To the Graduate Council:

I am submitting herewith a thesis written by Amy Alene Booher entitled " A Test of Anxiety for Re-integration into the Community." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Recreation and Leisure Studies.

Dr. Gene A. Hayes, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Associate Vice Chancellor and
Dean of The Graduate School

"A Test of Anxiety in Right Cerebrovascular Patients for Re-integration into the Community"

A Thesis
Presented for the
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Abstract

This was a descriptive study for the purpose of examining the effects of hospital outings on anxiety levels of inpatients who had experienced a right cerebrovascular accident (CVA). Eight subjects diagnosed with a right CVA participated in the study. The subjects included 6 males and 2 females. All eight subjects received a doctor's order for a community re-entry outing. The instruments for data collection were the IPAT Anxiety Scale Questionnaire (referred to as the Self Analysis Form) and a demographic questionnaire. Administration of the questionnaires took place before and after participating in the outing. The results of the IPAT anxiety scale indicated 6 of the 8 subjects' anxiety level either decreased or stayed the same while 2 of the 8 subjects' anxiety level increased after participating in the hospital outings to the local malls. Based on the information, the data suggests that changes occur in anxiety levels of patients after participating in the hospital outings. The recommendations suggest future research on the relation between hospital outings and change in anxiety level.

Table of Contents

I. INTRODUCTION 1
- Statement of the Problem 3
- Research Questions 3
- Definition of Terms 3
- Assumptions 5
- Limitations 5
- Delimitations 5
- Setting for the Study 6
- Significance of the Study 6
- Summary 7

II. REVIEW OF LITERATURE 8
- Theory 16
- Summary 18

III. METHODOLOGY 19
- Subjects 19
- Rationale for Instrumentation 19
- Procedures 20
- Analysis of Data 21
- Summary 22

IV. RESULTS AND DISCUSSION 23
- IPAT Anxiety Score Results 23
- Table 4-A. HOSPITAL OUTING IPAT ANXIETY SCALE RESULTS 24
- Figure 1. Anxiety Levels of Patients Before and After Hospital Outings 25
- Table 4 - B. DEMOGRAPHIC DATA AND ANXIETY SCALE RESULTS 26
- Individual Subject Results 26
- Discussion 28

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 29
- Summary 29
- Conclusions 30
- Recommendations 32

REFERENCES 34

APPENDICES 37
- APPENDIX A 38
- APPENDIX B 42

VITA 44

Chapter One
Introduction

The goal of the rehabilitation process is to assist the patient in achieving his full recovery potential. Several studies emphasized the importance of community re-integration as an integral component of the rehabilitation process. Kinney and Coyle's (1992) research demonstrated the importance of leisure and recreation in the life satisfaction of the physically disabled population using leisure and recreation as important modalities for individuals with disabilities. Their study supported community re-integration as a treatment component during rehabilitation. In order to meet the goal of the rehabilitation process, clinical professionals focus on maximizing the patient's quality of life through treatment components. Haney and Rabin (1984) suggested social treatment programs to facilitate the transition from the hospital to the community. Researchers indicated a need for studies examining how leisure is linked to one's life satisfaction and depression (Niemi, Laaksonen, Kotila, & Waltimo, 1988). Yet none of these studies examined the transition from hospital to community using community re-integration during the rehabilitation process. As a result, this study evaluated anxiety levels in association with the transition from hospital to community.

Recreation Therapy hospital outings serve as the medium for community re-integration. This study looked at the effects of hospital outings on anxiety levels of inpatients suffering from right cerebrovascular accidents in an effort to determine whether hospital outings are effective at re-integrating patients into society after the onset of disability.

According to Albert Bandura's theory, if one can influence a person toward feelings of efficacy, feelings of anxiety and fear will decrease (Bandura,1982 as cited in Monte, 1991). Bandura's theory states, aversive events trigger avoidance behavior because they are associated with the existing pain or injury. Thus anxiety arousal is triggered simultaneously with exposure to the threatening event. In other words, the person feels distressed when faced with the idea of not being able to cope with the event. Not being able to meet the expectations of the event relates to a person's self-efficacy. "Low or inaccurate feelings of self-efficacy are causal in predicting a person's response to threatening ideas and stimuli" (Monte, 1991, p. 791). Bandura explains:

> Acquired threats activate defensive behavior because of their predictive rather than their aversive qualities. They signal the likelihood of painful outcomes unless protective measures are taken. Defensive behavior, in turn, is maintained by its success in forestalling or reducing the occurrence of aversive events. Once established, defensive behavior is difficult to eliminate even when the hazard no longer exists. This is because consistent avoidance prevents the organism from learning that the real circumstances have changed. Hence, the failure of anticipated hazards to materialize reinforces the expectation that the defensive maneuvers forestalled them (Bandura, 1977b as cited in Monte, 1991).

A hospital outing served as the example of a 'protective measure'. Outings reduce anxiety and thus inadequate behavior by enabling the patient to cope with the demands imposed by the disability, usually through the use of adaptations. According to Bandura, as feelings of helplessness decrease, anxiety is reduced. In support of this theory, hospital outings could decrease helplessness by educating the patient on how to function in the community with his/her disability.

Statement of the Problem

The purpose of the study was to measure the effect of hospital outings on anxiety levels of inpatients who experienced a right cerebrovascular accident. Subproblems include:

1. To determine if there was a difference on pretest and posttest scores on the IPAT test.
2. To determine if there were any trends in demographic data.

Research Questions

1. Will the data on right cerebrovascular subjects indicate a change in anxiety level from pretest to posttest anxiety scores?
2. Will there be any trends among age, education level, gender, race, or length of stay and change in anxiety level?

Definition of Terms

The major terms used in this study are defined below:

Outings: Outings re-introduce the individual back into the community, assess functional level, and provide education on accessibility and adaptations needed for community involvement. Following a doctor's order, outings are scheduled by the recreation therapist. Outings take place in the community and involve adaptive horseback riding, adaptive aquatics, and visits to the local malls and museums. Trips to the local malls occurred in this study.

Anxiety: A state of uneasiness and distress about future uncertainties; apprehension; worry (Houghton Mufflin Company, 1985).

Right cerebrovascular accident (CVA): Commonly called a stroke which occurs when blood circulation to the brain area is blocked and vital brain tissue dies. Whatever the cause, the type and extent of neurological deficits that follow reflect the area and extent of damage. Usually damage results in paralysis on the left side of the body along with sensory deficits (Marieb, 1989).

Integration: An act or the process of integrating (Houghton Mufflin Company, 1985). For the purpose of this study, integration referred to the patients learning ways to adapt in the community with their disability by participating in recreation and leisure activities during outings.

