A Comparison of Anxiety Levels Among Women in Mixed Gender Substance Abuse Treatment Facilities and Women-Only Substance Abuse Treatment Facilities

Veronica I. Jones

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A COMPARISON OF ANXIETY LEVELS AMONG WOMEN IN MIXED GENDER SUBSTANCE ABUSE TREATMENT FACILITIES AND WOMEN-ONLY SUBSTANCE ABUSE TREATMENT FACILITIES

A Dissertation
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Duquesne University

in partial fulfillment of the requirements for the degree Doctor of Education

by

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May 2008
Executive Counselor Education and Supervision Program

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A COMPARISON OF ANXIETY LEVELS AMONG WOMEN AND MIXED GENDER SUBSTANCE ABUSE TREATMENT FACILITIES, AND WOMEN-ONLY SUBSTANCE ABUSE TREATMENT FACILITIES.

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ABSTRACT

A COMPARISON OF ANXIETY LEVELS AMONG WOMEN IN MIXED GENDER SUBSTANCE ABUSE TREATMENT FACILITIES AND WOMEN-ONLY SUBSTANCE ABUSE TREATMENT FACILITIES

By

Veronica I. Jones

May 2008

Dissertation Supervised by Professor Joseph Maola, Ph.D.

The purpose of this study was to investigate whether women who participate in a mixed gender residential substance abuse treatment facility experience more general anxiety during treatment than do women in a women-only setting and whether there a difference in the general anxiety levels of women in a women-only substance abuse treatment facility whether children are present or not. The voluntary participants of the study included 64 women who were selected from 4 residential treatment settings, 2 mixed gendered and 2 women-only, 1 with women and children. The women were asked to complete the State Trait Anxiety Inventory (STAI) that measures for an immediate presence of anxiety or a general characteristic of anxiety in persons. T-tests were used to test the four null hypotheses. The Bonferroni correction was implemented to account for the multiple t-tests. The required alpha level needed for the 0.05 level of significance
with the Bonferroni correction is stated within each of the first four hypotheses. The findings concluded that there was no significant difference in the levels of anxiety for women who participated in mixed gendered residential substance abuse treatment than do women in a women-only treatment setting. The results further indicated that there was no significant difference in levels of anxiety for women without the presence of children than women whose children were present. Literature revealed codependency is an issue with women, whether or not being codependent and its potential impact on anxiety levels in women has a factor in the results of this study are inconclusive. Further research is considered necessary to explore the extent of these results as well as other factors. The implications are to continue to research the therapeutic value of women in treatment in the presence of men or not in the presence of men. Treatment may be of greater value for women in an environment that supports flexibility in their living arrangement; being able to move from mixed to single and back. The need for future research is indicated by the various limitations that included size and number of agencies included in the study. The study was based on the therapeutic community model and may need to be expanded to include other treatment modalities. The study didn’t focus on the influence of culture and its impact on women’s anxiety, nor did it consider the significance of establishing a rapport with the women in treatment.
DEDICATION

I dedicate this work to Jesus who carried me through to the finish and beyond. I would also dedicate my work to my daughters, Monica Speight-White, and Brittany Patrice Jones for their continuing encouragement and belief that I could go the distance to complete my research, to my sisters, Claudette Ingraham Best, and Cheryl Ingraham McNeill for guidance and direction in all aspects of my life. This work could never have transpired without my parents, Joseph Ingraham and Florence Ingraham. To my father and mother, this one’s for you.

To my entire family, biological and extended members, I may be the first but not the last, bless you all for your encouragement.
I would like to acknowledge and give a great big thank you to Joseph Maola, Ph.D., without his encouragement and advisement; I would not have seen the light at the end of the dissertation road. I want to acknowledge my two scholarly committee members, Emma Mosley, Ph.D. and Constance Fischer, Ph.D for making certain that I had completed a document that would be representative of Duquesne University’s academic programs and finally to Abdelhadi Elamin, my esteemed colleague who made certain that I completed one of the seven applications for admittance into the doctoral program at Duquesne, thanks buddy.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chapter 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Research Questions</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Statement of the Problem</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Rationale</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Significance of the Study</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Hypotheses</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Definitions</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Summary of Chapter One</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Chapter 2</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>The History of the Therapeutic Community</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Women who participate in Therapeutic Communities and Selected Treatment Setting</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Types of Anxiety Disorders Women Experience</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Cross Cultural Influences of Anxiety on Women</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Treatment of Anxiety in Addictions</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>Chapter 3</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Method</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>General Overview</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Procedure</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Population</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Instrument</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Data Analysis</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Summary of Chapter 3</td>
<td>59</td>
</tr>
<tr>
<td>4</td>
<td>Chapter 4</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Results</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Hypotheses</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Hypothesis 1</td>
<td>62</td>
</tr>
</tbody>
</table>
Hypothesis 2...............................................................................................................63
Hypothesis 3...............................................................................................................64
Hypothesis 4...............................................................................................................65
Summary........................................................................................................................66

Chapter 5............................................................................................................................68
Discussion......................................................................................................................68
Findings.........................................................................................................................68
Conclusions....................................................................................................................69
Discussion......................................................................................................................70
Implications ...................................................................................................................73
Limitations of the Study .................................................................................................74
Recommendations for Future Research.........................................................................76
Summary........................................................................................................................79

References..........................................................................................................................81
Appendix A Letters of Agreement to Participate ..............................................................91
Appendix B Introduction and Instruction ........................................................................96
Appendix C Informed Consent .........................................................................................99
Appendix D Revised Informed Consent .........................................................................102
Appendix E Demographic Information ..........................................................................106
Appendix F State-Trait Anxiety Inventory .....................................................................109
Appendix G Raw Data Results .....................................................................................111
Chapter 1

Introduction

Issues related to women in substance abuse and the recovery process have long been neglected. Indeed, resources indicate, “women’s treatment needs tend to be overlooked and/or inadequately understood” (Weissman & O’Boyle, 2000, p. 1). Most models of research in addictions have been based on investigation of boys and men (Schuckit, Irwin, & Brown, 1990). This was supported by Kandall (2002), “most drug programs were still based on male treatment models, many did not offer gender-specific services or accept pregnant addicts, and few women held top administrative posts in the drug treatment field” (p.69). The MAC scale one of the MMPI’s subscales used to determine alcoholism was originally conducted with male alcoholics. Yet despite these findings, Lerner (2004) cites, Center for Substance Abuse Treatment (CSAT) identifies fourteen primary issues specific to the needs of women with substance abuse disorder. These issues are: low self-esteem, powerlessness, sexism, family of origin issues, unhealthy relationships, violence, incest, rape, sexuality, recreation, grief and loss, parenting, vision for the future, and life planning.

Client characteristics differ between men and women in treatment (Knight, Logan, & Simpson, 2001). The differences can be grouped into common categories. They include socio-demographic factors such as age and ethnicity. Women who stay in treatment tend to be older as well as young minority clients who lack education. Substance use is also different between men and women. In a report cited by NIDA the Drug and Alcohol Services Information System (DASIS) stated, “women were more likely than men to report primary heroin/opiate abuse, the percentages are 19% vs. 16%”
(1998, p. 2). Women have different legal involvement when entering treatment from those of men. More men and fewer women enter treatment by way of the criminal justice system. This ratio is 39% of men when compared to 25% for women. Women entering treatment were less likely to be employed. DASIS reports 33% of the men were employed full time with another 7% employed part time compared to women, among whom 17% held full time employment and 8% had part time employment status. In addition to these differences substance-abusing women are said to “face additional difficulties in getting to and remaining in treatment because of child care, basic access, and other issues.” (p. 1). In acknowledging these substance-abusing differences between men and women it seems evident that a woman’s treatment encounter would involve different perceptions and feelings as well as differently experienced stigma. Chasnoff’s study found that social stigma exists in the way professionals respond to female addicts (as cited in Weissman, 2000). There is often a reluctance to identify substance abuse with women. There is also a negative and punitive attitude towards women by professionals. How then does a woman perceive her treatment experience? How much anxiety is present when attempting to enter a treatment facility? How well do women fare with treatment in the presence of men given issues of domestic violence, abuse, rape, etc., already mentioned?

Based on personal experiences working with women in substance abuse treatment, I have found that they have a higher noncompliance rate. Women tend to have a greater incidence of early termination and/or against facility advice (AFA) discharge than men in treatment. General observation appears to indicate that women present issues directly related to their male counterparts. Lex (1994) stated, “Among women living
with a spouse or partner, one could observe the “husband effect”; that is, a male spouse or partner’s use had a strong main effect on women’s marijuana use.” (p. 306). Straussner and Zelvin (1997) cited Covington and Surrey (1997) and stated, “Women frequently begin using substance in attempts to “stay psychologically connected with someone who is using… to maintain relationships (or) to try to alter themselves to fit the relationship available.” (p.56). Women have been known to use after ending a relationship, and women who use are more likely to have a partner who uses.

Canadian researchers suggest that women’s anxiety can influence their turning to alcoholism. The research suggests that people will over indulge in alcohol to relieve anxiety thereby feeling better. More recent studies conducted at the National Institute on Alcohol Abuse & Alcoholism (NIAAA) describe a gene linked to anxiety in women. The study further showed that the women investigated had electroencephalograms associating a genetic factor, catechol-O-methyltranferase (COMTVal158Met), with anxiety (NIAAA, 2003). Enoch, Ke, Ferro, Harris, and Goldman (2003) believe there may be a potential benefit to determining the impact of this gene, stating, “Women had significantly higher dimensional measures of anxiety than the men in three out of four measures.” (p. 36).

After several years of observing women’s unsuccessful departure from treatment in a mixed gender facility and their dependency issues, I’ve questioned whether the same anxiety that contributes to women turning to alcohol and other drugs occurs within a single gendered facility for women. If the presenting issues are addiction and are possibly related to women’s relations with men, then the presenting anxiety may appear to be higher in a mixed gendered facility than in a single gendered treatment setting. If
women define themselves through complex relationships as stated by Lerner (2004), does their state of anxiety affect their treatment experience within different treatment settings? Are we in the clinical profession putting women at a disadvantage requesting that they pursue treatment at mixed gendered facilities when optimal recovery may be best delivered within a single gendered facility? In a study conducted by Wallen (1992) “Female-male differences were significant only for items relating to difficulty socializing.” (p. 246). This difficulty in socializing may influence and affect their treatment in coed settings.

Research Questions
The basic question being asked in this study is; do women in a mixed gender residential substance abuse treatment facility experience more general anxiety during treatment than do women in a women-only residential substance abuse treatment facility? A second question is; is there a difference in the general anxiety levels of women in a women-only substance abuse treatment facility when there are children present or when there are not children present?

Statement of the Problem
Based upon observation, women in mixed gender treatment facilities seem to lose their focus on recovery. This loss of focus seems to be based on their issues with men. These issues, as stated previously, include sexism, low self-esteem and unhealthy relationships based on prior experiences with men (Lerner, 2004). I intended to determine if there is a greater level of generalized anxiety among women when they are in a mixed gender residential substance abuse facility rather than in a women-only facility.
One of the women-only facilities allows the women to maintain residence with their children while another facility does not. I wanted to determine if there was a difference in the general anxiety levels of patients in a women-only residential substance abuse treatment facility if children were present as compared to a facility where children were not present.

**Rationale**

Gender and its relation to treatment and the recovery process in substance abuse has long been studied (Hesselbrock, 1991; Kingree, 1995; Straussner & Zelvin, 1997). The following definition of gender will be used as found in Straussner and Zelvin:

“describing those male and female traits and behaviors that are culturally defined as appropriate for that sex” (1997, p. 5). Most studies draw the conclusion that in relation to substance abuse, men and women have distinct differences. Kingree (1995) stated, “Nonetheless, they do indicate that male and female substance abusers vary in their treatment needs, and thus should be used to enhance the effectiveness of interventions” (p. 268). These differences include everything from contributing factors leading to substance abuse, typical age of onset, client characteristics, methods of seeking treatment, interactions with personnel, as well as recovery outcomes. Physically there are differences as well. In an online featured article, NIDA reported that, “On measures of stimulant induced activity, females exhibit more responsiveness than males; moreover, this responsiveness varies with the estrus cycle” (2004). Research substantiates that drug abuse by women is related to sexual abuse and early victimization. NIDA (2003) reported that, “70 percent of drug abusing women report histories of physical and sexual
abuse” (p. 1). The physical and sexual abuse is far greater for women than for men as reported by Lerner (2004).

There are emotional differences between substance abusing men and women. Straussner and Zelvin (1997, p. 11) cited O’Hare,

women reported significantly higher ratings on depression, anxiety, anger or hostility, conflict with others, loneliness, sexual abuse, trouble sleeping, trouble with appetite or eating, poor concentration, marital or couples problems, problems with children and being affected by another’s substance use [while] (m)en reported significantly higher ratings on problems with job or school, alcohol or drugs, legal problems, problems in the community, and need for dental care.

Lex (1995) seems to agree as she stated “deviance expressed by women is thought to be channeled into internalized distress and manifested in emotional upset” (p. 289). On the other hand, men express emotionality by acting out or other antisocial behaviors. If these gender-related characteristics are common within substance abuse treatment, by reducing or eliminating these factors treatment facilities can improve treatment outcomes with women. Related research outcomes will be useful whether in a women-only treatment facility or a mixed treatment facility by instituting gender-specific treatment in mixed settings. If indeed women experience better treatment outcomes in facilities that are women-only, then priority can be given to designing treatment programs that will most favorably serve women. Hodgins, El-Guebaly, and Addington (1997) stated, “Such investigations have the potential of enhancing treatment efficacy” (p. 814).

Researchers also suggest that women who have children present during treatment have reduced anxiety through the treatment stay in a women-only setting. Research has indicated that one barrier to women seeking treatment is the presence of children and the necessity for childcare. However, childcare is not an obstacle to treatment in women-
only settings that allow children on-site. Green, Polen, Dickinson, Lynch, and Bennett (2002) stated, “women seek substance abuse treatment less often than men…because they experience: (a) more frequent barriers to treatment, such as childcare responsibilities” (p.286). Women are also afraid of losing their children during substance abuse treatment. NIDA reported that “Many drug-using women do not seek treatment because they are afraid: They fear not being able to take care of or keep their children” (2003, p. 1). Brady & Ashley (2005) stated, “Females who lived with their children in theapeutic community treatment programs remained in treatment significantly longer.” (p. 37).

Since children are an identified concern for women in treatment, a facility that addresses this concern would have greater potential for successful outcome. The presence of women’s children in treatment would contribute to reducing one or more anxiety producing stressors during the treatment process for women.

**Significance of the Study**

Being able to determine the level of anxiety of women during treatment would enable providers to better meet their needs and the most appropriate setting to provide substance abuse treatment. Knight et al. (2001) stated that, “The more engaged clients are in treatment, the more likely they are to stay in the program to reap further benefits.” (p.535). In addition, Nelson-Zlupko, Dore, Kauffman, and Kaltenbach (1996) note that alternative treatment models are capable of addressing women’s other universal issues, such as domestic violence, sexual abuse, etc. If demonstrating that having a woman’s children in treatment improves her chances of successful completion, then funding could be directed into programming specifically designed meet women’s childcare needs. Interventions could be directed towards the mother’s substance abuse treatment as well as
offering her parenting skills during the recovery process. Hodgins et al. (1997) discuss the reasons women seek substance abuse treatment less often than men is because women bear the greater burden of caring for the children.

Determining the anxiety level of women during treatment in different types of treatment settings, whether women-only or mixed, may assist in care from mental health professionals. Luchansky stated that determining the uniqueness of gender as it relates to treatment will potentially improve total treatment outcomes (as cited in Green et al. 2002). If treatment setting can reduce anxiety levels, greater emphasis can be placed on empowering women to address other factors contributing to their substance abuse, such as depressive symptoms, physical, emotional problems, etc. This is substantiated by Weissman and O’Boyle (2000) who stated, “Services provided to women addicts must be set in a context that empowers them, improves coping skills, and helps them to develop functional support.” (p.2). Professionals in the field will be better equipped to advocate for women and the type of treatment setting that will best serve their recovery process and rate. Nelson-Zlupko et al. (1996) report that clinicians should become advocates for women by becoming informed of the various needs of women.

