A Study of Participation in a Therapeutic Recreation Program and its Relationship to Leisure Functioning and Sobriety

By

Charles Michael Robillard

A Thesis

Submitted in Partial Fulfillment of the Requirements
for the Masters of Science in Recreation

Department of Recreation, Parks and Leisure Studies

STATE UNIVERSITY OF NEW YORK
COLLEGE AT CORTLAND

December 2009

Approved:

Date	Susan Wilson, Ph.D., Professor, Department of Recreation, Parks and Leisure Studies, SUNY Cortland
Date	Lynn S. Anderson, Ph.D., Professor and Chair of the Department of Recreation, Parks and Leisure Studies, SUNY Cortland
Date	Robert Walsh, CASAC, LCSW, Director of Inpatient Services, The Willows at Syracuse Behavioral Health, (SBH) Syracuse, NY

ABSTRACT

A Study of Participation in a Therapeutic Recreation Program
and its Relationship to Leisure Functioning and Sobriety

Charles Robillard
State University of New York at Cortland
2009

The purpose of this study was to investigate participation in a therapeutic recreation program and its relationship to leisure functioning and achieving and maintaining sobriety. The study was based at The Willows inpatient program at Syracuse Behavioral Health (SBH), a 28-day inpatient treatment center for substance abuse. Participants were randomly selected upon entering treatment to participate in the study if went to the SBH outpatient program upon completion of their inpatient treatment. Of the 505 patients entering treatment during the course of this study, 78 patients entered the study, and 33 completed all its requirements. The intervention was participation in the therapeutic recreation program, which used a leisure education model. Participants completed the Leisure Diagnostic Battery (LDB) upon entering the study and upon completion of their treatment. Level of participation in each therapeutic recreation group was rated using a Likert scale by the researcher, who was a Certified Therapeutic Recreation Specialist. Achieving and maintaining sobriety was determined by completion of the outpatient treatment program at SBH and remaining abstinent for six months. Means of the pre and post LDB were then compared for any change in leisure functioning in relation to level of participation. Results showed that those who participated at a high level in therapeutic recreation showed a significant improvement in leisure functioning, while those who participated at a low level did not. The relationship between participants' level of participation (high or low) and maintaining sobriety was analyzed using Chi-square. The results showed that there was no significant relationship between level of participation in therapeutic recreation and achieving and maintaining sobriety.

ACKNOWLEDGMENTS

This study would not have been conceivable or obtainable without the support of many individuals. I am very thankful to Dr. Susan Wilson for her patience and commitment in assisting me in this endeavor. Her flexibility in working with my schedule was paramount in my ability to complete this study. To Dr. Lynn Anderson whose passion for research and professional ethics exemplifies the true meaning of professionalism. Her passion has instilled in me the responsibility to always represent the field of Therapeutic Recreation as a professional. Dr. Vicki Wilkins, whose constant pursuit of equality opened my eyes to the hidden messages in our society. Her ability to see the strengths in everyone and hold all to the same standard has shown me what the word inclusion really means. Thank you Vicki, you have made me a better person.

I will be eternally grateful to my family and friends whose support and encouragement have made this long journey possible and bearable. My wife, Beth, who has supported me emotionally and financially over this long process, was the driving force for me to follow my dreams. She has never wavered in her support of my efforts. The emotional support and constant expression of pride from my mother Kathryn, my sisters Karen, Pat, Kathy, Susan and my brother David have strengthened me in times of doubt and frustration. Lastly, none of this would have been possible without the help of my proofreader, Tina Haines. Tina has been with me from the beginning, starting with my sophomore year. Her ability to bring out the best in me and her genuine interest in my studies made it a pleasure to write. She instilled pride in me and challenged me to always give my best. None of this would have been possible without her hard work and support. Thank you for helping make this dream a reality.

TABLE OF CONTENTS

ABSTRACT ……...iii
ACKNOWLEDGEMENTS .....……iv
TABLE OF CONTENT …..……...v
LIST OF TABLES vii

CHAPTER 1 INTRODUCTION/STATEMENT OF PROBLEM .……1
Purpose of Study ...…….…4
Objectives ……4
Assumptions 5
Delimitations .……...5
Limitations .……....6
Definitions .……....7

CHAPTER 2 REVIEW OF LITERATURE ..…….....9
Treatment Options .……..10
Primary Factors for Achieving Sobriety 13
Level of Involvement in Treatment 15
Summary 15

CHAPTER 3 METHODS .…….....17
Study Design ……...17
Subjects and Subject Selection ……...19
Intervention ……...20
Instrumentation and Procedures ...……....24
Collection of Data/Procedures ...……....28
Data Analyses Plan.....29

CHAPTER 4 RESULTS ...…….....30
Description of Participants …...…….....30
Leisure Functioning ...…….....31
Collection of Data …….....31
Level of Participation ...…….....31
Total Population In the Study …….....32
Hypotheses 1 ……...33
Low Level of Participation ……...34
High Level of Participation ……...34
Hypotheses 2 ……...36
Achieving Sobriety.....37

TABLE OF CONTENTS (continued)

CHAPTER 5 SUMMARY AND CONCLUSIONS 38
Summary of Procedures 39
Selection of Subjects 39
Instruments 39
Intervention 40
Treatment of Data 40
Summary of Findings 41
Leisure Functioning 41
Achieving and Maintaining Sobriety 42
Conclusions 42
Discussion and Implications 44
Recommendations 47

REFERENCES 50

APPENDIX A
Leisure Diagnostic Battery for Adults 54

APPENDIX B
Participation Level Assessment Instruments 78

APPENDIX C
Adult Consent Form 81

APPENDIX D
Human Subjects Proposal 83

LIST OF TABLES

Table		Page
4.1	Demographics of Participants in the Study	31
4.2	Summary of Paired Sample for Total Population in the Study	33
4.3	Summary of Paired Sample for Low level of Participation	34
4.4	Summary of Paired Sample for High level of Participation	36
4.5	Achieving and Maintaining Sobriety	37

Chapter 1

INTRODUCTION AND STATEMENT OF THE PROBLEM

Existing research that identifies recreation and leisure as an intricate part of recovery from addiction is somewhat limited (Malkin & Benshoff, 1996). The research that has been done has indicated that a healthy and balanced lifestyle is important to achieving and maintaining sobriety. The greatest potential for use is during a person's free time (Deiser &Voight, 1998). A person's participation in healthy recreation and leisure pursuits is key to the recovery process (Hood, 2003). A common characteristic of people entering treatment for addiction is a poor leisure attitude or leisure functioning. Examples include the inability to identify a meaningful recreation and leisure lifestyle and its importance to achieving and maintaining sobriety (Deiser &Voight, 1998).

There are numerous treatment options for substance abuse/addiction. One of the most effective and commonly used approaches is inpatient treatment. These treatment programs are very diverse in their approaches. Miller and Wilbourne (1997) identified numerous types of programs and their effectiveness. They identified eleven modalities that included brief intervention, motivational enhancement, medications, skill training, psychotherapy, marital and family therapies, mutual help approach, aversion therapies, specific behavioral procedures, milieu therapy and other clinical methods. One common

component of most inpatient treatment programs is a therapeutic recreation program (Malkin & Benshoff, 1996). Therapeutic recreation programs can be as diverse as the treatment programs themselves; however, most therapeutic recreation programs focus on improving the client's leisure attitude or leisure functioning through focusing on leisure education. This includes leisure awareness, leisure interest and barriers to leisure participation (Hood, 2003). Shank and Coyle (2002) identify leisure education as becoming informed of one's health/wellness, lifestyle issues, leisure issues and leisure influences. This is followed by intervention to help with motivation and readiness to implement change in leisure lifestyle (Mobily & MacNiel, 2002). Kunstler (year?) states leisure education in relationship to addictions helps individuals identify self leisure and the relationship to their own lifestyle, as well as developing social skills, assertiveness, stress management and identifying barriers to leisure. Nation, Bensholf and Malkin (1996) state that deficits to sobriety include lack of stress management skills, social skills and assertiveness. Research indicates that all of these areas are addressed in a comprehensive leisure education therapeutic recreation program.

The treatment for addiction is a complex issue. There are numerous barriers for persons seeking treatment for substance abuse (Miller & Wilbourne, 1997). One of these barriers is early childhood trauma; there is a new awareness of the number of people seeking help with substance abuse who have had significant early childhood trauma. These numbers have increased dramatically over the last three years (R. Walsh, personal communication, October 11, 2006).

The treatment of clients with substance abuse subjected to early childhood trauma is relatively new. Few inpatient treatment programs have identified the impact early

childhood trauma has on a client's ability to successfully complete treatment and maintain sobriety (R. Walsh, personal communication, October 11, 2006). According to Walsh, clients diagnosed with early childhood trauma have been shown to have difficulty in the areas of trust and positive socialization. This inability to trust others can be directly related to the inability of pursuing positive social leisure activities and interest. As stated earlier, the greatest potential for use is during a person's free time (Deiser &Voight, 1998). If a person has trust issues, this may impact their ability to expand their leisure interest and develop positive support networks. As Hood (2003) stated, a person's participation in healthy recreation and leisure pursuits is key to the recovery process. The inability to trust others and develop positive social support can be a major barrier to achieving and maintaining sobriety.

Studies of persons who have been victims of early childhood trauma indicate that it can have a significant impact on brain development, which in turn can play a crucial role in social development, including a lasting adverse impact on psychosocial development (Ford, 1998). Ford states, for instance, that extreme traumatization compromises the sense of self and trust and suggests it can alter self-perception, the perception of the perpetrator, as well as systems of meaning.

Children who are exposed to early trauma have also been diagnosed with Post-traumatic Stress Disorder (PTSD) most commonly found in veterans of war (Ford, 1998). Symptoms of (PTSD) include intrusions, flashbacks, avoidance, and hyperarousal. Children exposed to extreme trauma deal with the trauma in three ways: disassociation, hyperarousal and hypervigilance (Bruce, 2001). This exposure to childhood trauma can

significantly impact the emotional, behavioral, social, and functional status of a mature brain, thus making it difficult to develop positive social networks (Bruce, 1996).

The inability to develop positive social networks usually manifests in a person with substance abuse who suffers from early childhood trauma. This issue is reflected in their choice of leisure pursuits. The inability to develop positive social networks is related to the pursuit of positive leisure and social activities, thus making it difficult for persons exposed to early childhood trauma to engage in a positive social network which is key to the recovery process.

The review of literature suggests that there are a plethora of treatment options available for persons seeking treatment for substance abuse. The existing research suggests that the most effective way to treat substance abuse and achieve sobriety is through a community support network and positive socialization (Miller & Wilbourne, 1997). These elements can be and are addressed as part of a comprehensive therapeutic recreation program (Malkin & Benshoff, 1996)**.**

Purpose of the study

The purpose of this study is to explore the following:

1) The relationship between one's level of participation in a therapeutic recreation

program and one's ability to achieve and maintain sobriety.

2) The relationship between one's level of participation in a therapeutic recreation program and improving one's perceived leisure functioning.

Hypotheses

Assuming clients participates in a majority of the twelve therapeutic recreation sessions offered over the average 28-day treatment period, the following is hypothesized:

1. Clients who have a higher level of participation in the therapeutic recreation program will have a higher level of improvement in their perceived leisure functioning, while those who have participated at a lower level in the therapeutic recreation program will have a lower level of improvement, as measured by the Leisure Diagnostic Battery.

