LONG-TERM EFFICACY OF A THERAPEUTIC COMMUNITY PROGRAM FOR THE HOMELESS: PERSONALITY, SUBSTANCE ABUSE, AND SOCIAL SUPPORT FACTORS THAT AFFECT OUTCOME

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To my husband and best friend
Tommy
For your unending love, patience, and encouragement
I love you with all my heart

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by

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DISSERTATION

Presented to the Faculty of the Graduate School of Biomedical Sciences
The University of Texas Southwestern Medical Center at Dallas
In Partial Fulfillment of the Requirements
For the Degree of

DOCTOR OF PHILOSOPHY

The University of Texas Southwestern Medical Center at Dallas

Dallas, Texas

December 2006

ACKNOWLEDGMENTS

There are many people who have supported my education and the completion of this dissertation project. First and foremost, I would like to express my sincere gratitude to the residents of Austin Street Centre who willingly gave their time to participate in this study. Without them this project would not have been possible. Likewise, I would like to thank the directors of Austin Street Centre, the Reverends Bubba and Harry Dailey, and Carissa Austin, Director of Women's Services, for supporting and facilitating the research process, as well as, dedicating themselves to the service of those less fortunate in the community. Thirdly, I want to acknowledge The Timberlawn Psychiatric Research Foundation for generously providing funding for this project.

I wish to thank the members of my committee for their guidance and support throughout this endeavor. I am very grateful to my committee chair, John Herman, Ph.D., who provided much guidance and direction, particularly with respect to the methodological aspects of the project. His dedication to making this a valuable learning experience is to be admired. I would also like to express my gratitude to Melissa Black, Ph.D., who has been a source of inspiration throughout my graduate career. Her dedication to helping others in the community, as well as, her commitment to the professional development of graduate students is something I hope to emulate in my career as a psychologist. She created this research opportunity and provided invaluable guidance and support throughout the project.

I am indebted to my other committee members, Monty Evans, Ph.D., Jacqualene Stephens, Ph.D., and Richard Robinson, Ph.D., for generously contributing their time and expertise toward the completion of this project. Likewise, they have all helped shape my professional development as a graduate student, providing support and showing a willingness to share their knowledge. Their guidance and assistance throughout my graduate career has been greatly valued.

In addition to my committee members, there are a number of other people who have been instrumental in the completion of this project. I am sincerely grateful to Carol North, M.D., for her enthusiasm in getting involved with this research and her generosity in giving of her time to teach me SAS and help me with the statistical analyses for the project. I am also indebted to Laura McCracken, Ph.D., for her assistance in the beginning stages of the project and for her contribution to the research at Austin Street. Likewise, I would like to thank all of the graduate students who did their clinical placement at Austin Street over the past two years and helped with the data collection. In terms of navigating the murky waters of the dissertation, Kelsey Stutzman has been an invaluable resource throughout, always willing to help in any way possible and providing encouragement along the way.

I would be remiss if I didn't express my heartfelt gratitude to all of my friends and family who have provided support and encouragement throughout my studies and who have helped me keep things in perspective at times when it was easy to lose sight of what was important. There are too many to name them all.

I am very lucky to have so much love and support. In particular, I'd like to thank a few of my fellow classmates who made my graduate school experience a memorable one and helped me persevere through the difficult times. They are Krista Kulesza, Dan Eisenman, Noelle McDonald, and Dixie Woolston.

Last, but certainly not least, I would like to thank my husband, Tommy Houghteling, for his unconditional love, enduring patience, and unwavering faith in me that have helped sustain me through this long journey. I could not have done this without his steadfast support.

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Publication No._____

Lisa Nicole Houghteling, M.S.

The University of Texas Southwestern Medical Center at Dallas, December 2006

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Homelessness is a social problem that is multidetermined and requires complex and comprehensive solutions. The issues of homelessness are heterogeneous in nature, with a multitude of complex problems encumbering this diverse population. The high incidence of co-occurring mental illness and substance abuse compound the already harsh consequences of homelessness and often exacerbate the extreme disaffiliation from others experienced by these

individuals. Many attempts have been made to remedy this problem, often by addressing each of the issues of homelessness separately. However, there exists a consensus among researchers that this problem must be addressed from a multidimensional treatment approach in order to effectively bring about lasting change.

The Therapeutic Community Program at Austin Street Centre in Dallas, Texas is an approach that has combined several treatment modalities into one comprehensive program addressing a variety of issues simultaneously. Group therapy is the cornerstone of this approach, whereby individuals work out their interpersonal difficulties and gain a sense of community and belonging while addressing the issues of mental illness and substance abuse.

Previous research on the effectiveness of this Therapeutic Community Program has been promising, albeit preliminary. Despite a high attrition rate, participants demonstrated significant improvements with regard to substance abuse, psychological distress, occupational performance, and interpersonal functioning compared to a group of controls who did not participate in the program. The current study aimed to further these results by demonstrating similar gains in terms of social and psychological functioning, as well as, provide a preliminary investigation into factors that affect program attrition and outcome.

A group of 75 therapeutic community program participants at Austin Street were compared to a group of 30 controls who utilized only the basic overnight shelter services offered. As in the previous study, the therapeutic community program was found to be an effective means to a positive outcome. Program

participants remained in the therapeutic community for longer and were more likely to experience a positive outcome than controls. Significantly fewer program participants evidenced signs of substance dependence at 3 month follow-up than at intake. Those program participants who evidenced less substance abuse at 3 months were more likely to experience a positive outcome. Additionally, these individuals were shown to have fewer problems relating interpersonally and fewer psychiatric symptoms at baseline than those who continued to abuse substances. Program participants also demonstrated a steady decrease in psychiatric symptoms, symptom distress, problems relating interpersonally, and problems in their social role.

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LIST OF ABBREVIATIONS

AA	Alcoholics Anonymous
ACCESS	Access to Community Care and Effective Services and Supports
ACT	Assertive Community Treatment
ASC	Austin Street Centre
β	Beta; theoretical probability of a Type II error
BDI	Beck Depression Inventory
BPRS	Brief Psychiatric Rating Scale
CD	Chemical Dependency Group
CG	Control Group
df	Degress of Freedom
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, fourth edition
EVR	Enhanced Vocational Rehabilitation
HOMES	Homeless Outreach Medical Services
IPS	Individual Placement Support
ISEL	Interpersonal Support Evaluation List
$\underline{M}$	Mean
MCMI-II	Millon Clinical Multiaxial Inventory, second edition
MCMI-III	Millon Clinical Multiaxial Inventory, third edition
MMPI	Minnesota Multiphasic Personality Inventory
N	Total Sample Size
n	Subgroup Sample Size

OQ	Outcome Questionnaire
p	Significance level
PAI	Personality Assessment Inventory
SASSI-3	Substance Abuse Subtle Screening Inventory-third edition
SCID-II	Structured Clinical Interview, second edition
SD	Standard Deviation
t	Obtained value in a t-test
TAU	Treatment as Usual
TC	Therapeutic Community
TCP	Therapeutic Community Program
TCPG	Therapeutic Community Program Group
WPP	Work Personality Profile
X^2	Pearson's Chi-Square

INTRODUCTION

Overview of Homelessness

Homelessness is a complex social phenomenon, which evades simple definitions and balks at easy solutions. Internal factors, such as lack of job skills, mental illness, or substance abuse problems and social or economic factors, such as abject poverty, the lack of affordable housing, a decrease in public assistance to low-income families, or reductions in the demand for unskilled labor often interact in a bi-directional manner, each a cause and consequence of the other. Considerable efforts have been made toward decreasing homelessness through programs that attempt to link the mentally ill homeless with ongoing mental health services as well as programs that attempt to eliminate the barriers to housing access. Yet these programs alone have been unsuccessful at significantly reducing the risk of recurrent homelessness.

The number of homeless individuals has risen tremendously in the past two decades. According to a National Coalition for the Homeless report (2005), researchers believe homelessness rates tripled between 1981 and 1989 and doubled from 1987 to 1997. However, obtaining reliable prevalence estimates has proven to be more difficult than one might think. Some studies have estimated the lifetime prevalence of homelessness in the United States to be just over seven percent (Toro, 1999), while others have approximated this number to be as high as ten percent of the population. Moreover, researchers have found the number of homeless individuals in cities across the United States greatly

exceed the number of emergency shelter and transitional housing spaces available.

Clearly, this is a social problem that concerns not only psychologists and health professionals, but the general public as well. As the number of homeless individuals continues to rise, so does the cost to society. Researchers report federal expenditures doubled between the late 1980's and the late 1990's (Toro & Warren, 1999). This increase is largely attributed to the McKinney Act, which was originally passed in 1987 and appropriated federal funds for programs serving the homeless. Adding to societal costs are the health concerns closely associated with homelessness, posing a troublesome challenge for our traditional health care delivery models. Due to the seriousness of their health care problems, limited material and social resources, and continued exposure to communicable diseases, homeless persons may use additional and more costly services compared to patients with the advantage of stable residences. One study found that homelessness was associated with significantly higher health service use and cost, even after accounting for sociodemographic and diagnostic characteristics. Most noteworthy, was the increase of 21% to 24% in health care costs during the period after an inpatient episode of care, when costs decrease considerably for the majority of patients. These higher costs were primarily attributable to higher hospital admission rates and greater use of outpatient services, reflecting more severe health problems, as well as, problems in discharge planning and community placement (Rosenheck & Seibyl, 1998). Homelessness tends to magnify poor health and complicate the management of

chronic illnesses such as hypertension and diabetes. Conditions that require regular, uninterrupted treatment are made even more difficult to treat or control for people without adequate housing. Often, their health needs are relegated to a distant priority when faced with the overwhelming daily struggle for food and shelter. Among this population, common illnesses progress and injuries fester, resulting in increased emergency department visits and acute care hospital admissions. Regular exercise and a healthy diet, the fundamentals of care used to control illnesses like diabetes and hypertension, present a formidable challenge to individuals living in shelters and eating in soup kitchens. Further complicating matters for these individuals is difficulty in the safe storage of medications and the forbidden possession of syringes in many shelters.

The issue of homelessness has attracted growing attention in the last decade or so, due to increased awareness of and concern for this widespread social problem by the general public, media, researchers, and policy makers. Despite findings that Americans share mixed sentiments concerning the homeless, feeling both compassionate and judgmental, the majority of them appear optimistic about the manageability of the people and the problem (Roll, Toro, & Ortola, 1999). Likewise, a large majority has shown a willingness to pay higher taxes and volunteer their time in an effort to reduce homelessness (Roll, Toro, & Ortola, 1999). The media have asserted that between the late 1980's and the early 1990's public sentiment toward the homeless began to be characterized by "compassion fatigue," a condition in which initial feelings of compassion have yielded to indifference or even hostility. However, new

empirical evidence is burgeoning to suggest that, in fact, public opinion remains supportive of the homeless. A 1995 Gallup Organization study found that 86% of their respondents reported feeling a “great deal” or “some” sympathy for homeless people, and that 89% of them felt the same or more sympathetic than they had five years ago (Roll, Toro, & Ortola, 1999).

The public’s support notwithstanding, this complicated problem has proven to be a difficult one to define and study, let alone solve. While most researchers agree that a lack of physical residence, as well as, a state of isolation and disaffiliation from others typifies homelessness (Hopson & Watkins, 1997), fundamental differences persist when it comes to defining the homeless. Two major points of contention about how to define homelessness have to do with the nature of the living arrangements involved and the length of time one is forced to live in such arrangements (Toro & Warren, 1999). Many researchers note there is a continuum that runs from the obviously homeless to the obviously domiciled, with many ambiguous cases in between. Many estimates of homelessness only include the literal homeless and discount the precariously housed. Thus, these yields are thought to be a gross underestimate of the problem as a whole. A subgroup of homeless individuals, often referred to as the “unsheltered” or the “hidden homeless” frequently stay in places researchers cannot effectively search. A 1995 National study of formerly homeless people found the most common places people who had been literally homeless stayed were vehicles (59.2%) and makeshift housing, such as tents, boxes, boxcars, or caves (24.6%) (National Coalition for the Homeless, 2005).

Disagreement over the definition of homelessness has led to complications in estimating the number of people who are homeless. These estimates vary as a function of their source, the definition adopted, and the methods used to arrive at such numbers. Many researchers have drawn conclusions based on point-prevalence samples. While this method accurately portrays the currently homeless population, it can bias estimates of the size, stability, and composition of this population if relied on for inferences regarding all people who become homeless at some point in their lives. For example, in a given shelter, some residents come and go and their length of stay varies. In this case, utilizing point-prevalence estimates means longer-term residents are more likely to be over sampled and persistence will be overestimated. Likewise, if people with certain characteristics (e.g. mental illness) generally stay longer than others, the prevalence of those characteristics will be overestimated. More recently, social scientists have advocated the use of multi-year or lifetime prevalence estimates yielding a much larger number encompassing those individuals who have been homeless or would be homeless at some point in their lives. Not surprisingly, government agencies, which use this information to make funding decisions, have adopted the more exclusive definitions and methods, while advocacy agencies tend to adhere to more inclusive ones to argue for increased allocation of societal resources.

Some of the most recent debates have contrasted estimates provided by the Community for Creative Non-violence in 1986 (2.0-3.0 million) with those of HUD from 1984 (166,000-350,000) (Toro & Warren, 1999). The 1990 U.S.

Census has been widely criticized for its national estimates, which many advocates thought inadequate. In fact many groups refused to participate in the census and others mounted legal challenges to prevent the use of this data in making funding decisions for social programs affecting the homeless (Toro & Warren, 1999).

While definitions and methodological approaches for estimating the extent of homelessness in America diverge, these are not the only challenges facing investigators. By its very nature homelessness denotes a marginal existence, which inevitably makes it difficult to track all of the individuals affected. Consequently, any attempts to count them will likely yield underestimates. A high turnover rate in shelter settings has been documented, as well as, large variability in the persistence of homelessness. One study by Burt and Cohen found that one-fifth of the sample had been homeless for three months or less, while another fifth had been homeless for more than 4 years (Phelan & Link, 1999). In their summary of 60 street-and-shelter-based studies, Shlay and Rossi concluded that variability in persistence was so great that "there are no meaningful central tendencies in the distribution"(Phelan & Link, 1999). The "geographic migration" that the homeless often engage in searching for either employment or an improvement in their living situation also contributes to the difficulty in obtaining an accurate count (Hopson & Watkins, 1997).

Another problem making identification of the homeless more difficult is its overlap with other groups on the streets. These groups have been referred to as urban nomads, revolving door patients, chronic crisis patients, and young adult

chronic patients, as well as, individuals released from incarceration (Hopson & Watkins, 1997). Adding to the high turnover rate among the homeless are the elevated mortality rates among the younger homeless, which have been reported to be 3 to 5 times higher than the general public in studies in Toronto and Boston (O'Connell, 2004). The major health complications that accompany the social and environmental struggles of the homeless likely contribute to these increased numbers of premature deaths.

Obtaining a representative sample of this population is often difficult as well, complicating attempts to obtain generalizable results (Toro, Wolfe, Bellavia, Thomas, Rowland, Daeschler, & McCaskill, 1999). Many studies have focused on single localities, often sampling from one or two sites in a particular area. By far, the most popular types of sampling sites have been shelters. While sampling from one source is convenient for the researcher and, at times, necessitated by methodological and financial constraints, it increases the risk of missing a sizeable segment of the population.

A growing consensus exists among researchers that the population of homeless individuals is heterogeneous in nature, consisting of many subgroups. These subgroups include single men, single women, women with children, families, and adolescents on their own (Toro & Warren, 1999; Toro, 1999). Studies suggest approximately 70% of the population are male, while 30% are female. The data available suggest these groups consist of people with different backgrounds, problems, and strengths. Additionally, about 64% of homeless adults have had prior experience with homelessness. Others have found

themselves in a brief episode that is unlikely to be repeated (Toro & Warren, 1999). Likewise, the population includes those with varying degrees of positive and negative social support. Contrary to popular belief, recent studies have shown that most homeless people are in regular contact with family members, with only about 10% who are completely isolated from family (Toro & Warren, 1999). Much variability exists, even with regard to some of the most pervasive characteristics among the homeless. For example, while it has been documented that roughly 60% of the homeless have experienced substance abuse problems, almost half of these appear to be recovering, with no recent substance abuse reported (Toro & Warren, 1999). Thus, such heterogeneity would imply that the service needs of these individuals are likely to vary considerably.

Risk Factors for Homelessness

As we attempt to gain a better understanding of contemporary homelessness, researchers have begun to focus on its prevention in their studies. This has led to an emphasis on certain factors that increase one's vulnerability to homelessness. Much of the research on risk factors and protective factors for homelessness has focused on the mentally ill homeless. These studies have reported risk factors that fall under three domains. These domains are severity of illness, family relationships, and use of services. Specific risk factors in the illness domain include substance abuse, antisocial personality disorder, and severe and comorbid psychiatric symptoms, such as psychosis and major depression. In the family relationships domain childhood physical abuse

was common, as well as, parental pathology and family violence experienced as a child. Inadequate family support in adulthood is also common among this group. In the service use domain, the homeless mentally ill evidence higher rates of hospitalization and greater use of emergency and inpatient services (Folsom, Hawthorne, Lindamer, Gilmer, Bailey, Golshan, Garcia, Unutzer, Hough, & Jeste, 2005).

