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Effect of comorbid psychiatric disorders on measures of group cohesion in substance abusers

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EFFECT OF COMORBID PSYCHIATRIC DISORDERS ON MEASURES OF GROUP

COHESION IN SUBSTANCE ABUSERS

By

Sharon Bradford Robbins, M.S.

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ABSTRACT

Substance dependence and treatment have been the focus of research for a number of years. Recently more attention has been directed toward identifying the most appropriate treatments for people with more complicated substance disorders, those with substance dependence and mental illness. The current study examined three aspects of group cohesion, a necessary condition for effective outcomes, in 64 substance abusers with a comorbid mental illness. The rated aspects of group cohesion included overall group climate, individual group members' self-worth, and each member's perception of the relationship with the group leader. Groups were divided according to profiles based on results from the Millon Clinical Multiaxial Inventory – III. Groups included Cluster A personality disorders, Cluster B personality disorders, Cluster C personality disorders, and patients having no personality disorder. Group climate was rated using the Group Climate Questionnaire, self-worth was measured using the Contingencies of Self-Worth, and the therapeutic alliance was measured using the Working Alliance Inventory – Short Form. Results indicated significant differences between the four groups in overall ratings of the therapeutic alliance and in the aspect of group climate identified as conflict. These differences indicate the need to investigate these process variables further and may result in more effective group therapy.
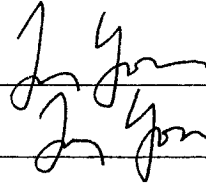
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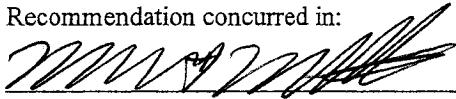
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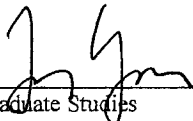
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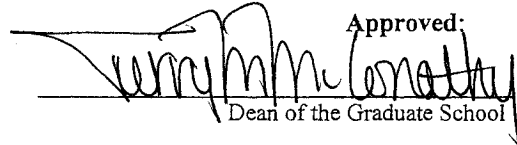
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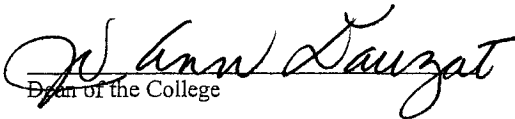
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CHAPTER 1

Introduction/Literature Review

Introduction

Substance dependence and treatment have been the focus of research for a number of years (Gillaspy, Wright, Campbell, Stokes, & Adinoff, 2002; Gordis, 2000; Litt, Kadden, Cooney, & Kabela, 2003; Moos, 2003). Recently more attention has been directed toward identifying the most appropriate treatments for people with more complicated substance disorders (Messina, Farabee, & Rawson, 2003; Tomasson & Vaglum, 2000). Drug users who have mental health problems are targets for several reasons. Studies have reported between 30% and 60% of drug users have co-existing mental health diagnoses including personality disorders, major depression, schizophrenia, and bipolar disorder (Leshner, 1999). Epidemiologic studies suggest that the most common comorbid disorders are personality disorders including antisocial personality disorder and borderline personality disorder, anxiety disorders including post-traumatic stress disorder, and depression (Leshner, 1999).

Concurrent mental disorders complicate substance dependence treatment. Research suggested that people with depression have an exceptionally hard time resisting environmental cues to relapse (Leshner, 1999). Miranda (2003) found that adult male alcoholics with antisocial personality disorder have abnormal emotional responsiveness to both pleasant and unpleasant stimuli when compared with alcoholics without antisocial personality disorder. Shahar, Blatt, Zuroff, and Pilkonis (2003) cited that patients with any

1

type of a personality disorder had a significantly poorer outcome in social functioning than patients without a personality disorder. Care must be taken when prescribing medication to address mental disorders in people with a substance use disorders, as some of the appropriate medications may also have addictive qualities. Additionally, the relationship between the mental disorder and the substance dependence disorder may vary among people. Some people with a mental disorder may abuse drugs as a form of self-medication. Some people who abuse drugs may develop a mental disorder as a result of their drug use. Others may simply have both disorders. These complications make treatment, as well as research, more difficult (Leshner, 1999).