2. Clients who have a higher level of participation in the therapeutic recreation program will be more successful at achieving and maintaining sobriety after six months than those who participated at a lower level in the therapeutic recreation program

Delimitations

The scope of this study is delimited to persons seeking treatment for substance abuse at Syracuse Behavioral Healthcare (SBH) at the Willows inpatient treatment program. The average length of stay for clients at the Willows is 28 days. There is a maximum population of 40 clients at any one time; on average, there are 35 clients on site. On average, the population consists of 12 females and 28 males. Clients' ages range from 18 years of age to 78 years of age, with the average age of 28 years. Common

characteristics of clients seeking treatment at the Willows include the following; more than one attempt at inpatient treatment, a significant number of clients are court mandated to treatment due to legal issues, most have had some legal issues including arrest and/or jail time, a majority of clients are underemployed or unemployed and on average clients have a twelfth grade education.

The study is also delimited to the offerings at the Willows for therapeutic recreation. Clients typically are offered three therapeutic recreation sessions per week plus three social activities per week. The therapeutic recreation program at the Willows is a leisure education based model addressing the following dimensions; leisure awareness, leisure attitude, leisure interest, communication skills, socialization and sober leisure activities.

Limitations

This study was limited to clients seeking treatment for substance abuse at the Willows. Due to the fact that there was no experimental group and only having access to the population at the Willows limits the generalizability of the findings to a broader population. Threats to validity include measuring of perceived leisure functioning and level of participation in therapeutic recreation groups. In regards to perceived leisure functioning, threats to validity include pretest/posttest bias, maturation of participants, clients not completing their treatment due to early discharges or leaving the program against clinical advice. Threats to validity in regards to the level of participation in recreation therapy groups include:

1. Level of participation was a subjective measurement as recorded by an observer.
2. History of repeated attempts at in-patient treatment; which can lead to manipulation of staff and the intervention process.
3. The lack of an experimental group does not allow for a true experimental study.

Definitions

The following are defined and used in this study:

Leisure – primarily considered by the general public to be free or discretionary time or an activity (similar to recreation). Leisure researchers generally consider leisure to be the quality of an activity/experience characterized by perceived freedom, intrinsic motivation and satisfaction (Shank & Coyle, 2002).

Perceived Leisure Functioning – consist of five components of the LDB, perceived leisure competency, perceived leisure control, leisure needs, depth of involvement in leisure and playfulness**.**

- Perceived Leisure Competency – measures the level a person feels he or she is competent in their leisure.
- Perceived Leisure Control – measures an aspect of freedom that suggests the control one feels he or she has in determining what happens in the course of his or her leisure.

- Leisure Needs – measures the extent to which ones leisure involvement satisfies his or her intrinsic needs.
- Depth of Involvement in Leisure – identifies ones feelings during his or her preferred activity.
- Playfulness – is seen as a behavioral component of perceived freedom in relationship to leisure (Burlingame, 2002).

Substance abuse – the overindulgence in and dependence on a stimulant, depressant, or other chemical substance, leading to effects that are detrimental to the individual's physical or mental health, or the welfare of others (Mosby's, 2002).

Early Childhood - 18 months or 2 years of age to 4 years of age (Child Development Info, 2007).

Childhood Trauma – any of the following: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. (Bernstien & Fink, 1998)

Chapter 2

REVIEW OF LITERATURE

The purpose of this study was to explore the relationship of the level of participation in a therapeutic recreation program and one's leisure functioning and ability to achieve and maintain sobriety after treatment. A key component of the recovery process is based on the ability to develop a social support network and refocus leisure time into more constructive and rewarding activities. Both of these areas are addressed in a comprehensive therapeutic recreational program designed for the treatment of substance abuse. In the review of literature, it was found that there was limited research devoted to this topic. Malkin and Benshoff (1996) stated, "the majority of research at this point in time is either theory-based and programmatic, or descriptive" (p.26). Malkin and Benshoff further stated that physical activity programs are significant in treatment of substance abuse and need further research. They also stated that "given the demands of credentialing groups, and the asserted importance of leisure/recreation programming in the recovery process, so little outcome research exists" (p.31).

Based on the presumption that there is such little research in this area, this chapter is devoted to the following areas: types of treatment options available, what are considered to be the primary factors of treatment, the traits that lead to achieving and maintaining sobriety, and the explanation of possible relationship between one's level of involvement in such programs and success in remaining sober. The research in these areas compares directly to the dimensions of a recreation and leisure program and the

significant role recreation and leisure has in the treatment of addiction. More research is needed to identify and support the significance that a therapeutic recreation program has in achieving and maintaining a sober lifestyle.

Treatment Options

Review of literature suggests that there are a variety of treatment programs available today. Common components of these interventions include; identifying a client's motivation / readiness for change, community reinforcement, a support network and behavioral skill training.

Motivation and readiness for change are considered to be an elementary component of ones ability to achieve sobriety. DiClemente, Schlundt and Gemmell (2004) did a study on the Trans-theoretical Model (TTM). TTM is a program that focuses on the stages and the readiness of change. They identified five stages of change. The first is the precontemplation stage, where this is little or no interest in change. Then the contemplation stage; this is a risk reward stage. Next is the preparation stage, which is the commitment and planning stage. This is followed by the action stage, which requires taking the steps to implement the plan. The final stage is maintenance, where new behaviors become normal (DiClemente, et al., 2004). The researchers also state that "motivation is an important component in the process of change" (p.104). They also identify readiness as a willingness or openness to change (DiClemente, et al., 2004).

Research has shown that motivation and/or readiness for treatment correlate to attendance and a positive outcome as related to treatment (R. Walsh, personal

communication, October 11, 2006). Walsh, who is the director of inpatient service at Syracuse Behavioral Healthcare (SBH) at the Willows treatment program, stated that SBH implemented a readiness program for their inpatient program last year. This readiness program parallels the TTM approach. Since that time, the rate in which Willows clients leave the program against clinical advice has dropped significantly.

Smith, Meyers, William and Miller (2001) researched the Community Reinforcement Approach (CRA), which focuses on cognitive-behavioral treatment of addiction. In their research, they define CRA as a non-confrontational approach that helps clients identify internal and external triggers along with the positive and negative rewards of their use. They stated that "the CRA was ranked as one of the most efficacious and cost effective treatments available" (p.52). They also found that CRA is an effective treatment of addiction and works well across culturally diverse populations.

Community reinforcement and a support network have been identified as key components to achieving and more importantly maintaining a sober lifestyle. Galanter, Dermatis, Keller and Trujillo (2002) researched the network therapy approach to treatment of addiction. They define network therapy as an approach to manage substance abuse with individual sessions augmented by social support networks. They identified three key elements to the network approach: cognitive behavioral approach to relapse prevention, support of patients through a social network, and community reinforcement techniques. A significant finding was that the number of network sessions, not individual sessions, had more influence on the success of clients in this treatment. Mejta, Bokos, Mickenberg, Maslar and Senay (1997) researched the case management approach to treatment. They identify case management as clients who are assigned a case manager at

the point of initial contact. Their study indicated that clients who had a case manager entered substance abuse programs more rapidly than clients without a case manger. They also stated that rapid access to treatment was critical to maintain the clients' motivation for treatment. Their study found that case management clients spent an average of 27 months in treatment compared to 14 months for those without a case manager. This compares to research that states further improvement occurs in direct proportion to time spent in treatment.

Behavioral skills training was found to be a key component in most of the treatment programs identified in this review. Miller and Wilboyrne (1997) identified numerous types of programs and their effectiveness. They identified eleven modalities that include brief intervention, motivational enhancement, medications, skill training, psychotherapy, marital and family therapies, mutual help approach, aversion therapies, specific behavioral procedures, milieu therapy and other clinical methods. They stated that "the behavioral skill training approaches continue to dominate the top ten most effective modalities" (p.276).

While there appears to be numerous approaches to the treatment of addiction, all of the more successful treatment programs identified in this review have a common focus. They include readiness for change, social support and behavioral skills training. Since there seems to be so much focus on these areas, one can logically make the assumption that the development of these skills is a key component in achieving and maintaining a sober lifestyle.

Primary Factors to Getting and Maintaining Sobriety

The review of literature identified motivation, readiness, community involvement/ a support network, recreation/leisure and social skills as primary factors to maintaining sobriety. DiClemente, et al., (2004) stated that an abuser's motivation and intentions represent a critical part of the recovery process. They further stated that readiness for treatment and readiness for change do not go hand in hand. Research indicates that motivation or readiness for treatment is related to positive outcome. Mejta et al. (1997) stated that rapid access to treatment is critical to maintain motivation for treatment. DiClemente, et al., (2004) suggested that

> Readiness to engage in and comply with treatment recommendations as well as the motivational readiness of a client to change are both important indicators for assessing treatment participation and outcomes (p.105).

Community involvement/support network is a mainstay to any recovery program. Galanter et al. (2002) identified that the number of network sessions a client participated in had more significance to success than did individual sessions. Programs that offer and support community involvement remain one of the more productive forms of treatment. According to Miller and Wilboyrne (1997), empirical research shows that the most effective treatment methods were community reinforcement approach, social skills training and behavioral marital therapy. In a study on the influence of group membership, Elder, Barnes, Ches, Nagy and Leeper (2001) found that teens who participated in athletics and after school programs were less likely to use drugs than teens who did not belong to a group activity. According to Elder et al., "participating in these groups sends

a non-drug use message" (p.26). In another study, Rohsenow, Martin and Monti (2005) stated, "seeking social support, clean recreation, regular relaxation and healthy activities have lead to less cocaine use in cocaine abuser" (p.211).

Recreation and leisure have a significant role in achieving and maintaining sobriety. Deiser and Voight (1998) state that "the greatest potential for use is during one's free time" (p.78). Malkin and Benshoff (1996) believe that leisure and recreation skills are essential to any treatment program. According to Elder et al. (2001), one's participation in group activities has a significant impact on one's desire to use (p.26).This correlates directly to recreation and leisure pursuits. In a study on women in recovery, Hood (2003) stated "that the women in her study identified their leisure involvement as the turning point in their recovery process" (p.76). Walsh stated that without a support network, a client's chance of remaining sober drops significantly (personal communication, October 11, 2006).

Research has shown social skills training is another component to success in achieving and maintaining sobriety. A majority of the treatment modalities identified in this review have some form of social skills training. Empirical research has supported the effectiveness of social skills training as a key component in the treatment of addiction. Miller and Wilboyrne (1997) found that social skills training was among the top three most effective forms of treatment. According to Miller and Wilbyrne, "behavioral skill training dominates the ten most effective forms of treatment. Three of these methods emphasize social skills training" (p.276).

Level of Involvement

There is a direct correlation between one's involvement in the treatment process and the level of success in obtaining sobriety and remaining sober. Joe, Broome, Szal and Simpson (2002) found that individuals who abuse substances who showed a desire to seek help were more involved in the treatment process. They stated that "ones commitment to actively change through participation is an important element in changing behaviors" (p.187).

The reason a person chooses to engage in treatment has a significant impact on their level of involvement. In a study on motivation for treatment, Wild, Cummingham and Ryan (2006) found that the more clients felt they were seeking help on their own as opposed to social pressures, the more likely they were to engage in the treatment process. They stated, "external pressures for treatment were generally unrelated to client's engagement in the treatment process" (p.1871). DiClemente et al. (2004) stated "there is growing research that is indicating attendance in treatment is related to positive outcomes" (p.105).

Summary

This review of literature focused on the following three areas: the types of treatment options available, what are considered to be the primary factors of treatment and the traits that lead to getting and maintaining sobriety. This review also focused on

the relationship between one's level of involvement in such programs and their success in remaining sober. These areas compare directly to the scope of a recreation and leisure program and the significance the role recreation/leisure has in the treatment of addiction. In this review of the literature, there was little empirical evidence of the relationship of participation in a therapeutic recreation program to one's long-term sobriety. The review of literature identified the following primary factors to maintaining sobriety: motivation, readiness, community involvement/a support network, recreation and leisure, and social skills. All these factors would be covered in a comprehensive therapeutic recreation program focused on addressing the treatment of addiction. The literature suggests that there is little evidence supporting the role of therapeutic recreation and its impact on sobriety. In conclusion, further studies are needed to endorse the role that therapeutic recreation has in the field of treating addiction.