General risk factors that have been identified include lower levels of education, history of running away or being incarcerated, as well as, being male, having a history of substance abuse, and a history of mental illness. There is growing evidence pointing to a multitude of socioeconomic and biographical risk factors that signal vulnerability to add to the already widely accepted group of personal risk factors. Among these are poverty, residential instability, and family discord experienced during childhood (Koegel, Melamid, & Burnam, 1995). Many homeless individuals come from households in which women were the primary financial providers and the economic resources were frequently exhausted before all of the necessities, such as food and rent, could be taken care of. As a result, many have experienced some form of residential instability, whether it be living apart from their parents or being homeless with their families. Moreover, a large number of them came from families in which there was some sort of disruptive behavior, violence, or disability present. Almost all of the participants in one study (Koegel, Melamid, & Burnam, 1995), endorsed at least one of these negative experiences as a child, and the majority of them reported experiencing two or more of them. These data suggest that some of the

problems homeless individuals experience as adults have clear analogs in their experiences as children. While no causal relationship can be established between these factors and homelessness, they may help create predispositions to other risk factors, such as substance abuse and mental illness. They may also lead one to develop insufficient networks of individuals available to provide social support in adulthood. More than likely, all of these conditions work together creating a synergistic affect in the precipitation of homelessness (Koegel, Melamid, & Burnam, 1995).

Research on persistent or chronic homelessness has also identified risk factors that are associated with this detrimental long-term state. Chronicity of homelessness has been found to be associated with earlier onset of substance use, major depression, bipolar disorder, and conduct disorder. The presence and number of symptoms of schizophrenia and antisocial personality disorder were also found to be vulnerability factors to chronic homelessness. Conversely, level of education has been shown to be a protective factor, being associated with both later onset and less chronicity of homelessness (North, Pollio, Smith, & Spitznagel, 1998).

Substance Abuse Among the Homeless

Substance abuse has been clearly shown to be a prominent feature of homelessness. In fact, it is the primary individual factor linked to homelessness in many studies (Jainchill, Hawke, & Yagelka, 2000). Most studies report a lifetime prevalence of drug and/or alcohol abuse that exceeds 60% (Toro & Warren, 1999). Among those in shelters, it has been found that 90% have a

problem with alcohol, and over 60% have a problem with other substances. However, these estimates may be somewhat misleading as research suggests high rates of nondisclosure of substance abuse among the homeless, especially those with severe and persistent mental illness (Goldfinger, Schutt, Seidman, Turner, Penk, & Tolomiczenko, 1996). Likewise, avoidance of social services and treatment agencies is common among homeless adults with severe substance abuse problems. This avoidance is often attributed to the fear of prosecution for the use of illicit drugs (Tam, Zlotnick, & Robertson, 2003) and may contribute to decreased estimates.

The lives of substance users are often characterized by chaos and unpredictability. Substance abuse is not only associated with greater instances of illness, injury, and death, but has also been linked to higher incidences of violence, arrests, and instability of employment and housing. Many researchers have suggested that substance abuse problems serve to exacerbate the already harsh conditions of homelessness. For example, homeless persons who abuse substances have been found to be disaffiliated to a greater degree, are victimized at higher rates, and are in poorer physical health compared to other homeless individuals (Fischer, 1991).

Although no causal relationship has been clearly delineated, researchers have suggested several psychosocial predictors of drug use and dependence. Studies of non-homeless adults have documented an association between childhood abuse and substance addictions (Tam, Zlotnick, & Robertson, 2003). Negative social support (support received from substance using friends and

family) and depression were predictive of current drug use and drug dependence in a study of homeless women (Galaif, Nyamathi, & Stein, 1999). In another study of drug use among homeless women, current substance use was associated with lower self-esteem and increased levels of depression and anger (Nyamathi, Keenan, & Bayley, 1998). The same study also found current substance using women reported greater levels of social support from drug or alcohol using friends or family than women who had quit using or had never used drugs. Many of these women indicated their relationships with non-using family and friends were either damaged or lost during periods of substance use. These findings suggest tremendous adjustments are likely to occur in the lives of recovering individuals and highlight the need for health care professionals to help these individuals build bridges and re-establish supportive connections with non-using family and friends.

Mental Illness Among the Homeless

Researchers have examined the issue of mental illness among the homeless for decades. While most would agree the homeless suffer from disproportionately high rates of mental illness, some estimate the prevalence of psychiatric disorders among the homeless to be between 20 and 25 percent and others estimate this number to be closer to 33 percent (Caton, Hasin, Shrout, Opler, Hirshfield, Dominguez, & Felix, 2000). Differences in these population prevalence estimates vary greatly due to numerous factors, which make it difficult to calculate an accurate number of homeless individuals with or without mental illness. Further complicating these methodological difficulties are changes in the

demographics of the homeless population over time brought about by changes in the labor and housing markets, erosion of public benefits, and deinstitutionalization (North, Eyrich, Pollio, & Spitznagel, 2004). These changes have been shown to affect the risks for homelessness and may contribute to the level of mental illness within this population.

The potentially confounding effects of these and other stressors inherent in homelessness may also make it difficult to distinguish stress-related behavior from psychopathology (North, Eyrich, Pollio, & Spitznagel, 2004). A number of studies have substantiated the belief that the seriously mentally ill experience higher rates of residential instability and homelessness (Min, Wong, & Rothbard, 2004). As one might expect, homeless persons with mental disorders generally remain homeless for longer periods of time and have fewer social contacts. They are also more likely to cycle in and out of homelessness more frequently than their well counterparts (Sullivan, Burnam, Koegel, & Hollenberg, 2000).

Mental disorders prevent people from carrying out essential aspects of daily life, such as self-care, household management, and interpersonal relationships. These individuals also encounter more barriers to employment, tend to be in poorer physical health, and have more contact with the legal system than homeless people who do not suffer from mental illness. A 2000 study of Quality of Life among homeless persons with mental illness (Sullivan, Burnam, Koegel, & Hollenberg, 2000) found that although mentally ill persons generally fare relatively well in terms of entitlements, income, and health insurance, they are also more likely to encounter problems with victimization, unmet subsistence

needs, and poor physical health. Moreover, they were found to have experienced a lower subjective quality of life than those without mental illness. The mentally ill homeless are more likely to receive Social Security Disability Insurance, Supplemental Security Income, Veterans Affairs disability benefits, or Medicaid. However, they are also more likely to experience problems with physical health and getting subsistence needs met. Additionally, almost half of the sample in this study reported experiencing physical assault, sexual assault, or robbery within the past month. Among the women included in the sample, over half (57%) reported such victimization during the same time period.

While research assessing gender differences among the homeless mentally ill has been limited, most available data indicate a larger percentage of homeless women suffer from severe mental illness than their male counterparts. According to Fischer (1991), about 20-40% of homeless men meet criteria for a serious Axis I mental disorder, compared to 50-60% of homeless women. Additionally, hostels surveyed consistently identified rates of mental illness among men 10-25% lower than those of women (Adams, Pantelis, Duke, & Barnes, 1996). This could reflect differing levels of tolerance toward severe disturbances in men and women. However, Crystal (1984) suggests it may take higher levels of psychopathology and/or disturbance for women to sever ties with family and friends than it does for men.

Dual Diagnosis

While mental illness and substance abuse are significant struggles alone, a large percentage of the homeless population exhibit these problems

concurrently. The term used to describe the state of having a substance use disorder in addition to at least one other psychiatric diagnosis that is not drug related is “dual diagnosis”. Estimates of the number of dually diagnosed homeless individuals range from 20% (Toro, 1998) to 50% (Sacks, S., Sacks, J., DeLeon, Bernhardt & Staines, 1997) of the population. Indications of an elevated prevalence of persons with dual diagnosis appear to be the result of both the spread of substance abuse among subpopulations of the mentally ill, as well as the entry of many people with severe mental illness into the drug treatment system.

While the definition of dual diagnosis appears to be apparent and unequivocal, there is a need for consensus regarding a uniform classification system for this population. There is evidence that the psychosocial correlates of dually diagnosed homeless individuals differ significantly from those with “pure” disorders that have strong implications for identification of risk factors and implementation of intervention-grounded services. However, there is also evidence to indicate the existence of patterns of comorbidity, whereby certain combinations of disorders are more or less common and dictate differing approaches to treatment. For example, some studies have reported persons having a concurrent mental disorder and an alcohol problem, while others have been reported to suffer from a drug disorder and a mental illness concurrently. Still others are reported to have alcohol, drug, and mental problems in combination. Emerging patterns of comorbidity also indicate that drug abusers are more likely to abuse alcohol simultaneously, but alcoholics are less likely to

abuse drugs concurrently. Moreover, studies indicate that men are more likely to experience alcoholism in isolation, whereas women are more likely to have a sole mental disorder (Fischer, 1991). Although more epidemiological research is needed to determine diagnostic status and needs for treatment, current studies document high rates of dual and multiple diagnoses among the homeless and describe the many difficulties in providing services for such patients. Implications for integrating categorical services into innovative and comprehensive delivery systems that address the many issues affecting this population appear clear.

Interpersonal Relationships and Social Functioning in the Homeless Population

There exists a growing body of literature exploring the power social support and social networks can have in the lives of various populations, including people who are mentally ill, people who abuse substances, and homeless people. While defining social support seems rather straightforward, investigators have found it an elusive concept to define. Reviewing the current literature allows for integration of the common elements across definitions and facilitates an understanding of the essential aspects of this construct. In doing so, three different aspects of social support appear to be involved. The first aspect involves resources provided by others, including information, advice, and instrumental assistance. The second involves connection or a sense of embeddedness within a group. The third component of the definition of social support involves validation or affirmation from others. Thus, according to the current literature, social support can be defined as any interaction in which an

individual or group provides another with affirmation, resources, and/or a sense of connection (Bates & Toro, 1999).

Investigators have consistently documented a positive relationship between social support and both physical and psychological health (Bates & Toro, 1999). There are several mechanisms through which social support has been hypothesized to impact one's health. The first is a direct effect hypothesis, which postulates that social support directly imparts benefits during times of stress. The second theory supposes social support helps to increase or reduce one's exposure to stressful events. The third hypothesis posits social support serves a stress-buffering function, protecting one during times of high stress. Some studies examining the effects of support networks have yielded contradictory results, indicating there are several factors impacting the relationship between support and health. For example, contrary to what one might think, it is not necessarily more beneficial to one's health to have a larger support network. On the contrary, a larger network may expose an individual to more opportunities for conflict and loss. The idea that social support has a mediating effect on psychological distress appears to depend more on the quality of support than the quantity of support. One study examining the effects of social support on women with comorbid substance abuse and mental illness found the presence of a large support network comprised of family members, other substance users, and individuals unaware of the individuals struggles, actually served to undermine the mediating effects of the support network (Savage & Russell, 2005).

With regard to the causal relationship between social support and psychiatric symptoms, considerable research has documented a significant negative correlation, particularly in the case of depression (Calsyn & Winter, 2002). Three basic models have been used to explain the relationship between social support and psychiatric symptoms. Most researchers assume the social causation model best explains this relationship in that lack of social support causes psychiatric symptoms. However, others have considered the social selection model, which posits that psychiatric symptoms cause changes in social support by altering an individual's perception of support efforts made by others, leading to hostile or indifferent reactions and other behaviors that drive people away. The third theory postulates there is a reciprocal causal relationship between social support and psychiatric symptoms. A study examining the causal relationship between social support and psychiatric symptoms and stable housing (Calsyn & Winter, 2002) found the reciprocal effects model best explained the causal relationship between social support and psychiatric symptoms. Additionally, they found the relationship between social support and stable housing best supported the social causation model as increases in social support led to more stable housing arrangements.

Most researchers would agree that homelessness includes a lack of physical residence, as well as, living in a state of disaffiliation and social isolation. Many homeless individuals lack relationships that tie mainstream Americans to their families, friends, and communities. This disconnectedness often promotes psychological fragility, adding to the difficulty in providing them with psychosocial

services. The isolation these individuals experience is often worsened by substance abuse and/or mental illness (Hopson & Watkins, 1997). Over the last 20 years, research has documented the importance of social support from family and friends, in the form of affection, inclusion in social activities, and tangible aid, in fostering psychological well-being and sustaining self-sufficiency for the homeless and mentally ill (Wood, Hurlburt, Hough, & Hofsetter, 1998). A 2000 study by Lam & Rosenheck found that social support had the strongest positive association with subjective ratings of quality of life among homeless mentally ill study participants at baseline and across time. They also found that social support was strongly associated with improved access to an array of different health care services (Lam & Rosenheck, 1999). Other studies have suggested social support is negatively associated with length of time of homelessness. Likewise, high utilizers of psychiatric emergency services in one study were more likely to have unreliable social support than nonfrequent utilizing controls (Pasic, Russo, & Roy-Byrne, 2005) . These findings highlight the importance of social support as a construct for this marginal population. However, frequently, homeless and mentally ill persons report lower levels of perceived support and lower levels of satisfaction with the quality of their family relationships than the general public (Wood, Hurlburt, Hough, & Hofsetter, 1998). In developing a measure of social support among homeless people, Bates and Toro (Bates & Toro, 1999) found that those with an extensive history of homelessness perceived less support available to them than those who have been homeless for a short time.

Interaction Between Social Network and Substance Abuse

Research has shown that individuals who abuse substances perceive lower levels of social support (Calsyn & Winter, 2002). Investigators have attempted to explain this phenomenon using the social causation model, the social selection model, and the reciprocal effects model in the same way they have tried to explain the relationship between social support and psychiatric symptoms. In a study of disaffiliation, substance abuse, and exiting homelessness, researchers found that support from family and friends increased one's likelihood of exiting from homelessness for individuals who did not have current substance abuse disorders. In contrast, for those individuals who did currently struggle with substance abuse problems, the impact of support from family and friends was not as significant. These results suggest homeless adults without substance use disorders may be better able to engage services and support from family and friends to exit homelessness. It also highlights the importance of substance abuse treatment within a program designed to help homeless individuals exit homelessness.

Personality Factors and the Homeless

The primary focus of studies on the psychiatric status of homeless adults thus far has been on Axis I disorders. There is a paucity of research on Axis II disorders and those that include these assessments are often limited to determining the presence or absence of antisocial personality disorder. This trend has sparked some debate as many argue there are biases toward law-breaking, stealing, and self-centered behavior given the precarious situation

homeless people find themselves in. However, sparked by this controversy, a study by North, Smith, & Spitznagel (1993) examined a large group of homeless men and women to investigate the appropriateness of the diagnosis of antisocial personality disorder among the homeless. Their analyses substantiated this disorder as an appropriate diagnosis among this population. They did add a caveat asserting that while homelessness does not lead to antisocial behaviors, it is possible that it serves to exacerbate those already in existence.

While it is crucial for service providers to understand the magnitude of Axis I disorders currently afflicting these individuals, considering personality traits and interpersonal style can also help to elucidate needs and intervention difficulties that may present themselves during the course of treatment. Routine diagnostic interviewing is an effective means to the assessment of personality. However, it is costly and time consuming and often is not conducive to honest and forthcoming responses from this guarded population. Therefore, researchers have begun to seek out feasible alternatives to lengthy personality assessment. To that end, several studies have found brief personality assessment to be a cost-effective approach to matching services with the clinical needs of homeless adults by attending to interpersonal dimensions that will likely affect service provision (Tolomiczenko, Sota, & Goering, 2000). One group of researchers tested the usefulness of the Personality Assessment Inventory (PAI), a brief self-report measure yielding scores on several personality dimensions. They found the PAI to be an effective tool for gathering information used to identify different subgroups among this population and their unique clinical issues

and treatment needs. One finding that was particularly striking in this study was that ¼ of the single homeless adults they measured displayed interpersonal styles that would make outreach and service provision very difficult. They expounded on this finding and its implications for community service programs and their growing reliance on well-meaning, untrained volunteers. They indicated that greater reliance on these interactions could generate an increased frequency of stressful incidents, which, in combination with sensationalized media accounts could lead to compassion fatigue among the general public. Ongoing professional consultation, education, and training were encouraged to help counter these effects.