Managed health care systems have created a need to provide the most effective treatment in the most cost efficient manner. As a result, more research is being conducted in both treatments and outcomes. Numerous studies have examined outcome differences in individual and group treatments. A comprehensive, quantitative review of this literature concluded that there were no differences in outcome when group and individual treatments were compared within the same study (McRoberts, Burlingame, and Hoag, 1998). Moos (1997) reported that supportive group and residential treatment settings tend to enhance clients' participation in treatment, strengthen their self-confidence, and contribute to a reduction in symptoms and substance use. Moos (2003) summarized recent studies by noting that the most effective psychosocial modalities for the treatment of addictive disorders are cognitive-behavioral interventions, social skills training, a community reinforcement approach, motivational interviewing, behavioral contracting, stress management and relapse prevention training, and behavioral marital therapy. He also noted the effectiveness of the 12-step treatment program.

Although the research in the area of substance abuse has increased, Moos (2003) noted that relatively few studies have examined the processes underlying the effects of different treatment modalities. Most research does not provide information about how treatment works, for whom treatment works, or how treatment can be improved or accomplished more effectively. Moos (2003) also commented that little is known about effective treatment for dually diagnosed patients. Another criticism is that findings of highly controlled efficacy trials may not generalize to real-life clinical settings (Nathan, 1998). The present study attempted to address several of these criticisms by comparing substance abuse patients with a comorbid personality disorder to substance abuse patients without a personality disorder. Group cohesion, an aspect of group therapy known to influence outcome, was measured and compared in these groups in order to determine if there are differences in the processes of therapy. Additionally, this study was conducted in a real-life treatment setting.

Statement of the Problem

The focus of the current study was to expand research in the area of substance abuse treatment for patients who have a comorbid personality disorder. The literature is rich with studies that assessed the rates of comorbidity as well as examined the relationship between mental disorders and substance abuse disorders (Ball, Rounsaville, Tennen, & Kranzler, 2001; Khan, Jacobson, Gardner, Prescott, & Kendler, 2005; Tomasson & Vaglum, 2000). Additionally, attempts have been made to discover the most effective therapy for treatment outcomes (Gordis, 2000; Messina, Farabee, & Rawson, 2003). Unfortunately, although the literature indicated that treatment results in substantial change, no particular treatment was indicated as the most effective (Gordis, 2000).

One of the variables involved in effective outcomes for group therapy is group cohesion (Dion, 2000; Horvath, 2001). Group cohesion is thought to be a necessary condition for effective outcomes (Burlingame, Fuhriman, & Johnson, 2001; Yalom, 1985). Although group cohesion has been investigated with regard to outcome, little research has compared patients' perceptions of cohesion within functioning groups (Litt, Kadden, Cooney, & Kabela, 2003). Additionally, few studies have been conducted in real-life settings (Moos, 2003). This study addressed these shortcomings in order to add to the literature by examination of the variables involved in group process with substance abuse patients with comorbid personality disorders.

Justification of the Study

Substance abuse disorders result in considerable costs, both in treatment and in lost wages. Mortality rates in substance abuse can be quite high. Complicating the substance abuse treatment are patients who have a comorbid mental disorder. Comorbidity rates are quite high and many researchers cited the need for further studies on this unique population (Helzer, 1988; Leshner, 1999; Trull, Sher, Minks-Brown, Durbin, & Burr, 2000). Determining differences in the ways that these patients respond to treatment could be very beneficial in finding the most effective method of treatment.

This study focused on specific therapy process variables and conducted comparisons of these variables between patients with personality disorders and patients with no personality disorders. As group therapy is reported to be the most effective means of treating patients with substance abuse, the variables involved in group therapy were examined Gordis, 2000; Moos, 2003). Determining where the differences in perceptions of therapy and group experience occur within this population could make future differences in how

therapists conduct their groups. A more effective mode of therapy and understanding patient difficulties in groups may reduce treatment recidivism and may improve outcome.

Literature Review

Substance Dependence and Personality Traits

According to the American Psychiatric Association (2000), *Diagnostic and Statistical Manual of Mental Disorders (*4th Ed., text revision*)* substance dependence is a cluster of cognitive, behavioral, and physiological symptoms indicating that a person continues use of the substance despite significant substance-related problems. A pattern of repeated self-administration is noted that can result in tolerance, withdrawal, and compulsive drug-taking behavior. This source reported that substance use is often a component of the presentation of symptoms of mental disorders. Additionally, substance-related disorders are commonly comorbid with, and complicate the course and treatment of, mental disorders. Alcohol is the most frequently used depressant and the source of considerable morbidity and mortality. As noted in the *DSM-IV-TR* (2000) as many as 90% of adults in the United States have had some experience with alcohol. Alcohol dependence is frequently accompanied by symptoms of depression, anxiety, and insomnia.