**Hypotheses**

The hypotheses that were examined for this study are listed below. These hypotheses were based on a population of women who were in residential substance abuse treatment facilities at the time the study was conducted. Some of them were in a mixed gender facility while others were in a women-only facility. The general anxiety levels were measured by the State Trait Anxiety Inventory. The women were evaluated on levels of general anxiety while they are participated in substance abuse treatment.
Hypothesis one: There is no significant difference in state anxiety among women in a mixed gender residential substance abuse treatment facility as compared to women in a women-only residential substance abuse treatment facility.

Hypothesis two: There is no significant difference in trait anxiety among women in a mixed gender residential substance abuse treatment facility as compared to women in a women-only residential substance abuse treatment facility.

Hypothesis three: There is no significant difference in state anxiety among women in a women-only residential substance abuse treatment facility if children are present as compared to a facility where children are not present.

Hypothesis four: There is no significant difference in trait anxiety among women in a women-only residential substance abuse treatment facility if children are present as compared to a facility where children are not present.

Definitions
The following definitions were applied for the purposes of this study:

Anxiety- used to describe an unpleasant emotional state or condition. Anxiety is used to describe relatively stable individual differences in anxiety-proneness as a personality trait (Spielberger, 1983).

Trait anxiety - (T-Anxiety) differences between people in the tendency to perceive stressful situation as dangerous or threatening and to respond to such situations with elevations in the intensity of their state anxiety (S-Anxiety) reactions. It is described as potential energy and the differences in the amount of state anxiety associated with a particular physical object, which may be released if triggered by an appropriate force (Spielberger, 1983). For the purpose of this
study, trait anxiety is a score on the Trait Anxiety subscale of the State Trait Anxiety Inventory.

**State Anxiety** – “a palpable reaction process taking place at a given time and level of intensity” (Spielberger, 1983, p. 5). Described as kinetic energy. For the purpose of this study, state anxiety is a score on the State Anxiety subscale of the State Trait Anxiety Inventory.

**General Anxiety** – “the extent to which each of them, trait and/or state, perceives a specific situation as psychologically dangerous or threatening, influenced by the individuals past experiences” (Spielberger, 1983, p.5).

**Residential Substance Abuse Treatment Facility** – A drug free and/or medically monitored residential settings also known as a therapeutic community that uses a hierarchical model with treatment stages that reflect increased levels of personal and social responsibility (NIDA 2002).

**Participants** – The participating women are eighteen (18) years of age or older, who may or may not have children. They will have resided in their respective (mixed gendered or women-only) substance abuse treatment facilities for three (3) weeks or more. The women will meet the Diagnostic and Statistical Manual of Mental Disorders (1994, 4th ed.) criteria for substance related disorders with a history of abusing any type of substance.

**Women-Only Residential Substance Abuse Treatment Facility** – A drug free and/or medically monitored residential setting also known as a therapeutic community that uses a hierarchical model with treatment stages that reflect programs designed to encourage “counseling, parenting training, and education.
classes” (Knight et al., 2001, p.535). It contains programming that is specifically designed to address women’s related issues of physical and sexual spousal, significant other abuse, and “communication through formal training in assertiveness, and parenting, and social network building” (p.535). Treatment protocols pay particular attention to meeting the needs of women during the treatment episode.

**Mixed Gender Residential Substance Abuse Treatment Facility** – A drug free and/or medically monitored residential setting also known as a therapeutic community that uses a hierarchical model with treatment stages that reflect increased levels of personal and social responsibility (NIDA, 2002). Mixed gender residential substance abuse treatment facilities accept both male and females over the age of eighteen. Treatment protocols may or may not include gender specific programming.

**Women-Only Residential Substance Abuse Treatment Facility Where Children Are Present** - A drug free and/or medically monitored residential setting also known as a therapeutic community that uses a hierarchical model with treatment stages that reflect increased levels of personal and social responsibility (NIDA 2002). This type of treatment facility is also “designed to meet the specific need of women, paying particular attention to women’s need to establish supportive relationships” where “women live with their children in apartments on the property” (Knight et al., 2001, p.536).
Summary of Chapter One

In conclusion, I contended that there were no significant differences in the level of anxiety among women who participated in mixed gendered substance abuse treatment facilities as opposed to women-only substance abuse treatment facilities. If anxiety is an issue for women in treatment, it can be argued that placing women in a mixed gendered treatment facility allowed them an opportunity to address their issues related to men. Equally the issue can be argued that allowing women to receive treatment in a women-only setting permits them to focus on themselves and allows them a degree of freedom to address their issues regarding men, e.g. domestic violence, sexual abuse, etc. Literature supports the view that women have different needs than men and by supporting their specific needs treatment facilities can enhance women’s recovery and sobriety efforts (Nelson-Zlupko et al., 1996; Hodgins et al., 1997; Knight et al., 2001). Treatment for the purposes of this study sought to provide behavior modification therapy for women abusing substances to reduce the harm and damage they were inflicting on themselves and others. In determining how the levels of anxiety influence the outcome of therapy in women residing in mixed gendered versus women-only treatment facilities, providers of treatment may be able to determine the best level of treatment for women and seek to design their treatment programs accordingly. Women may potentially be empowered by identifying the best practice methodology, accessing that methodology, and completing a program designed specifically for them. In addition, providing revenue for specific program designs would allow funding to be directed where it had a greater utilization capacity. While there remain many factors that contribute to the retention of women in substance abuse treatment, the level of anxiety as a factor has not yet been fully determined. I sought to investigate the level of anxiety from a state-trait anxiety analysis.
I intended to explore women in traditional treatment settings (mixed gendered) versus non-traditional (women-only) and the impact of anxiety, understood in a state or situational perspective rather than as an inborn characteristic, identified as trait anxiety.

Whether mixed or women-only programs, it was the intent of my study to determine which treatment facility provided the best model of service to women. Hodgins et al. (1997) stated, “Men’s cultural norms tend to dominate when women are a small proportion of a program…and that the confrontational style of traditional treatment approaches is unsuitable for women” (p.807). Green et al. (2002) cited Smith & Weisner reporting that researchers do not fully understand how gender differences affect treatment or program designs to meet the needs of women. This doubt warrants further investigation and its implications for program design.

I have explored the impact children have in reducing anxiety during the treatment episode for women. I have sought to investigate the level of anxiety of women in a women-only setting who have their children present during treatment and those in a women-only facility who don’t have their children present. By determining the significance of the presence of children during the treatment episode, I have, according to the results of this study, recommended the substance abuse treatment setting for women who have children and whether there are benefits or costs by their presence.

In conclusion of the study, I’ve made recommendations as to the overall improvement of treatment protocols in the treatment of women in substance abuse treatment facilities. My study explored the levels of anxiety in women, in different treatment settings, and ways to reduce anxiety as a deterrent to successful treatment outcomes for women.
Chapter 2

THE HISTORY OF THE THERAPEUTIC COMMUNITY

The concept of the Therapeutic Community was developed between 1942 and 1948 by psychologists and psychiatrists of the British Army, attempting to quickly treat soldiers with neurosis and return them to war. It was considered rapid treatment and the “aim was to prevent the development of chronic problems by getting the soldier as quickly as possible to the ‘stage of resolution’ (Harrison 1999, p.23). Their methods were named the Northfield Experiments and were conducted at the Hollymoor Hospital in Birmingham. This gave rise to the phenomenon known as the therapeutic community.

Harrison (1999) Psychotherapists, Winfred Bion and his colleague, John Rickman decided to treat their patients collectively rather than independently. Their concept was considered to be an early form of “systems theory” because they “began to examine how lower and higher order social systems within the institution interacted” (Harrison, p.20). As part of the Therapeutic Community (TC) development, “they implemented entirely new methods of group psychotherapy” (Bion and Rickman as cited by Harrison, p.20).

As a result of their experiments with the TC, a group of military psychiatrists with similar ideas “constituted the ‘invisible college’ that eventually evolved into the Tavistock Institute of Human Relations” (p.20). Their focus relied on the group and redirected the emphasis from individual treatment to the distinctive group format of TCs. Rickman’s work focused on daily group discussions while Bion facilitated soldiers’ focus on communal living and responsibility. Three common themes arose that are still characteristic of today’s TCs. These are “lack of direction that the therapists give
members, emphasis on reality confrontation in the here and now” and lastly, “exploring the social intra-group tensions” (p.27).

The development of TCs continued to evolve in the military with the relocation of pioneer John Rickman to Wharncliffe Hospital in Sheffield where he effectively established a therapeutic community. In 1941, Dr. Maxwell Jones made a significant contribution to the field with the establishment of a therapeutic community in the hospital of a skeptic, Eliot Slater at Mill Hill Hospital.

Just as the therapeutic community was evolving, so too was the terminology used to describe a therapeutic community. The *therapeutic community approach* and the *therapeutic community proper* developed. The therapeutic community approach was used “to define the transformation of asylums such as Hollymoor Hospital into humane and caring institutions” (Kennard, 1998, p.21). This approach arose out of the experiments conducted by Bion and Rickman with the British soldiers. The therapeutic community proper was designed to address “small cohesive communities where therapeutic decisions and functions are shared by the whole community” (p.22). The therapeutic community proper is attributed to the work of Maxwell Jones and termed more of a democratic type (Kennard, 1998).

Lastly, there is the term, *Concept-Based Therapeutic Community* (Kennard, 1998). These types of communities follow a chain of command within the small communal living arrangements. They are self-help in approach. DeLeon (2001) cites, “The therapeutic community for addictions is fundamentally a self-help approach” (p.79). The term *concept-based* is most often associated with the rehabilitation of addictive disorders. Kennard (1998) reports that, “The names Synanon, Daytop and Phoenix House all refer
to communities of this kind, and there are also numerous more recent projects of this type in the American prison system (p.22). DeLeon (2000) stated, “the therapeutic for addictions, also termed the concept or drug-free therapeutic community, emerged in North America in the 1960’s and has been implemented worldwide” (p.79). Remarkably, the emergence of the therapeutic community in North America occurred twelve years after the British development and independent of each other. Kennard cited, “in what appears to be historical coincidence the same term was introduced independently in England and the United States” (p.20). Similarly, DeLeon (2001) is cited as reporting, “Other than the name, whether or how the British psychiatric therapeutic communities influenced the addiction therapeutic communities of North America is unclear” (p.79).

DeLeon addresses the confusion of the therapeutic community for addictions operating in the United States. DeLeon (2001) stated that a mislabeling of therapeutic communities and describing the TC as being “widely used to vaguely represent its distinct approach in almost any setting” (p.80). This source of confusion only tends to “cloud understanding of the therapeutic community as a drug treatment approach” (p.80).

TCs operate within various types of settings including residential treatment programs. One of the types of settings utilized by TCs is in the treatment of addictions. DeLeon (2001) further stated, “The therapeutic community for addictions is a drug-free modality which utilizes a unique social psychological approach to the treatment of drug abuse; its characteristic setting is in a community-based residence” (p.80).

The current day residential therapeutic community models for the treatment of substance abuse still incorporate the community as its environment for change. Programs
vary in size, ranging from small thirty bed facilities to multiple large site agencies. However, DeLeon recommends between 40 and 80 as an optimal capacity for housing. TCs length of stays varies as well. NIDA (2004) reports, “Traditionally, stays in TCs have varied from 18 to 24 months. Recently, however, funding restrictions have forced many TCs to significantly reduce stays to 12 months or less” (p.1). In some instances, the shorter stays are considered, modified therapeutic communities, where stays last an average of six to nine months, due to managed care constraints. A primary objective of the TC is to allow around-the-clock observation of the residents living within the facility. Substance abusers have many other psychosocial related issues in addition to the addiction. According to DeLeon (2000) they have “been labeled as bad or rebellious kids, dangerous addicts or criminals” (p.87). NIDA (2004) concurs and believes that substance abusing individuals have significantly poorer social and occupational functioning. Twenty-four hour surveillance provides an opportunity to watch everyday behaviors, feelings, attitudes, and ability to cope with daily living skills. DeLeon (2000) reported that, “In the 24-hour community of the TC, individuals can be observed in all of their dimensions; how thy work, relate to peers and staff, maintain their rooms and personal hygiene and participate in groups and community meetings.” (p86.). However, it is the responsibility of the individual to “participate in the social learning process” (p86). This is facilitated by the structure of the TC, “total drug abstinence, a hierarchical work structure, confrontational group sessions…and a range of educational and social activities” (Kennard, 1998, p.85). The individual change comes as a result of peer interaction. DeLeon (2001) cited that “all participants are mediators of these therapeutic and educational changes” (p.82).
Residents of TCs generally must go through levels of treatment, also known as stages. Levels define hierarchy within the program as well as progress in therapy. Level one is usually considered an *Induction*. During this level the resident is introduced to staff, other residents, and rules and regulations of the program. They are a part of the daily regime of work and groups that are designed to provide interaction with peers and a commitment to the TC method of treatment. DeLeon (2000) describes this level as restrained to avoid increases in personal anxieties. The residents are charged with learning the rules and regulations of the program, learning the names of their peers and staff, and assessing themselves in terms of their behavior. This is achieved by writing a history of their life and substance abuse. They are held personally responsible for making a commitment to this type of treatment process. This phase of treatment generally last two to four months.

The second level or state two is designed to foster social and psychological growth. This is considered the primary focus of treatment and is accomplished by participation in community activities, community resources and positive leisure activities. Residents participate in a “daily therapeutic-educational regime of meetings, seminars, group, job functions, and peer and staff counseling” (DeLeon, 2000, p.199). Residents are given increasing responsibilities as they gain the trust of their peers and staff. Personal growth is assessed by consistent self-exploration, abiding by the program’s structure, and a decrease in negative behavior. Privileges are provided for progress in the form of a pass to leave the structure for a specified amount of time and/or attend a positive activity outside of the therapeutic community setting.
The third level as cited by DeLeon (2000) is designed to “facilitate the individual’s separation from the residential community and to complete his or her successful transition to the larger society” (p.201). By this level the resident is expected to have gained a higher level of self-esteem, insight into their addictive personality, and positive social connections. There is more autonomy at this level. The resident is entitled to greater privacy and more flexibility within the regular program structure. Privileges are significantly increased to include pursuit of vocational interest or school. Participants may be permitted to obtain part time employment. There is still an expectation to participate in groups, seminars, and house activities when available. In the later stage of level three, residents may be attending outside Narcotics Anonymous groups, have full time employment, and participate in family or couples therapy if desired. Most of level three is designed to provide a smooth transition and separation from the therapeutic community.

Program completion is marked by being substance free, working and/or in training, having housing, handling financial and legal matters, and demonstrating improved cognitive and responsible behavior. It is the end of program involvement; however residents are encouraged to keep in touch with the program as part of an aftercare plan.

The role of staff in a TC setting is twofold. Administration staff is responsible for billing, fiscal, and other non-clinical operations. Clinical staff is primarily responsible for supervision of the residents and facilitation of therapy sessions, i.e. individual and encounter groups. Clinical staff assist the residents with various supportive services they may need while in treatment. These services are incorporated as part of the residents treatment plans and monitored by residential staff. In addition, staff persons assign job
responsibilities that are of therapeutic value to the individual’s recovery and intervene with communal conflicts among residents when necessary. Throughout the various descriptions of the therapeutic community and its processes, little of the literature explores the impact of gender when participating in TCs.

**WOMEN WHO PARTICIPATE IN THERAPEUTIC COMMUNITIES AND SELECTED TREATMENT SETTING**

When examining issues of men and women in therapeutic communities, women are under represented. Wexler, Cuadrado, and Stevens (1998) confirm this statement by citing Stevens, Arbiter and Gilder, reporting that, “Prior to 1990 most drug treatment programs were developed and facilitated by men for a predominately male population” (p.214). The same article also cites DeLeon & Jainchill in that, “very little is known about the effectiveness of long term residential treatment for women” (p.215). Blumenthal (2002) states, “The year 1990 marked the beginning of a decade in which women’s health concerns-including mental and addictive disorders-have received unprecedented attention within the academic and health care communities and in the media” (p.14). Blumenthal further states, “Before the Civil War, the number of female drug addicts outnumbered male substance abusers” (p.13). Despite this finding as late as the final years of the twentieth century the Drug & Alcohol Services Information System (DASIS) Report (2001) stated, “Women in treatment…were substantially outnumbered by men” (p.1), which would seem to indicate little attention has been paid to women with substance abuse problems. The DASIS reports there are multiple reasons for this phenomenon but the most common are related to the difficulty of securing childcare and accessibility. Copeland and Hall (1992) say that failing to address
treatment issues for women could possibly be a factor contributing to women’s lack of involvement in treatment programs.