Investigators studying a group of homeless alcoholic men using the MMPI found three different patterns of emotional disturbance pointing to the need for different treatment strategies based on different personality patterns (Hinkin, Kahn, & Connelly, 1988). Another study examining personality characteristics of homeless men and women utilized the Millon Clinical Multiaxial Inventory, third edition (MCMI-III). Three distinct clusters were identified through cluster analyses. They termed these clusters the “multi-problem” cluster, the “substance abuse” cluster, and the “deniers.” They concluded the MCMI-III is a beneficial assessment tool for understanding the treatment needs of this population (Kelly, 1999). However, the authors of another study comparing the structured interview to self-report personality assessments in a sample of poor, inner-city, cocaine addicts cautioned that the MCMI-II may “over diagnose” personality disorders compared to the Structured Clinical Interview-II (SCID-II) when administered

during an acute Axis I episode (Marlowe, Husband, Bonieskie, Kirby, & Platt, 1997). In particular, the MCMI-II substantially overestimated the prevalence of Cluster C personality disorders, which could have been influenced by the participants' acute clinical state. Conversely, the MCMI-II was found to be insensitive to Cluster A disorders, particularly, paranoid personality disorder. Of course, treating the SCID-II as the gold standard against which to measure self-report measures has its problems as limited inter-rater reliability is available for this measure. The results of this study did suggest that the MCMI-II correlated highly with the SCID-II on a variety of Cluster B symptoms, including impulsivity, affective lability, ego centricity, and antisocial traits. As these characteristics are fairly common among the substance abusing population, and substance abuse is prominent among the homeless, these findings are promising. However, further attention to personality assessment in this population is clearly warranted.

Treatment Interventions for the Homeless

Traditionally, interventions aimed at helping the homeless have primarily focused on the provision of immediate needs such as food, shelter, clothing, and medical care on an emergency basis. Initially, religious organizations, as well as community and humanitarian groups were responsible for the establishment of shelters, soup kitchens, mobile health care units, and education and job training programs for the homeless. As the need for services began to grow beyond the resources of these organizations, funding from federal, state, and local governments became necessary. The Stewart B. McKinney Homeless Assistance Act, which was passed in 1987, appropriated federal funds for

emergency services for the homeless. Many providers of emergency services today receive some or all of their funding from McKinney Act programs and other government sources (Toro & Warren, 1999). In fact, most of the moneys spent on the homeless are still used to provide emergency services. While providing shelter and other necessities of daily life are indisputably necessary, our evolving understanding of the degree and etiology of the problem of homelessness brings to awareness the inadequacy of these measures alone. This, understandably, puts state and local governments, as well as the providers of emergency services in a quandary. These sources already spend as much money as they are able on the provision of emergency services. They cannot spend money they do not have; yet they cannot conceivably deprive people in need of emergency services in favor of funding more permanent solutions. For this reason, it has become clear that the establishment of viable, efficient strategies for breaking the vicious cycle of homelessness must be a priority. The most effective of these efforts take into account the varied factors that contribute to both the precipitation and maintenance of homelessness.

Mental illness is a factor that may or may not represent a pathway to homelessness. One study examining the sequencing of mental illness and homelessness found that most of their mentally ill homeless sample became homeless after the onset of mental illness and were more likely to suffer from bipolar disorder and schizophrenia. About a third of their participants became homeless before becoming mentally ill. These individuals tended to come from extremely disruptive and disadvantaged backgrounds characterized by childhood

poverty and/or homelessness, as well as physical abuse. These individuals were more likely to suffer from severe, recurrent depression and exhibited higher rates of substance abuse. The investigators from this study concluded that effective interventions to prevent and end the cycle of homelessness should address mental illness and substance abuse, as well as, childhood risk factors (Sullivan, Burnam, & Koegel, 2000).

All people with mental disorders, including those who are not homeless, require ongoing access to a full range of treatment and rehabilitation services to lessen the impairment and disruption produced by their condition. Findings indicate homeless persons with mental illness are willing to use services that are easy to enter and meet their perceived needs (Oakley and Dennis, 1996). Findings also reveal that people with mental disorders and people with addictive disorders share many of the same treatment needs, including carefully designed client engagement and case management, housing options, and long-term follow-up and support services. Studies also emphasize the importance of service integration, outreach and engagement, the use of case management to negotiate care systems, the need for a range of supportive housing and treatment options that are responsive to consumer preferences, and the importance of meaningful daily activity. When combined with supportive services, meaningful daily activity in the community (including work), and access to therapy and appropriate housing can provide the framework necessary to end homelessness for many individuals (Oakley & Dennis, 1996).

One approach to the treatment of the homeless mentally ill developed largely in response to the findings that this subpopulation of persons are more disconnected from support networks than other mentally ill persons and that this disconnection contributes to psychological fragility and may even be a factor in their becoming homeless. Mobile outreach programs have been shown to be effective for this population (Slagg, Lyons, Cook, Wasmer, & Ruth, 1994). These teams provide on-site assessment and interventions, identifying individuals in need of services and reaching out to them in an attempt to match the client with the appropriate services to meet their physical and mental health needs. Assertive community treatment (ACT) teams are an example of this in vivo based delivery of services, assisting clients with activities of daily living, obtaining needed resources, and providing transportation to service agencies when necessary. Considerable evidence has shown ACT teams are effective in reducing psychiatric hospitalizations and improving the living situations of many clients with severe and persistent mental illness. Homeless mentally ill clients who were followed by ACT teams have been observed to receive more support from professionals than those utilizing other services, such as outpatient therapy, drop-in centers, and case management services (Calsyn, Morse, Klinkenberg, Trusty, & Allen, 1998).

Substance abuse is another common treatment concern among the homeless and while it has been recognized as a major problem, effective and enduring treatments have yet to be well documented (Toro & Warren, 1999). This may be largely due to the fact that the prevailing substance abuse system

provides services during crisis episodes rather than long-term services which include assertive outreach, intensive case management, individual and group counseling, and mutual self-help and social control (Meisler, Blankertz, Santos, & McKay, 1997). Many new approaches have begun to be investigated, but most focus on treatment of substance abuse and mental illness, as these co-occur in over 20% of the population. Favorable abstinence rates have been shown in residential treatment programs based on the principles of psychosocial rehabilitation and intensive case management (Meisler, Blankertz, Santos, & McKay, 1997).

The number of homeless persons afflicted with co-occurring mental illness and substance abuse is alarmingly high. Providing services to dually diagnosed individuals has become an urgent issue in the mental health field today.

The needs of the homeless require a broad range of specialized services from many different health and social welfare agencies. Meeting these needs has been made even more difficult by the lack of coordination among these different organizations. The fragmentation of service systems responsible for meeting the needs of the homeless mentally ill has been a mental health policy concern for decades. The Access to Community Care and Effective Services and Supports (ACCESS) program is a federally funded project, operating between 1994 and 1998, which provided monetary and technical assistance to community sites to implement strategies for change that would promote the integration of systems. While 18 sites were involved in the project, 9 received extra funds to improve service integration and the other 9 did not. Strategies

were implemented to integrate mental health, substance abuse, housing, primary care, and income maintenance services into a more cohesive system of care for this population. All of these sites provided intensive outreach and case management services to the homeless mentally ill. Client outcomes were evaluated to assess the effects of these efforts to improve systems integration (Randolph, Blasinsky, Morrisey, Rosenheck, Cocozza, Goldman, & the ACCESS National Evaluation Team, 2002). Findings from this study indicated the implementation of integration strategies did help to overcome fragmentation of services but did not result in better client outcomes (Rosenheck, Lam, Morrisey, Calloway, Stolar, Randolph, & the ACCESS National Evaluation Team, 2002). However, cautious interpretation is warranted as these results are not based on random assignment. It is important to note that, on average, clients from all sites did show improvement, although not beyond what would be expected for assertive community treatment programs (Goldman, Morrisey, Rosenheck, Cocozza, Blasinsky, Randolph, & the ACCESS National Evaluation Team, 2002). The clients, who were contacted on the streets, as opposed to in shelters or other service agencies, generally had more severe psychiatric disturbances and were more difficult to engage in outreach and case management. They were also more likely to be male, to be older, and to have a longer history of homelessness prior to contact. However, three-month outcome data revealed equal improvement among those enrolled clients contacted through street outreach and through shelters or other service agencies. These results suggest that street outreach to homeless mentally ill persons is an effective, albeit

expensive, component of homeless services, as these clients are more severely impaired and less motivated to seek treatment (Lam & Rosenheck, 1999). Certainly, more research is needed to assess the impact service integration among outreach providers can have on this population.

Like many factors affecting homelessness, the extent to which vocational issues contribute to one becoming or remaining homeless is unclear. Not surprisingly, a lack of adequate income has been documented as a significant problem, putting people at risk for homelessness (Toro & Warren, 1999). Mentally ill individuals and substance abusers among the homeless represent a particularly challenged group in this regard. Many programs have implemented various vocational rehabilitation services for homeless individuals with psychiatric difficulties. These services generally focus on helping individuals obtain competitive employment rather than addressing the social nature of one's vocation. There has been some debate as to the advantages of a traditional train-and-place model of vocational program versus a supported employment model, which provides individualized, pre-employment and follow-up support. There is a preponderance of evidence citing the advantages of a supported employment model in terms of improved vocational outcomes. Some studies have suggested there is an increase in cost-effectiveness when supported employment programs are added to mental health services. Others believe there is a direct correlation between improved vocational status and mental health status, which translates into lower mental healthcare costs (Dixon, Hoch, Clark, Bebout, Drake, McHugo, & Becker, 2002).

Dixon et al (2002) examined two specific vocational rehabilitation programs for individuals with severe mental illness; Individual Placement and Support (IPS) and Enhanced Vocational Rehabilitation (EVR). The IPS program involved employment specialists within a mental health facility who helped individuals afflicted with mental illness obtain competitive employment and provide them with continued support. This program integrated mental health and vocational services with the addition of an employment specialist as part of the multidisciplinary case management team. The employment specialists would help each client rapidly search for a job and then offer individualized, follow-up support on an as needed basis. Supportive services might include counseling, transportation, or intervening with an employer. No limit was placed on these services as a stipulation of this program. In contrast, the EVR program involved stepwise services in which prevocational services were delivered by several well-established rehabilitation agencies recommended by the Rehabilitation Services Administration. The program was considered “enhanced” because an extra vocational rehabilitation counselor was added to facilitate rapid and assertive linkage with service vendors to circumvent the problem of attrition during the referral process. They did this by monitoring the participating clients each month and helping to link them with alternate agencies should they become dissatisfied with the program to which they were assigned. Although the ultimate goal for both of these programs was competitive employment, the EVR model utilized a stepwise approach that involved prevocational experiences such as paid work adjustment training in sheltered settings. The results of this comparison

indicated IPS participants spent a significantly greater number of hours in competitive employment than EVR participants. However, no differences were found in the average combined earnings of the two groups. There were also no differences evidenced in participants' global functioning, psychiatric symptoms, self-esteem, or quality of life (Dixon, Hoch, Clark, Bebout, Drake, McHugo, & Becker, 2002).

The previously mentioned ACCESS project also included the availability of vocational services at each site, though they were not mandated. Employment status was measured by examining participants who had worked either part-time or full-time in the previous 30-day period and comparing the number or hours worked per week, hourly wages, and estimated earned monthly income. With the exception of number of hours worked per week, employment status was found to have improved significantly between baseline and 3 months, as well as between 3 month and 12 month follow-ups. Predictors of employment were also explored using this data. Multiple logistic regression analyses revealed that after one year participants who were employed were more likely to be younger, male, unmarried, and college educated.

For the homeless, particularly those who suffer from mental illness, employment is an issue that often takes a back seat to the myriad of needs that are addressed for this population. However, it is an important issue that has implications for one's self-esteem and overall mental health. Programs involved in assisting this population with matters of employment may be most effective when they are combined with additional services needed to overcome obstacles

to employment. These obstacles include poverty, poor physical health, lack of or inadequate housing, low education levels, trauma from victimization, and substance abuse.

Group psychotherapy is another treatment modality utilized among the homeless that is particularly useful in addressing the pervasive problem of social disengagement confronting this population. The interpersonal nature of group psychotherapy allows patients to improve their ability to relate to others as well as negative and apathetic attitudes toward the outside world. Whatever its root causes, homelessness is often viewed as the end result of a long process of disengagement and disaffiliation from family, friends, and institutional supports. Having lost connection to the social world, their encounters with others are marked by mistrust, fear, and suspiciousness. Adding to the perception of the world as an unsafe place are the multiple experiences of trauma, loss, and/or abuse suffered by the homeless. The intense interpersonal avoidance that often characterizes these individuals serves as a defense against anxieties aroused by people who do not meet their needs, but also intensifies their profound sense of isolation.

By nature, human beings are group oriented. We all live, work, and play in groups of various sizes, whether it be family, coworkers, friends, cohorts, etc. Our experiences within these different groups serve as the basis for the development of our personalities. We derive strength from our affiliation and connection to others. Moreover, opportunities for modifying and changing aspects of our personalities exist in and are affected by the groups in which we

are involved. A homeless person's loss of connection to others results in fewer sources of strength as well as fewer opportunities for change and growth with regard to their behavior and character traits. These deficits in interpersonal relationships and social functioning further compromise the emotional and mental health of homeless individuals and perpetuate their alienation from the resources they need to live and function.

Irvin D. Yalom's (1995) clarification of the "therapeutic factors" of group psychotherapy aids in the understanding of the benefits in utilizing group in the treatment of any individual, including the homeless. Installation of hope is an important factor in group therapy. This can occur through members relating to one another and through the observation that the group can help others, particularly those with similar problems. Universality is another important factor and involves the realization that others have had similar backgrounds, thoughts, and feelings. This helps to dispel notions of uniqueness in favor of feelings of inclusion and is a compelling source of relief for many people. The installation of hope and universality are particularly important factors for effecting change in the homeless because of the intense isolation and hopelessness that is often experienced by these individuals. Through altruism, another of Yalom's therapeutic factors, patients learn the personal benefits of helping others and realize that they do have something to offer others. The group can also provide a corrective recapitulation of one's family of origin. That is, the group experience is similar to a family experience, although a more accepting and understanding one. Within the context of the group, members often reenact early family

conflicts, which are responded to in a corrective and therapeutic manner. The exploration of fixed, problematic patterns of behavior and the testing of new behaviors is continuously encouraged. Thus, the opportunity to work through current problems with the therapist or other group members, simultaneously allows one to work through issues from the past that influence their interactions in the present. Perhaps one of the most relevant of the therapeutic factors with regard to the homeless is the development of socializing techniques. As stated previously, the interpersonal relationships and interactions of this population are characterized by mistrust and avoidance. For these individuals lacking in intimate relationships, the group often provides one of the first opportunities for accurate and useful interpersonal feedback. This can be achieved directly, through role play, or indirectly, through creating an environment that is conducive to open feedback. In addition to the interpersonal benefits of group, the intrapsychic processes of each individual are also considered. Rutan and Stone (2001) indicate the group provides unique opportunities for the development of a variety of transference experiences between group members or between each group member and the therapist. The expression of these transferences allows for their interpretation and understanding.

There are many characteristics of the homeless and mentally ill that may present as obstacles to the use of group therapy as an effective treatment modality. For example, it can be difficult to engage these persons in the therapeutic process as they are preoccupied with survival needs and may be unable to form trusting relationships. In addition, difficulty regulating personal

boundaries is often at the core of their psychopathology. These individuals are likely to utilize immature defense mechanisms such as splitting and projection in order to protect themselves from re-experiencing emotional distress and trauma. Substance abuse among participants can also present a problem as it co-occurs with homelessness and mental illness quite frequently. In order for this mode of treatment to be effective, it is imperative for patients who struggle with substance abuse to remain abstinent while participating in group. It is also important that they receive treatment for problems with addiction in another setting in order to participate in group (Kanas, 2000).

Despite these obstacles, group therapy has been shown to be a viable and effective treatment option for patients with severe disturbances. For example, in a pilot study examining the feasibility of conducting a short-term therapy group for schizophrenic outpatients, findings suggest this population evidenced significant improvements with regard to social anxiety and distress. Participants subjectively rated their experience and indicated the group was helpful in improving their relations with others. Additionally, at four-month follow-up their general treatment status had remained stable (Kanas, Stewart, & Haney, 1988).

Group therapy has been shown to be effective for homeless people as well. A study examining the effects of group psychotherapy in a small sample of homeless patients found a significant decrease in depressive symptoms on the Beck Depression Inventory (BDI) and an increase in social support from friends at the end of the six month treatment. Moreover, out of the 24 participants who

completed the treatment program, two had secured full-time employment, four had obtained permanent housing, and three received disability benefits. These improvements were noted despite the participants' initial presentation as having a numb, disconnected, "schizoid" quality (Gonzalez et al, 2001).

Therapeutic Community for the Treatment of the Homeless

Although there have been many distinct ways in which the term therapeutic community has been used, the two main variations that have emerged have been the therapeutic community model rooted in classic psychiatry and the model designed for use in the treatment of addictions. These two models share, at their core, the fundamental elements of "community" as their primary treatment ingredient. This means that the environment of the therapeutic community maintains an informal communal atmosphere in which a sense of commonality is fostered and collective activities are facilitated. To that end, great importance is placed on group meetings in the community. These take the form of therapy groups, educational groups, recreational groups, and community group meetings. The use of group helps to increase the sense of cohesion among the residents while maximizing opportunities for the sharing of information and interpersonal learning. This group atmosphere also provides a vehicle for growth and change in which members exert pressure on one another and encourage each other in their efforts. Personality responsibility is emphasized in the therapeutic community as clear rules and procedures are followed and each member functions in a role that helps to maintain the daily operations of the facility. Additionally, social learning is emphasized as each

resident is recognized as an auxiliary therapist and/or role model who has the ability to effect change in themselves and others. Shared authority is also a common element of the therapeutic community as each member has some degree of decision-making authority regarding the day-to-day running of the community (Kennard, 1998).