Personality disorders are described as an enduring pattern of inner experience and behavior that deviates markedly from the expectations of that person's culture. A personality disorder is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment (*DSM-IV-TR*, 2000). Personality traits are similarly defined. When personality traits are inflexible and maladaptive, and cause significant functional impairment, they become personality disorders. According to the *DSM-IV-TR* (2000), personality disorders are grouped into three clusters based on descriptive

similarities. Cluster A includes the Paranoid, Schizoid, and Schizotypal Personality Disorders. People within this cluster often appear odd or eccentric. Cluster B includes the Antisocial, Borderline, Histrionic, and Narcissistic Personality Disorders. People within this cluster often appear dramatic, emotional, or erratic. Cluster C includes the Avoidant, Dependent, and Obsessive-Compulsive Personality Disorders and people within this cluster often appear anxious or fearful.

Various researchers have conducted studies regarding the rates of co-occurrence of mental disorders and substance use disorders. Most research reported a high comorbidity, with higher rates reported for certain disorders. Dulit, Fyer, Haas, Sullivan, and Frances (1990) reported that substance abuse is widespread in borderline personality disorder. The authors reviewed charts of 137 hospitalized borderline patients and found that 92 met criteria for substance use disorder diagnoses. The most frequently used substances were alcohol and sedative-hypnotics. Leshner (1999) reported that epidemiologic studies have indicated between 30% and 60% of drug abusers have concurrent mental health diagnoses including personality disorders, major depression, schizophrenia, and bipolar disorder. Based on these studies, the author suggested that the most common comorbid disorders are personality disorders including antisocial personality disorder and borderline personality disorder, anxiety disorders including post-traumatic stress disorder, and depression. Leshner reported that concurrent mental disorders complicate drug abuse treatment in a variety of ways.

Peirce, Frone, Russell, Cooper, and Mudar (2000) cited a recent survey that found 17.1% of the population reported experiencing a major depressive episode and 14.1% reported a history of alcohol dependence. This report indicated evidence to suggest that dysfunctional alcohol use and depression tend to co-occur. Additionally, the authors noted

the research investigating motives for drinking reveals a substantial percentage of drinkers reported drinking to regulate negative emotion, and that depressed social drinkers drank more than non-depressed social drinkers. Tomasson and Vaglum (2000) investigated the association between additional comorbid clinically significant mental disorders and the following 28 month course of drinking and mental distress. Participants included 100 treatment seeking alcoholics with antisocial personality disorder. Twenty-four percent had no additional diagnoses, 39% had an affective disorder, 43% had panic/agoraphobia, 61% had other anxiety disorders, and 47% were polysubstance abusers. Those with polysubstance abuse had more prior admissions and were more often involved in fights. Comorbid anxiety disorder was associated with lower prevalence of drunken driving arrests. Affective disorders reduced the risk of relapse.

Franskoviak and Segal (2002) reviewed substance use and mental disorder diagnostic profiles in a sample of long-term self-help agency users. Results indicated rates of substance use disorder (75.5%) and dual diagnosis (55.8%) exceeded rates found in urban clinical settings in both the community mental health and the substance use treatment domains. Jackson and Sher (2003) cited a study that indicated nearly one half (47%) of individuals who met criteria for a lifetime alcohol use disorder also met criteria for at least one other psychiatric disorder. Watkins (2004) reported that the data from substance abuse treatment programs indicated that 67% of the clients at a program for low-income outpatients had a lifetime history of an affective, anxiety, or psychotic disorder. The author indicated having a co-occurring disorder increased morbidity, mortality, and treatment costs, and was associated with poorer mental health and substance abuse treatment outcomes. Watkins reviewed data from three publicly funded outpatient substance abuse treatment facilities located in different

regions of Los Angeles County. Results indicated slightly more than half of individuals entering treatment had a probable mental health disorder. Depressive and anxiety disorders were the most prevalent, and more than a third of the sample reported two or more probable disorders. The author noted half of those patients with comorbid disorders had never received mental health treatment.