Self-efficacy: mastery or competence (Monte, 1991). For the purpose of this study, the subjects competence in leisure and recreation participation was through the use of educational outings.

Adaptations: something that is changed or changes so as to become suitable to a new or special use or situation. For the purpose of this study, adaptations referred to the alternative ways used to participate in recreation and leisure outings since onset of disability.

IPAT Anxiety Scale Questionnaire: instrument used to test overall anxiety before and after each outing.

Assumptions

The validity of these results was on the assumption that the subjects responded to the Self Analysis Form honestly.

Limitations

The study was limited by:

1. Patients length of stay in the program limited the number of outings.
2. Cognitive ability of patients limited the selection of the instrument.
3. Number of patients medically appropriate for the hospital outing limited number of subjects available for research.
4. The inability to control extraneous variables.
5. Assessment was based on only one outing per patient to the local mall.
6. The inability to control similarity of outings.

Delimitations

The study was delimited by:

1. The researcher did not use a control group.
2. Right CVA patients comprised the sample of this study.
3. The instrument was applied in a pretest/posttest format within 24 hours and this could influence the participants ability to recall some fraction of his/her earlier responses.
4. The small sample size was a result of the limited number of right CVA patients appropriate for hospital outings.
5. The time of year (fall) could influence anxiety level of patient.

Setting for the Study

Fort Sanders Regional Medical Center is a 575-bed facility staffed with over 300 physicians and professionals. Fort Sanders opened the Patricia Neal Rehabilitation Center (PNRC) in the Spring of 1978. PNRC is a 72-bed comprehensive rehabilitation facility. The Center uses a multi-disciplinary team approach made up of physicians, rehabilitation nurses, physical therapists, occupational therapists, speech-language pathologists, rehabilitation social workers, psychologists, and recreation therapists. The Center provides treatment to patients diagnosed with spinal cord injury, brain injury, stroke, and various other disabling conditions. Patients are required to attend scheduled therapies beginning at 8:30 a.m. and ending at 4:00 p.m. (Patricia Neal Rehabilitation Center Directory of Services). One of the services the Recreation Therapy Department provides is community reintegration using outings to educate patients on accessibility, adaptations, and functional level for community involvement. Hospital outings are for inpatients only. The hospital outings at Fort Sanders include adaptive horseback riding, adaptive aquatics, and visits to the local malls, museums, and restaurants.

Significance of the Study

The study focused on the effect of hospital outings by measuring anxiety levels of inpatients who had experienced a right CVA. The extraneous variables should have been eliminated by directly measuring changes in anxiety levels after the outing. The purpose of researching hospital outings was to provide data on the effects of outings on anxiety levels of right CVA inpatients. Once the patient mastered re-entry in the community using adaptations learned on the outing, anxiety level should have lessened according to Bandura's theory. The researcher used a specific population to eliminate any extraneous variables. Spinal cord injury (SCI) patients were not selected for the study because

during this time of year there are very few SCI inpatients. Brain injury patients were not used because instrument selection would have been limited and even then an instrument may not have been appropriate. Left CVA patients, due to the part of the brain impaired, usually are unable to communicate expressively and receptively. As a result, this study would have been inappropriate for these individuals.

Summary

This chapter introduced the problem being researched, including definition of terms to clarify any misconceptions that could be caused by unfamiliar vocabulary. In addition, the assumptions, limitations, and delimitation's of this study have been reviewed as well as the significance of the study stated.

Chapter Two
Review of Literature

This review investigated the rehabilitation process by determining the current approach to community re-integration, assessing research with self efficacy and anxiety, and reviewing the recommendations suggested for future research. Several studies have been done on spinal cord injury patients and methods of rehabilitation in achievement of a higher quality of life. There has been a deficit in addressing social interaction skills during treatment according to current research, as a result there is a widespread increase in social isolation and depression following discharge. In order to address these issues, this review begins by examining the degree of life satisfaction in adults with a physical disability.

Kinney and Coyle (1992) explored the concept of life satisfaction among adults with a physical disability and the contributions specific to life domains. Interviews were conducted using 790 adults ranging from 18 - 54 years of age resulting in use of 344 cases over a period of three years. Quality of life was measured using Center for Epidemiological Studies Depression Scales (CES-D), Rosenberg's Self-Esteem Scale, the Life 3 Scale, and 35 related life domain items taken from Andrews and Withey's quality of life survey along with Campbell, Converse, and Rodgers' Life Satisfaction Survey. These scales involved a 20 item questionnaire and a 10 item questionnaire, in addition to two separate questions from the Life 3 Scale inserted into the interview period. Results from this study indicated the need for rehabilitation to minimize the impact of disability on the individuals leisure participation. Regression analysis, factor analysis, multiple regression, and partial correlation summarized these results. Due to the individuals acquired disability, these results demonstrated the importance of providing clients with

leisure skills. Kinney and Coyle suggested that leisure adjustment and education are factors which contribute to subsequent life satisfaction after an acquired disability. Furthermore, they acknowledged a need for more research to determine individuals leisure involvement. According to Kinney and Coyle, leisure education and adjustment play a role in one's ability to adjust to injury and disability.

According to Haney and Rabin (1984), social competence is addressed as an important component to the rehabilitation process using community participation. The purpose of this study was "to improve attitudes while providing effective resocialization defined as an experience which would both address social isolation during hospitalization and provide an opportunity for the patients to maintain and develop social competence" (Haney & Rabin, 1984, p. 432). The purpose of this study was to demonstrate how social contact using people in the community could help to resocialize and improve attitudes of people in rehabilitation. Student participants in the study consisted of 45 college students from a physical therapy class, with 27 of them being the treatment group and the rest the control group. There were 18 patient participants with a spinal cord injury. The instrument used was the Attitude Toward Disabled Person (ATDP). This scale assessed the degree to which respondents perceive disabled persons as similar or dissimilar to nondisabled. In addition, a pretest/posttest design was used to assess student and patient comfort level, using the Student Comfort Level Scale and Patient Comfort Level Scale. Student Satisfaction Measurement Forms and Patient Satisfaction Forms were used as a means to monitor the program. These forms provided a review of the length of interactions, activities chosen, topics of conversation, student and patient perception of the encounter, and overall satisfaction with the experience. This scale also determined whether the individuals were interested in participating again. The impact of the experience was measured using the Patient Post Measurement Form which required

patients to indicate the degree to which they felt the experience served to affect self-acceptance, social interaction skills, boredom, morale, and self-assessment of attractiveness to the opposite sex. The role of the students was to increase socialization for the patients. The control group was exposed to information alone. The treatment group and control group were given the pretests in the same classroom and then given the physiologic sheets. Once these sheets were read, the comparison group took the posttest. Everyone in the treatment group was then scheduled for their patient contact, re: spinal cord injury patient. The interaction time was unstructured and the activity depended on the participants choice.

