administration.

7. I further understand that, where required by law, the appropriate federal officer or agency will have free access to information obtained in this study which becomes necessary. Generally, I may expect the same respect for the subject's privacy and confidentiality from these agencies as is afforded by the Veterans Administration and its employees. The provisions of the Privacy Act apply to all agencies.

8. In the event that research in which the subject participates involves new drugs, information concerning the subject's response to the drug(s) will be supplied to the sponsoring pharmaceutical firm(s) that made the drugs available. This information will be given to them in such a way that the subject cannot be identified.

9. Nevertheless, my consent for the subject's participation in the investigation is limited as follows:

NAME OF SUBJECT'S REPRESENTATIVE

ADDRESS OF SUBJECT'S REPRESENTATIVE

SIGNATURE OF SUBJECT'S REPRESENTATIVE

DATE

INVESTIGATOR'S SIGNATURE

SIGNATURE OF INVESTIGATOR

I AGREE TO THE SUBJECT'S PARTICIPATION AS A VOLUNTEER IN THIS PROGRAM.

Nevertheless, my consent for the subject's participation in the investigation is limited as follows:

ACKNOWLEDGED TO RECEIVE THIS CONSENT FORM, ALL MY QUESTIONS HAVE BEEN ANSWERED, AND I FREELY AND VOLUNTARILY CHOOSE THAT THE SUBJECT PARTICIPATE. I UNDERSTAND THAT THE SUBJECT'S RIGHTS AND PRIVACY WILL BE MAINTAINED. I AGREE TO THE SUBJECT'S PARTICIPATION AS A VOLUNTEER IN THIS PROGRAM.

DATE

NAME OF SUBJECT'S REPRESENTATIVE

ADDRESS OF SUBJECT'S REPRESENTATIVE

SIGNATURE OF SUBJECT'S REPRESENTATIVE

DATE

INVESTIGATOR'S SIGNATURE

SIGNATURE OF INVESTIGATOR

I AGREE TO THE SUBJECT'S PARTICIPATION AS A VOLUNTEER IN THIS PROGRAM.

Nevertheless, my consent for the subject's participation in the investigation is limited as follows:

ACKNOWLEDGED TO RECEIVE THIS CONSENT FORM, ALL MY QUESTIONS HAVE BEEN ANSWERED, AND I FREELY AND VOLUNTARILY CHOOSE THAT THE SUBJECT PARTICIPATE. I UNDERSTAND THAT THE SUBJECT'S RIGHTS AND PRIVACY WILL BE MAINTAINED. I AGREE TO THE SUBJECT'S PARTICIPATION AS A VOLUNTEER IN THIS PROGRAM.

DATE

NAME OF SUBJECT'S REPRESENTATIVE

ADDRESS OF SUBJECT'S REPRESENTATIVE

SIGNATURE OF SUBJECT'S REPRESENTATIVE

DATE

INVESTIGATOR'S SIGNATURE

SIGNATURE OF INVESTIGATOR

I AGREE TO THE SUBJECT'S PARTICIPATION AS A VOLUNTEER IN THIS PROGRAM.
CLINICAL RECORD

Report on PERCEIVED FREEDOM OF SPINAL CORD INJURY or Continuation of S. F. PATIENTS.

(Sign and date)

I voluntarily agree to participate in the research study: Perceived Freedom of Spinal Cord Injury Patients, that will be conducted under the direction of Prof. Miguel A. Albarran, which is a doctoral (Ph.D) candidate from North Texas State University.

The purpose of this research study is to determine the differential effects of a traditional and contemporary therapeutic recreation program upon the perception of freedom of spinal cord injury patients. In this study perceived freedom is defined in terms of one's feelings about self competence and control in life; therapeutic recreation is part of the rehabilitation treatment that deals with social and recreational skills.

Traditional programs offer a fixed schedule of activities to the individual whereas contemporary programs are based on attributions and offer activities based on the clients attributes and wants. To determine the perception of freedom the patient will be administered a questionnaire when admitted to the hospital and when dismissed.