Chapter 3

METHODS

This study examined the relationship between participation in a therapeutic recreation program, leisure functioning and the ability to achieve sobriety. Specifically examined was the relationship between the level of participation in a therapeutic recreation program and its relationship to leisure functioning, as measured by the Leisure Diagnostic (LDB) for adults, and the ability to achieve and maintain sobriety contingent upon completion of the out-patient program at Syracuse Behavioral Healthcare (SBH).

This chapter describes the procedures used to examine the relationship between level of participation in a therapeutic program and leisure functioning as well as the ability to achieve and maintain sobriety. Descriptions of the therapeutic recreation program, data collection procedures, the selection of instrument and data analyses are provided below.

Study Design

The design of this study was a pre-experimental, one group pretest posttest design, Henderson and Bialeschki (2002) stated "pre experimental groups are more descriptive than experimental however, they share some of the same characteristics of an experimental group" (p.224-5). Due to requirements of treatment protocol at The

Willows, utilization of a control group was not possible since all clients entering treatment at The Willows were required to participate in the therapeutic recreation program.

There were two different questions evaluated in this study. 1) Was participation in the intervention (the Therapeutic Recreation Program) related to an increase leisure functioning? 2) Was level of participation in the intervention related to achieving sobriety?

The first part of the study measured leisure functioning. The independent variable was the intervention, level of participation in a therapeutic recreation program. The dependent variable was improvement in leisure functioning (a comparison of a pre LDB mean scores to a post LDB mean scores).

The second component of the study addressed the ability to achieve sobriety. The independent variable was the intervention, participation in a therapeutic recreation program. The dependent variable was participants' completion of outpatient treatment at SBH. Thus, participants' level of participation in the intervention was compared to completion of outpatient treatment at SBH.

Upon entering the study, participants completed a pre Leisure Diagnostic Battery designed for adults (LDB). Then the intervention, participation in the therapeutic recreation program, was implemented. During the intervention, participants' level of participation in each recreation group was evaluated and recorded by CTRS facilitating the groups. Upon completion of treatment at The Willows, participants in the study then completed a post LDB questionnaire. The CTRS then discussed the results of the

participant's pre and post LDB questionnaire and debriefed participants to the findings of their questionnaire.

Upon completion of treatment at The Willows, participants entered into treatment at Syracuse Behavioral Healthcare (SBH) outpatient program. Participants were then tracked for six months and evaluated for remaining abstinent and completing their treatment at SBH outpatient. Those who remained abstinent and completed the outpatient program were considered to have achieved and maintained sobriety. These results were then compared to level of participation.

Subjects

The study was designed to explore the level of participation in a therapeutic recreation program of persons entering a 28-day substance abuse treatment program at Syracuse Behavioral Health (SBH) the Willows inpatient treatment center. The population at the Willows consisted of a maximum of 40 clients, 12 female and 28 male, ranging in age from 18 to 78 years of age, with an average age of 28. On average there were 35 clients in the program in a given month. Common characteristics of persons seeking treatment at The Willows included the following: more than one attempt at inpatient treatment, a significant number of patients are court mandated to treatment due to legal issues, most have some legal issues including arrest and/or jail time and, a majority of clients are underemployed or unemployed. On average, clients had a 12th grade education.

Participants in the study were randomly selected from clients entering The Willows inpatient program. The only requirement for participation in the study was

attending aftercare at SBH. This requirement was necessary to allow the ability to track patients six months after completion of their treatment at the Willows. Attendance at aftercare was assessed through communication with the clients' primary counselor. A client's discharge plan was developed within the first week of treatment and indicated whether a client was attending outpatient treatment at SBH. The study was conducted from October 2008 through September 2009. On average there were five clients in the study at any given time. During the duration of the study, 505 patients entered treatment at The Willows. Of these, 78 patients were randomly selected to participate in the study. Of the 78 participants, 33 participants (.065 %, of the total population) completed the study. The population at the Willows at the time of the study consisted of 348 males and 157 females. The sample in the study consisted of 33 participants, 20 males and 13 females.

The average readiness for change for the overall population (505 patients) during the course of the study was 2.72. For males, the average readiness was 2.72, and for females it was 2.75.

Intervention

All clients entering treatment at the Willows were required to participate in the therapeutic recreation program. Clients participated in, on average, three therapeutic recreation sessions per week, plus three social activities per week.

The therapeutic recreation program was a leisure education model addressing the following dimensions: leisure awareness, leisure attitude, leisure interest, communication

skills, socialization and sober leisure activities. The following didactic modalities were used.

Leisure Awareness

The following are examples of the leisure awareness didactic modalities used in the intervention.

Is you life balanced? - the goals were to address the importance of a balanced leisure lifestyle which includes social health, physical health, mental health and emotion/spiritual health, as well as identifying the impact substance abuse has had on their leisure life.

Life line - the goals was to improve awareness of past and anticipated leisure patterns and improve overall awareness of personal meaning of leisure.

Recreation is where you find it - the goals were to increase knowledge of leisure resources, identify leisure patterns and evaluate level of leisure involvement.

Twenty things I like to do - goals included increased awareness of leisure patterns and ability for leisure planning.

Habits - goals were to improve awareness of using habits and patterns, explore the reasons and patterns of using during certain activities and explore alternatives to using during these activities.

Leisure Attitude

The following are examples of the leisure attitude didactic modalities used in the intervention.

12 by 12 room - the goals were to increase leisure attitudes, values and needs, improve problem solving and improve familiarity with leisure resources.

Leisure coat of arms - the goals were to help identify what the participant is doing with his/her life. Are they simply settling, just reacting to others or in control of the direction of their lives and does their life make a difference. This activity is a kinder gentler fourth step inventory.

I am your recovery creative writing - goals included the opportunity to define what recovery means to them and identify what they have lost due to their addiction.

Leisure Interest

Twenty things I like to do - goals included increased awareness of leisure patterns and ability for leisure planning.

Recreation is where you find it - the goals were increased knowledge of leisure resources, identify leisure patterns and evaluate level of leisure involvement.

Leisure activity self-contract - the goals were to identify leisure interest, improve decision making and goal setting and caring out goals.

Communication Skills

Cross the river - the goals were to improve communication skills, develop teamwork, create a sense of fellowship and introduce the value of the twelve steps of recovery.

Diagrams - the goals were to understand how the lack of communication skills can lead to relapse and to experience emotional recreations during communication and develop ways to handle negative reactions.

Assertiveness - the goals were to clarify the differences between passive, assertive, and aggressive responses, increase the ability to own and express personal options and increase awareness of the need for assertion of personal needs in recovery and in relapse prevention.

Socialization and Sober Leisure Activities

Four square - the goals were to introduce movement, peer interaction, and have fun.

Volley ball - the goals were to introduce movement, peer support, peer communication, team work and have fun.

Bingo - the goals were to increase peer interaction, introduces other forms of excitement, and have fun.

Sober pictionary - the goals were to increase peer interaction, identify tools of recovery, introduce other forms of excitement, and have fun.

Ice cream social - the goals were to increase peer interaction, value clarification, and improve trust among peers.

Halloween party - the goals were to reintroduce past leisure activities, increase socialization, exposure to creativity, and have fun.

Christmas party - the goals were to reintroduce past leisure activities, increase socialization, exposure to creativity, and have fun.

Summer cookouts - the goals were to increase socialization and reintroduce activity as sober leisure fun.

Instruments and Procedures

This study explored the relationship between the level of participation in a therapeutic recreation program and improvement in leisure functioning and maintainenance of sobriety. The Leisure Diagnostic Battery designed for adult (LDB) was used to measure leisure functioning (see Appendix A for the instrument). The LDB has been used for both assessment and research. It is designed to measure perceived leisure competence, perceived leisure control, leisure needs, depth of involvement in leisure and playfulness (Burlingame, 2002). Clients entering the study completed a pre-

treatment LDB. Upon completion of their treatment, clients completed a post-treatment LDB. The CTRS on staff debriefed clients as to results of their pre- and post-LDB.

Level of participation was based on a 4-point Likert scale (see appendix B for rating scale), with 1 indicating no participation, 2 indicating a low level of participation, 3 indicating a moderate level of participation and 4, a high level of participation. Level of participation was rated by observation of the CTRS conducting the group. The CTRS then recorded the client's level of participation on the level of participation form (see appendix B). Participants' recorded level of participation was averaged over their time in the study. For data analysis, those with an average of 3 or higher were designated as high level of participation and those below 3 were designated as low level of participation.

Achieving and maintaining sobriety was determined by completion of the outpatient treatment program at Syracuse Behavioral Healthcare (SBH). After completing treatment at The Willows, participants in the study entered into the outpatient treatment program at SBH. Participants were tracked for six months. Participants were evaluated for remaining abstinent and for completion of the outpatient program. A completion of the outpatient program along with remaining abstinent was used to designate if participants' maintained sobriety.

The Leisure Diagnostic Battery (LDB)

The LDB designed for adults was used to identify participants' perceived leisure functioning. The LDB was developed utilizing a state of mind approach to understanding leisure and that how one feels about their leisure experience (Burlingame, 2002).The LDB measures perceived leisure competence, perceived leisure control, leisure needs,

depth of involvement in leisure and playfulness (Burlingame, 2002). The LDB measures eight domains of leisure competence and is divided into two sections. Section One measures six domains: 1) perceived leisure competence, 2) perceived leisure control, 3) leisure needs, 4) depth of involvement in the leisure experiences, 5) playfulness, and 6) perceived freedom, which is a total of the first five scores. Section Two measures a person's activity domain and style domain. The activity domain measures a person's preference in leisure interest, nature/outdoors, music/drama, arts/crafts, sports and mental/linguistics. The style domain measures a person's preference in the style of leisure, risk vs. non-risk, active vs. passive and group vs. individual.

There is extensive documentation and information on the reliability and validity of the LDB. Reliability coefficients tend to be .80 or better (Burlingame, 2002). According to Witt (2009), the Leisure Diagnostic Battery has been used in several studies as a dependent variable. He stated that almost all studies utilizing the LDB have yielded useful established norms and have provided evidence of productive validity. He concludes in a number of studies that the LDB, when comparing two or more subgroups, successfully discriminates between groups.

Level of Participation

The level of participation was subjective observation using a rating scale with a four point Likert scale (See Appendix B). To receive a rating of 1, the client would not respond when called upon, did not add to group discussion, showed no support of peers, was argumentative and criticized peers, was not concentrating in group and was the cause of distractions (e.g., cross talking). To receive a rating of 2, the client responded when

called upon but response was narrow, added to group discussion when call upon but response was narrow, showed no support of peers, client was lacking concentration in group with possible distraction (e.g., cross talking). To receive a rating of 3, the client responded when called upon, added to group discussion when call upon, showed some support of peers, and was attentive to group topic. To receive a rating of 4, the client asked questions, supported other peers, added to group discussions, and appeared to take session seriously (See Appendix B for the rating scale).

To test for reliability, six participants were observed by four separate observers, of the possible 24 scores, 21 of the 24 had the identical scores, two had differences in scores of one and one had differences in scores of two. Thus it was determined that the assessment was shown to be reliable.