Results of this study indicated contact-plus-information experience between college students and newly disabled SCI patients served to improve attitudes toward the patients while additionally providing effective resocialization for the patients. Patient data showed the experience had given patients the opportunity to practice and develop social skills as demonstrated by the improvement patients reported in their social interaction skills. In addition, results indicated social isolation was reduced with social contact. In conclusion, this study demonstrated the importance of community participation in the rehabilitation process to enhance social adjustment for the newly disabled individual (Haney & Rabin, 1984).

The previous study indicated that social contact reduces social isolation. Research has also shown social competence has the potential to eliminate social isolation in the individual who has acquired a disability. Romano (1976) used inpatient rehabilitation as a means to use the individuals existing skills and then develop new skills. "Here remastery of social skills can be integrated with increasing physical skills, opportunities can be provided to an individual to practice social skills and then return to the protected environment "(Romano, 1976). According to Romano, social skills rehabilitation

involves a realm beyond the confines of the hospital such as shopping for clothes, going out socially, handling business transactions, or dealing with problems of elimination in public. This component of rehabilitation involves a step by step progression as each new skill is acquired. The individual with the disability learns to adapt in social settings and thus regains a measure of control in the environment. The psychological feeling of mastery contributes to a positive self-concept, reduction in anxiety, and a readiness for re-entry into society since onset of disability (Romano, 1976). Social skills rehabilitation allows the patient to see the staff as working in cooperation toward common goals, resulting in the individual's ability to re-integrate into society after discharge. Acquiring social assertiveness during inpatient rehabilitation provides long term results of physical competence with one's disability.

In support of the previous study concerning social skills training as a component to the rehabilitation process, another study by Dunn (1977) researched how certain social situations can create anxiety. The purpose of this study was to determine social situations which patients with spinal cord injury might avoid or which created anxiety due to social discomfort. The 20-item Social Situations Questionnaire developed by Dunn was administered to 40 male inpatients. In addition to the questionnaire, 40 patients were rated by 5 staff members on their adjustment to their disability using a 0 to 10 scale with 10 referring to good adjustment. The rating included the staff members definition of adjustment. The results indicated there was a mean social discomfort level rating of 3.4 over all items and all 40 subjects. The groups which showed the most social discomfort were injured two years or less, 35 years or older, and paraplegic or quadriplegic. The results from the staff members rating of adjustment to disability was consistent between each staff and the individual despite the variation in the staffs definition of the term. The correlation between the patients total discomfort score and the five staff ratings indicated

patients who were not socially at ease were also less adjusted with their disability. In addition, the ratings by the staff revealed the patients who were not adjusted to their disability expressed most concern during social situations such as difficulty with elimination functions, public embarrassment and refusing unwanted help. This study indicated the social concerns of individuals with disabilities and the importance of their education during rehabilitation.

Several studies have researched spinal cord injuries and their adjustment to disability yet limited research has been done examining the impact of specific components of rehabilitation and how these components have facilitated an improved quality of life in stroke survivors. One specific study investigated the quality of life in relation to recovery from stroke (Niemi et al., 1987). This study used a 4 year follow-up and found that although 98 percent of the patients were living at home, their quality of life was not restored. Eighty-three percent of the patients showed deterioration in quality of life ranging from 39 percent in activities at home to 80 percent in leisure time activities. Depression was also reported in this study. This study suggested that care providers focus on one's quality of life using encouragement, psychological support, and adjustment training after stroke.

Another study involving 85 patients with acute stroke found that 6 months after hospital discharge patients were experiencing difficulty with depression, anxiety/anger or both, significant social isolation, and/or reduction in community involvement (Feibel, Berk, & Joynt, 1979). Results were attributed to professionals not meeting the psychosocial needs of stroke survivors.

Several studies referred to a holistic approach using community integration as a strategic component to rehabilitation (Humber & Elderberg, 1993, Willer & Corrigan, 1994). One such study involved the East Mountain Head Injury Center (EMHIC).

EMHIC's main goal is returning the individual to competitive employment or related education wherever possible using community integration as one of the mediums. This study involved closed head injury rehabilitation, individualizing each program. Since community integration has become part of the program, head injury patients show increased independence in employment status and educational advancement. Results indicated increased employment following rehabilitation of EMHIC's 48 cases including 21 cases who are now living independently and 6 who are living with EMHIC's assistance. The remainder are living with their families (Huber & Elderberg, 1993).

Another concept to community integration includes The Whatever It Takes (WIT) model for community-based services in addition to the medical rehabilitation model. This article represented concern about inpatient rehabilitation and its "insufficiency" with community integration for patients with head injuries. The concern extended past the medical model of preserving lives and reducing the level of impairment to improving role performance (Willer & Corrigan, 1993). According to the study, stereotypical roles of the patient were taken into consideration yet other roles were ignored. The WIT model emphasized a practical approach using programs and interventions to achieve community integration outcomes. This model proposed that skills should be taught in the setting the skill is used, thus limiting the neglect of skills after discharge. The WIT model proposed that community integration goals should be established with consideration to both strength and weaknesses, individuals current level of community integration, community integration desired, and community integration before injury. This model suggested community integration as active participation in a broad range of community involvement.

Studies report social isolation following discharge of patients with head injury (Hammell, 1994a, Hammell, 1994b) resulted from poor social integration and depression.

This study explored the relationship between measures of anxiety and depression and perceived availability and adequacy of social support for people with severe head injuries. Only males 20 - 59 years of age experiencing unconsciousness for 6 hours or more or a post traumatic amnesia of 24 hours or more participated in the study. These men were matched with men with spinal cord injuries (SCI) who withstood non-progressive, traumatic injuries producing either complete cord lesions or incomplete lesions which resulted in a significant degree of physical impairment. These men were matched in terms of age range and relationship status. One of the main categories assessed using the Interview Schedule for Social Interaction (ISSI) was the availability of social integration (AVSI) and the perceived adequacy of social integration (ADSI). Social integration is referred to as membership in a network of people who provide companionship, a base for social events, and an opportunity to exchange services (Henderson et al., 1978a;1980a as cited in Hammell, 1994b). The instruments reported validity and reliability, internal consistency, and test-retest stability. Results of this study were based on the correlations found between availability and perceived adequacy of social integration and anxiety and depression in the men with head injuries. Low levels of social integration were reported with significant levels of anxiety in 6 of the 15 men with head injuries who participated in the study. In addition, significant levels of depression were also reported in 7 of the 15 men.