All of this information suggests that women are still under represented in research with regards to their admittance, engaging and staying in substance abuse treatment. When exploring the issues of women and their treatment exposure, different models emerge regarding the most efficient manner to approach treatment from a TC perspective. The first model is a TC treatment in a mixed gendered facility; secondly the TC model that is women-only, and finally the model of having women reside with their children in the TC setting. Women often fall into the category of a special needs population because of their multiple issues of abuse, domestic violence, and child custody concerns. While research indicates that both women-only and mixed gendered settings are helpful, women-only programs offer more services focused on the specific needs of women. Still programs that permit women to have their children on premises offer improved mental health and have longer lengths of stay. Advocates of women-only treatment settings suggest that because of the difference in the overall development of women, attention must be directed at engaging them and “avoid an authoritarian approach” as stated by, Ramlow, White, Watson, and Leukefeld, (1997, p.1399). Closer examination of each setting is warranted on the basis on their individual merits. Based on a study conducted by the Caron Foundation comparing mixed gendered sensitive programs with gender-separate programs, both had comparable drop out rates (Gordon, 2002). The study noted that lengths of stays were comparable as well as the types of discharges between the two program types. Grella (1999) cited an Australian study that also concluded there were no differences in treatment outcomes of women choosing to participate in mixed versus
women-only treatments. A review conducted by Hodgins et al. (1997) cited Doherty & Endler who suggested mixed groups assist with the development of healthier heterosexual relationships for those willing to address the issue. In a study conducted by Copeland and cited by Bride (2001), “simply providing women with an all-female environment without changing the program content did not substantially improve treatment outcome” (p.224). Wallen (1990) stated that gender specific programs may not be as important as the need to provide “female-sensitive treatment services” (p.233). This is substantiated by Copeland and Hall (1992) who perceived the lack of gender-sensitive services as a potential barrier for recruiting and retaining women in mixed gendered settings. Nine studies compared by Sun (2006) report better outcomes for women-only treatments. However she also stated that there were “significant methodological problems with most of these studies and more empirical studies are needed” (p.13). Mixed gendered treatment settings prevent parenting issues from becoming the primary issue in treatment. Brown (1996) stated, “Without the children in the program, the women do not have to be confronted daily about their parenting skills” (p.44). In addition, there is some question as to what types of women seek services in a mixed gendered setting as opposed to a women-only setting. Characteristics of the women participating in the women-only setting were that they are more likely to have issues related to dependent children, lesbianism, or a history of sexual abuse (Grella, 1999). Copeland and Hall agree with these characteristics and include another as well. They stated that women who had attended specialized treatment setting had often received prior treatment in a mixed setting (1992). Grella, Polinsky, Yih-Ing, and Perry (1999) stated that women who participated in mixed gendered treatment sites had fewer
complicated problems with less service needs. In her study Grella (1999) indicated “a
greater proportion of African American women were treated in mixed-gender residential
drug treatment programs, whereas higher proportions of white and Latino women were
treated in women-only programs” (p.220). No critical reasoning was cited but rather
she suggested further investigation in order to understand this difference. Others report
not the gender of the group, but rather “the masculinity or femininity traits” as critically
important (Hodgins et al., 1997, p.811). These researchers have indicated multiple
variables contributing to the successful treatment setting for women. The literature
suggests it is not the treatment setting so much as individual readiness for the treatment
process. When considering mixed sex groups over single sexed groups, Covington
(2002) believes a combination of mixed and single groups is effective. She recommends
a single group in early stages until validation and empowerment is achieved and a mixed
group for further development. In summary, the mixed gendered facilities may best serve
women by providing a setting that allows them to address their issues with men and
offers additional services to meet specialized needs of women.

When exploring the advantages of women-only treatment settings, it should be noted
that women didn’t become recognized as a specialized population in addictions until
women’s advocates lobbied for funding to address their particular issues. Grella et al.
(1999) stated “in 1984 the federal government amended block grant legislation to require
each state to set aside 5% of its block grant allocation for new or expanded alcohol and
drug abuse services for women” (p.37). Even then states were only encouraged to do
so, not mandated. It was not until 1988 and the war on drugs that congress doubled these
funds and specifically required that they would be made available for “pregnant women
and women with children” (p.38). Finally, after legislation was enacted and Medicaid grants allocated, substance abuse treatment facilities for women were developed. Wallen (1990) stated that the system has become “a two-tiered system consisting of a public and a private sector” (p.229), suggesting a sub-culture of women-only programs. Again, the characteristics of the women differ, as do the types of services rendered. The public sector appears to have a longer drug history, lack employment, suffer social deficits, and have criminal involvement, indicating a greater service need among the public settings. Other general characteristics include the educational level of women participating in TCs. Few of these women are high school graduates. Stevens and Arbiter (1995) noted that the mean educational level of women was 11.5 for participants in the Amity’s Center for Women and Children. In a study conducted by the Alcohol and Drug Abuse Services Administration (ADASA), the mean educational level for the women was 11.3 years. National Institute for Drug Abuse (NIDA) further substantiates this statement by reporting that one TC cited 60 percent of its participants as not having completed high school and still another 75 percent were lacking high school or a General Equivalency Diploma (GED) (NIDA, 1994). A woman’s willingness to participate in any form of treatment setting may be governed in part by her legal status. Addicted women often employ sex for drugs. Their sentences are related to sexual behavior rather than drug use. This can typically delay their admittance to drug and alcohol treatment in any setting. Amaro and Hardy-Fanta (1995), while conducting a study on gender relations, observed three main financial resources of addicted women; one of them was from illegal activities, such as prostitution. They reported that women have served jail sentences and have probation/parole involvement. However, when Messina, Wish, and Nemes (2000)
examined post discharge outcomes, they observed “fewer postdischarge arrests” (p.209). Lewis, Haller, Branch, and Ingersoll (1996) cite Collins and Allison, as well as McFarlain et al.; all concur that women who are involved with the criminal justice system are more likely to remain in treatment. Thus it can be said that legal stipulations have the potential to impact the lengths of stay for women in a positive manner.

Women-only and women with children settings have different characteristics from the traditional mixed gendered setting. By comparison, the study conducted by Wexler et al. (1998) reported that women-only setting participants are significantly older and more likely to have experienced employment. Women-only participants were more likely to have been incarcerated with longer histories of substance abuse, and were far likely to report heroin as their drug of choice. Grella et al. (1999) cited women-only programs as being more supportive and less confrontational as well as providing specific services to address specific needs of the women. Women who selected women-only treatment are more likely to have sexual abuse issues. Copeland and Hall (1992) stated that, “Women attending the [Specialist Women Service] SWS were twice as likely …to report having been sexually abused in childhood” (p. 1297). This issue may not be addressed in a mixed group setting. Hodgins et al. (1997) cited Reed supporting this statement that, “women in single-gender groups discuss issues that they will not discuss in mixed gender groups” (p. 807). Unaddressed issues have the potential to magnify and hinder the treatment process for women. Women-only programs are thought to decrease the likelihood of humiliation from the trauma experienced by women in addiction. As a final point, women participants of women-only settings who have children have made family/spouse arrangements or their children may be in custody of the courts.
Still to consider are the characteristics of those women who select to enter treatment pregnant and/or with their children. These women are viewed as having limited financial resources and family supports; they “suffer from depression, anxiety, and low self-esteem; are cognitively impaired; have feelings of shame and guilt; and have a history of childhood trauma, parental substance and abusive relationships” (Grella, 1999, p.218).

Women who are permitted to bring their children have better post-treatment outcomes and longer lengths of stay. Gilder (1996) cited Stevens et al. reporting that women permitted to bring their children increased their length of stay. An established barrier to treatment is a lack of childcare, thus women admitted to treatment with their children have overcome one of the barriers. Women in treatment with children report that not having to juggle treatment with childcare is beneficial and frees them to focus on treatment (Sun, 2006). It also allows them to actively engage in parenting activities. Wobie, Eyler, Conlon, Clarke, and Behnke (1997) reported that women with dependent children are attracted to gender based treatment because it allows for safer disclosure of issues. Women in treatment with their children may continue to feel a maternal responsibility for the welfare of their children. Typically, programs that include women with children have specifically designed curriculum. (Copeland et al., 1993; Brown et al, 1996; Wobie et al., 1997). Thus programs that are designed for women with children come with their own defined characteristics and differences from mixed gendered and women-only programs.

Differences exist among women of various ethnic and racial backgrounds. The lives of white Non-Hispanic, African-American, and/or Hispanic women are different. In the study conducted by Wexler et al. (1998) not only was race a factor, but whether or not
children were a part of the treatment experience was also a factor. They stated, “Women without their children were older, more often white” (p.213). Racially, Gordon (2002) reported white women drinking alcohol more than Latino or African-American women. She reports that when an African-American woman drinks, she may consume more, but that this appears to be related to and influenced by acculturation. In a report conducted by Stevens and Arbiter (1995) they stated, “First-generation Hispanic women have reported less drug use; as acculturation increased so did the use of illegal drugs” (p.51). Stevens and Arbiter referenced the 1990 National Council on Alcoholism and Drug Dependence stating that Hispanic women had the second highest use of alcohol and other drugs, while Native American women were “36 times more likely than white women to have cirrhosis of the liver” (p.51). When race is factored regarding the treatment setting, Grella (1999) reported higher numbers of African-American women participating in mixed gendered facilities and a higher proportion of whites and Latinas participating in women-only treatment. NIDA (1994) cited a difference in demographics as having an impact on race of TCs. TCs along the United States’ Atlantic coastline see upwards of 90 percent of its total population being African American. The figures change significantly in the Midwest and western states. Stevens, S. and Glider, P. (1994) referred to “Amity Inc., in Tucson, AZ, 61 percent are white, 21 percent are Hispanic, 13 percent are African American, 4 percent are Native American and 1 percent are Asian American” (p.164). Thus there are characteriological differences among TC women participants, differences in the demographics of TC participants, as well as variation in the selection of the particular treatment settings.
Most of the attention has been directed to the advantages of treatment for mixed gendered, women-only, and women with children; however there are disadvantages in each program setting. Some consideration should also be given to difficulties and problems encountered in each program style. Mixed gendered treatment programs have been reported to have an increased likelihood of residents developing a sexual relationship. The establishment of sexual relationships in treatment is thought to be counter-therapeutic, primarily because it distracts participants and allows them to avoid confronting addiction. Sun (2006) cited Ravndal and Vaglum’s qualitative study stating “women in their mixed-sex program were likely to develop a sexual relationship with male clients in the same setting, resulting in early dropout when their male partner dropped out” (p.2). There is also the possibility of sexual harassment by males in mixed gendered programs. Copeland and Hall (1992) saw, “fear of sexual harassment by the predominantly male clientele” (p.1293) as problematic of mixed gendered settings. Mixed gendered programs don’t appear to have the same retention rate as women-only. Sun (2006) reported the findings of six qualitative studies demonstrating better retention rates and treatment outcomes in women-only programs. Mixed gendered programs are not as easily accessible, and they have been known to fail at meeting childcare, as well as other special needs of women, i.e. pregnancy capacity. Grella (1999) reported “MG [Mixed Gendered] programs were also more likely to present obstacles to women’s entry” (p.38). Mixed gendered facilities typically don’t provide parenting or children’s activities and are less likely to be considerate of the economical differences of women participating in treatment. Grella (1999) stated, “The most consistent difference between WO [Women Only] and MG programs was their provision of services specific to
women’s needs” (p.43) and “WO programs were less likely than MG programs to charge a fee” (p.43). This observation is supported by Hodgins et al. (1997) comparing the barriers of mixed setting to women-only included, “women’s relative lack of economic resources, childcare concerns and insensitivity of referral networks” (p.807). Participants of mixed gendered treatment often rely on the father and/or other family members to childcare. Copeland and Hall (1992) state that, “Women with dependent children who attended the TMS most frequently reported that their children were cared for by the father (17.5%) or grandparent (12.5%)” (p.1296). At first mention this appears ideal. However, many of the fathers or significant others were responsible for introducing illicit substances, or they were abusers of the women attending the TMS. In mixed gendered treatment settings, confrontation is the method of choice for therapeutic communities. This aggressive style is not reflective of how women relate to themselves or others. In fact it has been known to produce “a premature dropout” rate (Brown et al., 1996, p.41). Wobie et al. (1997) concurred and cited O’Connor et al. stating, “confrontational treatment approaches may not be the best treatment strategy” (p.589).

Women-only treatment settings have to cope with the issue of homosexuality/lesbianism among them. Just as men are capable of distracting women from treatment so too are women who engage in homosexuality. Copeland and Hall (1992) report that the results of their study concluded, “Women attending the SWS [Specialist Women Services]…were more than four times…more likely to be lesbian than were women attending the TMS [Traditional Mixed Services]” (p.1295). Incorporating women-only or women with children treatment settings is not the ultimate answer to the treatment issues for women. Just as important is the movement from
individual care, that type found in traditional mixed gendered settings, to a more comprehensive type of care, designed for special needs of women and/or women with children. Therapeutic communities for women must consider “three categories: structural design issues, treatment issues, and staff and training issues” (Brown, 1996, p.41). Women with children settings don’t lend themselves to rationing personal time away from their children. There is no “me” time. Programs may want to consider implementing a structure that allows for such a component in order to foster personal growth. Brown believes that a component of this nature “may be more empowering for the women” (p.42). Brown also asserts that it may not be in the mother’s best interest to have her children present too early. She suggests that they may be taking on too much responsibility too soon in their treatment process and this would not be in the child’s best interest. There are also two distinct thoughts regarding the housing of women with children. It remains undetermined whether separate housing is better. It promotes an atmosphere of privacy versus dormitory living arrangements that offer parenting assistance. Brown stated, “the best arrangement may be dormitory-style housing in the first phases and separate housing during the reentry phase” (p.42). Rewarding the resident, in keeping with the traditional philosophies of the therapeutic community, would occur by moving the resident from dormitory to separate housing on the basis of an overall improvement in parenting responsibility. This statement is similar to the citation from Covington (2002) referencing the mixed over single treatment process. Covington preferred a combination of the two and Brown is suggesting this as an effective method with the housing components as well. Literature on women in therapeutic communities, whether in a mixed, women-only, or women with children
environment, has many variations, complexities, and considerations to provide the optimum treatment strategy. There are pros and cons to each setting. An exploration into the levels of anxiety felt by the women in various treatment settings deserves consideration. This may well be yet another facet in the substance abuse treatment of women.

**TYPES OF ANXIETY DISORDERS WOMEN EXPERIENCE**

The Diagnostic and Statistical Manual of Mental Disorders-IV-Text Revision (DSM-IV-TR, 2000) has traditionally been the tool mental health clinicians rely on for assessing and diagnosing mental disorders. Merikangas, Mehta, Molnar, Walters, Swendsen, Aguilar-Gaxiola, et al. (1998) refer to the Diagnostic and Statistical Manual of Mental Disorders-III-Revision (DSM-III-R, 1987), an earlier version of the DSM-IV-TR, as the, “lifetime diagnostic criteria …used to operationalize diagnoses” (p.896). The American Psychiatric Association’s task force and other work groups of physician’s, PhD’s, and mental health specialists publish this document. When exploring anxiety for identifying information, the most recent edition of the DSM-IV-TR is considered to be a reasonable starting point. According to the DSM-IV-TR, the anxiety category encompasses several subtypes. These include panic attack, agoraphobia, panic disorder without agoraphobia, agoraphobia without history of panic disorder, specific phobia, social phobia, obsessive-compulsive disorder, posttraumatic stress disorder, acute stress disorder, generalized anxiety, anxiety disorder due to a general medical condition, substance induced anxiety, and anxiety disorder not otherwise specified. Women active in substance abuse or in early stages of recovery may exhibit multiple symptoms characteristic of various anxiety subtypes. However upon careful review, some diagnostic criteria may not be met for the
women’s anxiety levels in substance abuse treatment or it may be too difficult to ascertain which problem presented initially. Further research would be required to establish whether the anxiety was present prior to the substance abuse or whether the substance abuse brought about the anxiety.