Achieving & Maintaining Sobriety

Information about achieving and maintaining sobriety was obtained through access to participants' outpatient records at SBH. Participants were tracked for 6 months after completion of their treatment at the Willows. Participants were subdivided into two groups. Group 1 was comprised of those individuals who completed their outpatient treatment and were classified as having achieving and maintaining sobriety. Group 2 was comprised of those who did not complete their outpatient treatment, and were classified as not achieving and maintain sobriety. There are numerous reasons participants failed to complete treatment. The most common reasons were the participant never engaged in the outpatient process, participant left against clinical advice, and the participant was administratively discharged.

Collection of Data/Procedures

Clients were randomly selected from those admitted to the Willows inpatient treatment programs whose discharge plan included continuing their outpatient treatment at SBH. Clients in the study were administered the LDB within the first week of treatment at the Willows. The CTRS on staff at the Willows conducted the administration of the LDB. The participants received oral as well as written instructions and the CTRS was available to answer any questions the participant had regarding test questions. There was also a staff member fluent in Spanish who could help participants whose first language is Spanish.

Participants in the study were evaluated for the level of participation in all therapeutic recreation groups as well as all socialization groups they attend using the 4-point Likert scale level of participation form.

Upon successful completion of treatment, participants were again administered the LDB. Pretest and posttest scores were compared to identify any change or lack of change in perceived leisure functioning. Upon completion of the post-LDB, clients received a 30- minute debriefing to discus the results of the LDB. The CTRS advised the participants of the findings and discussed appropriate action that the participant may want to follow.

Upon completion of their treatment at the Willows, most clients participated in outpatient programs at SBH with durations of six months to one year. The researcher tracked participants of the study as they moved through their outpatient treatment. Six

months after completion of inpatient treatment program at the Willows, participants were assessed on the following two criteria: completion of outpatient treatment at SBH and remaining abstinent throughout their outpatient treatment.

Data Analyses Plan

For the first component of the study, when comparing the level of participation (low or high) in the therapeutic recreation program to increased leisure functioning, a two-tailed *t* test was utilized to analyze the data. Pre-treatment perceived leisure freedom mean scores from the LDB were compared to post-treatment perceived leisure freedom mean scores from the LDB.

The second component of the study addressed the level of participation in the intervention and the participants' ability to achieve sobriety. The clients' level of participation in the intervention (high or low) was compared to completion of the outpatient treatment program (ability to achieve and maintain sobriety or not) using a Chi square. The alpha level for all tests was set at the .05 level of significance.

Chapter 4

RESULTS

The purpose of this study was to explore the relationship between the level of one's participation in a therapeutic recreation program and both leisure functioning and achievement and maintaining of sobriety. Leisure functioning was measured using the Leisure Diagnostic Battery (LDB). Sobriety was defined in this study as completion of the outpatient program at Syracuse Behavioral Healthcare (SBH). Participants' level of participation was a subjective score determined by the CTRS conducting the intervention, using a rating scale. The rating scale helped the researcher classify participants into a high or low participant group.

Description of the Participants

The study included 33 out of 78 participants randomly selected from the total population of 505 clients at The Willows over the duration of the study. The sample included 20 males and 13 females. Participants had a mean age of 35 and a mean of 1.5 prior attempts at treatment. The University of Rhode Island Change Assessment (URICA) was used to evaluate participants' readiness for change, using these four levels:

1) precontemplative, 2) contemplative, 3) action, and 4) maintenance stage. Participants were indicated to have a readiness for treatment with a mean of 2.93 (see Table 4.1)

Table 4.1

Demographics of Participants

Overall study (N=33)	Mean	SD	Median	Mode
Age	35.00	9.17	35.00	27.00
# of Treatments	1.45	3.50	1.00	0.00
Readiness	2.94	0.62	3.00	3.00

Leisure Functioning

Leisure functioning was determined by using the Leisure Diagnostic Battery (LDB) designed for adults. It was used to measure perceived leisure competence, perceived leisure control, leisure needs, depth of involvement in leisure and playfulness (Burlingame, 2002). The total score of Section One of the LDB, comprised of all five sub-scales, resulted in the perceived freedom score, which was used to measure participants' leisure functioning.

Level of Participation

Data from the participation observations, using the rating scale, was clustered in three groups: 1) overall participants (N=33), 2) low level of participation (n=12), and 3) high level of participation (n=21). Participants in the low level scored 2.9 or lower on the

participation rating scale. Those who participated at a high level scored 3.0 or higher on the participation rating scale

Results for the Total Sample

There were 33 participants in the study. The total score for the LDB Section One, perceived freedom, was used to measure if any significant change occurred in perceived leisure functioning. Participants' pre treatment LDB mean scores were compared to post treatment LDB mean scores using a 2-tailed paired samples *t* test. As can be seen in Table 4.2, there was a significant change in perceived freedom between the pre and posttest mean scores. In addition, 3 of 5 sub-scale domains indicated a significant change in the mean scores from pre to post-treatment (leisure competence, leisure needs, and playfulness).

Table 4.2

Summary of Paired Sample t test for the Leisure Diagnostic Battery for the Total Sample

LDB Domains/Scales (N=33)	**Mean**	**SD**	***t***	**Sig. (.05)**
Pre perceived freedom (sum of section one A-E)	348.67	35.62	-2.95	.006*
Post perceived freedom (sum of section one A-E)	366.49	43.26		
Pre perceived leisure competence	76.12	9.18	-3.14	.004*
Post perceived leisure competence	80.61	9.52		
Pre perceived leisure control	59.42	7.19	-1.72	.094
Post perceived leisure control	61.91	9.66		
Pre leisure needs	70.64	8.48	-2.70	.011*
Post leisure needs	75.64	10.26		
Pre depth of involvement	72.42	8.35	-1.01	.321
Post depth of involvement	74.09	9.04		
Pre playfulness	70.06	14.40	-238	.023*
Post playfulness	74.27	11.88		

Hypothesis One

Hypothesis One stated:

> Clients who have a higher level of participation in the therapeutic recreation program will have a higher level of improvement in their perceived leisure functioning, while those who participated at a lower level in the therapeutic recreation program will have a lower level of improvement, as measured by the Leisure Diagnostic Battery.

First, the Low Participation Group was tested. There were 12 participants in the low level of participation group. The total score for Section One, Perceived Freedom, was the score used to measure if any significant change occurred in perceived leisure functioning. There was no significant change in perceived freedom in leisure, as indicated by the *t* test results, shown in Table 4.3. In addition, there was no significant change in any of the subscales of the LDB for those in the Low Participation Group.

Table 4.3

Summary of Paired Sample t test for the Leisure Diagnostic Battery for the Low Participation Group

LDB Domains/Scales (n=12)	**Mean**	**SD**	***t***	**Sig. (.05)**
Pre perceived freedom (sum of section one A-E)	348.58	20.03	-0.20	.843
Post perceived freedom (sum of section one A-E)	350.33	36.71		
Pre perceived leisure competence	76.33	7.43	-0.42	.685
Post perceived leisure competence	77.25	8.96		
Pre perceived leisure control	59.08	6.08	0.04	.966
Post perceived leisure control	59.00	8.82		
Pre leisure needs	73.33	4.60	0.07	.945
Post leisure needs	73.17	8.32		
Pre depth of involvement	69.58	6.97	-0.28	.788
Post depth of involvement	70.67	10.36		
Pre playfulness	70.25	10.71	0.00	1.00
Post playfulness	70.25	10.02		

Next, the High Participation Group was tested (n=21). The total score for Section One, Perceived Freedom, was the score used to measure if any significant change occurred in perceived leisure functioning. The High Participation Group showed an improvement in mean scores for all domains, as seen in Table 4.4. There was a significant change in perceived leisure freedom (pretest M= 348.58, posttest M = 357.71, $P < .05$). The sub-scales also showed a significant change from pre- to post-treatment. As can be seen in Table 4.4, perceived leisure competence, leisure needs, and playfulness all showed a significant change. Based on these results, Hypothesis One was supported – those participants who had a high level of participation in the therapeutic recreation program experienced a significant increase in their perceived leisure functioning, while those who had a low level of participation did not change overall in their leisure functioning.

Table 4.4

Summary of Paired Sample t test for the Leisure Diagnostic Battery for the High Participation Group

LDB Domains/Scales (n=21)	**Mean**	**SD**	***t***	**Sig. (.05)**
Pre perceived freedom (sum of section one A-E)	348.58	42.53	-3.58	.002*
Post perceived freedom (sum of section one A-E)	375.71	44.80		
Pre perceived leisure competence	76.00	10.22	-3.75	.001*
Post perceived leisure competence	82.52	9.51		
Pre perceived leisure control	59.62	7.90	-2.03	.056
Post perceived leisure control	63.57	9.93		
Pre leisure needs	69.10	9.82	-3.33	.003*
Post leisure needs	77.05	11.16		
Pre depth of involvement	74.05	8.78	-1.42	.172
Post depth of involvement	76.05	7.79		
Pre playfulness	69.95	16.39	-2.65	.015*
Post playfulness	76.57	12.47		

Hypothesis Two

Hypothesis Two stated:

> Clients who have a higher level of participation in the therapeutic recreation program will be more successful at achieving and maintaining sobriety after six months than those who participated at a lower level in the therapeutic recreation program

The indicator used to determine if a participant achieved and maintained sobriety was completion of the outpatient treatment program at Syracuse Behavioral Health (SBH) outpatient treatment. The overall group consisted of 33 participants. Of these, 12 were in the Low Participation Group and 21 in the High Participation Group (see Table 4.5). Of the Low Participation Group, 67% completed outpatient treatment, while 62% of the High Participation Group did so.

To determine if there was a relationship between level of participation in therapeutic recreation programming and achieving and maintaining sobriety, a Chi square test was used. The results showed that there was no relationship between the two variables (see Table 4.5).

Table 4.5

Participation Groups and Achievement/Maintenance of Sobriety

Level of Participation	N	Did Not Complete Outpatient	Completed Outpatient	% Completed
Total Sample	33	12	21	64%
Low Participation Group	12	4	8	67%
High Participation Group	21	8	13	62%

X^2 (1, N = 33) = 1.6, p = .26

Chapter 5

SUMMARY AND CONCLUSION

This study examined the how the level of participation in a therapeutic recreation program related to leisure functioning and the ability to achieve sobriety. The researcher specifically examined: 1) the relationship between the level of participation in a therapeutic recreation program and its impact on leisure functioning as measured by the Leisure Diagnostic (LDB), and 2) the ability to achieve and maintain sobriety contingent on completion of the outpatient program at Syracuse Behavioral Healthcare (SBH).

In the review of the literature, there was little empirical evidence to support the significance participation in a therapeutic recreation program has on one's long-term sobriety. The review of literature suggested further studies were needed to understand the role that therapeutic recreation has in the field of treating addiction.

This chapter presents a discussion of the results from examining the impact participation in a therapeutic recreation program has on leisure functioning and the ability to achieve and maintain sobriety. Conclusions and recommendations for future research are also offered.

The chapter provides discussion in these sections: 1) summary of procedures, 2) summary of findings, 3) conclusions, 4) discussion and 5) recommendations for further study.

Summary of Procedures

This study used a pre-experimental design, consisting of one group with pretest and posttest design. There were two different hypotheses tested in the study. The first hypothesis asked if level of participation in the therapeutic recreation program increased leisure functioning. The second hypothesis asked if level of participation in a therapeutic recreation program was related to achieving and maintaining sobriety. This section outlines the procedures of the study.

Selection of Subjects

The target population was individuals entering a 28-day substance abuse treatment program at Syracuse Behavioral Health (SBH) the Willows inpatient treatment center. The only requirement for participation in this study was attendance in the aftercare outpatient treatment program at SBH. A total of 78 patients were randomly selected to participate in this study. Of the 78 participants, 33 participants completed the entire study.