While these are all common attributes in the practice of the therapeutic community, there are also common beliefs on which these communities are based. The first belief is one that is shared by most psychological treatment approaches, which is, an individual's difficulties are experienced in relation to other people (Clark, 1965 as cited in Kennard, 1998). Symptoms of a psychological disorder are seen as an outward expression of an inward emotional conflict regarding an individual's relations with others. This connection between psychological disturbance and an individual's relationships with others is the basis for the community component to this treatment approach. A second common belief is that therapy is essentially a learning process. For this reason, the therapeutic community provides opportunities for learning about oneself and learning skills for relating to others in an effective manner. A third common belief that characterizes the therapeutic community is the recognition of the equality of all members. This refers to both the belief that we should treat others as we would like to be treated and the belief that we all, professionals and non-professionals, share many of the same psychological processes. This belief stands in contrast to more traditional care settings, where patients and caregivers often adopt the complimentary roles of the helpless and the helper or the sick

and the well. It not only allows staff members to be open about feeling upset, anxious, or helpless, but also allows residents to display caring, creative, and competent attributes. It should be noted that while acknowledging the equality of staff and clients is important in this model of treatment, it is also crucial to maintain the necessary boundaries and differences in roles, an aspect which many staff members may find difficult. The final commonality among therapeutic communities is one that has both advantages and disadvantages. The existence of a strong moral or ideological aspect often contributes to a high level of enthusiasm and commitment among the staff and residents. It also goes a long way toward the installation of hope, which is important in any therapeutic endeavor. However, there is a risk of idealization of the community as the guardian of the "truth," which can manifest itself in a refusal to listen to criticism or acknowledge limitations. Striking a balance in this regard is important for any therapeutic community to be effective (Kennard, 1998).

For decades, the term "therapeutic community" has been used to describe a number of different types of settings. In the 1950's and 1960's any institution that was trying to improve the lot of its residents could be called a therapeutic community. At a time when the living conditions in mental institutions were being called into question and many were said to be inhumane, therapeutic community signaled the turning of a new leaf in providing patients with decent living conditions (Kennard, 1998).

The therapeutic community was actually first written about in 1946 by English psychiatrist and psychoanalyst, Tom Main. Over the next two decades

the definition evolved into a distinctive set of characteristics, which has been termed “therapeutic community proper,” to distinguish it from the general approach to the definition in earlier years. The hallmark of the therapeutic community proper is the democratic sharing of power by all members of the community, both staff and patients, including decisions that affect the operation of the community as well as the treatment of patients. Attempts are made to greatly minimize status differences in this model (Kennard, 1998).

In California, in 1958, another kind of therapeutic community was emerging under the organization of Charles Dederich, an ex-alcoholic and former member of Alcoholics Anonymous (AA). Dissatisfied with certain aspects of AA, Dederich founded Synanon, an organization that provided a place where ex-alcoholics and ex-drug addicts could live together and help each other in the struggle to maintain abstinence. Unlike the therapeutic communities developing in England at this time, Synanon was run by non-professionals and was characterized by a strictly enforced resident hierarchy and encounter groups involving regular, aggressive confrontation (Kennard, 1998).

Since its inception, the therapeutic community model has been applied in the treatment of several different populations, including individuals with substance abuse, prison inmates, the mentally ill, and the homeless. While each setting is unique and may require some degree of modification of the model, the quintessential elements of collective responsibility, citizenship, and empowerment, with the use of group and/or “community” as a vehicle for growth and change, remain the same.

The use of the therapeutic community in the treatment of addictions today is derived from Synanon. It is a drug-free modality that utilizes a social-psychological, self-help approach. In this model, substance abuse is seen as a disorder of the whole person and recovery is a self-help process of incremental learning toward a stable change in behavior, aided by the community, which serves as the primary "therapist" or "teacher." While most of the research literature on the therapeutic community and its effectiveness has focused on the long-term residential model or "traditional" therapeutic community for the treatment of personality disorders, a number of studies have evaluated the effectiveness of this approach in rehabilitating drug abusers. Research has documented a consistent positive relationship between time spent in a therapeutic community and posttreatment outcome status. For example, success rates (in terms of abstaining from drug use) at two years post-treatment have been found to be 90% for those who graduate or complete a therapeutic community program, whereas, those who dropout prior to one year have demonstrated success rates of only 25% (DeLeon, 1999).

Therapeutic communities utilized in the prison setting have demonstrated significant benefits, particularly when followed by continued treatment in a postprison aftercare or work release program. However, if has also been found that many inmates who complete a therapeutic community program in prison do not take advantage of this option, therefore decreasing many of the benefits of the prison-based treatment. One study examined the role of motivation in determining entry into aftercare among prison inmates. This study found a

significant interaction effect between motivation and treatment outcome. The interaction was said to represent a feedback loop, such that motivation has a direct effect on treatment alliance and participation, which then has a direct effect on treatment outcomes. This ability of motivation to predict outcome was supported even when environmental factors such as employment history, family support, and other social influences were controlled for. The study also found that variables such as criminal history and severity of substance abuse only exerted an indirect influence on posttreatment status through their influence on motivation. These findings suggest further research is necessary to determine the effects of motivation on treatment outcome, as well as the effects of adding a motivation enhancing component to therapeutic community programs. Strengthening motivation may serve to increase program retention, which is a factor for concern in many therapeutic community programs (Melnick, DeLeon, Thomas, Kressel, & Wexler, 2001).

Therapeutic communities have also been utilized among individuals with a dual diagnosis. Traditionally, substance abuse has been treated in a cursory manner in psychiatric settings, while mental illness has been overlooked in many substance abuse treatment settings. For this reason, one study compared the effectiveness of community residence programs with the effectiveness of therapeutic community programs in treating mentally ill chemical abusers. Community residence programs developed as an alternative to psychiatric hospitals and allow patients to commute daily and participate in treatment programs while maintaining contact with the outside world. These programs are

widely regarded as an effective alternative to inpatient treatment. This approach is in direct contrast to the therapeutic community approach in which all treatment is provided in-house and residents are somewhat insulated from the outside world. Both programs were modified to include substance abuse counseling as part of the treatment process. Clients were randomly referred to either treatment condition. The results of this study found that those in the therapeutic community programs were more likely to be drug-free and showed greater improvement in psychiatric symptoms than those in the community residences. These results are not without limitations as a high rate of attrition in both conditions may have compromised the experimental design. Likewise, the study is based on only males, limiting its generalizability. With regard to the high rate of attrition, It is important to note that severely depressed patients were likely to stay in the therapeutic community program, indicating improvements did not occur simply because the more impaired individuals left treatment (Nuttbrock, Rahav, Rivera, Ng-Mak, & Link, 1998).

Researchers have also examined the cost effectiveness of therapeutic community programs among the dually diagnosed. One such study divided a group of therapeutic community clients into completers (those who completed the program) and separaters (those who dropped out prematurely). They then performed a cost analysis comparing these two groups, as well as a group of treatment-as-usual clients. The results of this analysis indicated the total cost of a modified therapeutic community for completers are slightly lower than the total

cost for separaters or treatment-as-usual participants (McGeary, French, Sacks, McKendrick, & DeLeon, 2000).

Homeless mentally ill chemical abusers have been termed “triple disorder” clients by investigators. These clients represent a growing problematic subgroup among the homeless and place unique demands on the services providers involved in their care. For this reason, significant attention has been placed on the utility of therapeutic community programs as a treatment modality for this population. One study compared male and female homeless mentally ill chemical abuser clients who were sequentially assigned to either a therapeutic community program (TC) or a treatment-as-usual (TAU) group. Two therapeutic conditions (TC1 and TC2) were used, with one that was characterized by lower demands and greater staff guidance. Follow-up data was gathered at 12 months postbaseline and 2 years plus.

Results indicated completers of the TC group condition showed significantly greater behavioral improvement than the TAU clients at 12 month and 2 year follow-up. Moreover, the TC2 condition, with lower demands and greater staff guidance, was found to be superior to TC1 in terms of substance abuse and employment. Completers of both TC groups showed significantly more improvement than dropouts with regard to psychological symptoms, substance use, crime, employment, and HIV risk behavior (DeLeon, Sacks, Staines, & McKendrick, 2000).

Among the TC dropouts, time-in-treatment effects were found on several outcome measures at 12 months. However, these results did not persist at two-

year follow-up. This result is contrary to the well-documented relationship between retention length and post-treatment outcome in the literature (DeLeon, Sacks, Staines, & McKendrick, 2000). The need for more research in the area of program retention and outcome, as well as client predictors of outcome, is supported by these findings.

Purpose of the Current Study

Homelessness is a growing social problem that is multidetermined. Likewise the homeless are a heterogeneous population with diverse and complex problems. Frequently exacerbating the already harsh consequences of homelessness are the issues of mental illness and substance abuse. Compounding the problem is the high incidence of co-occurring mental illness and substance abuse. These individuals are also encumbered by significant deficits in interpersonal functioning and extreme disaffiliation from others. Until recently, many treatment approaches have targeted these problems separately. However, the heterogeneity of this population requires a multidisciplinary approach to effectively meet their treatment needs. DeLeon (DeLeon, Sacks, Staines, & McKendrick, 2000) agrees that a multidimensional treatment strategy is necessary for this diverse population. The insufficient social support network often available to these individuals and the personality factors that impede their functioning must be addressed in conjunction with the issues of mental illness and substance abuse.

Research examining the effectiveness of therapeutic community programs for the homeless and the dually diagnosed has been encouraging. As the needs

of this population are so diverse, consisting of a wide range of complex social and psychological problems, many therapeutic community programs have been modified in some way to tailor this type of treatment to the specific needs of its residents. Studies have demonstrated the effectiveness of many of these modified programs, citing improvements with regard to psychiatric symptomatology, drug use, and criminality.

The therapeutic community at Austin Street is one such program that has been modified in order to meet the needs of its clients. The program addresses mental health issues, substance abuse, and occupational issues in a group context that facilitates improved interactions with others and the development of trusting relationships. Previous research regarding the therapeutic community program at Austin Street demonstrated the utility of this comprehensive group-based therapeutic community for the homeless. Significant improvements were found in program participants with regard to overall distress, psychiatric symptoms, and substance abuse relative to controls from the general shelter population who did not participate in the TCP. Although significant improvements were not seen initially in interpersonal relatedness, they were found at 6-month follow-up.

As the attrition rate was high in the previous study at Austin Street, this study aims to provide a preliminary investigation into those factors that positively and negatively affect retention in the therapeutic community program. Research literature regarding factors that affect program retention in therapeutic communities is limited thus far. However, a firm relationship has been

established between time spent in treatment and successful outcome (DeLeon, 1999). The literature that currently exists has demonstrated dropout rates of 30 to 40 percent in the first 30 days of admission to therapeutic communities. Moreover, completion rates average only 10 to 20 percent for these programs. Studies examining predictors of dropout have found severe criminality and severe psychopathology to be correlated with earlier dropout. Additionally, some investigators have pointed to the importance of motivation and treatment readiness in improving retention. Still, others have attempted to enhance program retention using several different methods. These methods include supportive individual counseling, improved orientation to treatment by experienced staff, and implementing family alliance strategies. These efforts have shown inconclusive, albeit promising, results (DeLeon, 1999).

The current study aims to identify various client characteristics and their impact on time spent in treatment as well as their impact on treatment outcome. This study will focus on the following characteristics: 1) severity of psychiatric symptomatology; 2) personality style; 3) interpersonal/social functioning and social support; and 4) substance abuse. Lending support to the results of the previous study at Austin Street, it is expected that a reduction in psychiatric symptoms and substance abuse will be demonstrated over time among TCPG participants as compared to their control group counterparts. Likewise, a greater improvement in interpersonal skills over time is anticipated for program participants, further supporting previous findings. In addition, it is expected that distinct personality style patterns will be identified that will serve as predictors of

program outcome and retention. With regard to social support, greater program retention and improvements on social and psychological variables are expected for those program participants with higher levels of perceived support. Moreover, it is expected that those participants with substance abuse disorders will demonstrate lower levels of perceived support and thus, will show less improvement relative to those without substance abuse.

Hypotheses

Participants in the therapeutic community treatment group (TCPG) have been evaluated at intake, as well as, 6-week, 3-month, and 6-month follow-ups. Changes across follow-up evaluations will be examined within this group. The group of program participants will also be compared to a group of controls (CG) consisting of general shelter residents who have opted not to participate in the TCPG. Additionally, comparisons will be made between subgroups within the TCPG based on personality characteristics, severity of psychiatric symptoms, perceived social support, and substance abuse.

1. Psychiatric Symptoms
    a. The first experimental hypothesis states subjects in the TCPG will evidence a lesser degree of psychiatric symptoms, over time, as measured by the Outcome Questionnaire (OQ) at 6-week, 3-month, and 6-month follow-ups compared to the CG.
    b. In addition, it is expected that TCPG participants who remain in the program or terminate prematurely for positive reasons will demonstrate a greater reduction in psychiatric symptoms, as measured by the OQ and BPRS, when compared to participants who terminate prematurely for negative reasons.
2. Social Support and Interpersonal Relationships
    a. The second experimental hypothesis states subjects in the TCPG will show a lesser degree of problems in interpersonal relationships

and greater perceived support, over time, as measured by the OQ at 6-week, 3-month, and 6-month follow-ups compared to the CG.

b. Additionally, higher levels of perceived support, as measured by the ISEL, are anticipated for those TCPG participants who remain in the program or terminate for positive reasons when compared to those who terminate prematurely for negative reasons.

3. Social Role

The third experimental hypothesis states that subjects in the TCPG will evidence fewer problems with regard to social role, as measured by the OQ, at 6-week, 3-month, and 6-month follow-ups, compared to the CG.

4. Substance Abuse

a. The fourth experimental hypothesis states participants in the TCPG will demonstrate fewer problems with regard to substance abuse, as measured by the Substance Abuse Subtle Screening Inventory-Third edition (SASSI-3), at 6-week, 3-month, and 6-month follow-ups, compared to the CG.

b. In addition, those TCPG participants who maintain program status or terminate for positive reasons will evidence greater improvement and a lesser severity of substance abuse, as measured by the SASSI-3, when compared to those participants who terminate prematurely for negative reasons.

c. Finally, an indirect relationship is expected between substance abuse and perceived social support, such that, those who evidence more severe substance abuse will also demonstrate lower levels of perceived support.

5. Personality Style

a. The fifth experimental hypothesis states distinct personality style patterns will be evidenced, using the Millon Clinical Mutiaxial Inventory- third edition (MCMI-III).

b. Additionally, it is expected that these personality style patterns will provide valuable information that will aid in the ability to predict outcome on both social and psychological variables.

METHOD

Austin Street Centre

In order to fully understand the methodology of the current study, it is important to become familiar with the therapeutic community program (TCP) at Austin Street Centre (ASC). The evolution of ASC from a simple shelter into a comprehensive therapeutic community program has been a process that has required much dedication and perseverance. Since its inception in 1983 until Reverend Bubba Dailey became acting director in 1997, the physical condition of the shelter had improved tremendously, though it remained a fairly austere space where individuals were assured a safe, clean place to sleep, get a hot shower, and eat a hot meal. When Bubba assumed full responsibility for the day-to-day operation of the shelter, she began to advocate for many changes that would improve the shelter and its ability to serve the many homeless in the area. With the help of Reverend Harry Dailey, her husband and co-executive director of ASC, she changed the overall atmosphere of the shelter. For example, the Daileys convinced the board of directors to install air-conditioning in the building and obtain cots on which the residents could sleep. She also secured towels for the residents of ASC through a donation from a local Catholic church. Until that point, residents had to drip dry after taking a shower and sleep on the floor in unregulated temperatures. The previous director had considered such things a luxury for residents and feared they might become too comfortable with their surroundings if provided these luxuries. The Daileys, however, held a strong conviction in a belief that the homeless, like everyone else should be treated with

respect and allowed to live a dignified existence. In their autobiography, Heaven Sent, written by Russ Pate, Bubba observes, “our philosophy is to treat everyone like a person.”

In addition to these improvements to the shelter, the Daileys facilitated the development of ASC’s mental health program, which was generated and supervised by Joel Feiner, a local psychiatrist specializing in community mental health issues, and Melissa Black, a local psychologist specializing in group and individual psychotherapy. The program, which operated from a psychosocial rehabilitation perspective, gradually broadened to encompass case management, group therapy, substance abuse counseling, and medication prescription and management, in addition to vocational training and recreational activities. These services were specifically tailored to the unique needs of the ASC population and emphasis was placed on helping residents cope with their mental and emotional problems, regain their self-esteem, and develop interpersonal skills. The program has utilized several levels of mental health trainees, from master’s and doctoral students in psychology to psychiatry residents.