Anxiety associated with panic attacks is described to “occur in the context” (p.430) of other mental disorders including “Substance Use Disorder” (p.430) according to the DSM-IV-TR. While panic attacks can present when the danger isn’t real, one of its defining characteristics, as reported by the DSM-IV-TR, is being “situationally bound (cued) panic attacks (p.431). This could define the characteristics of a substance-abusing woman and the perceived drug lifestyle, in which there exists a multitude of perceived dangers. In addition, the DSM-IV-TR specifically states, “Panic Disorder is not diagnosed if the Panic Attacks are judged to be a direct physiological consequence of a substance” (p.437), that is, of abuse. It further clarifies panic disorder in relation to substance abuse by stating that, “individuals with Panic Disorder may self-medicate their symptoms, co-morbid Substance-Related Disorders…are not uncommon” (p.439).

Panic disorders which include agoraphobia, agoraphobia without panic disorder, and agoraphobia without history of panic disorder, may not accurately describe women with substance abuse related anxiety based on the DSM-IV-TR’s definition. However, in the context of this literature review these conditions are diagnosed two to three times more frequently in women. Specific phobia is defined as fear associated with “clearly discernible, circumscribed objects or situations” (p.443). Women in substance abuse treatment may have a perceived idea of what they consider fears associated with the treatment experience, and the DSM-IV-TR (2000) cited that this diagnosis should not be
given when the “fear is reasonable given the context of the stimuli” (p.444). It is reasonable to assume that women who present in treatment settings come from a variety of situations that were clearly and discernibly fearful, i.e. domestic violence, prostitution. Women are twice as likely to come from these kinds of situations, even when compared with seniors. Noteworthy to the discussion of panic disorder is the consideration of the disorder in combination with depression. Sinha and Gorman (2003) stated that, “a strong association between depression and anxiety disorders, including PD.” (p.44). Sinha and Gorman cited multiple researchers who concurred with this statement. (World Health Organization, Lecrubier & Ustun, 1998; Coryell et al., 1998; Kessler et al., 1997). A distinguishing feature of co-morbid panic and depression is that it will lead to poorer treatment outcomes and greater physiological symptoms. Starcevic (2005) agreed and reported that, “Many panic patients develop depression” (p.30). There is ongoing discussion about whether to include a subtype of anxiety disorder, classified as Mixed Anxiety-Depression.

This appears to be of particular importance when considering cultural differences and expressions of anxieties cross-culturally. As an example, Guarnaccia (1997) reported on a DSM field trial conducted with Hispanic subjects. These subjects reported a marked not otherwise specified (NOS) anxiety, generalized anxiety disorder, and panic disorder. Guarnaccia concluded that the Hispanic subjects, “reported emotional disturbance not captured by the current diagnostic system” (p. 14). Had Mixed Anxiety-Depression been a recognized disorder, the Hispanic subjects could have been readily diagnosed. Mixed Anxiety-Depression is recognized by the International Classification of Diseases (ICD)
and is cited by the DSM-IV (1994) as “Criteria Sets and Axes Provided for Further Study” (p.780). These have important implications in the review of panic disorders.

In examining social phobia, the fear cannot be related to “direct physiological effects of a substance” (DSM-IV-TR, 2000, p.450). Social phobia with women is immediately evidenced by an isolating tendency in their childcare responsibilities and may be present in situational domestic violence. The anxieties in general are typically seen more frequently in women and this is the just such the case with social phobia. The DSM-IV-TR stated, “Epidemiological and community-based studies suggest that Social Phobia is more common in women than in men” (p.453). When examining anxiety as it relates to substance abusing women in a treatment setting, an obsessive-compulsive disorder is seemingly definable among them as well as any other substance abusing person. Addiction can be viewed as an obsession with the substance of abuse, along with a compulsive behavior to obtain the substance. The DSM-IV-TR cites the primary diagnostic features as “recurrent obsessions or compulsions that are severe enough to be time consuming or cause marked distress or significant impairment” (p.456). Despite this feature being characteristic of addiction, upon further review obsessive-compulsive disorder is not diagnosed when “direct physiological effects of a substance” (p.457) are introduced. This also defines the differential diagnosis from substance-induced anxiety disorder, when the “substance is judged to be etiologically related to the obsessions or compulsions” (p.460). Addictive behavior is further eliminated as a diagnosis because the substance abusing person is viewed as deriving pleasure from the behavior as opposed to the clinical features of a compulsion.
Another subtype of anxiety is Posttraumatic Stress Disorder (PTSD). Its diagnostic features include, but are not limited to, “development of characteristic symptoms following exposure to an extreme traumatic stressor involving direct personal experience of an event that involves actual or threatened death or serious injury” (DSM-IV-TR, 2000, p.463). Women in treatment settings have been exposed to life threatening stressors. PTSD is directly related to an increase in substance related disorders because of the situations substance abusing people place themselves, from seeking and securing to using the substances. The DSM-IV-TR reported the highest rates of PTSD are seen among survivors of rape, who are predominantly female.

Acute Stress Disorder is typically eliminated as a diagnosis when referencing substance abuse because of the need to distinguish it from a Substance Induced Disorder and it being “considered a common consequence of an extreme stressor” as stated in the DSM-IV-TR (2000, p.471). General Anxiety Disorder (GAD) presents with features associated with substance abuse, but at closer examination the presence of another Axis I disorder would eliminate it as a likely diagnosis when referencing women in a treatment setting. This would be the case unless the GAD existed prior to the onset of the substance abuse disorder, which would exaggerate one or both conditions. Anxiety disorders due to a general medical condition are those “judged to be due to direct physiological effects of a general medical condition” (p.473). However, the DSM-IV-TR stated too that, “the disturbance is not better accounted for by a primary Anxiety Disorder or a Substance-Induced Anxiety Disorder” (p.473). Yet, many women in treatment are deemed to have multiple medical related conditions associated with their addictive lifestyles, i.e. malnutrition, HIV/AIDS.
Substance-Induced Anxiety Disorder is “judged to be due to the direct physiological effects of a substance” as stated in the DSM-IV-TR (2000, p.479). It further states that the “disturbance may involve prominent anxiety, Panic Attacks, phobias, or obsessions or compulsions” (p.479). This is the subtype of anxiety most categorical of women in treatment. Substance-Induced Anxiety Disorder can take on the characteristics of Panic Disorder, GAD, Social Phobia, or Obsessive-Compulsive Disorder without the other criteria being met. The distinguishing feature of substance-induced anxiety is “laboratory findings of dependence, abuse, intoxication, or withdrawal” (p.480). Anxiety disorders can precede the substance abuse disorder or they may be present with intoxication as well as withdrawal and are commonly seen there. Substance-induced anxiety is identified as being etiologically related to the symptoms.

This literature focused primarily on the diagnostic features of GAD and Substance-Induced Anxiety as it relates to the state and trait definitions for anxiety identified by the STAI. Enoch et al. (2003) cite the American Psychiatric Association, stating, “Generalized anxiety disorder and phobias are considerably more common in females” (p.34). In the study, they concluded that there is a genetic connection between the origins of anxiety in women and alcoholism. They demonstrated that the Catechol-O-methyltransferase (COMT) Val 158 Met is significantly lower in women, predisposing them to an anxiety trait. Enoch et al. (2003) stated, “COMT Val158Met genotype was not associated with Spielberger state anxiety scores in either population,” of the population studied which included, “predominantly Caucasian individuals…and 252 Plains American Indians” (p.39). While the study did not validate the relationship of anxiety associated with Spielberger’s state anxiety, research has indicated a correlation
between anxiety and self-medicating. Merikangas et al. (1998) stated, “Some investigators have emphasized the likelihood that substance use disorders directly cause anxiety” and “certain psychiatric disorders may lead to substance dependence through attempts at self-medication” (p.894). These statements are further supported by Cox, Norton, Swinson, and Endler (1990). “Some individuals may present themselves for treatment for anxiety only after they have acquired a self-medication habit” (p.385). Enoch, Waheed, Harris, Albaugh, and Goldman (2006) said, “The effect of COMT Val158Met genotype on dopamine-mediated prefrontal cortical function and also dopamine release in the mesolimbic reward pathway may influence vulnerability to behaviors such as drug or alcohol abuse” (p.400). Enoch et al.’s 2006 study concluded much the same as their earlier research (2003) when she and colleagues reported, “there may be both sex differences in the genetic origins of alcoholism and smoking in this population and overlap in genetic vulnerability to both addictions in women” (p.404). In either event further research may determine whether the anxiety predisposes the substance abuse or the substance abuse predisposes the anxiety, with an increased trait anxiety prevalent in both manifestations.

CROSS CULTURAL INFLUENCES OF ANXIETY ON WOMEN

Anxiety must also be explored from a cross-cultural perspective. In research conducted by Good and Kleinman, as cited by Guarnaccia (1997), being able to assess anxiety in cross cultural patients will “be an increasingly important issue for clinicians working in the United States” (p. 4). He bases this statement on Census data that projects, “by the year 2050, 45% of the U.S. population will be composed of persons who are Latinos, African Americans, and Asian Americans” (p.4). It will be increasingly
difficult to categorize anxiety as well. This will be in part due to the cross over of manifestations considered in the diagnosis of anxiety disorder. Guarnaccia speaks extensively to three syndromes that fall in the category of anxiety disorders but meet the criteria for other disorders too. They are *Ataques de Nervios*, common to Puerto Rican adults; *Koro*, seen in Asian culture; *Taijin Kyofusho*, characteristically seen in Japanese culture. According to Guarnaccia with an ataque de nervios, “the most common symptom reported was screaming uncontrollably” (p.11). This symptom, however, is not categorized in the DSM-IV, and its closest similar symptom is seen affective disorders, i.e. panic attacks. Usually there is a precipitating event with ataques de nervios that is not the presenting hallmark of a panic attack. More common to this disorder is the presence of “dissociative experiences” (p.11). Salman, Diamond, Jusino, Sanchez-LaCay, and Liebowitz, (1997) stated that mental illness in the Hispanic community is primarily treated by family supports, spirituality espiritistas (spiritual healers), or folk remedies, yeberos (herbal healers). Affective disorders such as anxiety are seen as a character defect. Salman et al. (1997) stated that, “The stigma of being crazy not only evokes reluctance to go to psychiatric hospitals, but also evokes the suppression of psychiatric symptoms” (p.63). Hispanic Americans as well as other cultures create labels in association with mental illness, such as crazy. These labels only serve to continue the negative thinking related to the mental illness. In a Puerto Rican study conducted by Guarnaccia et al. and cited by Salman et al, 23% of all subjects interviewed fit the category of ataques de nervios. Ataques de nervios is also seen as part of the mental health continuum. Salman et al. (1997) stated that at one end of the spectrum is “estar nerviosa/o (being nervous) …to the far end …fallo mental, or mental failure” (p.64). By
then, there is seen little chance for recovery. Ataques tend to be more prevalent in women and are frequently classified as anxiety or other affective disorders.

In Koro, the Asian disorder is associated with “acute anxiety associated with the fear of genital retraction” and resulting death (p.11). Somatoform disorder would seem the obvious, however koro presents individually and in large group form. Bernstein and Gaw (1990) report that koro is seen in, “individual and large group manifestations.” (p.12). Koro is most commonly reported in males, whereas women have been known to report of “labial and breast hyperinvolution” (p.1671). In a study conducted by Berrios and Morley (1984), “All cases suffered from a primary psychiatric condition; affective disorder (anxiety, depression) and non-affective psychosis (schizophrenia) were the commonest but drug abuse and brain space occupying lesion have also been reported” (p.333). Because of its association with drug withdrawal and brain lesions, koro is thought to have physiological bases as well. Guarnaccia (1997) advises, “not to assume significant thought disorder unless the distortions in perception have persisted for an extensive period of time and led to significant functional impairment” (p.12). Koro or koro-like symptoms have been reported in other cultures too. There are reports that koro reached epidemic proportions among Hindu and Muslims in 1982. Bernstein and Gaw stated, “populations who had never been exposed to traditional Chinese medico-philosophical concepts” in India were experiencing koro (p.1671).

Guarnaccia (1997) described a Japanese condition, known as Taijin Kyofusho (TKS) wherein the individual fears their physical appearance will offend others. Kirmayer (1991) extends the definition to include, “fear of eye to eye confrontation, fear of blushing, fear of unpleasant facial expressions” (p.19). He also describes Taijin
Kysfusho as being a “uniquely Japanese term.” (p.19). Guarnaccia explains that the Japanese have developed a particular psychotherapy to address the disorder. According to Kirmayer, “such anxiety is fostered in young girls and viewed as normal and even attractive” (p.20). This lack of stigma associated with the diagnosis is seen as accounting “for a popularity of the diagnosis” (p.20). It may also contribute to a misdiagnosis in women with social anxieties. Western psychiatry has made mention of it in its recent DSM-IV-TR. TKS is cited in the Anxiety Disorders section under the diagnostic features of Social Phobia as a social anxiety disorder. This provides evidence of the growing importance of cultural exchange and connectedness between western and eastern views of psychiatric disorders.

Japanese are guarded when reporting intercultural diagnosis and consider nihonjinron as a special characteristic of the culture. Kirmayer (1991) stated that nihonjinron, “seeks to demonstrate the unique characteristic of the Japanese language, culture, and people” and that “cross cultural comparison must proceed with caution” (p.20). However, when symptoms are delusional in nature, Kirmayer said, and several Japanese authorities concur that “TKS falls squarely within the larger category characterized by excessive social anxiety” (p.21). Kirmayer cautions a culturally bound grouping of disorders but rather focuses attention towards “refinement of international categories” and “thinking in terms of process rather than disorder” (p.27). This perspective is shared by Guarnaccia (1997) in his reflection that, “Clinicians also need to learn about these various cultural dimensions of their clients so as to interpret and contextualize more accurately the concerns and symptoms their clients bring to them” (p.17).
One final examination of the cultural influences on anxiety is that of the African American population. African American’s are believed to have experienced more traumas in their lives, particularly if they reside in the inner cities. African American women are of particular risk. Fullilove and Fullilove (1994) stated, “Because gender, poverty, and residence in the inner city are risk factors for traumatic experience, many African American women are at risk for traumas and consequent mental disturbances” (p.89). With the insurgence of “crack” cocaine women were exposed to greater risk of violence often witnessing beatings, murder, and the violence that can occur with women who have sex for drugs. If this exposure to violence is co-occurring with the substance abuse, the recovery is hindered as supported by Fullilove and Fullilove stated, “As with other psychiatric co-morbidities, untreated trauma disorders may interfere with recovery from substance abuse” (p.92). Because of the Post Traumatic Stress Disorder (PTSD) associated with the violence, Fullilove and Fullilove suggest that anxiety and depression are mild symptoms for African American women substance abusing. They stated that the domestic violence women endure causes more symptoms of PTSD than the symptoms of an anxiety disorder. These authors are careful not to dismiss the possibility of anxiety related symptoms by stating, “In the aftermath of multiple traumatic experiences, we find a complex mixture of outcomes” (p.98), which could include anxiety in women.

The current DSM-IV-TR is cautious in its discussion of culture as it relates to anxiety disorders. With the exception of TKS, “Specific Culture and Gender Features” at first perusal appears vague and noncommittal. The DSM-IV-TR addresses an “intense fear of witchcraft or magic” but fails to attach the fear to any specific culture. While this could also be the result of limited research and data to support cultural influences, Guarnaccia
(1997) cited the work of Friedman and colleagues in associating this practice with Southern African Americans. He reported that careful consideration must be given not to misdiagnose on the basis of worry over, “spirit possession, malign magic, fate, and bewitchment” by “European American clinicians as psychotic disorders because these kinds of experience are ‘abnormal’ within the dominant Anglo-American cultural context” (p.9). The DSM-IV-TR addresses the limited participation of women in public life and the consequent association with agoraphobia features in western culture. The research by Guarnaccia cited the work of Kirmayer et al., reported this feature as “a sign of virtue in a Muslim housewife” (p.15). In examining cultural influence with obsessive-compulsive disorders, the DSM-IV-TR cautions confusing the disorder with ritualistic behavior and gives the reader an example that Orthodox Jews’ compulsions may be religiously driven. Guarnaccia warns too that ritual behavior is not in itself indicative of obsessive-compulsive disorder unless it exceeds cultural norms” (p.16). PTSD, according to the DSM-IV-TR, is inflated during social or civil unrest and therefore any refugees may be included in this category. However vague and noncommittal the DSM-IV-TR may seem with regards to culturally specific features, it may also represent the authors’ desire achieve greater inclusiveness and, to this extent, should not be discounted.