Instruments

The Leisure Diagnostic Battery designed for adult (LDB) was used to evaluate leisure functioning. The LDB is designed to measure perceived freedom in leisure, perceived leisure competence, perceived leisure control, leisure needs, depth of involvement in leisure, and playfulness (Burlingame, 2002). Clients entering the study completed a pre-treatment LDB and upon completion of their treatment at the Willows, completed a post-treatment LDB.

Level of participation was based on a 4-point Likert scale, with one indicating no participation, two indicating a low level of participation, three a moderate level of participation and four, a high level of participation. Level of participation was a subjective rating by the CTRS conducting the group. Participants' recorded level of participation was averaged over their time in the study. Those with an average of 3 or higher were designated as a high level of participation and those with a score of 2.9 or lower were designated as a low level of participation.

Achieving and maintaining sobriety was determined by completion of the outpatient treatment program at SBH. Participants were evaluated for remaining abstinent and for completion of the outpatient program, which was six months in duration.

Intervention

Participants in the study attended on average three therapeutic recreation sessions per week plus three social activities per week. The therapeutic recreation program was a leisure education based model addressing the following dimensions: leisure awareness, leisure attitude, leisure interest, communication skills, socialization and sober leisure activities

Treatment of Data

Changes in leisure functioning were determined by comparing mean scores of the pre and post test LDB using a paired samples *t* test, with groups formed based on level of participation. The relationship between level of participation and sobriety was tested using Chi-Square. All analyses used the .05 level of significance.

Summary of Findings

This section summarizes findings of the study, addressing relationship between participation in a therapeutic recreation program and a person's ability to achieve and maintain sobriety, as well as improving a person's leisure functioning.

Leisure Functioning

Leisure functioning was measured using the Leisure Diagnostic Battery (LDB) designed for adults. For this study, the total score of Section One of the LDB (perceived freedom score) was used to measure participants' overall leisure functioning.

Results of the total sample (N=33) indicated that there was significant change in leisure functioning from pretest to posttest. All six scores indicated an increase in mean scores. Overall leisure functioning significantly increased, as did 3 of the 5 subscales: perceived leisure competence, .perceived leisure needs, and playfulness

Results of the low level of participation group (n=12) indicated that there was no significant change in perceived leisure freedom, nor in any of the subscales. Thus, those participants who did not engage fully in therapeutic recreation did not improve their overall leisure functioning.

Results of the high level of participation group (n=21) showed a significant increase in their overall leisure functioning, as well as a significant improvement in perceived leisure competence, perceived leisure needs, and playfulness.

The first hypothesis, that level of participation in the therapeutic recreation program was related to improved leisure functioning, was supported by the findings.

Achieving and Maintaining Sobriety

The indicator used to determine if a participant achieved and maintained sobriety was completion of their outpatient treatment program at Syracuse Behavioral Health (SBH) outpatient treatment.

Results of the analysis showed that there was no relationship between level of participation in therapeutic recreation as an inpatient and a person's ability to achieve and maintain sobriety. Thus, the second hypothesis in this study was not supported.

Conclusions

Based upon the findings and within the limitations of this study, the following conclusions can be made. First, level of participation in a therapeutic recreation program was related to an improvement in one's leisure functioning. Those with higher levels of participation in therapeutic recreation showed greater improvement in leisure functioning. Though improvement in one's leisure functioning is difficult to measure, the Leisure Diagnostic Battery for Adults (LDB) has been used successfully for both assessment and research. It was rigorously designed to measure perceived leisure competence, perceived leisure control, leisure needs, depth of involvement in leisure, and playfulness (Burlingame, 2002). Because of its scope and reliability, the LDB best fit the needs of this study and was likely a highly valid and reliable measure.

Within the subscales of the LDB, there was also a relationship between level of involvement and perceived leisure competence, leisure needs, and playfulness.

Interestingly, depth of involvement and leisure control were not significantly related to level of involvement in therapeutic recreation.

Any increase in leisure functioning is a positive step toward engaging in healthy recreation and leisure activities, thus theoretically improving one's ability to remain abstinent. Participants engaging at a low level of participation indicated a small but insignificant increase in perceived leisure freedom, perceived leisure competence and depth of involvement. There is no change in playfulness and a decrease in perceived leisure control and leisure needs. Even with no significant change in leisure functioning with this group, exposure to a therapeutic recreation program may initiate a change in their pursuit of leisure needed and introduces them to identify healthier recreation and leisure activities.

The second hypothesis in this study stated that there would be a relationship between level of participation in therapeutic recreation and maintaining abstinence. In fact, this study found that there was no correlation between participation in a therapeutic recreation program and one's ability to achieve and maintain sobriety. Of the 33 participants in the study, 21 participants or about every 2 out of 3 participants (63.6%) in the study remained abstinent six months after completing their inpatient treatment. Though the study established that there was no correlation between participation in an inpatient therapeutic recreation program for the treatment of people with substance abuse and the ability to achieve and maintain sobriety, it did not explore what relationship may exist between outpatient therapeutic recreation services and sobriety.

The conclusions of this study must be considered within the context of its limitations. First, level of participation was a subjective measurement as recorded by an

observer, which may have led to bias. Second, some participants had a history of repeated attempts at inpatient treatment, which could have led to manipulation of staff and the intervention process. Finally, the lack of an experimental group makes it possible to only examine relationships between variable, and does not allow one to draw conclusions about cause and effect.

Discussion and Implications

Previous research has indicated that healthy leisure activities are a cornerstone of recovery from substance abuse. Deiser and Voight (1998) state that "the greatest potential for use is during one's free time" (p.78). Malkin and Benshoff (1996) believe that leisure and recreation skills are essential to any treatment program. In a study on women in recovery, Hood (2003) states "that the women in her study identified their leisure involvement as the turning point in their recovery process" ((p.76). The findings of this study support the idea that participation in a therapeutic recreation group can improve one's chances at improving leisure functioning. While inpatients, those participants who participated at a high level in therapeutic recreation showed greater improvements in leisure functioning. The structure of the therapeutic recreation program, using a leisure education model, provided daily involvement in a healthy leisure pursuit.

While many people with addiction may at one time have had a healthy leisure lifestyle, addiction may have severely limited their pursuit of healthy leisure. Most people who struggle with addiction have a very limited leisure lifestyle. Their leisure pursuits most often revolve around use of drugs and alcohol, obtaining their drug of choice and

recovering from the consequences of their use. For those who have attempted recovery from addiction, the biggest trigger for relapse is often boredom. When a person attempts to get sober, they need to change their leisure lifestyle. The lack of social support and meaningful leisure pursuit can lead to isolation and boredom, thus triggering the desire to use again.

A leisure education based intervention introduces participants to leisure awareness, leisure attitude, leisure interest, communication skills, socialization and sober leisure activities. This form of intervention can reintroduce or educate a person recovering from addiction to the skills, interests, and needs that are required to engage in healthy leisure pursuits, increase socialization, and offset boredom.

While there has been previous research on the importance of healthy leisure pursuits in relationship to the recovery from addiction, little if any, has been done on the impact participation in a therapeutic recreation intervention has on improving these skills. This study has identified that a therapeutic recreation intervention does have the potential to improve a person's leisure functioning while an inpatient. This can improve a person's ability to choose a healthier leisure lifestyle which previous studies have indicated as an essential part of achieving and maintaining sobriety.

The lack of a relationship between level of participation in therapeutic recreation and maintenance of sobriety may be partially explained by the lack of therapeutic recreation services in the outpatient program. As inpatients, participants definitely improved their leisure functioning as they increased their therapeutic recreation participation. Once discharged to outpatient, participants were lacking that effective aspect of their treatment. Though they continued to experience the social support of

outpatient programming, it was not targeted toward maintaining a healthy leisure lifestyle. The implementation of a therapeutic recreation program for outpatient treatment, as well as halfway houses and supportive living environments, would reinforce the knowledge and opportunity to practice the skills the participant acquired during their inpatient treatment.

The findings of this study can be far reaching, including different levels of treatment for substance abuse as well as other addictions. Many people seeking treatment for substance abuse do not enter an inpatient treatment program on the first attempt at recovery. Most will attend a day program (outpatient treatment) or private counseling. Most of the participants in this study have had numerous attempts at recovery. Few, if any, outpatient treatment programs have a therapeutic recreation program in place. In most cases socialization and recreation education is done once a week by a social worker. Studies have shown that a person seeking treatment for substance abuse who attends outpatient programs or private counseling have a high rate of relapse. It is reasonable to expect that the implementation of therapeutic recreation groups in outpatient treatment programs, halfway houses, and supportive living programs, would improve their chances of remaining sober and, at the least, improve their leisure lifestyle to a healthier level.

There are many forms of addictions; sex, money, gambling, shopping, and food are a few. Most treatments for these addictions focus on changing behaviors and attitudes. It is reasonable to expect that exposure to a therapeutic recreation program would have similar results in other areas of addiction. Therapeutic recreation programs have been shown to be successful in the treatment of many areas of distress. The

exposure to a therapeutic recreation program can increase one's leisure awareness, interest, needs and social skills thus improving overall life satisfaction.

Recommendations for Further Study

There were a number of factors that limited finding in this study. These include; 1) the lack of an experimental group, 2) the limited numbers of participants in the study, and 3) the short length of time (six months) for following up on the participants' ability to maintain sobriety. The limitations and findings of the study suggest further research is needed.

The Leisure Diagnostic Battery proved to be an acceptable tool for this study. There is extensive documentation and information on the reliability and validity of the LDB. Reliability coefficients tend to be .80 or better (Burlingame, 2002; Witt, 2009) The Leisure Diagnostic Battery has been used in several studies as a dependent variable. Witt reported that almost all studies utilizing the LDB have yielded successful discriminates between groups.

The process to evaluate the level of participation was a subjective measurement recorded by the CTRS conducting the interventions. While the pretesting provided evidence that the Likert rating scale used to measure participation level was reliable, the ability of the CTRS conducting the group to accurately assess the participants' level of participation could be questioned. Possible ways to overcome this limitation would be to have one or two independent observers for all groups and calculate the level of participation based on multiple observers. Additionally, having the same multiple

observers throughout the study would strengthen validity and reliability. Another possibility for more accurate rating of level of participation would be to record the groups on video and asses level of participation after the group is completed.

The lack of an experimental group and limited number of participants in the study were other limitations. The nature of a 28-day inpatient treatment program does not allow for an experimental group. Providing alternative treatment options in lieu of therapeutic recreation would be one possible method of establishing a control or equivalent group. As for the number of participants in the study, the small number was somewhat a function of the researcher's ability to complete multiple observations at one time. It may be possible to increase the amount of observation data that could be collected, and thus include more participants, by having two independent observers or by recording the groups on video. Also, if all patients were part of the study, this would lend itself to a more generalizable outcome.

Achieving and maintaining sobriety is difficult to measure. Relying on those with addiction to admit that they have relapsed is a problem in itself. Most addicts have feelings of guilt and shame when they relapse and are not likely to be forthcoming with this information. Also the six month time period used to assess the maintaining of sobriety is limited. A long term longitudinal study of 3 years would produce more valid results. Having participants check in every month for random urine screens would be another method to increase validity of the measure of sobriety. In addition, the participants could complete a LDB every six month to routinely evaluate their level of leisure functioning and compare it with the ability to remain sober.