In addition to rates of comorbidity, researchers have attempted to trace the origins of the disorders in order to discern if one disorder causes the other disorder. Laudet, Magura, Vogel, and Knight (2004) investigated stated reasons for substance use among persons in recovery from co-occurring disorders of serious mental illness and substance abuse. Participants included 310 members of Double Trouble in Recovery in New York City. Study participants were predominantly male and had a long psychiatric history, reporting their first symptoms in adolescence. Substance abuse began in adolescence also. Patterns of the disorders indicated 38% started experiencing mental illness symptoms prior to substance use, whereas 50% showed substance abuse prior to mental illness symptoms. Twelve percent experienced symptoms of mental illness and substance use at the same age. The most frequently cited reason for starting substance use was the desire to fit in, as noted by 58% of the sample. Persons diagnosed with a bipolar disorder were significantly more likely to indicate wanting to fit in with peers as the reason to start using. A primary diagnosis of schizophrenia was associated with a significantly lower likelihood of citing emotional or mental issues as a reason to use substances. The substances most often used first were alcohol and marijuana. Fifty percent of participants reported using these substances daily or almost daily when they first started using substances. For those who relapsed, the two most frequent reasons for returning to substance use were loneliness/boredom and cravings. The

authors noted 12% of respondents felt substance use helped their psychiatric symptoms. Interestingly, although substance use and mental health symptoms began in adolescence, the median age when clinical diagnosis was made was 30 years of age. This pattern suggested both disorders existed for at least ten years untreated.

The relationship between personality and symptoms of substance abuse has been an important topic of research. Researchers have been interested in determining if certain personality characteristics have an influence on substance use. Kilbey, Downe, and Breslau (1998) investigated the relationship of alcohol outcome expectancies and other risk factors. Participants included a random sample of 1200 members of a health maintenance organization. Results indicated incidence of current alcohol dependence was associated with male gender, multiple alcohol-related problems, higher extraversion, lower positive affect, and lower expectancies of negative effects from alcohol. The persistence of current alcohol dependence was associated with higher psychoticism and expectancies of alcohol enhancement of sexual and social experiences as well as relaxation and tension reduction. Alterman, McDermott, Cook, Metzger, Rutherford, Cacciola, and Brown (1998) conducted a study of the Addiction Severity Index. Participants included 308 patients who had been administered the Addiction Severity Index and an extensive battery of substance abuse and related psychopathology measures. One of the findings was antisociality is associated with higher Addiction Severity Index problem levels.

McMahon, Malow, and Penedo (1998) conducted a study to identify clinically relevant substance-abusing subgroups based on cluster analysis of Millon Clinical Multiaxial Inventory - II profiles. The authors hypothesized the clusters reflecting the most severe personality pathology would reveal the most chronic drug and alcohol problems, the highest

levels of psychiatric symptoms, and attitudes and behaviors reflecting the greatest Human Immunodeficiency Virus risk. Participants included male veterans meeting *DSM-III-R* criteria for drug dependence. These participants were from 464 admissions to a 6-week inpatient drug dependence rehabilitation program. Results indicated membership in the high pathology subgroup was associated with relatively severe clinical problems. Members in this group reported lengthier histories of substance abuse, more previous psychiatric hospitalizations, more severe global psychiatric severity ratings, more use of psychotropic medications, and higher levels of lifetime or current psychiatric symptoms. The second subgroup that emerged involved a single highly elevated mean on the MCMI-II Antisocial scale and secondary clinical elevations on the Aggressive and Narcissistic scales. This group had shorter drug abuse histories, fewer current and lifetime psychiatric symptoms, and fewer attitudes considered to be associated with HIV risk behaviors than did the high pathology subgroup. Interestingly, few differences were found between the antisocial and subclinical subgroups.

Martin, Lynch, Pollock, and Clark (2000) investigated gender differences and similarities in the personality correlates of adolescent alcohol problems. The authors hypothesized behavioral undercontrol would be higher, and negative emotionality would be lower, in adolescent males compared to adolescent females. Additionally, they predicted behavioral undercontrol and negative emotionality would be significant correlates of adolescent alcohol involvement. Participants included 710 adolescents who participated in the baseline assessment protocol of the Pittsburgh Adolescent Alcohol Research Center and who had complete data on the measures used in the study. Results indicated both behavioral undercontrol and negative emotionality served as correlates of adolescent alcohol problems.