Several studies have been done examining depression and CVA patients (Geddes & Chamberlain, 1994, Rooijen, Gingher, Gordon, & Mann, 1991, Johnson, 1991, Niemi et al., 1988, Fiebel et al., 1979) with very few studies examining depression and/or anxiety and CVA patients (Johnson, 1991). Rooijen et al.'s (1991) research indicated that of the CVA subjects who spent more of their time actively (reading, playing cards, crafts and writing letters or stories) participating in activities, 70 percent were found not to be

depressed, 18 percent moderately depressed, and 12 percent severely depressed. The subjects who spent more of their time passively (watching TV, sitting in the hallway doing nothing, and sleeping) participating in activities, showed 60 percent were not depressed, 9 percent were mildly depressed, 3 percent moderately depressed, and 28 percent severely depressed. Those patients actively participating in activities were far less likely to be severely depressed (only 12 percent compared to 28 percent). This study indicated that one third of the CVA patients were depressed although those that were active were less depressed. Studies have suggested that patients should have roles within the facility such as tasks and responsibilities, or involvement in social activities that are important to the individual and which encourage participation (Rooijen et al., 1991, Geddes & Chamberlain, 1994).

Johnson (1991) indicated stroke patients experiencing anxiety (phobic, social, or both) face the fear of going out, using public transportation, walking up or down stairs, going across roads, or having to speak to strangers. This anxiety was a result of being uncomfortable with one's disability because of either gait weakness, visual impairment, dysphasia, or cognitive deficits. This study indicated anxiety decreases as the individual becomes more comfortable socially and learns adaptations to his/her disability. Exposure to stressful situations or anxiety provoking circumstances are emphasized as an important component to rehabilitation under the supervision of professional staff. The purpose of this strategy has been to overcome patients occurrence of anxiety in unfamiliar settings (Johnson, 1991). "The quality of information given will, in some cases, determine how well the patient will adapt in the community, away from the security of the ward environment and nursing staff. It is therefore essential that patients who have had a stroke, and their care takers, are not only prepared physically, environmentally, and socially for discharge, but also emotionally" (Thomas, 1992).

Theory

According to Albert Bandura, people experience high anticipatory and performance distress on coping tasks in which they perceive themselves to be inefficacious, but as the strength of their perceived self-efficacy increases their anxiety arousal declines (Bandura, 1991, Bandura, 1993). Patients who attain a high sense of self efficacy perform once threatening tasks with little apprehension. People who demonstrate the ability to handle situations tend to experience lower levels of anxiety and are less likely to magnify events that are unlikely to ever happen (Dienstbier, 1990). "Anxiety-reduction effects stem from the sense of personal control rather than from increased predictability of aversive events"(Gunnar, 1980, as cited in Dienstbier, 1990). According to several studies, a reduction in anxiety arousal occurred from using mastery modeling to increase one's perceived self-efficacy (Dienstbier, 1990, Ozer and Bandura, 1990).

Ozer and Bandura (1990) used mastery modeling to exercise control over certain events in the past with which an individual was unable to cope. People who believed they had no control over potential threats avoided the situation or environment due to increased anxiety arousal. An environment in which one did not feel he/she had the capability to cope appeared dangerous.

In the study performed by Ozer and Bandura (1990), self-defense skills were taught to women to determine if enhanced self-defense efficacy helped women to re-enter the social environment by helping them to control their fears of being attacked. According to this study, mastery experience was the vehicle by which one increased self-efficacy, for example, possessing self-defense capabilities. This study suggested performance enhances self-efficacy where failure undermines self-efficacy. Using

modeling, such as coping strategies, instruction (a step by step process), and a repeated practice of skills, individuals developed self beliefs of efficacy. Ozer and Bandura (1990) used the intervention of mastery skills in self-defense to control efficacy and influence the level of anxiety arousal. Results indicated that mastery modeling produced significant increases in subjects perceived self-efficacy. After the mastery modeling, subjects were more active in social, recreation, and community activities and maintained the increased level of activity.

Further studies have examined self-efficacy and the effects on the human immune system in coping with stress (Wiedenfeld, Bandura, Levine, O'Leary, Brown, & Raska, 1990). One study involved snake phobics with a low sense of coping efficacy. Strength of perceived coping self-efficacy, heart rate acceleration, cortisol activation and several components of the immunologic system were measured under three conditions: no exposure to the phobic stressor, a perceived self-efficacy-acquisition phase, and a perceived maximal self-efficacy phase. The self-efficacy phase involved a 2 hour session of structured activities incorporated with confrontation and coping strategies using a snake. Coping strategies were followed using a step by step process of instruction and then gradually moving toward interactions with the phobic object. Results indicated that subjects perceived self-efficacy progressively increased in strength, as they continued to gain experience in coping with the phobic stressor. Stress in conjunction with the process of achieving mastery was immunoenhancing rather than immunosuppressing (Wiedenfeld et al., 1990). This study supported the concept that mastery modeling increases perceived self-efficacy.

According to Bandura (1993), the most central contribution to one's functioning is the ability to take control over functioning level and over events that affect peoples lives. People who have high levels of self-efficacy envision success for themselves whereas

people with low levels of self-efficacy focus on the things that go wrong. "There is a marked difference between possessing knowledge and skills and being able to use them well under taxing conditions. Personal accomplishments require not only skills but self beliefs of efficacy to use them well"(Bandura, 1993, p. 119). "Self-efficacy beliefs contribute to motivation in several ways: They determine the goals people set for themselves, how much effort they expend, how long they persevere in the face of difficulties, and their resilience to failures" (Bandura, 1993, p. 131).

Summary

Researchers have suggested the importance of community re-integration as a component of the rehabilitation process. Several studies indicated patients following discharge experience social isolation and psychological problems such as depression. Few studies have examined levels of anxiety although some suggested individuals experience anxiety arousal following discharge as a result of not being adjusted to their disability. Researchers have indicated a deficit in studies evaluating social skills treatment during rehabilitation and skills being taught in the environment in which they are used. In conclusion, the following review indicated limited statistical research using community re-entry programs during inpatient rehabilitation.

Chapter Three
Methodology

This study measured the effect of hospital outings on anxiety levels of inpatients who had experienced a right cerebrovascular accident. This chapter explains all procedures used in the present study. The subjects, size of population, and major characteristics of population are described. The rationale for the selection of the instrument is explained. The instrument is described in terms of purpose, content, validity and reliability.