As the review of literature suggested, a healthy recreation and leisure life style is a key component in overcoming addiction. How does a person develop and maintain a healthy leisure lifestyle? As this study has shown, an intervention of therapeutic recreation increases a person's leisure functioning. More research is needed to assess the effectiveness of a therapeutic recreation program and its impact on helping those with addiction maintain their healthy leisure functioning and their sobriety

Concluding Statement

Addiction is a very complex and devastating disease. It is a physical, mental and spiritual disease and along with the addict's denial of the disease itself, it makes it very difficult to treat. If the disease of addiction is a physical, mental, and spiritual disease, it would only make sense that development of a healthy leisure lifestyle would be a key component in treating this disease. While this study provided evidence that participation in a therapeutic recreation intervention can improve leisure functioning, , evidence also suggested that participation in the intervention during inpatient alone is not enough; participants may need to engage in therapeutic recreation in outpatient as well to achieve a positive outcome.

REFERENCES

Bernstein, D. P., & Fink, L. (1998). Childhood trauma questionnaire: A retrospective self-report. *The Psychological Corporation.* San Antonio, TX: Harcourt.

Bruce, P.D., Pollard, R. A., Blakley, T. L, Baker, W.L., & Vigilante, D. (1996). Childhood trauma, the neurobiology of adaptation & use-dependent development of the brain: How states become traits. *Infant Mental Health Journal.* Retrieved January 31, 2007 from http: / / www.trauma-pages.com/a/perry96.php.

Bruce, P.D.. (2001). Violence and childhood: How persisting fear can alter the developing child's brain *The Child Trauma Academy.* Retrieved January 31, 2007 from http: / / *www.ChildTrauma.org*.

Bruce, P.D. (1999). Memories of fear: How the brain stores and retrieves physiologic states, feeling, behavior and thoughts from traumatic events. *The Child Trauma Academy.* Retrieved January 31, 2007 from http: / / *www.ChildTrauma.org*.

Child Development Info. (2007). *Erikson's eight stages of development*. Retrieved February 24, 2007 from http://www.childdevelopmentinfo.com /development/erickson.shtml.

Deiser, R. B., & Voight, A. (1998). Therapeutic recreation and relapse prevention. *Parks & Recreation,* 33, (S) 78-84.

DiClemente, C .C., Schlundt, D., & Gemmell, L. (2004). Readiness and stages of change in addiction treatment. *The American Journal on Addiction,13*,(2), 103-118.

Elder, C., Barnes, J., Dunn-Leaver, D., Nagy, S. & Leeper, J. (2001) The influence of group membership on multiple substance use. *Journal of Alcohol &Drug Education*, *47*(1), 19 30.

Ford, J. D., & Kidd, P. (1998). *Early childhood trauma and disorders of extreme stress as predictors of treatment outcome with chronic posttraumatic stress disorder*. Retrieved January 31, 2007 from http: / / www.trauma-pages.com/a/ford98.php.

Galanter, M., Dermatis, H., Keller, D., & Trujillo, M. (2002). Network therapy for cocaine abuse: Use of family and peer supports. *The American Journal on Addiction, 11*(2), 161-166.

Hood, C.D. (2003). Women in recovery from alcoholism: The palace of leisure. *Leisure Science, 25*, 51-79.

Joe, G. W., Broome, K.M., Rowen-Szal, G.A., & Simpson, D.D. (2002). Measuring patient attributes and engagement in treatment. *Journal of Substance Abuse Treatment, 22*(4), 183-196.

LePage, J.P., & Garcia-Rea, E.A. (2008). The association between healthy lifestyle behaviors and relapse rates in a homeless veteran population. *The American Journal of Drug and Alcohol Abuse, 34*, 171-176.

Malkin, M. J., & Benshoff, J.J. (1996). Therapeutic recreation interventions in substance abuse. *Parks & Recreation, 31*(1), 26-29.

Mejta,C.L., Bokos, P..J., Mickenberg, J., Maslar, M.E. & Senay, E. (1997). Improving substance abuse treatment access and retention using A case management approach. *Journal of Drug Issues, 27*(2), 329-340.

Miller, W.R., & Wilboyrne, P.L. (2002). Mesa grande: A methodological analysis of clinical trials of treatment for alcohol use disorders. *Society for the Study of Addiction to Alcohol and other Drugs Addiction, 97*, 265-277

Mosby's (2002). *Medical, nursing, & allied health dictionary (6th Ed.).* St. Louis London Philadelphia Sydney Toronto: Mosby.

Rohsenow, D.J., Martin, R.A. & Monti, P.M. (2005) Urge-specific and lifestyle coping strategies of cocaine abusers. *Drug & Alcohol Dependence, 78*(2), 211-219.

Shank, J., & Coyle, C. (2002). Therapeutic recreation in health promotion and rehabilitation. State College, PA: Venture.

Smith, J.E., Meyers, R.J., & Miller W.R. (2001). The community reinforcement approach to the treatment of substance use disorders. *The American Journal of Addiction, 10,*(Sup). 51-59.

Wegner, L., Flisher, A. J., Muller, M. & Lombard, C. (2006). Leisure boredom and substance abuse among high school students in South Africa. *Journal of Leisure Research, 38*(2), 249-266.

Wild, C.T., Cunningham, J.A. & Ryan, R.M. (2006). Social pressure, coercion and client engagement at treatment entry: a self-determination theory perspective. *Addictive Behaviors. 31*(10), 1858-1872.

Witt, P.A. (1990). Overview and conclusions based on resent studies utilizing the Leisure Diagnostic Battery. *Ontario Research Council on Leisure*. May.

APPENDIX A

Leisure Diagnostic Battery for Adults
(Copyright Venture Publishing, Inc.,)

Dear Charles,

Permission is granted to include the LDB for adults in your thesis paper.

You will give credit to origin from Venture Publishing, Inc., of course.

With best regards,

Kay

Kay Whiteside
Venture Publishing, Inc.
1999 Cato Avenue
State College, PA 16801

Phone: 814-234-4561
Fax: 814-234-1651
email: cawhiteside@venturepublish.com

LEISURE DIAGNOSTIC BATTERY
LONG FORM VERSION C

QUESTION BOOKLET
AND SCORE SHEETS

Developed by
Peter A. Witt and Gary D. Ellis

Version C of the Leisure Diagnostic Battery Long Form is intended for use with adults. Information about the conceptualization, development, testing procedures, scoring, reliability and validity of any of the LDB forms can be obtained by consulting the *Leisure Diagnostic Battery Users Manual*. Additional copies of any of the forms or copies of the Users Manual can be obtained from Venture Publishing, 1999 Cato Avenue, State College, PA 16801.

Leisure Diagnostic Battery Long Form Version C
Question Booklet

Name _____

Gender _____

Age _____

Date _____

SECTION 1 SCALES

SCALE A

Instructions: This survey deals with how you feel about your recreation and leisure experiences. These include participation in activities such as reading, hobbies and crafts, social activities, music, sports, etc. Please read each of the following items and circle the response that best reflects your feelings about each Item.

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
1. I'm good at almost all the recreation activities I do.	SA	A	N	D	SD
2. During competitive activities, if I try, I usually win.	SA	A	N	D	SD
3. I'm good enough to play sports.	SA	A	N	D	SD
4. When participating in group activities, I'm a good leader.	SA	A	N	D	SD
5. I'm good at thinking of new recreation activities to do.	SA	A	N	D	SD
6. I learn new activities fast.	SA	A	N	D	SD
7. I'm good at doing recreation activities with other people.	SA	A	N	D	SD
8. I'm good at thinking of things that are fun to do.	SA	A	N	D	SD
9. I'm better than most people at doing my favorite recreation activity.	SA	A	N	D	SD
10. It's easy for me to choose a recreation activity in which to participate.	SA	A	N	D	SD
11. I'm good at meeting people.	SA	A	N	D	SD
12. I'm good at most of the recreation activities I do.	SA	A	N	D	SD
13. I am able to do physical activities well.	SA	A	N	D	SD
14. I have the skills to do the recreation activities in which I want to participate.	SA	A	N	D	SD
15. I'm able to play outdoor sports as well as I want to.	SA	A	N	D	SD

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
16. I'm usually good at the new recreation activities I try.	SA	A	N	D	SD
17. I'm a better player than most people.	SA	A	N	D	SD
18. I know many recreation activities that are fun to do.	SA	A	N	D	SD
19. I'm satisfied with how well I can do most recreation activities.	SA	A	N	D	SD
20. I'm good at the recreation activities I do with other people.	SA	A	N	D	SD

PROCEED TO SCALE B

SCALE B

Instructions: The statements on this scale are to be marked the same way you did for Scale A. Please read each of the following items and circle the response that best reflects your feelings about each item.

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
1. I can do things during a recreation activity to enable other people to enjoy doing the activity with me.	SA	A	N	D	SD
2. I can be as good as I want to be at the recreation activities in which I participate.	SA	A	N	D	SD
3. I can usually convince other people to do the recreation activities I want to do.	SA	A	N	D	SD
4. If someone started an argument with me. I could make them stop.	SA	A	N	D	SD
5. I can do things during recreation activities that will help me make new friends.	SA	A	N	D	SD
6. I can do things during a recreation activity that will improve the skills of other participants.	SA	A	N	D	SD
7. I can make almost any activity fun for me to do.	SA	A	N	D	SD
8. I usually decide who I will participate with during recreation activities.	SA	A	N	D	SD
9. I can make good things happen when I do recreation activities.	SA	A	N	D	SD
10. I can do things during recreation activities that will make everyone more fun.	SA	A	N	D	SD
11. I can usually persuade people to do recreation activities with me. even if they don't want to.	SA	A	N	D	SD
12. I can make a recreation activity as enjoyable as I want it to be.	SA	A	N	D	SD
13. When I'm doing recreation activities. I can keep bad things from happening.	SA	A	N	D	SD

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
14. During a recreation activity, I can do things that will make other people better players.	SA	A	N	D	SD
15. I can do things during recreation activities that will make other people like me more.	SA	A	N	D	SD
16. I can enable other people to have fun during recreation activities.	SA	A	N	D	SD
17. I can do things during recreation activities that will help other people win more often.	SA	A	N	D	SD

PROCEED **TO** SCALE C

SCALE C

Instructions: The statements on this scale are to be marked the same way you did for the previous scale. Please read each of the following items and circle the response that best reflects your feelings about each item.

	Strongl Agree	Agree	Neither	Disagre	Strongly Disagree
1. When I'm angry, recreation activities help calm me down.	SA	A	N	D	SD
2. My recreation activities enable me to get to know other people.	SA	A	N	D	SD
3. Sometimes I am very excited about my recreation activities.	SA	A	N	D	SD
4. I am able to be creative during my recreation activities.	SA	A	N	D	SD
5. When I have been working for a very long time at something, participating in a recreation activity helps me to relax.	SA	A	N	D	SD
6. I often do recreation activities in which I have to solve difficult problems.	SA	A	N	D	SD
7. I like to do recreation activities which involve surprises.	SA	A	N	D	SD
8. I do recreation activities to help me feel less restless.	SA	A	N	D	SD
9. I do recreation activities which help me fmd out more about myself.	SA	A	N	D	SD
10. When I have had a day in which nothing seems to go right, I do a recreation activity to make me feel better.	SA	A	N	D	SD
11. I like to use my imagination in my recreation activities.	SA	A	N	D	SD
12. When I am tired, doing a recreation activity helps me to relax.	SA	A	N	D	SD
13. My recreation activities help me to feel important.	SA	A	N	D	SD

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
14. When I have failed at something I tried to do well, doing a recreation activity helps me feel less restless.	SA	A	N	D	SD
15. I do recreation activities which help me make new friends.	SA	A	N	D	SD
16. I do recreation activities which make me feel good about myself.	SA	A	N	D	SD
17. When I feel restless, I can do recreation activities that will help calm me down.	SA	A	N	D	SD
18. I do recreation activities which will make other people like me more.	SA	A	N	D	SD
19. I often do recreation activities that are new and different to me.	SA	A	N	D	SD
20. When I get mad at someone, doing recreation activities makes me feel better.	SA	A	N	D	SD

* * * * * **BREAK** * * * * *

SCALE D

Instructions: The statements on this scale are to be marked the same way you did for the previous scale.