The results suggested, among adolescents, behavioral undercontrol is a stronger correlate of alcohol problems than negative emotionality.

Sher, Bartholow, and Wood (2000) examined the nature of cross-sectional and prospective relations among well-defined systems of personality and interview-derived substance use disorder diagnoses. They found the personality traits related most clearly to disinhibition or behavioral undercontrol were the most consistent predictors of substance use disorders. Additionally, traits related to negative emotionality were reliable correlates of substance use disorder diagnoses.

Conrod, Pihl, Stewart, and Dongier (2000) investigated the validity of classifying a community-recruited sample of substance abusing women according to four personality risk factors for substance abuse. They reported the personality factors common to both depression and alcoholism are trait anxiety and introversion. They noted extraversion and novelty/sensation seeking are additional personality characteristics associated with elevated drug use. Factor analysis indicated four reliably delineated factors including anxiety sensitivity, introversion – hopelessness, sensation seeking, and impulsivity. Results from this study supported the claim that anxiety-sensitive women evidenced a preferential use of substances with anxiolytic properties and the highest rates of anxiolytic drug dependence, somatization, and simple phobia. Substance-abusing women who had depressive and pessimistic cognitions were prone to preferential abuse of substances that possess analgesic properties, and psychological disorders involving social withdrawal and extinction of social behaviors. Women who had a motivational profile involving high sensation seeking, openness to experience, and extraversion were associated with a preferential dependence on alcohol. Women who had a general tendency to react impulsively demonstrated antisocial

personality traits and an unconstrained pattern of drug abuse. This impulsive subtype was significantly more likely to use or abuse cocaine, alcohol, and cannabis substances.

Trull, Sher, Minks-Brown, Durbin, and Burr (2000) integrated and reported the literature on Borderline Personality Disorder (BPD) and substance use. BPD is characterized by a lack of control of anger, intense and frequent mood changes, impulsive acts, disturbed interpersonal relationships, and life-threatening behaviors. It is the most commonly diagnosed personality disorder in both inpatient and outpatient settings. The authors reported that BPD rarely occurs in isolation. The most common comorbid disorders included mood, substance use, and non-BPD disorders. Personality traits that have been most consistently associated with BPD are impulsivity and affective instability. Impulsivity is reflected in erratic behavior, tendency to react quickly, intensely, and inappropriately to real or perceived frustrations and setbacks, and susceptibility to substance use, eating, or impulse-control problems. In their review of numerous studies, the authors reported substantial rates of substance use disorders in BPD patients. In the studies reporting rates for the general category of substance use disorder, 57.4% of those diagnosed with BPD also received a substance use disorder diagnosis. In the studies that identified rates of alcohol use disorders in BPD patients, 48.8% met criteria for an alcohol use disorder. One study indicated individuals with both a substance use disorder and BPD abused a greater range of psychoactive substances than did those without comorbid BPD. This article noted an association between the trait of impulsivity/disinhibition and the stress-reducing properties of alcohol. Additionally, studies summarized noted BPD and substance use disorder comorbidity was associated with higher levels of impulsivity than either condition alone. Another problem cited with BPD was affective instability. This instability may make those

with BPD be more prone to the use of substances in order to cope with unwanted negative affective states. These authors also cited a need for further research in the area of clinical presentations and treatment responses.

Ball, Rounsaville, Tennen, and Kranzler (2001) investigated the reliability of personality disorder symptoms and personality traits in substance dependent inpatients. This study was an attempt to compare the reliability of the *DSM* Axis II personality disorders with personality traits from the five-factor model. The authors reviewed literature suggesting personality traits are more stable over time and have better self-informant agreement than do personality disorders. The authors indicated substance intoxication, dependence, and withdrawal are characterized by marked changes in cognitive, emotional, and social functioning that may copy many of the symptoms of personality disorders and intensify personality traits. Participants included patients from a larger diagnostic project evaluating personality disorders in inpatient and outpatient substance-dependent individuals and community controls. One hundred eighty-two inpatients were recruited over a 2-year period from a short-term inpatient/partial hospital program in Connecticut. Results did not support the hypothesis that personality traits would be more reliable than personality disorder symptom severity in terms of internal consistency, temporal stability, or self-informant agreement. The prediction of patients rating themselves higher on socially desirable or evaluative personality traits was supported. The authors also found patients rated themselves lower on Neuroticism than did informants. A noted short-coming of the study was the use of self-reports to screen for personality disorder.