Subjects

Subjects for this study involved 8 patients from Fort Sanders Regional Medical Center's Recreation Therapy Department. Each subject diagnosed with a right CVA accident was given the opportunity to participate. The subjects came from Knoxville and surrounding areas within a 180 mile radius. The sample represented males and females ranging from 19-75 years of age. All subjects signing the consent form (see Appendix A for a sample consent form) became part of the experimental study. Only the first hospital outing was tested . The subjects willing to participate in this study were asked to fill out a Self Analysis Form before the hospital outing and after the hospital outing. The hospital outings involved trips to the local mall.

Rationale for Instrumentation

The instrument used in this study was the IPAT Anxiety Scale Questionnaire (Self Analysis Form), along with a demographic questionnaire (see Appendix B for a sample demographic questionnaire). The demographic questionnaire was used to determine age,

sex, ethnic background, marital status, highest education level, length of time since injury, and diagnosis. This allowed the researcher to select right CVA participants for this particular study and rule out confounding variables.

The IPAT Anxiety Scale Questionnaire was developed by Samuel E. Krug, Ph.D., I.H. Scheier, Ph.D., and Raymond B. Cattell, Ph.D (Krug, Scheier, & Cattell, 1976). The IPAT was first published in 1957 and revised in 1976. This scale provided a brief objective measure of anxiety, taking approximately 10 minutes to administer using a 40-item questionnaire. However, the time varied depending on the participant's cognitive level. The IPAT was used because it has the ability to measure changes in anxiety levels and response distortion was unlikely to occur. The IPAT has two types of reliability estimates: test-retest reliability and internal consistency. A test-retest coefficient of .60 was reported for 170 medical students over a two year period. The standard error of measurement was approximately +/- 3 raw score points. The IPAT provides a significant measure of reliability for purposes involving group comparisons such as origin and dynamics of the anxiety symptomology in a particular individual. IPAT validity is recognized at .90.

Procedures

After reviewing the population, the researcher compiled a list of right cerebrovascular patients as possible candidates for the study. The researcher met individually with each candidate to review participation in the study and the consent form. The consent form included explanation of involvement, any potential risks, and confidentiality. After all the possible participants had met with the researcher to review the study and consent form, each participant was given the opportunity to ask questions about the study. Each interested participant was required to give the researcher full

informed consent by acknowledgment and signing of the consent form. Once the participant had decided to take part in the study and had turned in a signed consent form, the participant was ready to take part in the study.

The researcher met with the participants 24 hours before the scheduled outing time to administer the pretest of the Self Analysis Form. The participants were given instructions to be as honest as possible in answering the questions and also reminded of the confidentiality of the scores. The Self Analysis Form took approximately 10 minutes to answer. After taking the pretest at the designated time the participants met for departure on the outing. Upon returning from the outing, the participants were administered the posttest of the Self Analysis Form. Tests were administered on an individual basis.

The data were collected over a two month period. Data were gathered on 8 right CVA subjects participating in one of four scheduled outings.

Analysis of Data

The total possible anxiety score was 80. A key was used to score the Self Analysis Forms. Norm tables were used to determine the linear transformation. The total scores from the Self Analysis Form were compared on the IPAT anxiety scale from before and after the outing. This information assessed the benefits of hospital outings on the rehabilitation process of right CVA patients by examining changes in anxiety levels before and after the outing. A descriptive analysis of the pretest and posttest groups summarized the data.

Summary

Chapter three outlined the methodology of the current study. The size and major characteristics of the population were described. Validity and reliability were reviewed. The rationale for the selection of the instrument, the IPAT Anxiety Scale Questionnaire (Self Analysis Form) was discussed. The purpose and content of the instrument was explained including validity and reliability of the instrument. The chapter concluded with a description of the procedures used to analyze the data.

Chapter Four
Results and Discussion

The following chapter is a descriptive analysis on the effects of hospital outings on right CVA patients. The results of the IPAT anxiety scale were based on the pretest/posttest data. The IPAT anxiety norm tables determined whether anxiety levels were average to serious among the subjects in the study. Beginning anxiety scores and final anxiety scores have been used to help evaluate the effects of hospital outings on the eight subjects who participated in the study (see Figure 1 for bar graph of results). Demographic data evaluated possible trends among sex, age, gender, ethnic background, education level, length of stay and change in anxiety level.

IPAT Anxiety Score Results

The purpose of the study was to determine the effect of hospital outings by measuring change in anxiety levels of inpatients who experienced a right cerebrovascular accident. The IPAT anxiety scale was administered to 8 different subjects 24 hours before the scheduled outing and then within 30 minutes after the outing. Administering the test 24 hours before the outing assisted in decreasing the subjects ability to recall test questions. Administering the posttest directly after the outing minimized extraneous variables that could interfere following participation in the outing. Each of the 8 subjects participated in one of the four outings. Although there was an average of 2 outings scheduled per week for two months, only four of the outings involved right cerebrovascular patients.

The results of the IPAT anxiety scale (see Table 4-A) indicated 6 of the 8 subjects' anxiety level either decreased or stayed the same after participating in the hospital outing

to a local mall (see also Figure 1 for before and after hospital outing results). Of these 6 subjects, the lowest beginning anxiety level ranged from a 17 to the highest beginning anxiety level of 46. Based on these beginning levels, these subjects had various degrees of anxiety before participating in the outing. According to the IPAT anxiety scale norm tables 17 is an average level of anxiety, whereas a 40 and above would indicate a serious level of anxiety according to the adult population for converting anxiety scores. All 8 subjects' level of anxiety remained the same from pretest to posttest whether there was a numerical increase or decrease in anxiety or not. For example, if the pretest score was in the average anxiety level range it did not change in the posttest results. It is important to note the scale has been used in quantifying data based on subjects between the ages of 18 to 50. Despite the fact that some of this study's subjects exceeded 50 years of age, this scale was used to determine whether they had an average level of anxiety or serious level of anxiety. The IPAT anxiety scale indicates the higher the score the higher the anxiety. According to these beginning scores, some of the subjects were experiencing high levels of anxiety before leaving the hospital for the outing. Data collection involved participation from the first outing. The demographic data in Table 4 -B does not reveal any observable trends to indicate patterns of change in anxiety levels.