**TREATMENT OF ANXIETY IN ADDICTIONS**

Treatment of the anxieties is extensive and varied. It encompasses a variety of psychological therapy models, pharmacological treatments, or a combination of both. A comprehensive look into the psychological framework will explore the past and present, with the intention of gaining some insight into the future of treating anxieties. Early therapy in the treatment of anxiety was conducted by Joseph Wolpe in 1958 and is cited
by Barlow and Allen (2004) as being the “most visible beginning of behavior therapy” (p.172). His therapy focused on the elimination of a conditioned response he associated with anxiety. He proposed replacing the arousals associated with anxiety with “incompatible responses such as relaxation” as stated by Barlow and Allen (p.172). Another method he used was having his patients cope with smaller phobic responses and gradually increasing the phobia while the patient was in a relaxed state. This is more commonly known as “systematic desensitization” (p.172). In the 1960’s there was a shift in the treatment that exposed patients to, as stated by Barlow and Allen, “real-life frightening situations” while making encouraging statements to produce greater exposure (p.173). This type of “situational exposure” has proven successful without benefit of knowing the exact mechanisms behind the process. The 1970’s introduced “flooding” in the work of Watson and Marks as cited by Barlow and Allen. Flooding exposed the patient to descriptions of the situation sufficient enough to produce high anxiety for a significant period of time. This was followed by a lesser stimulus. The researchers concluded that the treatments were of equal effectiveness. Watson and Marks as cited by Barlow and Allen determined that habituation was the significant factor in reducing anxiety. They defined habituation as, “the idea that psycho-physiological responses will decrease in intensity with repeated exposure to the fearful situation” (p.177). The habituation research results were based on monitoring physiological as well as emotional responses. These early experiments demonstrated that inducing and exposing the phobic situation had demonstrable effects on reducing anxiety.

Another early stage model of treatment consisted of a process known as “Extinction.” Extinction therapies believed, as stated by Barlow and Allen (2004), “that anxiety
responses are learned.” (p.178). This became a popular concept based on animal studies that speculate a learned response to phobic reductions. In the process of extinction the patient learns to reduce the anxiety by repeating a new learned reaction. Escaping the fear isn’t an option for extinction practice and it’s felt that to escape would reinforce the anxious situation as harmful.

Emotional processing therapies began to develop about the same time as cognitive behavioral therapies (CBT) in the treatment of anxiety. The emphasis was on cognitive and emotional responses to anxiety. According to Barlow and Allen (2004), “exposure is essential to anxiety reduction…the effective processing of emotion during exposure is the key ingredient” (p.180). This therapy believes that a connection must be made between the phobic situation and the emotional networking during the phobic exposure. Barlow and Allen credit the research of Foa and Kozak, suggesting, “that for an exposure-based treatment to be successful, the individual must be provided with information incompatible with the existing fear and memory structure” (p.180).

Theorists believe that in the late 1960’s and 1970’s CBT treatment for the anxieties became a primary method to reduce anxiety but later it was modified to fit specific anxiety disorders (Davison & Bemko, 1978; Barlow & Allen, 2004). The 1980’s became known for their empirical research in controlled studies and thus specific strategies were employed for each disorder. Barlow and Allen (2004), as an example, stated, “psychoeducation for an individual with panic disorder… anxiety disorders such as generalized anxiety disorder and obsessive-compulsive disorder present differently than the phobic disorders…so individualized treatments were developed and standardized” (p.182).
There are some commonalities among the CBT across the anxiety disorders as reported by Falsetti, Combs-Lane, and Davis (2003) and stated protocols as, “progressive muscle relaxation or diaphragmatic breathing, a cognitive restructuring component” (p.425), to be useful mechanisms for such therapy. CBT is also used in conjunction with medications for anxiety reduction. Special care must be given when prescribing medication for women. Nothing has been conducted with women because of legal implications should pregnancy occur. Schnoll and Weaver (2002) said that, “There is a fear of litigation, particularly with respect to studies with women of childbearing age” (p.224). Another aspect to consider when prescribing for women is the higher fat to muscle ratio women have over men. This ratio allows more drugs to be stored in fat; preventing the medication from getting to where it is needed. Barlow and Allen (2004) report on the results of a five group study. One of the groups was a combined CBT with imipramine for panic disorders and the results concluded that the combined group “was significantly better than the other three treatment conditions (CBT alone, imipramine alone, and CBT plus placebo)” (p.182). CBT is not the ideal treatment for all anxieties in women. There are problems associated with CBT. Researchers cite that there are still many people who don’t respond to CBT for unknown reasons, that there are vast numbers of required clinical manuals for each anxiety disorder, which exposes a financial and knowledge base deficit among clinics treating anxiety disorders (Barlow & Allen, 2004). Because CBT can employ confrontational strategies, they are cautioned when used with anxious women. Confrontation requires the participant to focus on negative behavior, however for women who have shame and guilt issues, provocation of these emotions may be harmful. Connor, Berry, Inaba, Weiss, and Morrison (1994) said,
“shame-inducing confrontation may be detrimental to many chemically dependent clients-to women in particular” (p.507). Therefore, CBT can’t be relied upon entirely.

Another treatment modality for treating anxiety is the Stress Inoculation Training (SIT) method. This method involves a series of sessions focused on “education, skill-building, and application” (Falsetti, Combs-Lane, & Davis, 2003, p.426). The first two sessions are accompanied with the commonalities addressed earlier, i.e. diaphragmic breathing, relaxation. Incorporated in the second session are the use of guided self-dialogue and role playing. These strategies are commonly used in the therapeutic community and the treatment of women. The third session applies the lessons of the first two, followed by a review of the sessions for reinforcement in managing the anxiety.

The treatment afforded women in TC environment in on the rise. By the year 2001, Eliason (2006) stated, “31 states had a TC program for women” (On-line) in the prisons alone. TCs for women may be beneficial. Eliason said, “Women may be more motivated to engage in a TC type of treatment because women are socialized to communicate about emotions and seek help and support from others” (On-line). The fact that women share a history of sexual violence more common than in men can be supported in the TC atmosphere where women are free to emote. This is also said to have an impact on men participating in mixed gendered TCs. Again, Eliason stated, “Men often benefit from co-ed treatments because of women’s socialization as the caretakers of the culture” (On-line). A highlight of treating women within the structure of the TC is in its ability to provide service in other areas of women’s needs. More specifically, these areas include housing assistance, family counseling, child care counseling, life skills, employment, job skills, etc. Karageorge and Wisdom (2001) reported the results of a study examining how
women perceived the level of importance in receiving supportive services. Drug treatment was the top priority, followed by “housing assistance (60% to 69%), family counseling (49% to 64%), child care counseling (35% to 57%) and alcohol treatment (35% to 58%)” (p.16). The supportive services reported in this study are very similar to the barriers to treatment reported and previously discussed in this chapter.

Whether TCs will meet the needs of women entirely is still unknown. Because of the rigid structure employed in the TC, it may have detrimental effects on women suffering with anxiety disorders. The confrontational methods commonly used by TCs may trigger past traumatic experiences for them and in women who are known to have self-esteem issues while in treatment this could generate a depressive episode as well.

Cognitive processing therapy (CPT) cited by Falsetti et al. (2003) is another form of treatment that “was developed by Risick and Schnicke” (p.426). These two propose that treatment should be based on an integration of the anxiety producing event, a processing of the feelings, while placing the event into a category that will assist in maintaining a healthy balance with life. CPT asks that the woman explore the traumatic event and guide herself through changing her cognitions about the event. CPT can occur in individual settings as well as in a group format. In addition to the cognitive aspect of this treatment there are writing assignments and educational components. The education has a primary focus on changing statements and how that will correlate to changing emotional feelings thus changing behaviors. CPT appears to be similar to the cognitive work done by Aaron T. Beck. Barlow and Allen (2004) cited Beck’s, “Information about one’s self, the world, and the future (the cognitive triad) is continually processed in a distorted way as dangerous” (p.179). CPT examines this information as well and the
focal point of treatment centers on changing this distorted thinking that produces the anxiety.

Consideration should be given to the coping styles of treating anxious substance abusing women. Franken, Hendriks, Haffmans, and Van der Meer (2001) concluded in their study that patients with mood disorders have an increase in distractive behavior when compared to those without a mood disorder. They also report that coping styles can change during treatment. A person experiencing detoxification is said to have better coping skills and perhaps just the perception of stabilization from drug use. Additionally, the coping style is said to improve during clinical treatment as evidenced by “socialization, passive reaction, and palliative reaction” (p.304). This change is said to take place within the first three to six months of treatment but when compared to non-anxious persons versus anxious persons, they benefit less. These findings suggest that in order for the coping style to change successfully for women in treatment, treatment length of stay should be minimally six months. These conditions are met in the residential treatment settings. The researchers Franken et al. are cautious in their reporting however, and cite that their findings could be “confounded by state factors surrounding treatment entry” (p.305). This appears to indicate that women are very vulnerable during the initial stages of treatment and may account for women leaving against facility advice.
Chapter 3

METHOD

In this chapter I reported on the method for conducting the study. A qualitative design was implemented for its face validity in accounting for the context and complexity of group behaviors. This design provides information within group interaction. There is a general overview section followed by a section that describes the procedure for collecting the data. The next section describes the participants and the facilities that were used. A description of the State-Trait Anxiety Inventory is provided, followed by a section that describes the procedure that was used for conducting the statistical analyses.

GENERAL OVERVIEW

I identified four residential substance abuse treatment facilities in Allegheny County (Pennsylvania) that provide treatment for adult women (Appendix A). Two of the facilities are for women-only and two other facilities have both genders receiving treatment together. The women who are residents at these facilities were asked to volunteer to participate in the research study. Their participation consisted of asking completing the State Trait Anxiety Inventory (STAI). The completed tests were scored and the results divided into categories in order to test the hypotheses.

The following procedure was used for testing the first hypothesis which was there is no significant difference in state anxiety among women in a mixed gender residential substance abuse treatment as compared to women in a women-only residential substance abuse treatment facility. The averages of the scores on the State Anxiety subscale of the
STAI were calculated for the residents in the mixed gender facilities. The averages of the scores on the State Anxiety subscale of the STAI were also calculated for the residents in the women-only facilities. In order to determine if there was a significant difference between the women in a mixed gender residential substance abuse treatment facility as compared to women in a women-only residential substance abuse treatment facility, an Independent Samples t-test was conducted on the difference between the group averages.

The second hypothesis was that there is no significant difference in trait anxiety among women in a mixed gender residential substance abuse treatment facility as compared to women in a women-only residential substance abuse treatment facility. The averages of the scores on the Trait Anxiety subscale of the STAI were calculated for the residents in the mixed gender facilities. The averages of the scores on the Trait Anxiety subscale of the STAI were also calculated for the residents in the women-only facilities. In order to determine if there was a significant difference between the women in a mixed gender residential substance abuse treatment facility as compared to women in a women-only residential substance abuse treatment facility, an Independent Samples t-test was conducted on the difference between the group averages.

The third hypothesis was that there is no significant difference in state anxiety among women in a women-only residential substance abuse treatment facility if children are present as compared to a facility where children are not present. The averages of the scores on the State Anxiety subscale of the STAI were calculated for the residents of the women only facility with children present. The averages of the scores on the State Anxiety subscale of the STAI were also calculated for the residents in the women-only
facility that does not have children. In order to determine if there was a significant
difference between the women-only group where children were present and the women-
only group where no children were present, an Independent Samples t-test was conducted
on the difference between the group averages.

The fourth hypothesis was that there is no significant difference in trait anxiety among
women in a women-only residential substance abuse treatment facility if children are
present as compared to a facility where children are not present. The averages of the
scores on the Trait Anxiety subscale of the STAI were calculated for the residents of the
women only facility with children present. The averages of the scores on the Trait
Anxiety subscale of the STAI were also calculated for the residents in the women-only
facility that does not have children. In order to determine if there was a significant
difference between the women-only group where children were present and the women-
only group where no children were present, an Independent Samples t-test was conducted
on the difference between the group averages.

PROCEDURE

Scheduled appointments were conducted with the various participating agencies
that allowed contact with the participants and facilitated an informal meeting between
myself and the participants. Any questions that arose were answered as noncommittally
as possible so as to avoid “fake good” responding (Spielberger, 1983, p.9). Various dates
were set for the actual administration of the inventory. Beginning May 2005, I
administered the STAI to the groups of women residing in mixed gendered and women-
only substance abuse residential treatment facilities. The groups of women were
contacted by me at their particular agencies in small groups and informed of the nature of
the research to be conducted. The women were all informed that their participation was voluntary and that they may abort the administration at any time without fear of consequences. They were all afforded the opportunity to discuss any concerns or issues, as well as ask questions pertaining to the research. This initial meeting assisted me with the development of a relationship with the women prior to the actual administration. I met with women twice in all but one of the agencies; Pennsylvania Organization of Women in Early Recovery (POWER), which specifically requested one visit only prior to the actual administration to establish a rapport. Spielberger stated, “Examiners should establish rapport” and “the examiner needs to establish a trusting relationship” (p.9). Following the establishment of a relationship with the women and with consents of confidentiality in place, I administered the STAI. Participants were given an Introduction and Instruction sheet that outlined the overall purpose for the study. (Appendix B). The STAI is “designed to be self-administering” “has no time limits,” and may be given “to groups” (Spielberger, p.9). I conducted the inventory in accordance with the recommendations for administering the instrument. To reduce the potential for any anxiety to be created by using the term anxiety in the title of the instrument, Spielberger suggested referring to the instrument as the Self-Evaluation Questionnaire (However, I felt that in accordance with the regulations regarding Informed Consent eliminating the term anxiety would not be honest, instead I chose to clarify to the participants that some discomfort could be felt by using the term alone; see Appendix C). At the request of POWER, one of the women-only agencies, and with IRB approval (Appendix D), I explained the purpose as well as administered the instrument in the same day. This didn’t
appear to create any undue apprehension among the participants, nor were any verbalized.

The instructions were printed on the questionnaire however I read aloud, asking the participants to follow along silently. No time limits were imposed on the participants as none was indicated in the administration of the STAI. Spielberger (1983) cited “twenty minutes to complete both” (p.9) for those persons having mental disorders and/or less education. Upon completion, the inventories were collected from the participants for an analysis of data. Participants were assigned a code according to their submission of the questionnaire to ensure internal control and confidentiality of data collected.

**POPULATION**

Four substance abuse treatment facilities had agreed to participate in the investigation. Two of the four agencies are mixed gendered treatment facilities. The remaining two agencies are women-only treatment facilities. The first mixed gendered facility, Alpha House, Inc., provides treatment to adult substance abusers over the age of eighteen. The treatment population is primarily court mandated from the Allegheny County criminal justice system whose crimes are directly affiliated with their addiction. Clients of this facility must meet the Pennsylvania Client Placement Criteria (PCPC) determining their eligibility to meet a level of care established by the Pennsylvania Department of Health, Bureau of Drug and Alcohol Programs (BDAP). Many of the clients are polysubstance abusers and have had a ten-year or more history of use/abuse with multiple failed treatment exposures. The average length of stay for treatment is six months. The treatment setting is a therapeutic community and the therapeutic approach utilizes the cognitive-behavioral therapy modality. The therapeutic community operates within the
concept of a strict and structured daily living environment, designed to stimulate the community at large, with all its daily stressors. In addition, individual, group, family, and couples therapy is provided. The community offers peer group meetings and job crew assignments designed to facilitate the recovery process. The concept is to change the destructive behavioral patterns of abuse to more acceptable norms of behavior. Once the behavior is changed the cognitions will follow and the individual will operate from a positive lifestyle. This facility is expected to provide seven to ten women to participate in the questionnaire and ten women completed the inventories.