Today, the TCP at ASC is a comprehensive program serving a growing and diverse population. It is based on the principal elements of the therapeutic community previously mentioned. This includes an informal and communal atmosphere, with group as the primary treatment modality. Shared responsibility and authority are emphasized and each person plays a role in the day-to-day running of the shelter. Each individual’s potential is recognized and they are

encouraged to play a therapeutic role in each others' lives. A sense of attachment, containment, and safety are fostered in this environment. Additionally, communication and involvement are encouraged, facilitating a sense of agency and/or empowerment within each resident.

Because the homeless continue to be a diverse and heterogeneous population, it can be difficult to generalize defining characteristics of this population and determine the best way to modify the program in order to meet their needs. However, there are certain commonalities among the homeless, which helped give a particular direction to the program. These common experiences involve issues of attachment and trust.

Our early experiences of attachment are believed to influence the development of our sense of self in relation to those around us. All of us begin our lives physically attached to our mothers. After birth, this physiological connection is lost and must be replaced by an emotional attachment. To the degree that this process of loss is successfully endured and the emotional bond that ensues is secure, an individual is able to grow and develop a healthy sense of self and others. This allows the person to develop affect regulation strategies that will help them successfully negotiate life's vicissitudes. Attachment theory research clearly demonstrates that if the emotional bond that develops between infant and primary caregiver is not secure, neither is the adult who grows from it (Haigh, 1999). If the deficiency of one's emotional attachment is severe enough, a diagnosis of a personality disorder when the person reaches adulthood is likely. Attachment theorists posit that insecure attachment results from interactions that

cause one to think of others as inaccessible, unresponsive, and untrustworthy. The coping strategies one develops as an infant, to manage the anxiety surrounding their initial attachment relationships, often continue into adulthood.

As mentioned previously, there is a significant body of research that indicates many homeless individuals, people who abuse substances, and mentally ill adults, come from severely disadvantaged backgrounds. Often their childhoods are fraught with traumatic experiences such as abuse and/or neglect, or they are characterized by hostility or abandonment. Due to these unsatisfactory relationships, attachment becomes something that is simultaneously sought after and feared. Many of these individuals display ambivalence toward forming meaningful relationships and have difficulty trusting others.

The TCP at ASC provides the unique opportunity to relearn these developmental lessons in a secure, supportive environment. Helping someone learn to trust is something that takes times and must be experienced first hand. It cannot be taught didactically. The environment at ASC is setup to provide clients with a sense of safety and containment, using firm boundaries paired with the tolerance and acceptance of emotion. Clients are encouraged to explore their emotions in therapy groups and learn prosocial ways of expressing those emotions.

Each of the participants in the TCP are assigned a job or set of duties that contribute to the running of the shelter. The extent of diversity at ASC is great, ranging from an individual who is mildly mentally retarded, to someone who has

suffered brain damage secondary to excessive drug use, to a college graduate whose problems with alcohol and or drugs has led to a downward spiral. However, there are also a range of responsibilities at the Centre, each as important in running the shelter as the next. For example, these jobs include performing intake and security duties when the 400 plus individuals enter the general shelter in the evening, assigning cots to the general shelter patrons, kitchen duties, clean-up, clerical work, laundry, picking up donations, and working at the thrift store.

In addition to the responsibilities given to each participant, there are also privileges that come with participating in the program. For example, whereas most residents have to vacate the shelter during daytime hours (6:30 am to 11 am for women and 6:30 am to 4 pm for men), packing up their bedrolls and things each morning and placing them in storage outside or carrying them with them, program participants are allowed to stay inside during the day, whether or not they are working and can keep their things inside with them. The obvious benefit of staying out of the extreme heat during the summer, extreme cold during the winter, rain, or snow are attractive and desirable to most shelter residents. In addition, program participants are provided a lunch at the shelter, whereas other residents are only provided breakfast and dinner. Program participants also have kitchen privileges that others do not enjoy, such as space in the staff refrigerator for keeping snacks and drinks, etc.

A typical day in the life of a program participant would involve getting up at 5:30 or 5:45 in the morning, using the shower facilities, having breakfast and then

going to work. There are a number of duties assigned to program participants, which were outlined previously. Three days a week Chapel services are offered at 9:30 am to all residents, so program participants are allowed to take a break from their work to attend Chapel. After the service is over, a program participant would have lunch and then return to their duties. One day a week, they may be assigned to a therapy group, which would likely occur in the morning at either 7 am or 10:30 am. In addition, two mornings a week, a Chemical Dependency (CD) group is offered at 9:30 am and the individual may be required to attend one of these groups. If it is their day off or if their work is done for the day, they can participate in a recreational activity, provided weekly by different groups outside the shelter. For example, one afternoon a month, a local school group comes in to play bingo with the shelter residents, with small prizes being offered to winners.

If an individual needs to attend to a personal matter, passes are given upon request to program participants who need to leave for the day or the weekend. A medical van provided by HOMES (Homeless Outreach Medical Services) of Dallas, a Parkland program, comes to ASC once a week to provide free medical care to residents on a first come first serve basis. Program participants are always allowed time off from their work duties to attend to their medical needs.

At 4:00 pm, the majority of shelter residents arrive and go through the intake process. A program participant may be involved in this process in a number of ways. For example, the individual may be responsible for assigning

cots, performing security during this time or performing the intake for each person. There are over 400 individuals staying in the shelter each night, so it takes a number of program staff to help this process run smoothly. After residents are brought in they are allowed to use the showers and then dinner is served.

After a full day of work and therapy groups, etc. a program participant would likely have dinner, then perhaps watch some T.V. or hang out with friends in the T.V. area and then retire to bed around 10 pm.

A somewhat prototypical example of an ASC resident can be found in a man named John, a 50-year-old Caucasian male. John was born to an intact family with two siblings. His family moved around frequently because of his father's unstable job situation. While he denied experiencing abuse as a child, his father was an alcoholic and John's relationship with his mother was quite strained, as she was a very demanding and critical person. Although John finished high school, he did not excel in any particular area and barely did enough to get by. Throughout his adult life, he has attempted many different career paths from working in the field of mechanical engineering to owning his own landscaping business. As a young adult, John could depend on his father if things didn't work out financially. However, his father died when John was 22-years-old and his mother wasn't quite as supportive. John's alcohol use began at the age of 18, but he began drinking heavily after his father died. Around the same time, his marriage of 2 years began to dissolve and his landscaping business was failing. This led to a downward spiral of continuous alcohol abuse

and unemployment for John, which resulted in him becoming homeless by the age of 30. Since that time he has worked many odd jobs and has lived with several different women for varying periods of time. His most recent relationship lasted four years. He and his girlfriend both worked at a diner in West Dallas and lived together until the relationship ended 2 years ago as a result of his continued alcohol abuse and his losing his job at the diner. Over the years John has been cited for several DWI's, criminal trespassing, and a domestic disturbance, all of which were related to his alcohol abuse. John has also attended AA meetings on several different occasions over the past twenty years. Since the dissolution of his last relationship 2 years ago, John has moved from shelter to shelter, learning to lay low and keep quiet to avoid trouble. He finally settled at ASC, at first just sleeping in the shelter at night and then either wandering the streets by day or doing day labor to earn some money to support his drinking habit. After about six months, he approached Harry Dailey and asked about the program at ASC. After this discussion, he joined the TCP and began working as a custodian at the shelter. He also began attending various groups as dictated by the program, including a weekly therapy group and bi-weekly evening AA meetings. He also began to take part in some the recreational activities offered at the shelter, such as playing bingo. John slowly began to make friends at the shelter, although he remained a quiet unobtrusive person.

What will ultimately happen to John is difficult to say. He left the program prematurely to live with a woman he began seeing while at the shelter. As evidenced by his past, he will likely return to the shelter once this relationship

ends and may do this several times. As is typical of many of the men and women in the shelter, his story will most likely not have a triumphant or a tragic ending. Rather, John is a person who needs to develop trust and feel a secure sense of belonging and he will continue to test that in his relationships both inside and outside of ASC.

The challenge for the staff and service providers at ASC is to accept that this is a difficult part of the work that is done at the shelter, and to try to understand the social structures and the institutional resistances that continuously keep people from benefiting from the services they so desperately need. Thus, it is really up to those of us who work with John and others like him to gain an understanding of their issues and try to find a way to reach them, rather than expecting them to conform to our program structure.

The ideal trajectory for an ASC client is one that culminates in reintegration into society and securing stable housing. It begins with an individual who has been staying at the overnight shelter for some time showing interest in performing a job assignment or volunteering for a particular task or tasks. If that individual displays an ability to perform the tasks satisfactorily they are assigned to a pre-group. Here, their ability to tolerate the unstructured nature of the group process is evaluated as well as their willingness to participate fully in all program components. The individual is then evaluated by a member of the treatment team. This evaluation is used to aid the treatment team in determining the optimal treatment plan for this individual. The client is then assigned to an ongoing group or groups and given more responsibility within the shelter. The

individual is given ongoing case management to follow their progress and help them along the way with any issues they may have. After a period of time that varies according to each client, the individual would have the opportunity to move up to employee status and move into transitional housing and eventually permanent housing outside the shelter.

The TCP at ASC is implemented by a small staff consisting of two co-executive directors, a social worker, a psychiatrist, a psychologist, a chemical dependency counselor, one doctoral level psychology intern, and two masters level psychology interns. The program consists of 35-40 participants with a variety of needs. Each week the staff meets to evaluate the ever-changing needs of the participants and formulate treatment plans accordingly. For example, a male recovering from substance abuse may be assigned to a general psychosocial therapy group as well as a chemical dependency (CD) group, whereas a female with no history of substance abuse may be assigned to a women's group and a general group. In addition, a variety of other community activities are offered such as life skills training, bingo, exercise groups, and outings that are arranged by the clients. There is a sense of cohesion that has developed over time among shelter residents and staff as they are all working toward a common goal. Fostering this connection helps mitigate the intense mistrust that often impedes the therapeutic process.

Participants

The current study utilized male and female adult client staff residents who participated in the Therapeutic Community Program at Austin Street Centre of

Dallas, Texas from August 2003 to May 2006. ASC houses 450+ men, women, and children on a daily basis, with a particular focus on adult males age 40 and over. This subgroup of the homeless are of particular concern because of their vulnerability to victimization, both in shelters and on the streets, their fragility due to poor mental and physical health, and the reluctance of traditional senior service systems to incorporate them into ongoing programs. For this reason, the majority of TCPG participants in this study were male (79.5%) with a mean age of 52. The remaining 20.5% of study participants were female with a mean age of 48. The fact that this study sample consists of primarily males is also consistent with the gender approximations for this population available in the literature. Studies suggest about 70% of the homeless population are male, while 30% are female (Toro & Warren, 1999). The study sample consisted of 66% Caucasian, 33% African American, and 1% Other clients.

Data from the previous study at ASC were also analyzed in combination with the newly collected data in order to increase statistical power. This data was collected by Laura McCracken, Ph.D. for her dissertation research. Participants from the previous study were likewise recruited from the male and female adult residents of ASC who participated in the TCPG from August 2001 to May 2003. This group was comprised of 75% Caucasian, and 25% African American residents. The majority of these participants were also male (78.1%), with a mean age of 49.53 years for male and female participants in the study.

In addition, a group of controls was utilized, consisting of people from the general homeless population in the overnight shelter from August 2001 to May

2003 who did not avail themselves of the TCP services available to them. This data was also collected by Laura McCracken, Ph.D. for comparison with the program participants in her study. The individuals in this group were approximately matched to subjects in the TCPG. Comparison group participants were compensated $10 for their participation if they completed the assessments at intake, 6-weeks, and 3-months. Pizza was also provided during group assessment sessions. Participants in the comparison group were primarily male (83.3%). The mean age for both male and female subjects was 53.13. The racial makeup of this sample was 50% Caucasian, 46.7% African American, and 3.3% Hispanic. As these subjects as well as the subjects who participated in the previous study were recruited at an earlier time period than the TCPG participants in the current study, only partial data is available for these groups. No data is available for the comparison group or the previous study group on the Millon Clinical Multiaxial Inventory, third edition (MCMI-III), the Interpersonal Support Evaluation List (ISEL), or the Brief Psychiatric Rating Scale (BPRS).

No rigid inclusion or exclusion criteria were in place for participation in this study or the previous study, as there are no strict rules on who is allowed to participate in the TCP at ASC. While abstinence from drugs and alcohol was a requirement for participation in the TCP, relapses were tolerated and often became part of the therapeutic process in therapy groups. Participation in the study was completely voluntary. Subjects represented a heterogeneous sample with regard to marital status, education, physical health, and DSM-IV diagnoses. The majority of participants demonstrated a reading level that was sufficient to

read and answer the questionnaires administered on their own. Only two participants could not read and had to have the questionnaires read aloud to them by the examiner. These individuals were informed of the personal nature of many of the questions being asked prior to reading the questionnaire aloud to them and were reminded that participation in the study is completely voluntary.

Procedure

Participants in the TCPG were identified from the general shelter population. Placement in the TCP was typically initiated by interest on the part of the client to participate and contribute to shelter responsibilities in some capacity, as well as, share in the privileges enjoyed by program participants. Residents were allowed to enter into the program based on their desire to participate and their observed potential to participate fully in each of the program's components.

Initially, each participant was placed in a pre-psychosocial group where their ability to tolerate the unstructured nature of a psychosocial group and interact appropriately with other members was assessed. After a period of observation, typically two to three weeks, each participant underwent an evaluation consisting of a clinical interview and a mental status exam. Participants were then asked to consent to participate in the research project, and informed that participation was voluntary and had no bearing on their position in the program.

Those clients who refused to participate in the research continued to participate in the TCP as usual, performing the duties assigned them and attending groups and other programming. A wide range of job responsibilities

were available in the TCP at ASC. This ensured that clients of various levels of cognitive, psychological, and occupational functioning had opportunities to contribute.

Initial Assessment. Those clients who consented to participate in the research were administered several paper and pencil measures to assess their current level of substance use, psychiatric symptoms, social/interpersonal functioning, occupational functioning, and personality style. Subjects were given the Outcome Questionnaire (Lambert, 1996), which is specifically designed to measure progress over time through repeated administrations with regard to psychiatric symptoms, social role functioning, and interpersonal relatedness. Participants were also given the Millon Clinical Multiaxial Inventory, third edition (MCMI-III) (Millon, 1994). This is a self-report personality measure that can be used to assist clinicians in developing a treatment approach that takes into account the patient's personality style and coping behavior. Subjects also completed a measure of perceived social support called the Interpersonal Support Evaluation List (ISEL). Additionally, participants were administered the Substance Abuse Subtle Screening Instrument-third edition (SASSI-3) to determine history and presence of substance abuse as well as degree of defensiveness and risk for substance abuse. As in the previous study, occupational functioning was determined based on the self-report and observer versions of the Work Personality Profile (WPP) (Bolton & Roessler, 1986). In addition to these measures, the Brief Psychiatric Rating Scale (BPRS) was filled out by the clinician administering the initial clinical interview and observational

data was gathered from staff and administrators, and participation in group therapies and other treatments was monitored to help determine each individual's level of social/interpersonal functioning.

6-week, 3-month, and 6-month Follow-up Assessments. At 6-weeks, 3-months, and 6-months, each participant was asked to fill out the OQ, SASSI-3, MCMI-III, ISEL, and the self-report version of the WPP. The vocational coordinator also completed the observer report of the WPP. At this time, changes in clinician ratings on the BPRS were noted as well.

Program Attrition. As attrition is high among this population, participants frequently terminated prematurely from the program. For these participants, reasons for termination were noted, creating a variable for analyzing outcome based on positive or negative termination. Positive outcome included maintaining program status or terminating prematurely for positive reasons such as reintegrating into the workforce, reuniting with family members, and/or moving into an appropriate social service setting. Negative outcomes consisted of terminating prematurely for negative reasons such as drug or alcohol relapse or involuntary termination from the program or the shelter due to blatant rule violations, assaultive behavior, or inability to function in any work task.

Measures

Informed Consent Form. Prior to consenting to participate, each subject was offered an explanation of the purpose of the study and a brief description of the study. The precepts of confidentiality were also explained in detail. The

consent form also provided information on the purpose and description of the study, as well as confidentiality.

The Outcome Questionnaire (OQ). The OQ is a self-report measure designed to assess patient progress in treatment and was developed by Umphress, Lambert, Smart, Barlow, Clouse, and Hansen in 1977. It consists of 45 items on which participants rate their responses on a five-point Likert scale (0-4), with nine items that are scored in reverse. Progress is measured along several dimensions, including subjective symptom distress, interpersonal relationships, and social role performance. These areas of functioning represent a continuum regarding how the person feels intrapsychically, how they are getting along with others who hold significance in their lives, and how they are performing on important life tasks, such as school and work. Common symptoms are assessed across a wide range of adult mental disorders and syndromes that may be a focus of clinical attention.