Table 4-A. HOSPITAL OUTING IPAT ANXIETY SCALE RESULTS

SUBJECT	PRE-TEST	POST-TEST	DIFFERENCE	*LEVEL
1	23	23	0	average
2	19	28	+9	average
3	46	45	-1	severe
4	29	39	+10	average
5	29	23	-6	average
6	24	23	-1	average
7	17	17	0	average
8	31	24	-7	average

*Level of anxiety: 17 - 39 average anxiety score, 40 - 80 severe anxiety score

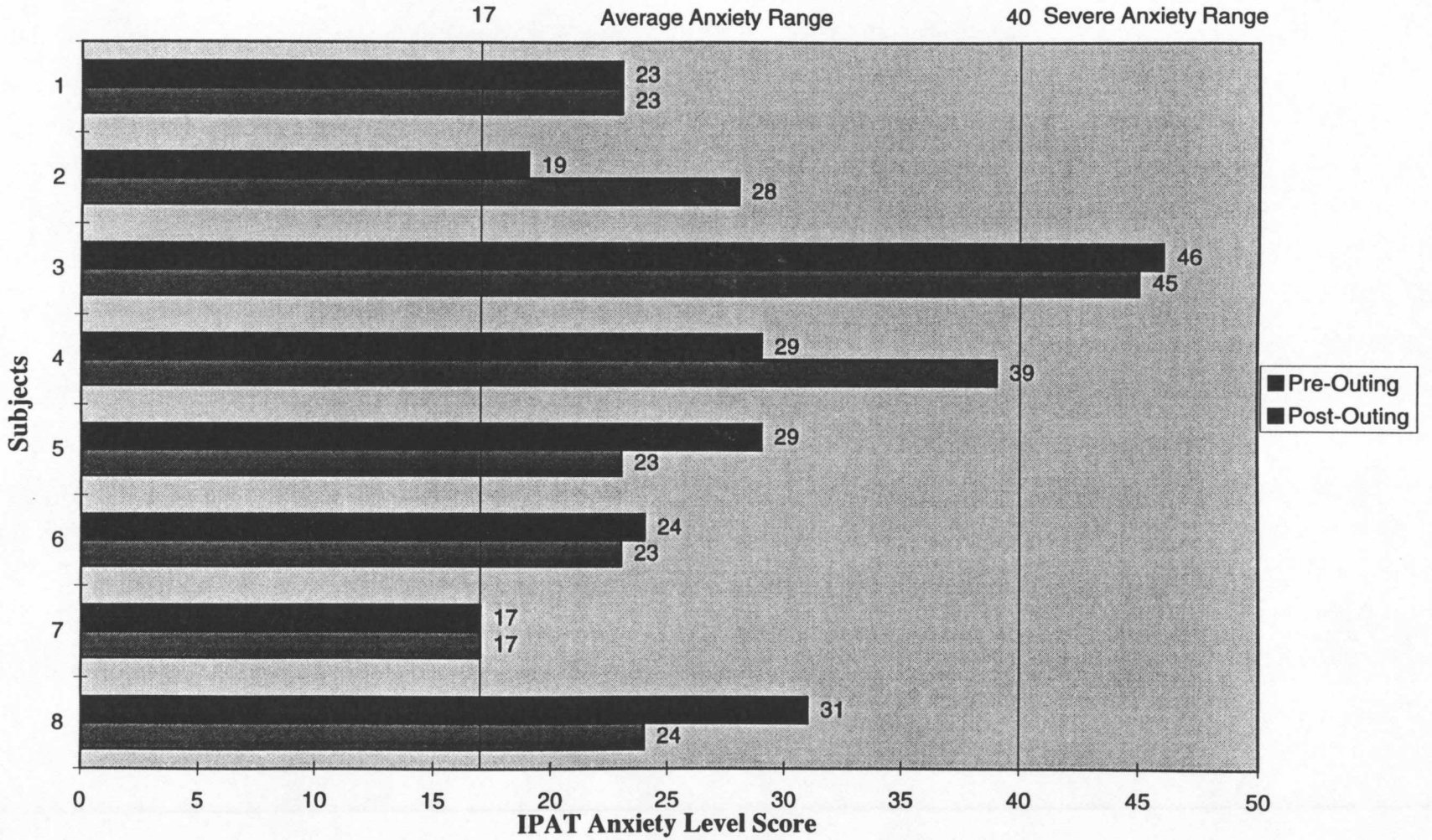


Figure 1. Anxiety Levels of Patients Before and After Hospital Outings

Table 4 - B. DEMOGRAPHIC DATA AND ANXIETY SCALE RESULTS

SUBJECT	PRE-TEST	POSTTEST	LENGTH OF STAY	AGE	*EDUCATION	MARITAL STATUS
1	23	23	17 days	72	0	M
2	19	28	35 days	69	4	M
3	46	45	21 days	67	0	W
4	29	39	11 days	19	0	S
5	29	23	16 days	75	0	M
6	24	23	28 days	61	1	M
7	17	17	37 days	37	0	D
8	31	24	12 days	72	4	M

*Education : 0 - did not finish high school, 1 - finished high school, 4- completed college

Individual Subject Results

This section discusses each subject's results individually. All 8 subjects were diagnosed with a right cerebrovascular accident. The data were collected from participation in their first outing. Each discussion includes subject's gender, marital status, length of stay before participating in the outing, and pre and posttest IPAT anxiety scale results.

Subject 1: This subject was a 72 year old married male who had been in the hospital for 17 days before going on the outing. The subject scored a 23 in both the pre and post outing tests. According to his IPAT results, this indicated the outing did not increase or decrease his anxiety levels. The IPAT norm table showed this subject with an average level of anxiety both before and after participating in the outing.

Subject II: This subject was a 69 year old married male who had been in the hospital for 35 days before participating in the outing. His IPAT anxiety score increased from a 19 to a 28 after participating in the hospital outing. According to his IPAT results, the data suggests the outing increased his anxiety level. According to the IPAT anxiety scale norm table, this subject's anxiety fell within the average anxiety range despite the increase after participation in the outing.

Subject III: Subject III was a 67 year old widowed female who had been in the hospital for 21 days before participating in the hospital outing. Her IPAT anxiety score decreased from a 46 to a 45 after participating in the outing. According to the IPAT anxiety scale norm table, this subjects anxiety fell within the serious anxiety range.

Subject IV: This subject was a 19 year old female who had been in the hospital for 11 days before participating in the hospital outing. Her IPAT anxiety score increased from a 29 to a 39 after participating in the outing. According to this score, the data suggest the hospital outing increased her anxiety level. The IPAT anxiety scale norm table indicated this subject's anxiety level remained in the average range both before and after the outing.

Subject V: This subject was a 75 year old married male who had been in the hospital for 16 days before participating in the hospital outing. His IPAT anxiety score decreased from a 29 to a 23 after participating in the outing. According to these results, the data showed the outing decreased his level of anxiety. The IPAT anxiety scale norm table indicated this subject had an average level of anxiety both before and after the outing.