The second mixed gendered facility, House of the Crossroads, is an agency similar to that of Alpha House, Inc. They provide substance abuse treatment to mixed gendered adults over the age of eighteen who meet the PCPC criteria for service. The atmosphere of recovery is cognitive behavioral in a therapeutic community setting. Services include individual therapy, group therapy, job crew assignments, peer group meetings, etc. The House of the Crossroads is also licensed by BDAP to provide treatment for thirty (30) men and women. I anticipated having eight to ten women participating from this facility as well and twelve women completed inventories from this agency.

The women-only facility, POWER, is a twenty five-bed halfway residential treatment facility for adult women with substance abuse disorders. The women residing at this facility have recently completed rehabilitation (within one year) and must meet the (PCPC) admission criteria. They provide treatment in a community atmosphere that supports women in their early recovery process. Services include but are not limited to individual therapy, group therapy, art therapy, drug and alcohol education, life skills, etc.
I anticipated twenty women to participate from POWER and twenty four completed inventories for the study.

The second women-only facility, Sojourner House, is a faith-based licensed drug and alcohol treatment facility for women over the age of eighteen, who have one child, age twelve years of age or younger. They also accept women who are seeking to obtain custody of a child or be pregnant. Their program encompasses a spirituality component as a cornerstone to recovery. Services to the women include, educational classes, group discussions and assignments designed to improve self-esteem, and nurturing relationships. The second women-only facility is anticipated to have ten to fourteen women participate in the study and eighteen completed inventories.

Certain demographic information of the participating agencies was examined (Appendix E). The results concluded that 40 percent of the women who participated were between 29 and 38 years of age and that 66 percent were single at the time the data was collected. There were 39 percent indicated that there were 1 to 2 children residing in their homes and 59 percent had a primary source of income from public assistance and 12 percent had no income at all coming into the household. Thirty-six percent of the women who participated in the study had not completed high school followed by 34 percent who were either high school graduated or had received a general education diploma. Upon examination of their drugs of choice, 28 percent used cocaine, followed by 23 percent having used alcohol and 14 percent of the participants had used heroin.

Additional demographic information explored prior treatment episodes, successful/unsuccessful completions, as well as their legal status while in treatment. These results indicated that 22 percent of the women chose to participate in outpatient
treatment had an initial method for seeking assistance to their problem. This was followed by 21 percent choosing detoxification before seeking 30 day inpatient rehabilitation. While the concentration of data examined was on women who were participating in inpatient non-hospital rehabilitation, only 16 percent of the women sought this form of treatment after considering the others previously mentioned. The most successful completions occurred in thirty day rehabilitation. Twenty-eight percent completed the thirty day rehabilitation followed by 20 percent completing outpatient and only 15 percent successfully completing inpatient non-hospital rehabilitation, the focus of this study.

Unsuccessful completions primarily occurred in outpatient treatment. Thirty two percent indicated unsuccessful outpatient treatment episodes. The second highest unsuccessful completion percentage was found in the inpatient non-hospital rehabilitation treatment; 24 percent failed to complete. Finally, of those women who participated in the study, 62 percent had some current involvement with the criminal justice system opposed to 38 percent reporting no known criminal involvement.

**INSTRUMENT**

The State-Trait Anxiety Inventory (Appendix F) was originally introduced as cited by Spielberger (1983), by Cattell (1966), further defined by its current author Charles Spielberger in 1966. The instrument is constructed to suggest that those individuals who are prone to trait anxiety will have a pronounced state anxiety. Spielberger differentiates trait anxiety from state anxiety in reporting that trait anxiety is described as “relatively stable individual differences in anxiety proneness…to differences among people in the tendency to perceive stressful situation as dangerous or threatening,
and to respond to such situations with elevations in intensity of their state anxiety (S-Anxiety) reactions.” (p.5). Both state and trait anxieties have similarities with respect to the level of energies they produce. The level of state anxiety may directly correlate to the intensity of the state in response to the stressful situation. It is noteworthy that Levitt (1967) reporting on instruments that measure anxiety, comments that the STAI is, “the most carefully developed instrument, from both theoretical and methodological standpoints” (p.71). He further reports that, “The test construction procedures described ...are highly sophisticated and rigorous” (p.72).

The STAI is a twenty item, self-administered instrument, given in two forms, form Y-1 and form Y-2. Form Y-1 assesses how an individual feels “right now” while Y-2 assesses how people generally feel.

The STAI is considered to have a high degree of internal consistency as cited by Gaudry, Vagg, and Spielberger (1975, p.332). Gaudry et al. report, “The A-State has K-R (20) co-efficients from .83 to .94 while the A-Trait scale has K-R (20) co-efficients from .86 to .92” (p.332). Gaudry et al, cite the A-Trait delivering the greatest test-retest reliability at .73 to .86 and the test-retest of the A-State from .16 to .54. This information is consistent with the instruments design to demonstrate variation between a trait and a state of anxiety, with trait scores reflecting a more stable characteristic.

The STAI was chosen over the Beck’s Anxiety Inventory (BAI) for a number of reasons. Literature suggests that the STAI is the most common measure of anxiety. Creamer, Foran, and Bell (1995) cited Gotlib and Crane describing the STAI as, “the most widely used measure of anxiety in both clinical and research settings” (p.478). Spielberger updated the X form of the instrument to a form Y in order to achieve a higher
level of anxiety measure. Creamer et al. stated that, “The updated version saw 30 percent of items on form X replaced in order to produce “a “purer” measure of anxiety” (p.478). These authors also suggest that the BAI constructs may only be reflective of redefining the construct as the BAI was not compared to other anxiety scales such as the STAI or the Zung Self-Rating Anxiety Scale. In relation to gender, Creamer et al. stated that the BAI, “Scores for females may be as much as four points higher than for males” (p.478). In contrast, in a study conducted by Ramanaiah, Franzen, and Schill (1983) on equal numbers of men and women (212 total), on the state and trait scales they stated that, “Both of the scales were reported to have very high internal consistency reliability (rtt =0.9) and high inter-correlation (r= 0.7)” (p.532), for both men and women. This information was influential in my decision to use the STAI based on the four point difference in anxiety scores between men and women stated by Creamer et al. on the BAI scores. There appeared to be more gender stability with the STAI when compared to the BAI instrument. These same researchers question the construct validity of the BAI, and stated, “A major problem in the development of scales such as the BAI concerns the criteria against which construct validity may be assessed” (p.479). Creamer et al. in their discussion stated, “While the scale appears to show good psychometric properties, with a high level of internal consistency, the question of construct validity—or what the scale is actually measuring—remains a little unclear” (p.483).

Finally, the authors concluded that the BAI was more of a state measure than trait that construct validity is questionable, and the wording on the BAI is vague. Thus, I determined the use of the STAI to be a better instrument for measuring the affective descriptor; anxiety.
**DATA ANALYSIS**

The data collected was separated according to the hypotheses (Appendix G). In order to compare the STAI data for the participants from the women-only facilities with the participants from the mixed gender facilities, independent samples t-tests were computed. The 0.05 alpha level was set to determine if there is a significant difference.

In order to compare the STAI data for the participants from the women-only facility with children present with the participants from the women-only facility without children present, independent samples t-tests will also be computed. The 0.05 alpha level was set to determine if there is a significant difference.

**SUMMARY OF CHAPTER 3**

Through the use of the STAI I examined the levels of anxiety among women in mixed gendered substance abuse treatment facilities and the levels of anxiety among women participating in women-only substance abuse treatment facilities who had or didn’t have one to two children residing with them. I sought to confirm or deny four hypotheses; that there was no significant difference in the state or trait anxiety among women in both a mixed-gendered and the women of women-only residential substance abuse treatment facilities. This was achieved by averaging of the scores of the trait subscales from both groups. The difference between the group averages was calculated by conducting a t-test on independent samples. Additionally, the third and fourth hypotheses were examined. These hypotheses examined the levels of state anxiety among women in a mixed-gendered, the women of women-only, and the women of women with children residential substance abuse treatment facilities. There averages were calculated by an independent sample t-test on the difference between the group averages.
I administered the STAI on several occasions beginning May of 2005, after having visited the four agencies identified. They were two mixed gendered residential substance abuse treatment facilities and two women-only residential substance treatment facilities, one having children present. Once the women had been informed of my intent, proper consents were obtained for those who volunteered to participate. The STAI recommended I spend some time establishing a relationship and this was achieved through the initial visit and having answered questions prior to the actual administration of the questionnaire in all but one agency, as per request. In addition participants were given a handout of the Consent to Participate to follow along, just prior to administration. One of the women-only agencies chose to meet, question, and administer all in the same day, although additional time was allotted for questions, concerns and general discussion.

After the necessary data was collected, I conducted the analysis set at 0.05 alpha levels to determine if there was a significant difference, which concluded the methods for conducting the research on the levels of anxiety among women who resided in mixed gendered substance abuse treatment facilities, those residing in women-only, and those who resided in women with children substance abuse treatment facilities.
Chapter 4

RESULTS

The overall objective of this research was to illustrate whether women in a mixed gender residential substance abuse treatment facility experience more general anxiety during treatment than do the women in a women-only residential substance abuse treatment facility. Also examined in the research is a comparison of the general anxiety of the women in women-only residential substance abuse treatment facilities when there are children present versus no children present.

The design of my study was to examine the research questions by investigating and assessing the results for the level of state anxiety and the results for the level of trait anxiety among women respondents. The sample studied were populations of women who participated in mixed gendered residential substance abuse treatment settings and women who participated in women-only residential substance abuse treatment settings. In addition, the populations of women who participated in women-only residential substance abuse treatment settings were differentiated into two groups, facilities where there were children present and facilities where no children were present.

The data for the research was obtained using the State-Trait Anxiety Inventory (STAI), a twenty item, self-administering instrument with two forms. Form Y-1 measures how the respondent feels right now and form Y-2 measuring how the respondent generally feels. The STAI was constructed for use in research and in clinical settings. The concepts of identifying state and trait anxiety were introduced by Cattell in 1966 and studied further by Spielberger in 1976, experts in the field of research design. The STAI was given to women participating in four City of Pittsburgh area residential
substance abuse treatment facilities within Allegheny County in the Commonwealth of Pennsylvania. The following hypotheses were designed to explore any significant differences between the groups. Two sample independent t-tests were used to assess the hypothesis. Variances were assumed to be unequal and a two-sided alternative was used. The Bonferroni correction was implemented to account for the multiple t-tests used to assess the four hypotheses (Glantz, 2005). The required alpha level needed for the 0.05 level of significance with the Bonferroni correction is stated within each of the first four hypotheses. The results are presented by each hypothesis in both narrative and tabular format. Findings for each hypothesis are stated and a general summary completes this chapter.

**HYPOTHESES**
The following are the null hypotheses that were evaluated in this study.

**Hypothesis 1**
There is no significant difference in state anxiety among women in a mixed gender residential substance abuse treatment facility as compared to women in a women-only residential substance abuse treatment facility.

An independent sample t-test was used to conduct the analysis of the data collected for this hypothesis. The average score on the *State Anxiety* subscale of the STAI for the women in the mixed gender facilities was 42.59 with a standard deviation of 11.6. The average score on the *State Anxiety* subscale of The STAI for the women in the women-only facilities was 48.92 with a standard deviation of 11.8. The sample size was 22 women in the mixed gender facilities and 42 women in the women-only facilities. The t-ratio was calculated to be -2.07 for 43 degrees of freedom. Based on the
Bonferroni correction, a p-value of 0.0125 is required to be significant at the 0.05 alpha level. The p value of .045 > .0125 and therefore a significant difference does not exist (see Table 1) and this null-hypothesis is accepted. The women in the women-only facilities failed to demonstrate a significantly higher level of State Anxiety than the women in the Mixed Gender facilities.

Table 1

Comparison of State Anxiety Between Women in Mixed Gender Substance Abuse Treatment Facilities and Women in Women Only Substance Abuse Treatment Facilities

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Gender Facilities</td>
<td>22</td>
<td>42.59</td>
<td>11.6</td>
<td>*-2.07</td>
<td>.045</td>
<td>43</td>
</tr>
<tr>
<td>Women-Only Facilities</td>
<td>42</td>
<td>48.92</td>
<td>11.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Not Significant at .05 alpha level

Hypothesis 2

There is no significant difference in trait anxiety among women in a mixed gender residential substance abuse treatment facility as compared to women in a women-only residential substance abuse treatment facility.

A t-test was used to test this hypothesis. The average score on the Trait Anxiety subscale of the STAI for the women in the mixed gender facilities was 48.5 with a standard deviation of 10.9. The average score on the Trait Anxiety subscale of The STAI for the women in the women-only facilities was 52.78 with a standard deviation of 10.5. The sample size was 22 women in the mixed gender facilities and 42 women in the women only facilities. The t-ratio was calculated to be -1.51 for 41 degrees of freedom. Based on the Bonferroni correction, a p-value of 0.0125 is required to be significant at
the 0.05 alpha level. The p value .139 > .0125, indicating there is no significant
difference (see Table 2) and this null-hypothesis is accepted.

### Table Two

Comparison of Trait Anxiety Between Women in Mixed Gender Substance Abuse Treatment Facilities and Women in Women-Only Substance Abuse Treatment Facilities

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Gendered Facilities</td>
<td>22</td>
<td>48.5</td>
<td>10.9</td>
<td>*-1.51</td>
<td>.139</td>
<td>41</td>
</tr>
<tr>
<td>Women Only Facilities</td>
<td>42</td>
<td>52.78</td>
<td>10.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Not Significant at .05 alpha level

**Hypothesis 3**

There is no significant difference in state anxiety among women in a women-only residential substance abuse treatment facility if children are present as compared to a facility where children are not present.

A t-test was used to conduct the analysis of the data collected for this hypothesis. The average score on the *State Anxiety* subscale of The STAI for the women in the women-only facility where children are present was 46.27 with a standard deviation of 10.4. The average score on the *State Anxiety* subscale of The STAI for the women in the women-only facility where no children are present was 50.91 with a standard deviation of 12.5. The sample size was 18 women in the facility with children present and 24 women in the facility with no children present. The t-ratio was calculated to be -1.31 for 39 degrees of freedom. Based on the Bonferroni correction, a p-value of 0.0125 is required to be
significant at the 0.05 alpha level. The p value of 0.198 > 0.0125 and therefore a no
significant difference exists (see Table 3) and this null-hypothesis is accepted.

Table 3

Comparison of State Anxiety Between Women in Children Present-Women Only
Substance Abuse Treatment Facilities and Women in No Children Present-Women Only
Substance Abuse Treatment Facilities

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children Present</td>
<td>18</td>
<td>46.27</td>
<td>10.4</td>
<td>*-1.39</td>
<td>0.198</td>
<td>39</td>
</tr>
<tr>
<td>No-Children Present</td>
<td>24</td>
<td>50.91</td>
<td>12.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Not significant at the .05 level

Hypothesis 4
There is no significant difference in trait anxiety among women in a women-only
residential substance abuse treatment facility if children are present as compared to a
facility where children are not present.

A t-test was used to conduct the analysis of the data collected for this hypothesis. The
average score on the Trait Anxiety subscale of STAI for the women-only facility where
children are present was 51.77 with a standard deviation of 10.2. The average score on
the Trait Anxiety subscale of the STAI for the women in the women-only where no
children were present was 53.54 with a standard deviation of 11.0. The sample size was
18 in the facility with children present and 24 women in the facility with no children
present. The t-ratio was calculated to be -0.54 for 38 degrees of freedom. Based on the
Bonferroni correction, a p-value of 0.0125 is required to be significant at the 0.05 alpha
level. The p value of .594 > 0.0125 therefore no significant difference exists (see Table 4) and this null-hypothesis is accepted.