Please read each of the following items and circle the response that best reflects your feelings item.

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
1. Sometimes, when I'm involved in a recreation activity I can forget everything else.	SA	A	N	D	SD
2. I like to do recreation activities even if I know I won't win anything.	SA	A	N	D	SD
3. Sometimes, when I do recreation activities I get extremely excited about what I'm doing.	SA	A	N	D	SD
4. I usually pay close attention when I'm participating in a recreation activity.	SA	A	N	D	SD
5. The biggest reason I get involved in recreation activities is just because I like them.	SA	A	N	D	SD
6. Sometimes, when I'm involved in a recreation activity, I'm more aware of what my body can do.	SA	A	N	D	SD
7. Sometimes, during a recreation activity, there are short periods of when things are going so well I feel I can do almost anything.	SA	A	N	D	SD
8. Time seems to go faster when I'm involved in a recreation activity.	SA	A	N	D	SD
9. When I'm doing recreation activities, I feel good inside.	SA	A	N	D	SD
10. Sometimes, I forget my worries when I'm involved in a recreation activity.	SA	A	N	D	SD
11. When I get involved in a recreation activity, I notice more details about what's happening.	SA	A	N	D	SD

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagre
12. During my recreation activities there are often moments when I feel really involved in what I'm doing.	SA	A	N	D	SD
13. When I'm involved in a recreation activity, I feel free to do whatever I want.	SA	A	N	D	SD
14. I think less about my problems when I'm involved in a recreation activity.	SA	A	N	D	SD
15. Sometimes I lose track of time when I'm involved in a recreation activity.	SA	A	N	D	SD
16. When I'm involved in a recreation activity, I can really let my feelings go	SA	A	N	D	SD
17. When participating in recreation activities, there are times when I really feel in control of what I'm doing	SA	A	N	D	SD
18. I usually have fun when I'm involved in recreation activities.	SA	A	N	D	SD

PROCEED TO SCALE E

SCALE E

Instructions: The statements on this scale are to be marked the same way you did for the previous scale. Please read each of the following items and circle the response that best reflects your feelings about each item.

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
1. I'm good at telling jokes.	SA	A	N	D	SD
2. Other people can usually tell when I'm having fun.	SA	A	N	D	SD
3. I try to be around lots of different people.	SA	A	N	D	SD
4. I talk a lot.	SA	A	N	D	SD
5. I often do things to make other people look at me.	SA	A	N	D	SD
6. Most people think I am a happy person.	SA	A	N	D	SD
7. I'm good at making people laugh.	SA	A	N	D	SD
8. I tease my friends a lot.	SA	A	N	D	SD
9. I often talk to people I don't know.	SA	A	N	D	SD
10. I'm a fun person to be around.	SA	A	N	D	SD
11. I often think of new ways to do recreation activities.	SA	A	N	D	SD
12. I often think of funny things to say.	SA	A	N	D	SD
13. I usually try to meet new people.	SA	A	N	D	SD
14. I can make people laugh when I want to.	SA	A	N	D	SD
15. I smile a lot.	SA	A	N	D	SD
16. I'm usually a lot of fun to be around.	SA	A	N	D	SD
17. I often do things to make-people notice me more.	SA	A	N	D	SD
18. I have a good sense of humor.	SA	A	N	D	SD
19. I'm almost always happy.	SA	A	N	D	SD
20. I often do things which make people laugh.	SA	A	N	D	SD

END OF SECTION 1

LEISURE DIAGNOSTIC BATTERY
LONG FORM VERSION C
QUESTION BOOKLET

SECTION 2 SCALES

SECTION F

Instructions: This survey deals with how you feel about your recreation and leisure experiences. These include participation in activities such as reading, hobbies and crafts, social activities, music, sports, etc. Please read each of the following items and circle the response that best reflects your feeling about each item.

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
1. It is easy for me to talk to other people.	SA	A	N	D	SD
2. I have a lot of friends to do recreation activities with.	SA	A	N	D	SD
3. It is easy for me to find fun things to do.	SA	A	N	D	SD
4. Other people often ask me to participate in recreation activities with them.	SA	A	N	D	SD
5. There are places near where I live to do the recreation activities I want to do.	SA	A	N	D	SD
6. I usually fmish an activity once I start.	SA	A	N	D	SD
7. I know how to do a lot of recreation activities.	SA	A	N	D	SD
8. I have enough money to participate in the recreation activities I like.	SA	A	N	D	SD
9. I have a lot of free time.	SA	A	N	D	SD
10. When there are many recreation activities available, I can easily make a choice.	SA	A	N	D	SD
11. It is easy for me to tell other people what I think or feel.	SA	A	N	D	SD
12. Other people usually let me participate in activities with them.	SA	A	N	D	SD
13. I have enough money to participate in my favorite recreation activities.	SA	A	N	D	SD
14. It is easy for me to start a new activity.	SA	A	N	D	SD
15. If I have several answers to a problem, I can easily choose one.	SA	A	N	D	SD

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
16. I have enough time to do the recreation activities I want To do	SA	A	N	D	SD
17. There are enough places nearby where I can go to participate in recreation activities.	SA	A	N	D	SD
18. For most problems, I can think of more than one answer.	SA	A	N	D	SD
19. It is easy for me to participate in the recreation activities I want to do.	SA	A	N	D	SD
20. I have enough things around my home to keep me busy ..	SA	A	N	D	SD
21. I have enough money to pay for the recreation activities I want to do.	SA	A	N	D	SD
22. It is easy for me to do new things.	SA	A	N	D	SD
23. Work or other obligations do not stop me from participating in the recreation activities I want to do.	SA	A	N·	D	SD
24. I can easily talk in a group.	SA	A	N	D	SD

PROCEED TO SCALE G

SCALE G

Instructions: Below is a list of pairs of activities. For each pair, circle the letter of the one you like best

Example:

I would rather: [A]. Go to the zoo
[B]. Go dancing

If you would rather go to the zoo than go dancing, you would circle "A"

1. I would rather:	[A]. Go canoeing	(O)
	[B]. Go dancing	(O)
2. I would rather:	[A]. Make cookies	(C)
	[B]. Write to a friend	(M)
3. I would rather:	[A]. Cook hot dogs outside	(O)
	[B]. Learn to play the drums	(O)
4. I would rather:	[A]. Play Monopoly'P'	(M)
	[B]. Take pictures	(C)
5. I would rather:	[A]. Listen to music	(O)
	[B]. Watch T.V.	(M)
6. I would rather:	[A]. Shoot a BB gun	(O)
	[B]. Make a kite	(C)
7. I would rather:	[A]. Shoot archery	(S)
	[B]. Work a crossword puzzle	(M)
8. I would rather:	[A]. Go fishing	(O)
	[B]. Playa computer game	(M)
9. I would rather:	[A]. Sing in a choir	(O)
	[B]. Plant a garden	(O)
10. I would rather:	[A]. Make candles	(C)
	[B]. Listen to the radio	(D)
11. I would rather:	IA]. Talk on the telephone	(M)
	[B]. Play with a puppet	(C)
12. I would rather:	[A]. Playa game of pool	(S)
	[B]. Paint a dog house	(C)
13. I would rather:	[A]. Dress in a funny costume	(D)
	[B]. Read the comics	(M)

14. I would rather:	*[A].* Paint like an artist	(C)
	[B]. Go skating	*(S)*
15. I would rather:	*[A].* Play badminton	*(S)*
	[B]. Sing for people	(D)
16. I would rather:	*[A].* Make a clay pot	(C)
	[B]. Play baseball	*(S)*
17. I would rather:	*[A].* Look at old stamps	(C)
	[B]. Catch butterflies in a net	(0)
18. I would rather:	*[A].* Read a story to children	(D)
	[B]. Draw cartoons	(C)
19. I would rather:	*[A].* Put a puzzle together	(M)
	[B]. Playa guitar	(D)
20. I would rather:	*[A].* Set up a tent	(0)
	[B]. Look at a coin collection	(C)
21. I would rather:	*[A].* Playa game of horseshoes	*(S)*
	[B]. Take dance lessons	(D)
22. I would rather:	*[A].* Go on a picnic	(0)
	[B]. Read a good book	(M)
23. I would rather:	*[A].* Go on a stage to perform	(D)
	[B]. Fly a paper airplane	(C)
24. I would rather:	[A]. Go camping	(0)
	[B]. Go swimming	*(S)*
.25. I would rather:	*[A].* Run on a racetrack	*(S)*
	[B]. Spend a day on a farm	(0)
26. I would rather:	*[A].* Wear a costume	(D)
	[B]. Go bowling	*(S)*
27. I would rather:	*[A].* Playa game with cards	(M)
	[B]. Play basketball	*(S)*
28. I would rather:	TA]. Walk in the park	(0)
	[B]. Play checkers	(M)
29. I would rather:	*[A].* Play miniature golf	*(S)*
	[B]. Read at the library	(M)
30. I would rather:	[A]. Sit outside with a friend	(0)
	[B]. Do physical exercises	*(S)*

Example:

Going to the Zoo

I would	[A]. Feed the animals	
	[B]. Watch someone feed the animals	

IT you would rather watch someone feed the animals, you would circle ,,~

---

31. At a choir concert		
I would	[A]. Sing	(A)
	[B]. Listen	(P)
32. Playing card games		
I would	[A]. Play alone	(I)
	[B]. Play with friends	(G)
33. Working in a woodshop		
I would	[A]. Sand wood	(N)
	[B[. Carve the wood	(R)
34. Water skiing		
I would	[A]. Ski	(R)
	[B]. Ride in the boat	(N)
35. Going to the movies		
I would rather:	[A]. Go with several people	(G)
	[B]. Go alone	(I)

---

36. Rolling and riding in tires down a hill		
I would rather:	[A]. Ride inside the tire downhill	(R)
	[B]. Watch someone roll downhill	(N)
37. Playing basketball		
I would rather:	[A]. Play with friends	(G)
	[B]. Shoot baskets alone	(I)
38. At a camp-out		
I would rather:	[A]. Help set up the tent	(A)
	[B]. Watch some else set up the tent	(P)
39. Going rock climbing		
I would rather:	[A]. Climb a short distance	(N)
	[B]. Climb to the top	(R)
40. At a soccer game		
I would rather:	[A]. Watch others play the game	(P)
	[B]. Play in the game	(A)

41. Making decorations for a party

I would rather: [A]. Work at a table with a group (G)
[B]. Work at a table by myself (I)

42. Playing Monopoly'

I would rather: [A]. Play with a group of friends (A)
[B]. Watch other people play (P)

43. At a campfire

I would rather: [A]. Sit around the fire with friends (G)
[B]. Sit alone (I)

44. Painting a fence

I would rather: [A]. Watch other people paint the fence (P)
[B]. Help other people paint the fence (A)

45. Singing in a concert

I would rather: [A]. Sing a solo (R)
[B]. Sing with a group of people (N)

46. At a dance

I would rather: [A]. Sit and watch other people dance (P)
[B]. Get up and dance (A)

47. Working a jigsaw puzzle

I would rather: [A]. Put a puzzle together alone (I)
[B]. Get a group to put it together (G)

48. Making wooden crafts'

I would rather: [A]. Saw my own boards (R)
[B]. Let someone else saw my boards (N)