I understand that the research project will take place during the time of my hospitalization, and that there will be no pharmacologic substances employed in relation with this project. If I refuse to participate or withdraw from the study, I will receive traditional therapeutic recreation without any reprisal as a result of my withdrawal.

I also understand that no complications related to this investigation are anticipated. In case of any questions related to the study or my patient rights, I will contact with Prof. Miguel A. Albarran.

My consent is given freely and with full knowledge of the nature and purpose of this project. I agree to participate in this study because its results may be beneficial for future treatments of Spinal Cord Injury Patients. I acknowledge, however, that no guarantee or assurance has been made as to the results that may be obtained from participation, since results cannot be fully foreseen.

My identity in this study will be confidential and accessible only to the principal investigator, his assistants, and authorized inspectors as required by the Federal Foods and Drug Administration.

(Continued on reverse side)
SIGNATURE OF PATIENT  __________________________  DATE  __________________________  TIME  __________________________

SIGNATURE OF WITNESS  __________________________
Yo, [nombre], consento voluntariamente participar en el estudio investigativo: Percepción de Libertad de Pacientes con Lesiones a la Medula Espinal, que será conducido bajo la dirección del Prof. Miguel A. Albarran, quien es candidato doctoral (Ph.D) de North Texas State University.

El propósito de este estudio de investigación es determinar los efectos diferenciales de un programa de terapia recreativa tradicional y contemporáneo en la percepción de libertad en pacientes con lesiones a la médula espinal. En este estudio, la percepción de libertad se define como los sentimientos que uno adquiere sobre su autocompetencia y control en la vida. La reacción terapéutica es parte del tratamiento de rehabilitación que se encarga de las desestas sociales y recreativas.

Los programas tradicionales ofrecen actividades a los individuos al cual se espera que sean buenas para ellos y los programas contemporáneos basados en atribución ofrecen actividades basadas en los atributos y gustos de los clientes. Para determinar la percepción de libertad del paciente se le administrará un cuestionario el ser admitido y dado de alta del hospital.

Entiendo que este proyecto de investigación se llevará a cabo durante el tiempo de mi hospitalización y que no se utilizarán sustancias farmacológicas relacionadas con este proyecto. De renunciar a participar o retirarme del estudio, después de haber accedido, recibiré terapia recreativa tradicional sin represiones futuras debido a mi retiro.

Entiendo que no se esperan complicaciones relacionadas con esta investigación. En caso de alguna pregunta relacionada con el estudio o mis derechos como paciente, me comunicaré con el Prof. Miguel A. Albarran.

Doy mi consentimiento libremente y con conocimiento pleno de la naturaleza y propósito de este proyecto. Estoy de acuerdo en participar en este estudio y entender puedo resultar de beneficio para futuros tratamientos a pacientes con lesiones a médula espinal. Reconozco que no existen garantías ni predicciones hechas en cuanto a los resultados que puedan ser obtenidos al participar en el estudio.

Mi identidad en este estudio será confidencial y accesible solamente al investigador principal, sus asistentes e inspectores autorizados tal y como lo requiere la Administración Federal de Drogas y Alimentos.

(Continue on reverse side)
APPENDIX D—Continued

FIRMA DEL PACIENTE

FIRMA DEL TESTIGO

FECHA

HORA
True (T) or False (F)

1. Leisure pertains only to the portion of time which the individuals are not at work.

2. The more an activity is freely and independently chosen and pursued the less that its considered leisure.

3. Leisure is associated with choice and recreation with activity.

4. Many times the terms "leisure education" and "recreation education" are used as interchangeably.

5. Leisure education should be dealt with in the schools only.

6. Leisure counseling services are offered by psychologists.

7. Leisure counseling is referred to as a specific type of program and a process.

8. Attribution theory was developed by Dr. Peter A. Witt.

9. The main objective of "attribution" is to make the "client" (patient) more dependent.

10. To increase the individual's perception of freedom on must decrease helplessness.

11. The remediation process will help the individual to cope with the environment.

12. The Leisure Diagnostic Battery (LDB) will tell us how much free time the individual has available.

13. Leisure counseling will assist the individual in making leisure choices.
14. We may determine different patterns of interaction by using activity analysis.