The cut-off scores on the OQ total score scale and the subscales compare patient and non-patient samples. Higher scores are generally correlated with patient samples, while scores below the cut-off are associated with community samples. The Total Score scale has a cut-off score of 63. A subject scoring above 63 on this scale is likely experiencing numerous symptoms of distress, such as stress, anxiety, depression, and somatic problems, as well as interpersonal difficulties, problems regarding their social role, and a lower quality of life.

The Symptom Distress subscale has a cut-off score of 36. Higher scores on this subscale are indicative of the presence of a larger number of symptoms associated with anxiety disorders, affective disorders, adjustment disorders, and stress-related illness. The Interpersonal Relatedness subscale has a cut-off score of 15 and assesses patients' level of satisfaction in relationships. The Social Role subscale has a cut-off score of 12 and assesses the level of distress one is experiencing with regard to their social roles, particularly at work. Higher scores on this subscale suggest the presence of conflicts at work, feeling overworked, and feeling inefficient in one's social roles.

The OQ has demonstrated adequate reliability, as well as high concurrent validity with a wide variety of measures designed to assess similar variables. Test-retest reliability has been examined using a sample of undergraduate students and a sample of clinical patients. A reliability score of .84 was established for the undergraduate sample, while a score of .93 was established for the clinical population. Internal consistency for both populations was found to be .93.

Substance Abuse Subtle Screening Inventory-Third Edition (SASSI-3).

The SASSI-3, developed by Miller (1988), is a brief screening measure used to identify individuals with a high probability of having a substance dependence disorder. It consists of face-valid questions directly related to alcohol and drug use, as well as true/false questions that appear unrelated to substance abuse, but are designed to identify individuals with alcohol or drug problems regardless of efforts to underdisclose symptoms associated with these problems.

The SASSI-3 consists of ten subscales, eight of which are produced by the subtle true/false questions, while the other two are derived from the face-valid questions. These subscales are the Face-Valid Alcohol and Face-Valid Drugs scales, and the Symptoms, Obvious Attributes, Subtle Attributes, Defensiveness, Supplemental Addiction Measure, Family vs. Controls, Correctional, and Random Answering Pattern scales. In addition to these subscale scores, an objective score is calculated, which yields a yes or no regarding whether or not the client has a high probability of having a substance dependence disorder. Overall, the SASSI-3 decision rules identify substance dependence disorder with an empirically tested accuracy of 94%. It has also demonstrated a 93% accuracy in identifying those who do not have a substance dependence disorder.

Work Personality Profile (WPP). The WPP, developed by Bolton and Roessler (1986), is a 58-item measure designed to assess a client's work performance and identify deficiencies that may prevent the client from obtaining employment or meeting critical work requirements needed to maintain employment. The instrument consists of items on which a work supervisor rates subjects' work performance on a Likert scale from 1 to 4, where a 4 represents a definite strength, a 3 represents adequate performance, 2 represents inconsistent performance, 1 represents a problem area, and X indicates a lack of opportunity to observe the clients behavior in this area. The 58 items are then used to derive eleven rationally developed categories of work performance and five factor analytically developed scales. The five scales include task orientation, social skills, work motivation, work conformance, and personal presentation.

Internal consistency has been established for the WPP with reliability coefficients ranging from .71 to .92 with a median value of .84. Reliability coefficients for the five factor scales range from .83 to .91 with a median of .89. Interrater reliability has been established with median coefficients ranging from .48 for the eleven work categories to .56 for the five factor scales. Predictive validity was analyzed for five different service outcome groups demonstrating the WPP as a valid measure of clients' work potential.

Millon Clinical Multiaxial Inventory, Third edition (MCMI-III). The MCMI was developed by Theodore Millon in 1977 and was revised in collaboration with numerous clinicians and researchers in response to changes in the diagnostic criteria in the DSM-IV and conceptual developments in Millon's theory of personality, resulting in the MCMI-III. It is a self-report measure designed to assess a wide range of attributes related to a client's personality, emotional adjustment and coping behaviors, and attitude toward test taking. It was also designed to assist in the diagnosis of Axis II disorders. It consists of 175 items, which are scored to yield ten basic personality scales (Axis II), three severe personality pathology scales (Axis II), six moderately severe clinical syndrome scales (Axis I), and three markedly severe clinical syndrome scales (Axis I). Base rate scores are used as the syndromes measured by this instrument are not normally distributed and do not have equal prevalence in patient populations. Base rate scores above 75 indicate "presence" of traits for Axis II disorders, while base rates above 85 indicate "prominence" of Axis II disorders.

Measures of internal consistency have been very strong for the MCMI-III with reliability coefficients of .80 for 20 of the 26 scales. In addition, test-retest reliability has been shown to be moderate to high with scores of .91 demonstrated for the clinical scales with an interval of five to fourteen days and .89 for the personality scales with the same interval. Although more studies are needed to establish the validity of this version of the MCMI, current studies have demonstrated validity scores of .70 for all scales.

Brief Psychiatric Rating Scale (BPRS). The BPRS, developed by Overall and Gorham (1962), is a semi-structured, observational interview designed to be a highly efficient, rapid evaluation procedure to assess treatment change in psychiatric symptoms and yield a relatively comprehensive profile of psychopathology. It consists of eighteen symptom constructs rated on a seven point severity scale ranging from “not present” to “extremely severe.” An overall total pathology score can be obtained by summing all the ratings on the BPRS constructs. This score is recommended for evaluation of patient change during treatment.

Hedlund and Vieweg (1980) analyzed 13 studies utilizing the BPRS that reported reliability coefficients. For the eighteen constructs, median correlations ranged from .63 to .88, and .73 to .95 for the combined ratings of two raters. The correlation for the total pathology score was estimated at .85.

The BPRS change scores have been consistently reflected in treatment changes and collaborated by other clinical ratings. In general, the BPRS has demonstrated adequate interrater reliability and has been shown to be a

sensitive and effective measure of psychopathology and treatment-related symptom change.

Interpersonal Support Evaluation List (ISEL). The ISEL, developed by Cohen and Hoberman (1983), is a multidimensional, self-report inventory used to evaluate the impact of perceived availability of social support resources on health and well-being. It consists of four subscales composed of ten true/false questions in each of the following categories: 1) Belonging, 2) Appraisal, 3) Self-esteem, and 4) Tangible. In addition, a total response score is calculated with a higher total response score indicating greater perceived social support. The four subscales correspond to four dimensions believed to be involved in social support. The Belonging scale provides a measure of a sense of connection or embeddedness within a group. The Appraisal scale measures the amount of informational support (information and advice given by others), as well as, validation and affirmation that is perceived available to an individual. The Self-Esteem scale measures the availability of a positive comparison when comparing one's self to others. Finally, the Tangible subscale provides a measure of the amount of instrumental support (goods and services) available to an individual.

Adequate internal reliability has been demonstrated for the ISEL, with alpha coefficients ranging from .88 to .90 for the total ISEL score. Test-retest correlations for the ISEL total score has been shown to be .70. Adequate validity has also been demonstrated for the ISEL as a measure of one's perceived social network.

Statistical Analyses

This study utilized a number of different statistical approaches in an effort to better understand the complex nature of the relationship between program participation, client characteristics, and outcome with regard to social and psychological variables. Statistics were computed using SAS Version 9.0. Given the small sample size utilized in this study, power analyses were performed to indicate adequate sample sizes for future research. It should be noted that a large number of statistical analyses were performed, which may have increased the probability of a Type I error. However, due to the preliminary nature of these results, it was deemed appropriate not to impose an overly stringent statistical correction factor to ensure all possible relationships could be uncovered to be studied further in future research. Therefore, the alpha level for all analyses was set at 0.05.

A series of t-tests (for continuous variables) and chi-square analyses (for categorical variables) were conducted in order to detect and analyze any measurement or sampling bias. Likewise, t-tests and chi-square analyses were utilized to examine the relationship between continuous and categorical variables at intake and outcome for each participant. Additionally, one-way repeated-measures analyses of variance were computed in order to determine changes over time with regard to social and psychological continuous or quantitative variables. Chi-square analyses were computed for categorical or qualitative variables to determine changes over time. In those cases where the expected value of each cell size was too small to examine the significance of the

association between variables using chi-square analysis, a Fisher's exact test was substituted. Additional exploratory analyses using logistic regression were performed to determine which client characteristics could best predict outcome.

In addition, a K-Means Cluster Analysis was computed for the MCMI-III to determine distinct personality profile groupings for this sample of homeless individuals. This procedure was utilized because of the large number of variables contained in the MCMI-III. The distinct profiles that emerged were then analyzed using linear regression to determine if they serve as predictors of outcome on any of the social or psychological variables mentioned above.

RESULTS

Descriptive Statistics and Preliminary Analyses

When data collected from the current study was combined with data from the previous study, a total of 75 program participants (TCPG) were available for comparison to 30 controls (CG). Descriptive statistics were performed on these groups and are presented in Table 1. The TCPG consisted of 78.67% males and 21.33% females, while the CG consisted of 83.33% males and 16.67% females. The mean age for subjects in the TCPG was 50.12 years (SD=8.76) with a mean education level of 11.94 years (SD=2.72). In the CG, the mean age was 53.13 years (SD=7.38) with a mean education level of 10.93 years (SD=2.05). Seventy percent of the subjects in the TCPG were Caucasian, 29% were African-American, and 1% were classified as Other. In the CG, 50% of the subjects were Caucasian, 46.7% were African American, and 3.3% were Hispanic. Analyses of these data found no significant differences between the groups with regard to age, gender, ethnicity, or education. Independent samples t-tests revealed no differences for age, $t(103) = 1.66$, $p=.10$, or education level, $t(103) = -1.84$, $p=.07$. Chi-square analyses displayed no significant differences between the two groups with regard to ethnicity, X^2 (2, N=105) =5.31, $p=.07$ or gender, X^2 (2, N=105) = .29, $p=.59$.

In order to rule out sampling bias and reduce statistical noise, Chi-square analyses were conducted to determine if a significant difference existed among outcomes by gender, or ethnicity. Fortunately, these analyses revealed no

significant differences among outcomes for different ethnic groups (separated into two groups, white and non-white, for the purpose of this analysis), X^2 (2, N=72) = 2.17, p=.14. With regard to gender, it was discovered that 93.75% of females in the TCPG had a positive outcome, whereas only 57.14% of males in the sample had a positive outcome. Chi-square analyses revealed this difference is statistically significant, X^2 (2, N=72) = 7.36, p=.01, suggesting females fare better in the program than males do (See Table 2). This finding was explored further and will be discussed in the Exploratory Analyses section of the Results chapter.

In order to determine if a significant difference existed among outcomes by age, an independent samples t-test was conducted. This analysis uncovered a significant difference in the average age of those with a positive outcome (48.26 years) compared to those with a negative outcome (53.08), t(87)=-2.83, p=.01, which suggests younger individuals are more likely to benefit from the program (See Table 3). This finding was explored further and will be discussed in the Exploratory Analyses section of the Results chapter.

Because data from two time periods were combined, it was important to determine if significant differences existed among the outcomes for the two TCPG groups. To that end, Chi-square analyses were computed and revealed the differences in outcome among the two groups were not statistically significant, X^2 (2, N=72) = .001, p=.97 (See Table 4).

Due to the well documented and considerable rate of attrition among this population, the sample size at 6 month follow-up was quite small(N=14).

Including this data in the overall analyses created a high potential for misrepresentation of the data. Therefore, they were not included in the analyses and will not be included in the results reported here. Initial assessment data, 6 week, and 3 month data were analyzed and will be reported for comparison of the TCPG and CG as well as within group comparisons.

Research Hypotheses

Psychiatric Symptoms. The first hypothesis stated subjects in the TCPG would evidence a lesser degree of psychiatric symptoms after a period of time in the program, as measured by the OQ, when compared to the CG at the same time period. The OQ Total score and the Symptom Distress scale score from the OQ were used in these analyses. Independent samples t tests revealed there were no significant differences between the TCPG and CG at baseline on either the OQ Total ($t(103)=.50$, $p=.62$) or the Symptom Distress scale ($t(103)=-.65$, $p=.52$) (See Table 5). While statistically the differences among these groups at 6 week and 3 month follow-up were not significant, when plotted on a graph as in Tables 2 and 3, one can see a greater reduction in symptoms and symptom distress for participants in the TCPG than for the CG subjects (See Figures 1 & 2).

In the second hypothesis regarding psychiatric symptoms, TCPG participants who remained in the program or terminated for positive reasons were expected to demonstrate a greater reduction in symptoms and symptom distress compared to those who terminated prematurely for negative reasons. The OQ

Total score and Symptom Distress Scale score were also used to make this comparison. This hypothesis was not supported statistically (See Table 6).

Social Support and Interpersonal Relationships. This hypothesis compared the degree of problems in interpersonal relatedness between the TCPG and the CG. Scores on the Interpersonal Relatedness Scale of the OQ were compared for the two groups at 6 week follow-up and 3 month follow-up. While these analyses did not yield significant results, there was a trend suggesting participants in the TCPG experienced fewer problems relating interpersonally than their CG counterparts after 3 months (See Table 7).

Additionally, higher levels of perceived support were expected for TCPG participants who maintain program status or leave for positive reasons when compared to those who terminate prematurely for negative reasons. ISEL scores were analyzed for this comparison. Independent samples t tests revealed no significant difference between these two groups at baseline. At 3 month follow-up, TCPG participants with a positive outcome scored significantly higher on the Appraisal scale of the ISEL compared to those who had a negative outcome, $t(32)=2.25$, $p=.03$. Those with a positive outcome also scored significantly higher on the Self-Esteem scale of the ISEL when compared to those with a negative outcome at 6 week and 3 month follow-up (See Table 8).

Social Role. The third hypothesis predicted that TCPG participants would evidence fewer problems with regard to social role when compared to CG subjects at 6 week and 3 month follow-ups. The Social Role subscale of the OQ was utilized in this comparison. While this hypothesis was not supported

statistically, there was a trend toward significance at 3 month follow-up, t(80)=1.71,p=.09 (See Table 9). Plotting these scores on a graph, as in Figure 3, one can see a steady reduction in social role problems for the TCPG group when compared to the CG.

Substance Abuse. This hypothesis compared the TCPG and CG participants with regard to substance abuse and anticipated fewer problems in this area for TCPG subjects after 6 weeks and 3 months in the program. Subjects' overall scores on the SASSI-3, indicating a high or low probability of a substance dependence disorder, were analyzed for this comparison. Chi-square analyses indicated no significant difference existed at baseline between the two groups with regard to the probability of substance dependence disorder $X^2(2,N=105)=.69,p=.40$. Comparing TCPG and CG participants at 6 week and 3 month follow-up did not yield significant results (See Table 10). However, Chi-square analyses did reveal a significant reduction in the number of TCPG participants with a high probability of a substance dependence disorder from intake to 3 month follow-up, $X^2(2,N=64)=9.05,p=.002$. The same significant reduction in substance dependence was not found for individuals in the CG.

An additional hypothesis regarding substance abuse involved a within group comparison of TCPG participants and predicted a lesser severity of substance abuse for those who maintained program status or experienced positive termination than for those who terminated for negative reasons. Chi-square analyses demonstrated that TCPG participants with positive outcome

were less likely to show signs of substance abuse at 3 month follow-up than those with a negative outcome, $X^2(2,N=61)=3.92,p=.04$ (See Table 11).

A final hypothesis regarding substance abuse posited the existence of an indirect relationship between substance abuse and perceived social support, such that, those who evidence more severe substance abuse would also demonstrate lower levels of perceived support. This hypothesis was analyzed among TCPG participants only as it is most relevant to this group to the extent that it affects their ability to benefit from the therapeutic components of the program. This relationship was analyzed between scores on the SASSI-3 substance dependence scale and the ISEL, as well as, between scores on the SASSI-3 substance dependence scale and the Interpersonal Relatedness scale of the OQ. Correlation analyses did not yield significant results regarding this relationship (See Table 12). However, those whose substance dependence disorder remitted during the course of treatment were found to have significantly lower scores on the Interpersonal Relatedness scale of the OQ at intake and 6 week follow-up (See Table 13). This finding will be discussed further in the Exploratory Analyses section of the Results chapter.

Personality Style. This hypothesis examined the relationship between personality style and outcome among TCPG participants. It was expected that distinct personality style patterns would emerge from analysis of the MCMI-III through a K-Means Cluster Analysis and that those personality patterns would be able to be used in regression analyses to serve as predictors of outcome. However, during preliminary analysis, each scale from the MCMI-III was

subjected to logistic regression analysis to see if any particular personality characteristics could predict outcome on their own. Only Scale 6B of the Clinical Personality Patterns Scales, which is the Sadistic (Aggressive) scale, was found to be a significant predictor of outcome, such that those with higher scores on this scale were more likely to demonstrate a negative outcome. This finding rendered the Cluster Analysis and subsequent regression analyses unnecessary as it is unlikely that single non-predictive scales clustered together would yield predictive results. Valid MCMI-III data was only available for 43 TCPG participants as this measure was administered during the latest wave of data collection. It is probable that this small sample size contributed to the lack of findings in this area. Scale 8A (passive-aggressive) and Scale T (drug dependence) approached significance and, perhaps with a larger sample, would have been found to be significant.