49. Playing tennis

I would rather: [A]. Play tennis with friends (G)
[B]. Sit alone against a backboard (I)

50. At a parade

I would rather: [A]. March in a parade (A)
[B]. Watch the parade (P)

51. Riding a bicycle

I would rather: {Ai. 'fry-tricks like riding on one wheel (R)
[B]. Ride on both wheels (N)

52. Going to a city park

I would rather: [A]. Go alone (I)
[B]. Go with my friends (G)

53. At an amusement park

I would rather:	[A]. Ride the roller coaster	(R)
	[B]. Ride the antique cars	(N)

54. Playing Scrabble"

I would rather:	[A]. Watch others play Scrabble"	(P)
	[B]. Play Scrabble" with a group	(A)

55. Going in the water from cliffs

I would rather:	[A]. Dive off a high cliff	(R)
	[B]. Jump in from a low cliff	(N)

56. At a softball game

I would rather:	[A]. Play in a game of softball	(A)
	[B]. Watch other people play softball	(P)

57. Jogging

I would rather:	[A]. Jog alone	(I)
	[B]. Jog with a friend	(G)

58. Playing pool (billiards)

I would rather:	[A]. Playa game alone	(I)
	[B]. Play with a friend	(G)

59. At a volleyball game

I would rather:	[A]. Play in the game	(A)
	[B]. Watch other people play	(P)

60. Going dirt-biking

I would rather:	[A]. Ride a motorcycle on a trail	(N)
	[B]. Climb hills on a motorcycle	(R)

END OF SECTION 2

STOP HERE-WAIT FOR FURTHER DIRECTIONS

Scale Name	Column R Scale Scores	Column N # of Items	Column M Scale Mean (R!N)
A. Perceived Leisure Competence		20	
B. Perceived Leisure Control		17	
C. Leisure Needs		20	
D. Depth of Involvement in Leisure Experiences		18	
E. Playfulness		20	
Perceived Freedom Score (Sum of Scores Scale A-E)		95	

Client's Name _____

Age _____ Gender _____

Date _____

Scorer _____

- To interpret results, refer to Leisure Diagnostic Battery User's Manual

SCALE F SCORE BOX

Subscale	Communication Barriers I	Social Barriers II	Making Barriers III	Opportunity Barriers IV
Item	1, 11, 24	2,4,12	10,15,18	5,17,20
Subject's Score on Each item				
Sum of Subjects Scores	_____	_____	_____	_____

Subscale	Motivation Barriers V	Ability Barriers VI	Money Barriers VII	Time Barriers VIII
Item	1, 11, 24	2,4,12	10,15,18	5,17,20
Subject's Score on Each item				
Sum of Subjects Scores	_____	_____	_____	_____

Total Score

_____ (Sum of subject's total score per item From subscale to VIII)

SCALE G SCORE BOX

Activity Domain Subscale

	Nature / Outdoor	Music / Drama	Arts/ Crafts	Sports	Mental/ Linguistic
	O	D	C	S	M
Total Score/ Domain					

Activity Domain Subscale

	Risk	Nonrisk	Active	Passive	Group	Individual
	R	N	A	P	G	I
Total Score/ Domain						

APPENDIX B

Participation Level Assessment Instruments

Level of Participation

Level of participation was subjective observation based on a four point Likert scale. Four separate observers tested assessment for readability and assessment was shown to be reliable.

Participation Level Rating Criteria

Level 4

Client asked questions
Supported other peers
Added to group discussions
Appeared to take session seriously

Level 3

Client responded when called upon
Client added to group discussion when call upon
Client showed some support of peers
Client was attentive to group topic

Level 2

Client responded when called upon but response was narrow
Client added to group discussion when call upon but response was narrow
Client showed no support of peers
Client was lacking concentration in group with possible distraction (x Talking)

Level 1

Client would not respond when called upon
Client did not added to group discussion
Client showed no support of peers was argumentative and criticizing of peers
Client was not concentration in group and was cause of distractions (x Talking)

Participation Level Assessment Instrument

Client: _____ **Date:** _____

Observer: _____ **Program:** _____

4 **Participated at a high level**	Client was engaged in activity. Demonstrated initiative and interacted with others, expressed themselves openly	
3 **Participated at a moderate level**	Client was engaged in activity, but needed some prompting. Client expressed themselves with some reservation	
2 **Participated at a low level**	Client's engagement was minimal. Client performed tasks at a bare minimum, did what was asked but no more.	
1 **No participation**	Client did not engage in the activity. Client refused to share when asked. Client was confrontational or minimizing.	

APPENDIX C

Adult Consent Form

ADULT CONSENT

State University of New York College at Cortland

Charles Robillard the CTRS of The Willows and the Recreation and Leisure Department at SUNY Cortland is conducting the research in which you have been asked to participate. We request your informed consent to be a participant in the project described below. *Please feel free to ask about the project, its procedures, or objectives.* Information and Procedures of This Research Study:

The purpose of this study is to investigate the relationship between participation in a therapeutic recreation program and exposure to early childhood trauma and their impact on achieving and maintaining sobriety. You will be asked to complete a questionnaire upon entering the study and again upon completion of treatment at The Willows.

Before agreeing to participate you should know that:

A. Freedom to Withdraw

You are free to withdraw consent at any time without penalty. Even if you begin answering questions and realize for any reason that you do not want to continue, you are free to withdraw from the study. Additionally, you may ask the researcher to destroy any responses you may have given.

B. Protection of Participants' Responses

Your responses are strictly confidential. Only the presiding faculty member and research assistants will have access to your responses. A random number will be assigned to you to identify your responses. This number will be used throughout the course of this study. Your name and identifying number will be known only to this researcher. Upon completion of the collection of the data your name will be removed from the study and only an identifying number will be used. All responses and information in regards to this study will be kept in a locked cabinet in the researchers' office and any identifying information will be destroyed at the end of the study.

C. Length of Participation and Remuneration

The filling out of the questionnaire should take approximately one hour. There will be no remuneration for participation in this study.

D. Full Disclosure

In some experiments, it may be necessary to withhold certain information in the interests of the particular research. Should this occur, at the end of the experiment all individuals will be furnished with a full explanation of the purpose and design of the project.

E. Risks Expected

Although you should not experience any discomforts or risk due to participating in this study, in rare cases individuals may learn something about themselves that might make them uncomfortable. In the event this occurs, please discuss this with the person conducting the study. In the event this is not sufficient, please contact your primer councilor.

F. Benefits Expected

From participating in this study you should expect to come to a greater understanding of the way in which research is conducted. Your participation should add to the knowledge for treatment for substance abuse and help improve such treatment.

G. Contact Information

If you have any questions concerning the purpose or results of this study, you may contact [Charles Robillard at SBH the Willows (315) 492-1184 ext. 320]. **For questions about research or research subjects' rights, contact Amy Henderson-Harr, IRB Designee, Office of Research and Sponsored Programs, SUNY Cortland, at (607) 753-2511.**

I _____ have read the description of the project for

(print name)

which this consent is requested, understand my rights, and I hereby consent to participate in this study.

_____ _____

Signature Date

APPENDIX D

Human Subjects Proposal

07/23/2007 07:28

DATE RECEIVED:

PROTOCOL #: 07/08-S03

APPLICATION FOR REVIEW OF PROJECTS USING HUMAN RESEARCH PARTICIPANTS

SUBMIT THIS FORM WITH A COPY OF THE RESEARCH PROPOSAL TO:
ASSISTANT VICE PRESIDENT OF RESEARCH AND SPONSORED PROGRAMS, MILLER BUILDING, ROOM 402

Investigators: Please Complete This Coversheet up to and Including the Category of Review Section

APPLICANT IS (circle one): FACULTY STUDENT

INVESTIGATOR NAME: Charley Robillard DEPARTMENT: Recreation & Leisure PHONE (315)492-1184 ext. 320

TITLE OF PROPOSAL: The relationship between a therapeutic recreation program toward leisure and early childhood trauma in relationship to adultery

DURATION OF PROJECT: From approval date to 01/2008

(Faculty projects only): NON-FUNDED ___ FUNDED ___ FUNDING AGENCY: _____

(Student projects only): PROJECT PURPOSE: ___Class Project X ___Thesis Course Number and Title Rec. 684 Thesis

The proposed investigation (or training, or demonstration program) involves the use of human research participants, and I am submitting the required information and this form to the Institutional Review Board (IRB) for the Protection of Human Research Participants for review and approval. If the IRB approves this application and if the project is undertaken, I agree:

1. To review the Guidelines of the State University of New York at Cortland for the Protection of Human Research Participants on Research Investigations (See Research Using Human Participants at www.cortland.edu/osp/).
2. To report to the IRB any change in the research plan which affects the method of using human research participants before such change is instituted.
3. To report to the IRB any problems which arise in connection with the use of human research participants.
4. To cooperate with the IRB, and/or any sub-committee designated, in their efforts to provide a continuing review after investigations have been initiated.

I agree to the principles outlined in the aforementioned Guidelines and will adhere to these policies and procedures in my investigation.

For Faculty Projects:

_____ _____ _____ _____
Signature of Principal Investigator(s) Date Signature of Department Chairperson Date

For Student Projects: (Note: Topics of a sensitive nature should be avoided by student researchers who are not sufficiently experienced in such research)

Charley Robillard 07/23/07 — Signature of Student, Date
Signature of Faculty Sponsor — 7/24/2007 Date
Signature of Department Chairperson — 7/27/07 Date

CHECK APPROPRIATE CATEGORY OF REVIEW (please see attached guidelines for information regarding categories)

___Category I (Exempt), Section ____ (Identify which one of the six exemption categories in the instructions applies). Also, answer questions 1-5 in the instructions and attach information and/or approvals as requested.

[redacted]

X Category III (Full Review) Answer questions 1-10 in the instructions and attach information and/or approvals as requested.

Answer questions 1-12 in the instructions and attach information and/or approvals as requested.

_____ _____ _____
EXEMPT FROM REVIEW Date APPROVAL DATE
Amy Henderson-Hart, IRB Designee

CERTIFICATION OF INSTITUTIONAL REVIEW BOARD

The Institutional Review Board for the Protection of Human Participants has reviewed this application. The Board believes that the research plan provides adequate safeguards of the rights and welfare of human research participants involved in the investigation and uses appropriate methods to obtain informed consent.

_____ 10-10-07
EXPEDITED AND/OR FULL BOARD REVIEW Date
APPROVED BY: IRB Chair,
Nancy Aumiller, Associate Provost for Academic Affairs,
and/or an Appropriate IRB Representative

APPROVED FOR THE PERIOD OF: 10/10/07 to 10/09/08
Any changes in the protocol or extensions beyond the one year must be presented in writing and approved by the IRB.

07/08-S03

Cortland

State University of New York College at Cortland

Institutional Review Board
(607) 753-5477
Email: aumannn@cortland.edu

October 15, 2007

Charles Robillard
847 James St
Syracuse, NY 13203

Dear Mr. Robillard:

Your proposal, # 07/08-S03 entitled *The Relationship Between a Therapeutic Recreation Program Toward Leisure and Early Childhood Trauma in Relationship to Sobriety* was reviewed by the IRB on October 10, 2007. Your protocol is approved for the period of October 10, 2007 through October 9, 2008.

According to IRB policies, you must contact the IRB immediately should the following occur: 1) if there are any modifications in your research plan which affect the method of using human participants; and 2) should any participants experience problems that may arise in connection with the study.

The IRB wishes you the best of luck on your research project. Please feel free to contact me if I may be of assistance to you with this or any other study.

Sincerely,

Nancy J. Aumann
IRB Chair

cc: Dr. Susan Wilson, Department of Recreation and Leisure Studies