15. Leisure counseling seeks for changes in the individual's leisure lifestyle.
APPENDIX F

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<td>APPENDIX D</td>
<td>69</td>
</tr>
<tr>
<td>APPENDIX E</td>
<td>79</td>
</tr>
</tbody>
</table>
APPENDIX G

SELECTED READINGS FOR THE INSERVICE TRAINING


### APPENDIX H

**INSERVICE TRAINING CURRICULUM CHART**

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>ACHIEVEMENT OF OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Needs assessment to determine the degree of knowledge of the TR staff in leisure education and attribution theory.</td>
<td>Pre test knowledge test.</td>
</tr>
<tr>
<td>2. To learn the fundamental principles of attribution theory.</td>
<td>Lecture and hand-out will be given in this session.</td>
</tr>
<tr>
<td>3. Discuss the TR Service Model.</td>
<td>Overhead of the Compton-Witt Model.</td>
</tr>
<tr>
<td>4. To discuss the implications of theory for TR.</td>
<td>Lecture and overhead. Refer to hand-out.</td>
</tr>
<tr>
<td>5. To learn the goals of leisure education.</td>
<td>Lecture and overhead. Hand-out of goals.</td>
</tr>
<tr>
<td>6. To identify means available in the hospital for leisure pursuits.</td>
<td>The participants will make a list of facilities, equipment and services available. They will divide into two groups.</td>
</tr>
<tr>
<td>7. To enumerate the means available for leisure pursuits.</td>
<td>Discuss in what other way might the facilities and equipment be used.</td>
</tr>
<tr>
<td>8. To provide leadership and programming techniques.</td>
<td>Introduction to activity analysis. Overhead of &quot;Avedon's Interaction Patterns.&quot;</td>
</tr>
<tr>
<td>9. To learn how to work with the Activity Analysis Work Sheet (AAWS) and the Activity Analysis Rating Sheet (AARS).</td>
<td>Discussion of the AAWS. Each individual will fill out a AAWS. Each individual will fill out the AARS.</td>
</tr>
</tbody>
</table>
### APPENDIX H—Continued

<p>| | |</p>
<table>
<thead>
<tr>
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<th></th>
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</thead>
<tbody>
<tr>
<td>10.</td>
<td>To familiarize the specialist with the LDB scales.</td>
</tr>
<tr>
<td>11.</td>
<td>To discuss the purpose of the LDB scales.</td>
</tr>
<tr>
<td>12.</td>
<td>To learn the LDB process.</td>
</tr>
</tbody>
</table>
APPENDIX I

THE LEISURE DIAGNOSTIC BATTERY PROCESS

Perceived Leisure Competence Scale
Perceived Leisure Control Scale
Leisure Needs Scale
Depth of Involvement in Leisure Scale
Playfulness Scale

Does a problem exist?

Assessment Follow-Up

Is additional information about client needed?

Consult with the client

Preference Inventory
Knowledge Test
Barriers Inventory

Is additional information needed?

Consult with leaders, parents, significant others

Determination of Remedial goals

Do preferred activities offer adequate opportunity for remediation?

Are opportunities available in preferred activities?

Substitutability

Determination of Remedial Strategies

Implement Strategies

Post Program Assessment
Was treatment successful?

Tutor/agency as a resource

Yes

No

Yes

No
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Books


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Heider, P., "Thing and Medium," Verlag der Philosophischen Akademie, Erlangen, 1 (February, 1926), 109-137.


Wilcox, N. and E. Stauffer, "Follow-up of 423 Consecutive Patients Admitted to the Spinal Cord Injury Center, Rancho Los Amigos Hospital, 1 January to 31 December, 1967," International Journal of Paraplegia, 10 (April, 1972), 115-122.


Publications of a Learned Organization


Unpublished Materials