Subject VI: This was a 61 year old married male who had been in the hospital for 28 days before participating in the hospital outing. His IPAT anxiety score decreased from a 24 to a 23 following participation in the outing. The data showed a slight decrease in level of anxiety after participating in the outing. The IPAT anxiety scale norm table indicated this subject had an average level of anxiety both before and after the outing.

Subject VII: This was a 37 year old divorced male who had been in the hospital for 37 days before participating in the hospital outing. His IPAT anxiety score stayed the same. He scored a 17 on the IPAT both before and after the outing. The data suggested the hospital outing had no effect on this subjects level of anxiety. Overall, this subject

had the lowest anxiety score of all the subjects participating in the study prior to the outing. Based on these results, this individual had low levels of anxiety in comparison with others who participated in this study. According to the IPAT anxiety scale norm tables, this subject fell within the average anxiety range.

Subject VIII: Subject VIII was a 72 year old married male who had been in the hospital for 12 days before participating in his first hospital outing. His IPAT anxiety results indicated a decrease in anxiety level. The pretest indicated a score of 31 with the posttest score decreasing to a 24. Based on the IPAT anxiety scale norm table, subject VIII had an average level of anxiety. According to these results, the data showed the hospital outing decreased this individuals level of anxiety.

Discussion

The results of this study suggest that hospital outings do not decrease overall anxiety levels in patients who have experienced a right cerebrovascular accident. Although there was a decrease in anxiety level, the small sample size affected the ability to generalize significant results. Of the eight subjects, 6 subjects' anxiety levels decreased or stayed the same while 2 of the subjects anxiety levels increased.

Chapter Five

Summary, Conclusions, and Recommendations

This chapter provides a summary of the study, determinations made from the results, and recommendations for future research. The summary covers the basis for the study, population, sample size, and selection of instrument. Following the summary the researcher's recommendations will be based on results of the data. In addition, this chapter reviews considerations for future research.

Summary

The purpose of this study was to measure the effect of hospital outings on anxiety levels of inpatients who experienced a right cerebrovascular accident. More specifically, the study sought to establish support for the inclusion of a selected set of hospital outings as part of Therapeutic Recreation to reduce anxiety levels in patients, thereby, facilitating the transition back into community living.

Eight subjects diagnosed with a right cerebrovascular accident participated in the study. The subjects included 6 males and 2 females. The subjects ranged from 19 to 75 years of age. The subjects were all inpatients at the Patricia Neal Rehabilitation Center in Knoxville, Tennessee. All eight subjects received a doctors order for a community re-entry outing to assess functional skill level in the community. After receiving a doctor's order, the Recreation Therapy Department scheduled outings for the patients.

For this study, data collection involved each subject's first outing. Twenty-four hours before the scheduled outing, the subjects participating in the study were administered the IPAT anxiety scale referred to as the Self Analysis Form. After returning from the outing, the subjects were re-administered the Self Analysis Form

within 30 minutes of the outing. Despite an average of 2 outings scheduled per week, only four of the outings involved right cerebrovascular patients. From these four outings a total of 8 subjects participated in the study. In addition to taking the IPAT Anxiety Scale, each subject answered a demographic questionnaire. The questionnaire provided information on the subject's date of birth, gender, age, ethnic background, marital status, and length of time since injury.

Conclusions

Scores on the IPAT Anxiety Scale indicated 6 of the 8 subjects anxiety level either decreased or stayed the same while 2 of the 8 subjects anxiety level increased. The data revealed no uniform change among the subjects whose anxiety levels increased or decreased. There were no patterns to suggest demographics influenced results and the small sample size limited the ability to generalize results. Through the use of this test the researcher was not able to determine the reason for the increase or decrease in anxiety. Based on the results of this study the researcher suggests the following possible conclusions: (1) one outing does not change anxiety level, (2) outings reduce specific anxiety levels (i.e. provide adjustment to wheelchair mobility/locomotion in the community), but reintroduce new anxieties in areas not previously thought about or, (3) the instrument did not appropriately test the subjects.

Based on the conclusion that one outing does not change the level of anxiety, the data would have shown little to no change in anxiety level. According to the results, 6 of the 8 subjects anxiety level either decreased or stayed the same. The size of the study limited the ability to generalize the effects. Whether there was a small change or no change suggests one outing does not provide enough basis to indicate whether outings decrease levels of anxiety. According to Albert Bandura, as feelings of helplessness

decrease, anxiety is reduced (Bandura, 1982 as cited in Monte, 1991). As a result, more than one outing of the type included in this study may be needed to provide an overall decrease in level of anxiety. Romano (1976) emphasized the importance of leaving the protected environment and practicing skills in the environment in which they are used. Through this experience the individual learns to adapt and thus regains control of the environment. Ramano's (1976) study suggested through this experience the individual masters feelings of self-efficacy. Once again as feelings of self-efficacy are increased, anxiety would decrease. In addition, Haney and Rabin's (1984) study demonstrated the need for social adjustment in the community following injury. This study noted that not providing enough social adjustment may result in an increase in anxiety. Based on Haney and Rabin, one outing may have not provided enough social adjustment thus resulting in the increase in anxiety.

If outings do reduce anxiety levels there is a possibility these outings also create new anxieties. According to Bandura, anxiety arousal is triggered simultaneously with exposure to a threatening event (Monte, 1991). Outings may reduce specific anxieties such as familiarity with accessibility in the community, wheelchair mobility, and awareness of one's own capabilities. But these outings could also introduce new fears that would be discovered after participating in the outing. For example, the patient may reduce his/her fear of wheelchair ramps but create a new anxiety about people staring. As a result, "low or inaccurate feelings of self-efficacy are causal in predicting a person's response to threatening ideas or stimuli" (Monte, 1991, p. 791). Continued outings provide opportunities to address these new fears by confrontation before discharge. In support of Albert Bandura's theory, by addressing the circumstance (i.e. disability or change) and realizing an adaptation could be applied to the situation, feelings of helplessness would be reduced. As a result, an individual would have reduced feelings of

helplessness and increased self-efficacy, and further reduced levels of anxiety. Research showed that social adjustment reduced social isolation (Haney and Rabin, 1976, Dunn, 1977). One specific study by Dunn indicated that individuals with a disability expressed most concern in social situations. As a result, Dunn's study emphasized the importance of rehabilitation addressing social concerns. Using Dunn's results in conjunction with hospital outings, an increase in anxiety could be the result of not being comfortable in the social situation. By addressing social concerns, outings overall could reduce fears that would normally follow discharge.

The third conclusion relates to the appropriateness of the instrument. The instrument could have had an effect on the decrease or increase in anxiety. Although the instrument measured change in overall level of anxiety, it did not test the specific types of anxiety related to outings. The questionnaire includes general questions about anxiety provoking situations. This could have had an effect on the results.