In examining the MCMI-III data, the most commonly elevated scale (score>75) was scale 2B, the depressive scale. This is not surprising given the exigent circumstances these individuals have found themselves in. The second and third most commonly elevated scales were scale B, alcohol dependence (52.3%) and scale T, drug dependence (52.3%). Because substance dependence is so common among the homeless, these elevations are also not astounding. Other elevations of note were scale P, paranoid (47.7%), scale 6A, antisocial (43.2%), scale 3, dependent (38.6%), and scale 2A (avoidant).

Exploratory Analyses

Exploratory analyses were conducted for the purpose of gaining a better understanding of the data and uncovering any possible relationships that may be further examined in future research. Several client characteristics were subjected to logistic regression analyses in order to determine how well these factors could predict outcome. Logistic regression allowed for the prediction of a discrete variable, such as positive or negative outcome from a set of variables that are both categorical and continuous. It also allowed for the exploration of the effect of these variables while controlling for other demographic factors found to be significant in bivariate analyses. For example, age and gender were found to differ significantly among those with positive and negative outcomes. Logistic regression analysis indicated being a woman in this particular sample was significantly predictive of a positive outcome even when controlling for age and education. Age was also found to be a significant predictor of outcome, even when gender and education were added to the equation. In this analysis younger age was found to be significantly predictive of a positive outcome. No interaction effect was found between age and gender (See Table 14).

Logistic regression was also used to analyze whether being in the program was predictive of a positive outcome. In fact, these analyses yielded significant results and being a TCPG participant was found to be predictive of a positive outcome, even when controlling for demographic variables (See Table 14).

In the exploration of substance abuse and its relationship to program outcome, the presence or absence of a substance dependence disorder at intake was subjected to regression analyses. The presence of a substance dependence disorder at intake was not found to be a significant predictor of outcome. However, substance dependence disorder at 3 month follow-up was also subjected to regression analysis. This procedure did yield significant results indicating substance dependence at 3 month follow-up is predictive of a negative outcome.

To further explore substance abuse, a variable was created to reflect those individuals who had a high probability of substance dependence disorder at intake and who no longer had this classification at 3 month follow-up. This variable was called depremit13. A number of analyses were conducted utilizing this variable to gain a better understanding of its impact on outcome and the impact of other variables on this phenomenon.

Two interesting relationships were discovered during this exploration. First of all, those TCPG participants whose substance dependence remitted during the course of three months were found to have significantly lower BPRS scores at intake, 6 week, and 3 month follow-up (See Table 15). Likewise, these subjects were found to have significantly lower scores on the Interpersonal Relatedness scale of the OQ at intake and 6 week follow-up. IR scores fell just short of significance for these individuals at 3 months, $t(53)=1.96$, $p=.06$ (See Table 15)

DISCUSSION

The overarching objective of this study was to assess the effectiveness of the therapeutic community model as a comprehensive, multidimensional treatment modality for the homeless, as well as, provide a preliminary investigation into those factors that affect retention in the therapeutic community program and program outcome. The collective findings of this study indicated participation in the therapeutic community program is an effective intervention for the homeless on a number of variables and in terms of overall outcome.

Program participation was shown to be a significant predictor of positive outcome. Additionally, TCPG subjects demonstrated a significant decrease in the probability of substance dependence disorder from intake to 3 month follow-up, whereas CG participants did not. Moreover, those who experienced a positive outcome were significantly less likely to evidence signs of substance dependence disorder by 3 month follow-up than those who experienced a negative outcome. TCPG participants also demonstrated a steady decrease in psychiatric symptoms, symptom distress, and substance dependence relative to a group of controls. Likewise, TCPG participants demonstrated a steady reduction in social role problems by the 3 month follow-up when compared to the CG.

With regard to factors affecting program retention and program outcome, several findings of interest were exhibited and will be further elucidated in this chapter. For example, being female and younger in age were both found to be

significant predictors of positive outcome. Conversely, the presence of a substance dependence disorder at 3 month follow-up was significantly predictive of a negative outcome, regardless of severity of the substance dependence disorder at intake. Exploratory analyses exposed a relationship between psychiatric symptomatology, interpersonal relatedness, and substance abuse that may provide some enlightenment regarding program retention as well. These findings indicated TCPG participants whose substance dependence remitted between intake and 3 month follow-up evidenced a lesser severity of psychiatric symptoms and fewer problems relating interpersonally at intake and 6 week follow-up.

Program Retention and Outcome

The sizeable rate of attrition among the homeless population has been well documented, but little is known regarding the factors that affect retention rates in programs such as the therapeutic community program at Austin Street Centre. What has been established is that the longer individuals remain in the therapeutic community, the better chance they have of a positive outcome. This study examined the retention rates and outcomes of both program participants and controls. As stated previously, participation in the therapeutic community program was found to significantly predict a positive outcome. Moreover, TCPG subjects experienced significantly greater positive outcomes than the CG. This finding may be due to the fact that TCPG participants remained in the therapeutic community for longer. A significantly greater number of TCPG participants remained in the therapeutic community at 3 months compared to the CG. This

suggests that the therapeutic components of the program and the self-esteem and sense of belonging that is fostered in the therapeutic community facilitated greater retention among the TCPG participants. Thus, the treatment provided within the therapeutic community appears to help retain residents longer. The CG participants, who only utilize the basic overnight shelter services, evidenced significantly less retention by 3 month follow-up.

Discussion of Hypotheses

Psychiatric Symptoms. The first hypothesis predicted TCPG subjects would evidence a lesser degree of psychiatric symptoms and symptom distress at 6 week and 3 month follow-up relative to controls. It also predicted those who experienced a positive outcome would exhibit a greater reduction in psychiatric symptoms and symptom distress than those who experienced a negative outcome. Neither of these hypotheses were upheld statistically. While a steady decline in psychiatric symptoms and symptom distress was observed for TCPG participants relative to controls, the differences were not statistically significant.

There are many plausible explanations for these findings. Perhaps a larger sample size would have yielded significant results. Because a decline in psychiatric symptoms and distress was observed, although not enough of a difference, it is possible that the program does promote a reduction in symptoms and distress and with a larger sample, this reduction would have been significant. It is also possible that psychiatric symptoms would not abate after just 3 months in any treatment program, especially if one is doing the psychological work necessary to make a genuine change in their life. It is not unusual for individuals

undergoing psychological treatment of any kind to experience more distress in the beginning stages of the therapy. While the homeless individuals who enter this program may experience an initial reduction in distress as their physical needs are met and their acute psychiatric symptoms are tended to, this initial reduction in distress may give way to an increase in distress as they began the process of therapy and drug treatment, etc. Lending support to this idea is the fact that the reduction in symptom distress, as measured by the OQ, for TCPG participants was marked between intake and 6 weeks and then seemed to plateau between 6 week and 3 month follow-up.

Another reasonable explanation for the lack of significant findings regarding the greater reduction of symptoms for those with a positive outcome when compared to those with a negative outcome has to do with the findings in the exploratory analyses. It would appear from these findings that people whose substance dependence remits while they are in the program begin with less severe psychiatric symptoms and fewer problems relating interpersonally than those who are unable to stop abusing substances. If this is indeed the case, it is presumable that these individuals would evidence less of a reduction in psychiatric symptoms than those with a negative outcome. This is due to the fact that they begin with less severe psychiatric symptoms.

Social Support and Interpersonal Relationships. This hypothesis compared the degree of problems in interpersonal relatedness between the TCPG and CG, as well as, the level of perceived support for TCPG participants with positive and negative outcomes. While TCPG subjects did evidence a

steady decline in problems relating interpersonally between intake and 3 months compared to CG participants, the difference was not significant. Because a decline in IR scores was noted for TCPG subjects relative to controls, it is likely that participation in the program does facilitate the development of interpersonal skills and with a larger sample this would have been significant. However, it is also likely that relating interpersonally requires a set of skills that take time to develop, perhaps longer than the scope of this study. This would not be surprising given the nature of homelessness, which is not only characterized by a lack of physical residence, but by disaffiliation from others, broken attachments, and instability (Hopson & Watkins, 1997). These individuals are often suspicious and mistrustful of others and many times prefer to be left in isolation. For this reason, it is to be expected that the process of building trust and establishing healthy relationships with others would necessitate intervention over a longer period of time.

It is also plausible that individuals who benefit more readily from the program's components start out with fewer problems relating interpersonally. As stated previously, exploratory analyses revealed that those TCPG participants whose substance dependence disorder remitted between intake and 3 months exhibited significantly lower scores on the IR scale of the OQ at intake and 6 weeks. This suggests that perhaps individuals with fewer problems relating interpersonally are more likely to benefit from certain aspects of the program, particularly those components that focus on substance abuse.

In terms of perceived support, those TCPG subjects with a positive outcome evidenced higher levels of perceived support at 6 week and 3 month follow-up. Specifically, these individuals scored higher on the Appraisal scale of the ISEL at 3 months and higher on the Self-Esteem scale of the ISEL at 6 week and 3 month follow-ups. As no differences were found at baseline between the two groups, these findings suggest that TCPG participants who experienced a positive outcome perceived higher levels of support from the therapeutic community than did those who experienced a negative outcome. Likewise, the program appears to have had a greater impact on the self-esteem of these participants than it did on the others. It is unclear at this point why that would be. Perhaps these individuals are less suspicious and mistrustful of others at baseline and are in a better position, psychologically, to receive the help the therapeutic community program offers them. Further research is needed to explore this hypothesis.

Social Role. This hypothesis predicted TCPG participants would evidence fewer problems with regard to social role when compared to the CG. Social role is a subscale on the OQ and measures a patient's level of dissatisfaction, conflict, distress, and inadequacy in tasks related to their family roles, social life, and employment. While this hypothesis was not upheld statistically, the TCPG participants did evidence a steady reduction in scores on this scale, while the CG did not. This suggests that participants of the therapeutic community program are experiencing improvements in this area and with a larger sample, these improvements would be significant. However, as in the area of interpersonal

relatedness, problems in the social role may be more longstanding and chronic and may require treatment for longer periods of time in order to be remedied.

Substance Abuse. This hypothesis examined the relationship between substance abuse and outcome, comparing the TCPG and CG, as well as, TCPG participants with positive and negative outcomes. Participants in the therapeutic community program demonstrated a significant reduction in substance dependence from intake to 3 month follow-up, whereas the CG did not. This suggests that the chemical dependency services component of the therapeutic community program are effective in promoting abstinence and addressing the complex issues involved in addiction. This is an important finding as substance abuse has been documented as one of the most salient risk factors associated with homelessness (Jainchill, Hawke, & Yagelka, 2000). That the program appears to be successful in helping individuals break their addiction to substances is a monumental accomplishment among this population.

In examining substance abuse as a factor that affects outcome, it was initially believed that those with a substance dependence disorder at intake would fare worse in the program than those without. The results of analysis did not bear this out as substance dependence at intake was not found to be predictive of outcome in either direction. However, TCPG participants with positive outcomes were significantly less likely to show signs of substance dependence at 3 month follow-up than those with a negative outcome. This is an important finding as the presence of substance dependence at 3 month follow-up was found to be predictive of a negative outcome. This suggests that regardless

of whether or not someone is dependent on substances at intake, they are more likely to have a positive outcome if they do not exhibit a substance dependence disorder after 3 months in the program.

An exploration of participants whose substance dependence disorder remitted between intake and 3 month follow-up demonstrated that these individuals evidenced less severity of psychiatric symptoms and fewer problems relating interpersonally at intake than those who maintained their substance dependence. As discussed earlier in this chapter, it may be that these individuals were in a better position, psychologically, to accept the help that was being offered to them through the therapeutic community program. Perhaps they were more trusting and less cynical than those who maintained their substance abuse. Or, perhaps they were able to focus all of their energy on recovering from substance dependence, whereas those with more severe psychiatric symptoms could not. While further study will be necessary to flesh out these findings, they are nonetheless important in terms of tailoring the treatment program to better meet the needs of its participants.

Personality Style. This hypothesis postulated that different personality types would serve as predictors of outcome. In fact, the only characteristic that was established as a significant predictor of outcome was aggression. This suggests that someone with higher levels of aggression fare worse in the program than those with low levels of aggression. While this finding appears interesting, it is not as telling in this particular instance as one might think. This is because only two of the forty-three participants demonstrated an elevation on

this scale. Thus, the likelihood of both of these individuals sharing the same outcome is quite high.

It was not surprising to find that over half of the participants in this group displayed elevations on the drug and alcohol dependence scales. As discussed previously, estimates of the lifetime prevalence of substance abuse among the homeless exceed 60% (Toro & Warren, 1999). This finding further substantiates the great need for substance abuse treatment among this population.

The fact that just over 43% of the individuals in this group demonstrated an elevation on the antisocial scale may seem striking. However, antisocial personality disorder is overrepresented when it comes to the literature on personality and the homeless because it is quite common. In a sample of 600 homeless men and 300 homeless women randomly sampled from shelters and street locations in St. Louis, North et al (1993) found that 23% of the men and 7% of the women met criteria for adult antisocial personality disorder, even after ignoring the criterion symptom of homelessness.

While the individuals with elevations on the antisocial scale from this sample did not necessarily meet criteria for antisocial personality disorder, the fact that they endorsed so many of the characteristics for this disorder speaks to the difficulty in treating this population. Individuals who are extremely individualistic, consistently engage in criminal behavior, and have little regard for others are likely to be resistant to any form of treatment.

Exploratory Analyses. During the exploratory analyses, it was discovered that being female and being younger were both significant predictors of positive outcome. It is not surprising that this is the case, given the information in the literature regarding gender differences among the homeless. Being male has been documented as a general risk factor for homelessness (Koegel, Melamid, & Burnam, 1995). If being male puts one at risk for becoming homeless, it is conceivable, then, that it could also impede an individual's ability to benefit from social services and may even increase their risk of remaining homeless. It is unlikely, though, that being male would keep someone from reaping the benefits of a therapeutic community program on its own. Studies comparing homeless men and women indicate homeless women are often younger, less frequently have a history of substance abuse or incarceration, and have a shorter history of being homeless (North & Smith, 1993). In fact, it was observed during this study that the female participants were less likely to show signs of a substance dependence disorder and generally, had shorter histories of being homeless. Thus, it seems reasonable that these women would fare better than their male counterparts.

Limitations of the Current Study

As with most research endeavors, the current study was not without limitations. It was a naturalistic study utilizing volunteer participants undergoing a treatment program for homeless individuals. As such, random assignment was not employed and the ability to control extraneous variables such as confounding participant characteristics was limited. The sample was primarily comprised of

Caucasian males over the age of 50, which hinders the generalizability of the results. While the literature regarding homelessness research indicates the majority of homeless individuals are male, today's homeless population is characterized by a majority of nonwhite racial and ethnic groups and younger individuals (North & Smith, 1994).

Another important limitation of this study is the small sample size in each group, especially at 6 month follow-up. This greatly compromised the statistical power of the study, making it difficult to find statistical differences between the groups at each follow-up evaluation. While TCPG participants showed improvements on several variables, there often was not enough power to yield statistically significant results. Additionally, because data was utilized from two separate time periods, subjects were not available for comparison on all measures. This resulted in a reduction of statistical power as well. For future research in this area, it will be important to find ways of increasing sample size and decreasing attrition from the study, regardless of program attrition.

Conclusions and Future Direction

The principal intention of this study was twofold. First of all, the goal was to lend support to previous findings regarding the effectiveness of the therapeutic community model as a comprehensive treatment model for the homeless population. Second, the aim was to provide a preliminary investigation into those factors that affect program retention and outcome. These objectives were accomplished in several ways.

As in the previous study, the therapeutic community program at Austin Street Centre was found to be an effective means to a positive outcome. Program participants were more likely to remain in the therapeutic community longer than controls who only availed themselves of basic overnight shelter services at the Centre. A consistent finding in homelessness services research is a positive association between the amount of service use and the achievement of positive outcomes (Pollio et al, 2000). Thus, it is not surprising that therapeutic community program participants in this study were more likely to experience a positive outcome than those who were not involved in the program.

With regard to factors that affect program retention and outcome, aggression was the only personality characteristic at intake that was found to be able to significantly predict outcome. However, those who experienced a remission of their substance dependence by three months evidenced significantly less severity of psychiatric symptoms and fewer problems relating interpersonally. Moreover, these individuals were more likely to experience a positive outcome than those who were unable to break their addiction by the 3 month follow-up. Thus, it makes intuitive sense that an individual with less severe psychiatric symptoms and fewer interpersonal problems is more likely to experience a positive outcome than someone with sever difficulties in these areas.

There were also several things that participants with a positive outcome shared in common at 3 month follow-up. These individuals were less likely to be substance dependent. They also demonstrated significantly higher levels of self-

esteem and perceived informational support from others. These findings suggest that while it may be difficult to tell upon intake how a person will fare in the program, there are several things to look for at 3 month follow-up that could serve as indicators of how the treatment is progressing and, ultimately, what the outcome is likely to be.