Table Four

Comparison of Trait Anxiety Between Women in Children Present Women-Only Substance Abuse Treatment Facilities and Women in No Children Present Women-Only Substance Abuse Treatment Facilities

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children Present</td>
<td>18</td>
<td>51.77</td>
<td>10.2</td>
<td>*-0.54</td>
<td>0.594</td>
<td>38</td>
</tr>
<tr>
<td>No-Children Present</td>
<td>24</td>
<td>53.54</td>
<td>11.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Not Significant at .05 alpha level

**SUMMARY**

The statistical analysis of the data demonstrates that there were no significant differences when comparing levels of state anxiety among women who participated in women-only residential substance abuse treatment facilities when compared to the women who participated in mixed gendered residential substance abuse treatment facilities. There were no significant differences when comparing the levels of trait anxiety among women who participated in women-only residential substance abuse treatment facilities when compared to the women who participated in mixed gendered residential substance abuse treatment facilities. There were no significant differences in the levels of state anxiety among women who participated in women-only residential substance abuse treatment facilities where children were present when compared to residential substance abuse treatment facilities where children were not present. There were no significant differences when comparing the levels of trait anxiety among women
who participated in women-only residential substance abuse treatment facilities where children were present when compared to the residential substance abuse treatment facilities where children were not present. In the next chapter, I will discuss these findings.
Chapter 5

DISCUSSION
In this chapter I reflected on the results of the study that were presented in Chapter 4. In addition, I will present the implications, limitations, and recommendations for future research.

The purpose of this study was to investigate whether women in a mixed gender residential substance abuse treatment facility experience more general anxiety during treatment than do women in a women-only residential substance abuse treatment facility and whether there is a difference in the general anxiety levels of women in a women only substance abuse treatment facility when children are present or when children are not present. The study provided an opportunity to assess 64 women participating in treatment at four residential substance abuse treatment facilities within the Pittsburgh area of Allegheny County, Pennsylvania.

FINDINGS
The results of this study indicated that there were no significant differences in trait anxiety among women participating in a mixed gender residential substance abuse treatment facility as compared to women-only, whether children were present or were not present. The trait for anxiety was uniformly present among women who were in treatment for substance abuse whether mixed, women-only, no children or children present.

The results also indicated that there was no significant difference in the state anxiety among women in a women-only residential substance abuse treatment facility when children were present as compared to a facility where children were not present. The
anxiety state was uniformly present among women who were in treatment for substance abuse whether children were present or not present.

The results of this study indicated that there was no significant difference among the levels of state anxiety of women who participated in mixed gendered residential substance abuse treatment when compared to women who participated in women-only residential substance abuse treatment. Before the Bonferroni correction, the data indicated a trend in the direction of a slight difference for state anxiety of women who participated in mixed gendered when compared to those women-only facilities, however it was marginally significant.

**CONCLUSIONS**

Based on this research, I concluded that women may best benefit from a treatment experience that permits flexibility in the setting as opposed to a treatment setting that is either all mixed, women-only, women with children, or without their children. It may be beneficial to have an instrument to assess the readiness of women to be in a particular treatment setting, depending on the priority of issues for her, such as mental stability, intimate partner violence history, and other significant factors when entering a residential substance abuse treatment. Women who experience abuse from men while active in an addiction would seemingly be averse, at least initially, to co-residing with them, despite being engaged in residential substance abuse treatment. This inference is considered further in the discussion section. However the data revealed that state anxiety is irrelevant when compared to various types of residential substance abuse treatment settings. If state anxiety is present, it will exist regardless of the residential substance abuse treatment facility; mixed, women-only, women-only with children or no children.
The data analysis also revealed that trait anxiety is irrelevant when compared to the various types of residential substance abuse treatment settings for women. If trait anxiety is present, it will exist regardless of the residential substance abuse treatment facility; mixed, women-only, women-only with children or no children.

**DISCUSSION**

Researchers have indicated that one of the reasons women engage in substance abuse activities is to join with their significant other’s use and abuse. Women are also known to identify with caretaking and nurturing. My study may have demonstrated that women exist in a state of anxiety in general, as well as exhibit a trait for anxiety. It could be argued that the immediate absence of their significant other generates a period of anxiety for them, which may soon be replaced by the presence of men in a mixed gendered facility. In the mixed setting, dependency issues may be a factor contributing to anxiety. To understand this more thoroughly it is necessary to have a definition of dependency and to look at how it affects women in treatment. The DSM-IV TR (2000) lists diagnostic criteria for a dependent personality disorder,

1. has difficulty making everyday decisions without an excessive amount of advice and reassurance from others; 2. needs others to assume responsibility for most major areas of his or her life; 3. has difficulty expressing disagreement with others because of fear of loss of support or approval; 4. has difficulty initiating projects or doing things on his or her own (because of a lack of self-confidence in judgment or abilities rather than a lack of motivation or energy); 5. goes to excessive lengths to obtain nurturance and support from others, to the point of volunteering to do things that are unpleasant; 6. feels uncomfortable or helpless when alone because of exaggerated fears of unable to care for himself or herself; 7. urgently seeks another relationship as a source of care and support when a close relationship ends; 8. is unrealistically preoccupied with fears of being left to take care of himself or herself. (p.725).
A dependent woman is believed to be lost in the identity of her significant other, to be neglectful of self, and to suffer from low self-esteem. Typical behavior can include continual attempts to rescue and control, as well as always seeking to obtain approval from one’s significant person, usually another substance-abusing mate. Other contributing factors may include being raised in a dysfunctional family, as well as cultural influences that still set standards for female behavior in society. There are still many societal assumptions about gender roles. Because women are socialized in such caretaking and nurturing experiences, substance abuse and dependency are believed to coexist. If dependency is accurately defined as previously stated, abrupt removal of the woman from her love object may generate a state of panic. In treatment facilities where there are men, women may have a perceived sense of security by the mere presence of men. All of their dependent attributes are perhaps stimulated and likely invited by the men participating in treatment.

Codependency is another term used in the description of addictive behavior. Beattie (1992) defined codependency as, “one who has let another person’s behavior affect him or her, and who is obsessed with controlling that person’s behavior” (p.36). She further stated that even in this definition, the behavior lies not in the other person but rather in the person who is “the obsessive {helping,} caretaking” (p.36). By this description women may feel that by being placed in a mixed setting they will ultimately control the treatment experience by caretaking the men. In a women-only setting this same description may be perceived as more nurturing caretaking. Other research by Lindley, Giordano, and Hammer (1999) reported that codependency can exist separate from substance abusing behaviors. If this research is factual then codependency is a
confounding factor for substance abusing women. These researchers reported a loss of selfhood in codependency. It can be argued that a group of women in treatment all experiencing the same loss of selfhood could become overwhelmed by their women-only environment. They may not be capable of individuating from each other further, provoking anxiety. Because dependent personalities have been known to resist boundaries, have enmeshment issues, and place much of their focus on what’s happening around them, little focus may be placed on meeting their own needs. Unmet needs could be the result of an increased anxiety. Integrating codependency issues in women’s treatment may be critical to stable sobriety. I believe there are three main issues that contribute to the codependency issues of women: having a relationship with a substance abuser, the learned behavior in a dysfunctional home, and the societal influences around gender roles, competition, and values. In the dependent relationship the partner becomes increasingly preoccupied with the user and insecure about self. In the dysfunctional family, the child learns to suppress his/her needs and take cues from others, leading to maladaptive roles. Finally, because women are socialized to be caretakers and because of the two other issues, they have a distorted view of how relationships are managed.

Examining the structure of residential facilities may provide insight on the results of the study. Residential substance abuse facilities have been primarily modeled on male oriented treatment styles. Hodgins et al. (1997) reported, “Men are much more likely than women to access these {residential} services leading to male-dominated treatment environments” (p.806). Schinka, Hughes, Coletti, Hamilton, Renard, Urmann et al. (1999) stated that given findings that women present in TCs with different patterns of deficits than men, when examining studies of personality dimensions in cocaine abusers
the focus has been “exclusively on males” (p.138). Residential substance abuse facilities have typically engaged in behavioral modification techniques to elicit change. This strategy has not worked well with women because of the emotionality factor spoken of earlier. It is possible that when women are placed with other women who have similar issues of low self-esteem, shame, and guilt, the overall helplessness becomes a theme generated by all women participants.

The pervasiveness of being helpless among other helpless women may explain the levels of anxiety in women-only settings. Having to share what may seem like a unique situation with other women, with whom trust has not yet been established, may be anxiety-producing. Once these common themes become recognized, the energy required to overcome these issues may also produce anxiety. These possibilities must be kept in mind while still considering how women will interact with other women in the treatment setting together. Women may be left without a place to hide (behind their male counterparts) and feel inadequate, vulnerable, and ashamed. Until these issues are explored further and the establishment of trusting relationships is developed, these issues too perhaps account for some of the levels of anxiety demonstrated among women in women-only residential substance abuse treatment facilities.

**IMPLICATIONS**

The findings of this study have value for future research in the field of women and addictions. Determining that there is no increased level of state anxiety for those women who participate in women-only residential substance abuse treatment facilities may lead treatment providers to rethink the philosophy that gender-specific agencies are the best modality of treatment for women. There is no known research that has been conducted
that examines the effects of a treatment setting that offers movement from mixed services to gender specific and back, depending on the emotional status of the women being served. A means of determining the most appropriate treatment setting for a woman through outcome studies are underutilized, if at all, for this purpose. Wexler et al. (1998) supported this view and stated that, “Since almost no outcome information is available on TCs designed specifically for women or women with their children, the current study represent a pioneering effort” (p.215). Issues that plague women such as domestic violence, sexual abuse, and so on, may be served better in a mixed setting for confrontation and later in a women-only setting for support and empowerment themes.

Since the results of the study indicated that there is no significant difference for women with no children in the treatment facility, when compared to women with children, another model may afford women a choice of whether their treatment should involve childcare. Having the choice could serve to empower these women. Empowerment may also reduce a women’s level of anxiety. This will permit women to focus on factors such as depression, physical, and/or emotional concerns.

Perhaps researchers and institutions will begin to explore a treatment modality that is not only designed specifically for women but also one that will capitalize on the uniqueness, diversity, strengths, and, more importantly, increase the treatment choices for women. Women’s ability to select a model of treatment might contribute to their willingness to accept the recovery process.

**LIMITATIONS OF THE STUDY**

There were a number of limitations in this study. The first and most prominent limitation was the low number of treatment facilities utilized in the study. There were
only four agencies. These four agencies were confined to the City of Pittsburgh thus limiting the geographical reach of the study’s participants. Operating from a single county (Allegheny) limited the number of specialty programs. Extending the geographical range would provide a greater range of participants.

Another limitation of the study was the small number of volunteers recruited for the study. There were sixty-four participants May 2006 to August 2006 from the City of Pittsburgh. Other recruitment strategies, such as sampling from Therapeutic Communities of America (TCA) and Pennsylvania’s Drug and Alcohol Programs for Women and Women with Children, might have provided a larger pool of participants.

The majority of the participants consisted primarily of two ethnic groups, Euro and African Americans. This limitation prevented discussing how diverse cultural norms contribute to the levels of anxiety in women from other cultures, such as the impact of ataques de nervios, koro, and tijin kyofusho. Culture has a significant impact on the nature and outcomes of treatment and must be considered if today’s research is to have relevant meaning.

The study was limited to the therapeutic community concept of treatment for women. It has been established that therapeutic communities were founded for and by men. While the therapeutic community concept may be an ideal placement for men, to utilize this method of treatment for women may be counter productive. Eliason (2006) addressed the adequacy of TCs in the treatment of men and how this concept has been “fairly effective.” Yet, he said that when considering women, the TC is “potentially toxic environment” (On-line). The Substance Abuse Mental Health Services Administration’s (SAMHSA) cultural perspectives publication stated, “therapeutic
community (6-month) programs … are least appropriate and least utilized by Hispanic substance abusers because of the confrontational nature of the treatment approach, which runs counter to Hispanics’ preference for more personal interactions.” (1999, p.19).

The study did not focus on the possibility that tension and trust between the clinician and participant could have resulted in producing generalized anxiety. The majority of treatment facilities are staffed by women. Since women have trust issues, these issues extend beyond the other women participants and into the clinical program’s staff. Staff provide direction and guidance in treatment. They are responsible for the overall day-to-day operations and, to this extent, may be viewed as authority figures. Depending on the types of experience women have had with people in authority, relations with treatment staff could affect their level of anxiety as well. This may be yet another explanation for the overall anxiety levels in any treatment setting regardless of the programs’ gender type.

The study neglected to discuss anxiety as it relates to being a motivating force for women in the treatment settings. Motivation has been known to move people forward in the treatment process and has been shown to be an impediment when anxiety develops into an exaggerated form.

**RECOMMENDATIONS FOR FUTURE RESEARCH**

Future research is suggested on the value of therapeutic communities, their style and approach to treatment with women. While these communities have gender specific services, they are still patterned from a historically male point of view. In most instances TCs for women have been replicated after the male models. Eliason (2006) says that, “It may be preferable to develop programs specifically for women rather than to continue to
apply and later modify, programs developed for men” (On-line). Soliciting from, and exploring with, women what they deem helpful in the treatment experience may prove to enhance treatment program design. Gordon (2002) stated, “It is necessary for each woman to conduct her own personal assessment of what works best for her” (p.22). Women who have options in the selection of their treatment model are not anxious but are potentially empowered by the ability to make a choice in the participation of their recovery.

Future research may need to pay greater attention to the support that’s afforded women while in treatment. Amaro and Hardy-Fanta (1995) cited Hser and Booth reporting, “A partner’s support is associated with successful treatment” (p.335). Amaro and Hardy-Fanta suggested that women are not supported in treatment by their significant others. They believe that this lack of support is counterproductive to women in treatment. This may be a delicate matter because of domestic violence issues that sometimes accompany women in treatment. Her support may not be the best support for her, yet she may not be capable of discerning this, or she may be in denial. Relationships play a critical role in the recovery process for women by their need to nurture and by their dependency on men while active in addiction. For women, the desire to recover may conflict with the desire to maintain a dependent relationship.

Future research may need to further investigate the role of cultural influences among women who choose to participate in residential substance abuse treatment. The review of literature suggested that not enough attention is given to culturally related diagnoses such as ataques de nervios, koro, and taijin kyofusho. These disorders are minimally mentioned in the DSM-IV-TR in association with anxiety related disorders. When
literature was reviewed in regard to African American women compared to white women, the information was insufficient. Ramos, Carlson, and McNutt (2004) said, “Research is mixed on whether black women are at similar risk as whites for anxiety disorders” (p.155). They caution readers on evaluating the data available, because of the differences in methodologies and identifying criteria used. Because of the diversity within and among various cultures, designers of mental health classifications will need to consider expanding various diagnoses from a cultural and ethnic perspective. Psychiatrist, clinicians, and mental health workers must become culturally informed in order to facilitate mental stability for patients/clients.

Future research may need to be conducted on whether or not men experience an increase in their level of anxiety among women in mixed gender substance abuse treatment when compared to men only substance abuse treatment also has implications for future research. The men’s movement will have an impact on how anxiety is perceived by men. Organizations such as the Men’s League for Women’s Suffrage and National Organization of Men Against Sexism promoted men working along with women. By doing so, Zeth (1997) stated, these organizations were said to, “make sweeping generalizations about men’s experience and often to place extremely condemning value judgments on men.” (p.314). Zeth (1997) stated “Men’s rights groups are reacting to the legal gains by women.” (p.315). It can be said that has men grow in recovery and sobriety issues such as anxiety may surface for them. Questions like, how much anxiety do men experience in cultural rites of passage gatherings, will call for further exploration as well.
SUMMARY

Based on the preceding results and discussion, several conclusions were drawn from my study. First, it appeared that the study did not demonstrate a higher level of state anxiety in women who elected to participate in a women-only residential substance abuse treatment facility. Furthermore, this study suggested that dependency is an important factor to consider for women participating in any type of substance abuse treatment. However it is my belief that there may still be other factors to consider when exploring the anxiety levels of women participating in substance abuse treatment facilities. In my personal interactions with women in treatment, they have shared their insights into their anxiety with other women, regardless of the setting. They have reported a lack of trust with other women. They have attributed that lack of trust to having felt betrayed by their mothers who didn’t believe their reports of incest and sexual abuse. They have also reported that women with whom they have had relationships betrayed them by having sexual encounters with their partner or mate, even after acknowledging the encounter was for procuring drugs. They don’t connect this behavior to any actions their male partner may have taken and choose only to focus on the behavior of the woman involved. Another consideration is that early on in treatment people are more likely to demonstrate denial and resistance. This defense mechanism can take many forms, such as manipulation. Women in treatment with other women may become anxious when one of their defense mechanisms is challenged. The inability to avoid confronting their substance abuse issues may expose vulnerability and thus produce these women’s feelings of anxiety. This same defense mechanism when utilized on men seems to create a false sense of control and power in the women. Manipulation takes on the form of
seduction. For women in mixed gendered settings this can lead to confrontation, embarrassment, guilt, and anxiety.