Recommendations

Based on findings of this study, the following recommendations were made:

(1) Research the effects of two or more outings for each patient before discharge. By testing patients from two outings, the first outing would serve as an introduction to the community since onset of disability. Further outings would address concerns and answer questions provoked from the first outing. Between the first and second outing the individual would be given a chance to ask questions and devise ways to make adjustments not addressed on the first outing. In addition, methods of adaptation used in the first outing could be discussed and further refined.

(2) Devise a specific instrument to test change in the specific levels of anxiety hospital outings are designed to reduce. Using a test specifically appropriate to the situation would provide a better basis for conclusions.

(3) Perform a follow-up study on the subjects in this study 1 month after discharge to evaluate whether anxiety levels changed following discharge.

(4) Test other types of outings to determine the effects of anxiety levels on patients. Outings, such as the adaptive horseback riding program, adaptive aquatics, and trips to the local malls and museums could be used for testing change in anxiety levels. These data could be used to help determine which activities have the most positive overall effects on patients.

(5) Evaluate outings using a sample size as large as 50 or more to determine if demographic trends are present in the data.

Summary

The purpose of this chapter was to draw conclusions and recommendations. The chapter started with a summary of the purpose of the study and a brief overview on the population that participated in the study. This chapter included a discussion of the IPAT anxiety scale and the procedures for testing. Scores and results were discussed followed by suggestions and recommendation for future research.

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APPENDICES

APPENDIX A

CONSENT TO ACT AS A SUBJECT IN AN EXPERIMENTAL STUDY

Title: A Test of Anxiety in Right Cerebrovascular Patients

1. PURPOSE OF THE STUDY

I, _____, a patient at Fort Sanders Regional Medical Center have been invited to take part in this study because I have had a right cerebrovascular accident. Research tells us how important leisure and recreation are for life satisfaction. The purpose of this study is to emphasize the value of hospital outings on my treatment and rehabilitative process.

2. PROCEDURE

This study involves completing a Self Analysis Form and demographic questionnaire. The demographic questionnaire will be used to determine my age and diagnosis.

Each week the Recreation Therapy Department schedules an outing. If I decide to participate in this study, each week before and after the hospital outing, I will complete the Self Analysis Form. The hospital outings at Fort Sanders Regional Medical Center involve a series of recreation and leisure experiences including an adaptive horseback riding program, an adaptive aquatics program, visits to the local malls, museums, restaurants, and local parks. I will take part in the study for at least one outing but no more than three. Data will be collected for a period of three months.

3. POTENTIAL RISKS:

There are no known potential risks involved in this study.

4. POTENTIAL BENEFIT:

There are no direct benefits from filling out the questionnaire; however, results from this study may support the continuation for hospital outings which may benefit myself and others who have experienced a disability.

5. CONFIDENTIALITY:

I understand that any record of my test results and demographic information is confidential and will be kept at the Patricia Neal Rehabilitation Center. While data may be published, no information will be published which can identify me personally.

Patient initials_____

6. LIABILITY:

I am aware that I will not receive any money to participate in this research study and that the Patricia Neal Rehabilitation Center (PNRC), and Fort Sanders Regional Medical Center (FSRMC) will not make payment to me, nor does the PNRC/FSRMC have any responsibility to arrange payment.

7. RESEARCH RELATED TO INQUIRIES:

I may find out more information about this study and the results by contacting Amy B. Marsh at the Recreation Therapy Department, FSRMC (541- 1353).

8. PATIENT RIGHTS INFORMATION:

I can find out about my rights and how I am protected during this study by contacting the Chairman of the Institutional Review Board Committee at the Thompson Cancer Survival Center (615) 541-1812.

9. VOLUNTARY PARTICIPATION:

I understand that it is up to me if I want to participate in this research study. I may stop participating at any time during this study without any penalty. My attending physician may withdraw me from the study if deemed medically necessary.

10. ADDITIONAL INFORMATION:

I understand that Thompson Cancer Survival Center Institutional Review Board's approval of this study is limited to medical management of research and patient care. I recognize that the Institutional Review Board does not provide any opinions on financial and contract relationships between myself, physicians, or the sponsor of this study.

I understand that I or members of my family can contact the Recreation Therapy Department if we have any concerns or questions regarding the Self Analysis Form or any other aspect of this study.

Patient Initials_____

11. PATIENT CONTRACT:

I UNDERSTAND THAT EVALUATION OF THE HOSPITAL OUTINGS IS EXPERIMENTALLY BASED. THIS PROCEDURE AND APPLICATION IS NOT CURRENTLY ACCEPTED AS STANDARD MEDICAL PRACTICE, AND NO GUARANTEES ABOUT ITS SUCCESS HAVE BEEN MADE TO ME. I HAVE BEEN OFFERED THE OPPORTUNITY TO ASK QUESTIONS ABOUT THIS STUDY AND ALL QUESTIONS HAVE BEEN ANSWERED TO MY SATISFACTION. THE CONTENTS OF THIS FORM HAVE BEEN EXPLAINED TO ME AND I UNDERSTAND THEM. I AGREE TO PARTICIPATE IN THIS STUDY AND TO ALLOW THE RESEARCHER, AMY B. MARSH, ACCESS TO MY MEDICAL RECORDS.

_____ _____

Patient's signature and/or Authorized Representative — Date

_____ _____

Witness Signature — Date

APPENDIX B

DEMOGRAPHIC SHEET

NAME:_____ **DATE OF BIRTH:**_____

SEX: Male ___
Female ___

ETHNIC BACKGROUND:
African-American ___
Asian ___
Caucasian ___
Hispanic ___
Other _____

MARITAL STATUS:
Single ___
Married ___
Divorced ___
Widowed___

HIGHEST EDUCATION LEVEL:
High School ___yrs
College ___yrs
Graduate ___yrs

LENGTH OF TIME SINCE INJURY: _____yrs _____mths

VITA

Amy Alene Booher was born in Coronado, California on December 1, 1970. She attended schools in Harpers Ferry, West Virginia, Paris, France, and Knoxville, Tennessee, where she graduated from Farragut High School, Knoxville, Tennessee in June, 1989. She entered Carson Newman College in the Fall of 1989 and graduated in May 1993, receiving a Bachelor of Arts in Biology. After working for a year, she entered the Master's program in Recreation and Leisure Studies as a grant scholarship recipient at The University of Tennessee, Knoxville during the summer of 1994. In December of 1995, she received her Master's degree in Recreation and Leisure Studies with a concentration in Therapeutic Recreation.