Perhaps the most important findings are those that illustrate how the therapeutic community program at Austin Street Centre is effective in so many different life domains for the people it serves. From self-esteem to substance abuse to interpersonal problems, the program addresses and impacts the myriad of issues facing the homeless population. Significantly fewer TCPG participants evidenced substance dependence at 3 month follow-up than at intake. Additionally, TCPG participants demonstrated a steady decrease in psychiatric symptoms, symptom distress, problems relating interpersonally, and problems in their social role.

It appears clear that the therapeutic community program is an effective treatment modality for the homeless population. Future research will be needed to further substantiate these results. Moreover, future studies are needed to investigate the factors that affect program retention and outcome. For such research, a larger sample size would be beneficial, especially at 6 month follow-up and beyond. This would enable a more clear and robust understanding of this population and the treatment that is most appropriate for them.

TABLE 1

Subject Demographic Characteristics

Descriptive Statistics of Age and Education for the TCPG and CG

		Mean	SD	t	p
AGE					
	TCPG	50.12	8076		
	CG	53.13	7.38		
				1.66	.10
EDUCATION					
	TCPG	11.94	2.72		
	CG	10.93	2.05		
				-1.84	.07

Descriptive Statistics of Ethnicity and Gender for TCPG and CG

		%	X^2	df	p
ETHNICITY					
	TCPG				
	Caucasian	70			
	African-American	29			
	Hispanic	0			
	Other	1			
	CG				
	Caucasian	50			
	African-American	46.7			
	Hispanic	3.3			
	Other	0			
			5.31	2	.07
GENDER					
	TCPG				
	Male	78.67			
	Female	21.33			
	CG				
	Male	83.33			
	Female	16.67			
			.29	1	.59

TABLE 2
Outcome Comparison by Ethnicity

OUTCOME	ETHNICITY	%	X^2	df	p
Positive					
	White	70.59			
	Non-white	52.38			
Negative					
	White	29.41			
	Non-white	47.62			
			2.17	1	.14

Outcome Comparison by Gender

OUTCOME	GENDER	%	X^2	df	p
Positive					
	Male	42.86			
	Female	57.14			
Negative					
	Male	93.7542.86			
	Female	6.25			
			7.36	**1**	**.01**

TABLE 3

Outcome comparison for age

(independent samples t-test)

	Outcome	Mean	t	df	p
AGE					
	Positive	48.26			
	Negative	53.08			
			-2.83	**87**	**.01**

TABLE 4

Outcome Comparison by Group

		%	X^2	df	p
Positive					
	TCPG 1	65.12			
	TCPG 2	65.52			
			5.31	1	.07
Negative					
	TCPG 1	34.88			
	TCPG 2	34.48			
			.001	1	.97

TABLE 5

OQ Total Score – General Distress
Group Comparison
(independent samples t-test)

GENERAL DISTRESS		Mean	SD	t	df	p
Intake						
	TCPG	60.88	26.44			
	CG	57.97	29.09			
				-.50	103	.62
6 weeks						
	TCPG	56.60	25.52			
	CG	61.50	30.14			
				.84	100	.40
3 months						
	TCPG	53.67	27.49			
	CG	59.70	26.98			
				.86	80	.40

OQ – Symptom Distress
Group Comparison
(independent samples t-test)

SYMPTOM DISTRESS		Mean	SD	t	df	p
Intake						
	TCPG	34.99	18.12			
	CG	32.47	17.88			
				-.65	103	.52
6 weeks						
	TCPG	31.38	17.45			
	CG	34.43	18.31			
				.80	100	.43
3 months						
	TCPG	30.29	18.52			
	CG	32.35	17.05			
				.44	80	.66

TABLE 6

OQ Total Score – General Distress
Outcome Comparison
(independent samples t-test)

GENERAL DISTRESS	OUTCOME	Mean	SD	t	df	p
Intake						
	positive	58.83	24.34			
	negative	61.30	31.99			
				-.41	87	.68
6 weeks						
	positive	58.18	24.28			
	negative	57.86	33.13			
				.05	84	.96
3 months						
	positive	54.98	21.02			
	negative	50.70	36.49			
				.61	66	.54

OQ – Symptom Distress
Outcome Comparison
(independent samples t-test)

SYMPTOM DISTRESS	OUTCOME	Mean	SD	t	df	p
Intake						
	positive	33.60	15.72			
	negative	35.00	22.02			
				-.35	87	.73
6 weeks						
	positive	31.49	16.04			
	negative	33.31	21.68			
				-.45	84	.66
3 months						
	positive	30.93	14.66			
	negative	28.41	23.65			
				.54	66	.59

TABLE 7

OQ – Interpersonal Relatedness

(independent samples t-test)

Interpersonal Relatedness		Mean	SD	t	df	p
Intake						
	TCPG	16.16	6.53			
	CG	14.77	7.50			
				-.95	103	.35
6 weeks						
	TCPG	15.20	6.00			
	CG	14.90	7.58			
				-.21	100	.84
3 months						
	TCPG	14.57	7.20			
	CG	15.25	6.62			
				.38	80	.71

TABLE 8

ISEL – Perceived Support

(independent samples t-test)

APPRAISAL SCALE	OUTCOME	Mean	SD	t	df	p
Intake						
	positive	3.93	2.52			
	negative	3.2	2.57			
				.90	41	.38
6 weeks						
	positive	4.24	2.68			
	negative	2.80	1.76			
				1.82	37	.08
3 months						
	positive	**5.00**	**2.81**			
	negative	**2.90**	**1.29**			
				2.25	**32**	**.03**

ISEL – Perceived Support

(independent samples t-test)

SELF-ESTEEM SCALE	OUTCOME	Mean	SD	t	df	p
Intake						
	positive	3.46	1.97			
	negative	3.27	2.40			
				.29	41	.77
6 weeks						
	positive	**4.00**	**2.25**			
	negative	**2.89**	**1.17**			
				1.76	**37**	**.04**
3 months						
	positive	**4.58**	**2.39**			
	negative	**3.00**	**.94**			
				2.01	**32**	**.05**

TABLE 9

OQ – Social Role

(independent samples t-test)

SOCIAL ROLE	OUTCOME	Mean	SD	t	df	p
Intake						
	TCPG	11.03	4.81			
	CG	10.50	5.63			
				-.48	103	.63
6 weeks						
	TCPG	11.01	4.58			
	CG	12.00	5.80			
				.91	100	.36
3 months						
	TCPG	9.53	4.40			
	CG	11.60	5.59			
				1.71	80	.09

TABLE 10

Substance Dependence by Group

		%	X^2	df	p
Intake	**TCPG**	73.68			
	CG	26.32			
			.69	1	.41
6 weeks	**TCPG**	64.81			
	CG	35.19			
			1.50	1	.22
3 months	**TCPG**	76.19			
	CG	23.81			
			.00	1	1.0

Substance Dependence
Comparison of TCPG from Intake to 3 months

		%	X^2	df	p
Intake	Sub dep +	**43.75**			
3 months	Sub dep +	**26.56**			
			9.05	**1**	**.002**

TABLE 11

Substance Dependence
Comparison of TCPG with Positive and Negative Outcome

	OUTCOME	%	X^2	df	p
SUB DEP +	Positive	**53.33**			
	Negative	**46.67**			
SUB DEP -	Positive	**77.42**			
	Negative	**22.58**			
			3.92	**1**	**.04**

TABLE 13

OQ – Interpersonal Relatedness

Comparison of IR scores for those with depremit (independent samples t-test)

Interpersonal Relatedness	Depremit	Mean	SD	t	df	p
Intake						
	+	**13.24**	**6.50**			
	-	**17.76**	**6.63**			
				2.51	**56**	**.02**
6 weeks						
	+	**12.62**	**6.48**			
	-	**17.38**	**6.78**			
				2.61	**56**	**.01**
3 months						
	+	13.05	5.76			
	-	16.77	7.41			
				1.96	53	.06

TABLE 14

Association of outcome to age, gender, and education (logistic regression analysis)

		Wald		
	β	**X^2**	**p**	**c**
Age	**-.09**	**5.68**	**.02**	**.66**
Gender	**2.27**	**4.45**	**.03**	**.70**
Education	.09	.82	.36	.66

Association of outcome to group (logistic regression analysis)

		Wald		
	β	**X^2**	**p**	**c**
TCPG **CG**	**1.25**	**3.85**	**.04**	**.75**

TABLE 15

Comparison of severity of psychiatric symptoms for those with depremit (independent samples t-test)

BPRS	Depremit	Mean	SD	t	df	p
Intake						
	+	**33.60**	**4.74**			
	-	**37.71**	**4.66**			
				2.12	**22**	**.04**
6 weeks						
	+	**31.60**	**3.86**			
	-	**34.57**	**3.12**			
				2.09	**22**	**.04**
3 months						
	+	**30.60**	**3.53**			
	-	**33.54**	**3.20**			
				2.09	**21**	**.04**

Comparison of Interpersonal Problems for those with depremit (independent samples t-test)

IR scale (OQ)	Depremit	Mean	SD	t	df	p
Intake						
	+	**13.24**	**6.50**			
	-	**17.76**	**6.63**			
				2.51	**56**	**.02**
6 weeks						
	+	**12.62**	**6.48**			
	-	**17.38**	**6.78**			
				2.61	**56**	**.01**
3 months						
	+	13.05	5.76			
	-	16.77	7.41			
				1.96	53	.06

Figure 1 Comparison of Psychiatric Symptoms by Group

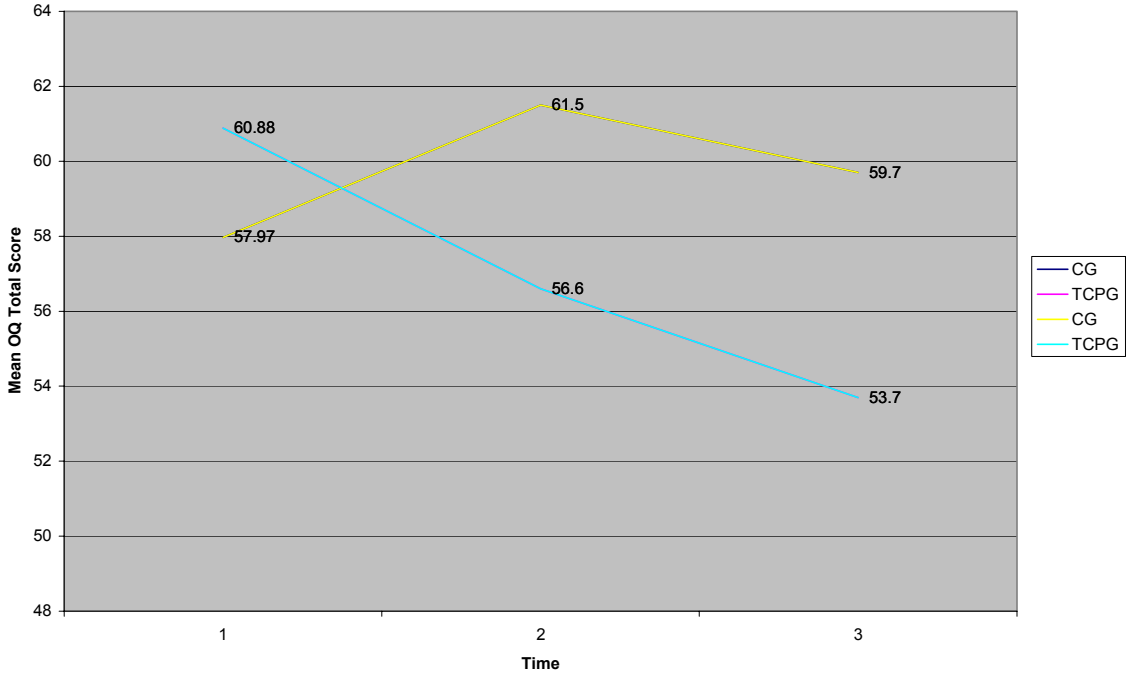


Figure 2 Symptom Distress Comparison by Group

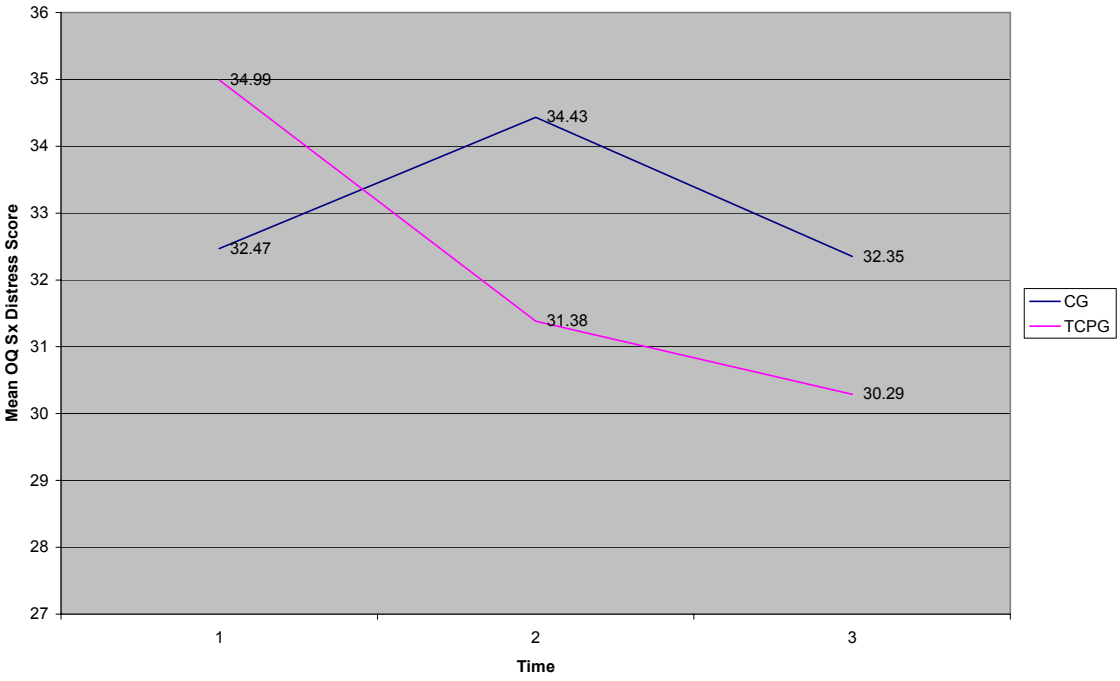
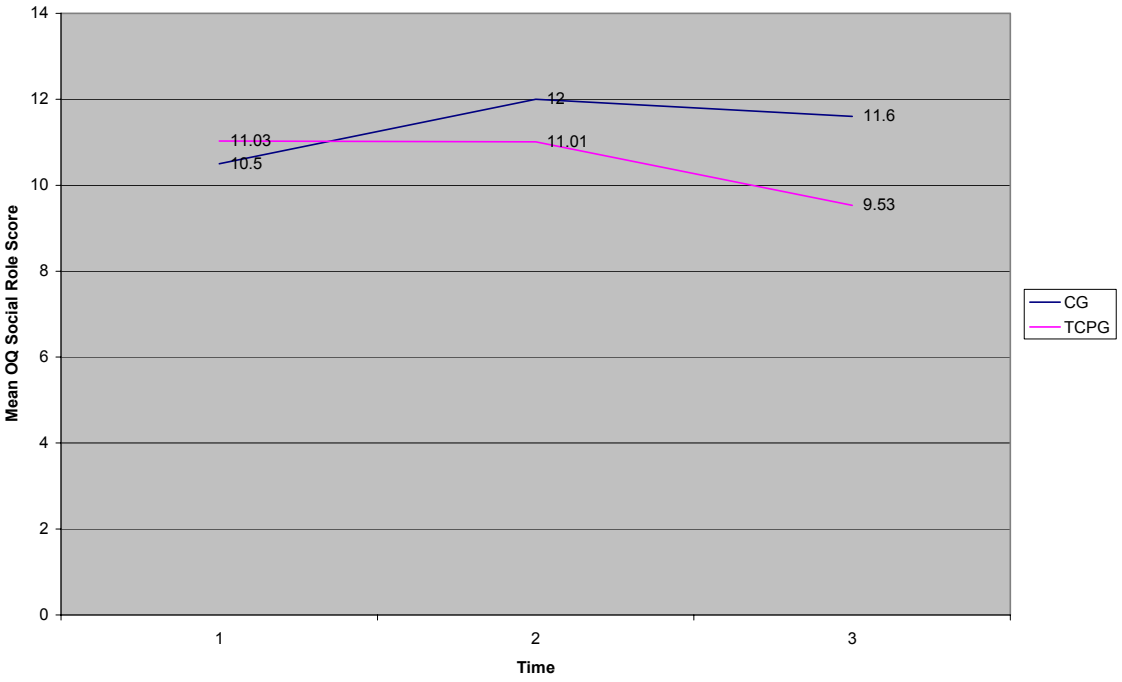


Figure 3 Comparison of Social Role Problems by Group



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VITAE

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