I believe my research has provided evidence that women’s substance abuse treatment should not be formulated on the basis of research data taken from studies of men. It is my hope that ongoing studies will be conducted regarding the anxiety of women in substance abuse treatment and that the research will result in program retention successful completion of their recovery efforts.
References


Appendix A

Letters of Agreement to Participate
January 6, 2004

Joseph Meola, PhD, Professor
Duquesne University
School of Education
Pittsburgh, PA 15282-0502

Dear Dr. Meola:

Alpha House, Inc. has agreed to permit those residents of the agency who with written consent agree, to participate in taking the State-Trait Anxiety Inventory. This instrument is used for research and in clinical practice. It entails a 20 item self-report measuring state and a 20 item self-report measuring trait anxiety. The S-Anxiety scale evaluates how respondents feel “right now, at the moment”, and the T-Anxiety scale measures how people generally feel. This instrument will be used to collect data in relation to the dissertation of Veronica I. Jones, Doctor of Education candidate at Duquesne University.

Please be advised that all data collected must be held in strict confidence and will require the approval by the University Internal Review Board (IRB) prior to actual use. No individual identifying information will be provided to ensure confidentiality of the residents agreeing to participate.

The final research and completed dissertation information will be shared with the participating agency for recommendations and agency improvements in client treatment.

Sincerely,

Peter Traub, President
Alpha House, Inc. Board
January 9, 2004

Joseph Maola, PhD, Professor
Duquesne University
School of Education
Pittsburgh, PA 15282-0502

Dear Dr. Maola:

I am pleased to inform you that House of the Crossroads will participate in taking the State-Trait Anxiety Inventory that will be used to collect data in relation to the dissertation of Veronica I. Jones, Doctor of Education candidate at Duquesne University.

I understand that clients of House of the Crossroads will complete a 20 item self report measuring state and a 20 item self report measuring trait anxiety questionnaire that will be provided to clients by Mrs. Jones. The S-Anxiety scale will evaluate how respondents feel “right now, at the moment”, and the T-Anxiety scale will measure how people generally feel. I also understand that since this study involves an actual clinical intervention, that clients will have to voluntarily agree to participate and sign an informed consent and no client names will be used on any of these forms in order to protect their confidentiality. All data collected will be held in strict confidence and will require the approval of the University Internal Review Board (IRB) prior to actual use. The final research and completed dissertation will be disseminated to House of the Crossroads for recommendations and improvements of client treatment.

House of the Crossroads looks forward to participating in this project.

Truly,

[Signature]
Lawrence J. DeMarzo
Executive Director

If you want to use drugs— that’s your business.
If you want to stop— that’s our business.
March 5, 2004

Joseph Maola, PhD, Professor
Duquesne University
Pittsburgh PA 15282-0502

Dear Dr. Maola:

P.O.W.E.R. has agreed to permit those residents of the agency, who with written consent agree, to participate in taking the State- Trait Anxiety Inventory. This instrument is used for research and in clinical practice. It entails a 20 item self report measuring state and a 20 item self report measuring trait anxiety. The S-Anxiety scale evaluates how respondents feel “right now, at the moment,” and the T-Anxiety scale measures how people generally feel. This instrument will be used to collect data in relation to the dissertation of Veronica I. Jones, Doctor of Education candidate at Duquesne University.

Please be advised that all data collected must be held in strict confidence and will require the approval by the University Internal Review Board (IRB) prior to actual use. No individual identifying information will be provided to ensure confidentiality of the residents agreeing to participate.

The final research and completed dissertation information will be shared with the participating agency for recommendations and agency improvements in client treatment.

Sincerely,

Rosa Davis, ACSW, MSW
Executive Director
April 23, 2004

Joseph Maola, Ph.D., Professor
Duquesne University
School of Education
Pittsburgh, PA 15282-0502

Dear Dr. Maola:

Sojourner House has agreed to permit those residents of the agency who, with written consent, agree to participate in taking the State-Trait Anxiety Inventory.

This instrument is used for research and in clinical practice. It entails a 20 item self report measuring state and a 20 item self report measuring trait anxiety. The S-Anxiety scale evaluates how respondents feel “right now, at the moment”, and the T-Anxiety scale measures how people generally feel. This instrument will be used to collect data in relation to the dissertation of Veronica I. Jones, Doctor of Education candidate at Duquesne University.

Sojourner House will be joining three (3) other participating agencies which include the following:

Alpha House, Inc.
House of Crossroads, Inc.
P.O.W.E.R. (Pennsylvania Organization of Women in Recovery)

The study will ideally need 15 to 20 participants from each agency to satisfy a representative sample population.

Please be advised that all data collected must be held in strict confidence and will require the approval by the University Internal Review Board (IRB) prior to actual use. No individual identifying information will be provided to ensure confidentiality of the residents agreeing to participate.

The final research and completed dissertation information will be shared with the participating agency for recommendations and agency improvements in client treatment.

Sincerely,

Norma Raiff, Ph.D., L.S.W.
Executive Director

Sojourner House is a United Way Agency and has received its Certificate of Management Excellence
Appendix B

Introduction and Instruction
April _____, 2006

Dear Participant,

In order to complete the requirements for a doctoral dissertation entitled *A Comparison of Anxiety Levels Among Women in Mixed Gender Substance Abuse Treatment Facilities and Women-Only Substance Abuse Treatment Facilities*, at the School of Education, Duquesne University, I am requesting your help.

You are being asked to participate in a research project that seeks to investigate the self-evaluation of women who participate in a mixed gendered substance abuse treatment facility as compared to the self-evaluations of women who select treatment for substance abuse in a women-only setting.

There will be minimal risk to you as a participant, there may be some degree of discomfort you may experience when completing the questionnaire; this varies according to the individual. Your total anonymity will be guaranteed. Your name will never appear; no identity will be made in the data analysis. All written material and consent will be stored in a locked file in the researcher’s home. Your responses will only appear in statistical data summaries and all materials will be destroyed six years after the completion of the study. You are under no obligation to participate in this study and you are free to withdraw your consent to participate at any time. You will receive no compensation for your participation.
If you choose to participate, I will return at a designated day and time for you to complete the questionnaires. \textit{Do not sign your name}, to either of the two questionnaires. Please return the two questionnaires and the demographic sheet together in one of the \#10 envelopes. Return your signed consent form to me in the other \#10 envelope.

A copy of the results will be available in the Department of Counseling Psychology and Special Education Canavin Hall Duquesne University. If there are additional questions, I can be reached at 412-977-6448.

Thank you for your time and consideration when completing the questionnaire; your help is greatly appreciated.

Sincerely,

\textit{Veronica I. Jones}
\textit{Ed.D Candidate}
Appendix C

Informed Consent
CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TITLE:
A Comparison of Anxiety Levels Among Women in Mixed Gender Substance Abuse Treatment Facilities and Women-Only Substance Abuse Treatment Facilities

INVESTIGATOR:
Veronica J. Jones
219 Janice Drive
Pittsburgh, PA 15235
412-731-6755

ADVISOR:
Joseph F. Maola, Ph.D.
Duquesne University
School of Education
Department of Counseling, Psychology and Special Education
412-396-6099

SOURCE OF SUPPORT:
This study is being performed as partial fulfillment of the requirements for the Doctor of Education (Ed.D.) degree in Counselor Education and Supervision at Duquesne University.

PURPOSE:
You are being asked to participate in a research project that seeks to investigate the anxiety levels of women who participate in a mixed gendered substance abuse treatment facility as compared to the anxiety levels of women who select treatment for substance abuse in a women-only setting and the anxiety levels of women who select treatment for substance abuse in a women with children setting. You are asked to complete two questionnaires that take approximately twenty minutes to complete and pass them to the investigator.

RISKS AND BENEFITS:
There will be minimal risk to you as a participant. There may be some degree of discomfort you may experience when completing the questionnaire; this varies according to the individual (see Right to Withdraw). You are under no obligation to participate in this study and you are free to withdraw your consent to participate at any time. Your participation will help contribute to the professional literature in the field women who receive treatment for substance abuse.
COMPENSATION: There is to be no compensation, however participation in the project will require no monetary cost to you. Envelopes are provided for the return of your questionnaires to the investigator.

CONFIDENTIALITY: Your name will never appear on any survey or research instruments. No identity will be made in the data analysis. All written materials and consent forms will be stored in a locked file in the researcher's home. Your responses will only appear in statistical data summaries. All materials will be destroyed six years after the completion of the research.

RIGHT TO WITHDRAW: You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time. If you choose to withdraw, any of your data collected will not be used in the study. You have the right to request that your data be removed as well. In exercising your right to withdraw, there will be no treatment consequences for you. You will not experience any legal consequences for choosing not to participate or deciding not to participate after the initiation of the research project.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon request.

VOLUNTARY CONSENT: I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project.

I understand that should I have any further questions about my participation in this study, I may call this researcher, Veronica I. Jones (412-977-6448), the researcher's chair, Dr. Joseph Maola (412-396-6099) or Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412-396-6326).

Participant's Signature ___________________________ Date ________________

Researcher's Signature ___________________________ Date ________________
Appendix D

Revised Informed Consent
May 1, 2006

Ms. Veronica Jones
219 Janice Drive
Pittsburgh PA 15235

RE AMENDMENT: “A comparison of anxiety levels among women in mixed gender substance abuse treatment facilities and women-only substance abuse treatment facilities” Protocol 05/37

Dear Ms. Jones:

Thank you for following appropriate procedure in seeking approval of your proposed changes in your study.

After review of the amendment and your original proposal, your amendment is approved. It is my understanding that procedures remain as described in the original protocol except that at one site you will collect all data in one day rather than in two, at the site’s request. The change will not impact human subjects considerations. Consequently the study remains approved under 45CFR46.101 and 46.111, as well as the special provisions set forth in 45CFR46 subpart C. No other changes in procedure may be instituted without further approval of the IRB.

Annual review will remain on the cycle established by the original approval, including review of the renewal of the consent form.

Sincerely yours,

Paul Richer, Ph.D.
IRB Chair

C: Dr. Joseph Maeda
Dr. David Delmonico
Dr. Joseph Kush
IRB Records

IRB Records
CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TITLE: A Comparison of Anxiety Levels Among Women in Mixed Gender Substance Abuse Treatment Facilities and Women-Only Substance Abuse Treatment Facilities (REVISED)

INVESTIGATOR: Veronica L. Jones
219 Janice Drive
Pittsburgh, PA 15235
412-731-6755

ADVISOR: Joseph F. Mola, Ph.D.
Duquesne University
School of Education
Department of Counseling, Psychology and Special Education
412-396-6099

SOURCE OF SUPPORT: This study is being performed as partial fulfillment of the requirements for the Doctor of Education (Ed.D.) degree in Counselor Education and Supervision at Duquesne University.

PURPOSE: You are being asked to participate in a research project that seeks to investigate the anxiety levels of women who participate in a mixed gendered substance abuse treatment facility as compared to the anxiety levels of women who select treatment for substance abuse in a women-only setting and the anxiety levels of women who select treatment for substance abuse in a women with children setting. You are asked to complete two questionnaires that take approximately twenty minutes to complete and pass them to the investigator. All contact, questions, and information will be collected the same day.

RISKS AND BENEFITS: There will be minimal risk to you as a participant. There may be some degree of discomfort you may experience when completing the questionnaire; this varies according to the individual (see Right to Withdraw). You are under no obligation to participate in this study and you are free to withdraw your consent to participate at any time. Your participation will help contribute to the professional literature in the field women who receive treatment for substance abuse.
COMPENSATION: There is to be no compensation, however participation in the project will require no monetary cost to you. Envelopes are provided for the return of your questionnaires to the investigator.

CONFIDENTIALITY: Your name will never appear on any survey or research instruments. No identity will be made in the data analysis. All written materials and consent forms will be stored in a locked file in the researcher's home. Your responses will only appear in statistical data summaries. All materials will be destroyed six years after the completion of the research.

RIGHT TO WITHDRAW: You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time. If you choose to withdraw, any of your data collected will not be used in the study. You have the right to request that your data be removed as well. In exercising your right to withdraw, there will be no treatment consequences for you. You will not experience any legal consequences for choosing not to participate or deciding not to participate after the initiation of the research project.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon request.

VOLUNTARY CONSENT: I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project.

I understand that should I have any further questions about my participation in this study, I may call this researcher, Veronica L. Jones (412-977-6448), the researcher's chair, Dr. Joseph Maola (412-396-6099) or Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412-396-6326).

Participant's Signature ___________________________ Date __________

Researcher's Signature ___________________________ Date __________
Appendix E

Demographic Information
Demographic Information

Please complete the following demographic information that will further assist the investigator in qualifying the information gathered with the inventory.

**NO IDENTIFYING INFORMATION WILL BE COLLECTED**

**Age** (Check your current age range)
- 18 - 28
- 29 - 38
- 39 - 48
- 49 - 58
- 59 & over

**Marital Status**
- Single
- Divorced
- Single/Significant Other
- Widowed
- Married
- Separated

**Children in the home** (Indicate the number)
- None
- 1 - 2
- 3 - 4
- 5 - 6
- 6 or more

**Income Source**
- Wages/Salary
- Social Security
- Disability/Substance Abuse
- Public Assistance
- Retirement/Pension
- V.A. Benefits
- None
- Other

**Educational** (Check the highest grade level completed)
- Highest grade completed
- College
- (Indicate years completed)

**Drug of Choice** (Check all that apply)
- Alcohol (any use at all)
- Heroin
- Methadone
- Other opiates/analgesics
- Barbiturates
- Other sedatives/hypnotics
- Tranquilizer
- Cocaine
- Amphetamines
- Cannabis
- Hallucinogens
- Inhalants
- More than 1 substance per day (including alcohol)

**OVER**

Coded: __M__
Demographics (CONTINUED)

Prior Treatment Episodes (Indicate the type of treatment by the number of times admitted)
- Outpatient Counseling  
- Partial Hospitalization  
- 30 Day Inpatient Rehabilitation  
- Inpatient Non-Hospital Rehabilitation  
- Domestic Violence/Sexual Abuse  
- Intensive Outpatient  
- Detoxification

Successful completions (Check all that apply)
- Outpatient Counseling  
- Partial Hospitalization  
- 30 Day Inpatient Rehabilitation  
- Inpatient Non-Hospital Rehabilitation  
- Domestic Violence/Sexual Abuse  
- Intensive Outpatient  
- Detoxification

Unsuccessful completions (Check all that apply)
- Outpatient Counseling  
- Partial Hospitalization  
- 30 Day Inpatient Rehabilitation  
- Inpatient Non-Hospital Rehabilitation  
- Domestic Violence/Sexual Abuse  
- Intensive Outpatient  
- Detoxification

Legal Status (Check the one that best applies to your status)
- No Known Involvement w/ Criminal Justice System  
- Currently involved w/ Criminal Justice System

Coded: M
Appendix F

State-Trait Anxiety Inventory
State-Trait Anxiety Inventory for Adults

Self-Evaluation Questionnaire
STAI Form Y-1 and Form Y-2

Permission for Veronica Jones to reproduce up to 150 copies for one year starting from date of purchase
February 16, 2006

Developed by Charles D. Spielberger
in collaboration with R.L. Gorsuch, R. Lushene, P.R. Vegg, and G.A. Jacobs

Distributed by Mind Garden
www.mindgarden.com
info@mindgarden.com

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work for your own research or for clients. This permission is granted to one person only. Each person
who administers the test must purchase permission separately. Any organization purchasing
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the test.
Appendix G

Raw Data Results
## STATE TRAIT ANXIETY INVENTORY SCORES

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## STATE TRAIT ANXIETY INVENTORY SCORES

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