Flory, Lynam, Milich, Leukefeld, and Clayton (2002) studied the relations among personality, symptoms of alcohol and marijuana abuse, and symptoms of comorbid

psychopathology. This community sample included young men and women. Results indicated a significant relation between personality and symptoms of substance abuse, however, this relation may differ depending on the type of substance being examined. Symptoms of alcohol abuse were associated with lower agreeableness and conscientiousness and higher extraversion. Symptoms of marijuana abuse were associated with lower agreeableness and conscientiousness and higher openness to experience. This study did not find an association between substance abuse and neuroticism. The authors noted the need for further research with clinical populations. Slutske, Heath, Madden, Bucholz, Statham, and Martin (2002) studied the extent to which the genetic risk for alcohol dependence and conduct disorder and their common genetic risk overlap with genetic factors contributing to variation in dimensions of personality. Participants included 6,453 individuals from 3,383 adult male and female same-sex and unlike-sex twin pairs from the Australian Twin Registry. Results suggested genetic factors contributing to variation in dimensions of personality, particularly behavioral undercontrol, account for a substantial proportion of the genetic diathesis for alcohol dependence and most of the common genetic diathesis for alcohol dependence and conduct disorder among both men and women.

Colder and O'Connor (2002) related that according to a motivational perspective, cognitive and behavioral aspects of disinhibition will be related to alcohol use and particularly to frequent drinking for enhancement reasons. In their study, the authors used a target detection task to assess biases to attend to reward and punishment cues and a go/no-go task to assess disinhibited behavior. They hypothesized bias to attend to positive cues during the target detection task and an appetitive response style during the go/no-go task would be associated with high levels of alcohol use and frequent drinking for enhancement reasons.

Their findings suggested specific aspects of disinhibition are associated with alcohol use and drinking for enhancement reasons in a college sample.

Krueger, Hicks, Patrick, Carlson, Iacono, and McGue (2002) suggested a significant portion of the covariance between substance dependence and antisocial behavior disorders can be traced to common genetic factors. They investigated this hypothesis by assessing both conduct disorder and adolescent antisocial behavior symptoms, along with alcohol and illicit substance dependence, simultaneously in a sample of 524 male and female 17-year-old twin pairs. The authors described these disorders as externalizing disorders. They reported research documents correlations between externalizing disorders and personality traits such as novelty seeking, impulsivity, and disinhibition. The data analyses for the project demonstrated that co-occurrence among alcohol dependence, drug dependence, conduct disorder, adolescent antisocial behavior, and a disinhibitory personality style assessed in late adolescence can be traced to a highly heritable externalizing factor. However, significant causal variance in each specific syndrome remained after accounting for the general externalizing factor.

Miranda (2003) studied abnormal emotional reactivity among alcoholics. The author reported that deficits in emotional responsiveness are associated with antisocial personality disorder. The hypothesis was alcohol dependent individuals with comorbid antisocial personality disorder would have abnormalities in affective modulation of startle relative to other groups. Participants included 62 males who were recruited and included three groups: alcohol dependent, alcohol dependent with antisocial personality disorder, and non-alcohol dependent and non-antisocial personality disorder. Results indicated adult male alcoholics with antisocial personality disorder have abnormal emotional responsiveness to both pleasant

and unpleasant stimuli relative to alcoholics without antisocial personality disorder, and controls. Hien and Miele (2003) investigated the salient correlates of maternal antisocial behavior and tested the hypothesis that emotion regulation deficit is a mediating factor linking cocaine abuse to antisocial behavior. Participants included 279 inner-city mothers and compared three groups including substance abusers, depressed mothers, and nonsubstance abusing/nonpsychopathology controls. Results indicated deficits in emotion regulation in the form of maladaptive coping may underlie the potential for maternal antisocial behavior. History of cocaine use disorders among women with children significantly predicted higher levels of antisocial behavior.

Trull, Waudby, and Sher (2004) reported the personality traits most commonly associated with alcohol abuse included impulsivity-disinhibition and neuroticism-negative affectivity. Traits associated with impulsivity-disinhibition include sensation seeking, aggressiveness, impulsivity, and psychoticism. Antisocial personality disorder has been noted to overlap with substance abuse.

Khan, Jacobson, Gardner, Prescott, and Kendler (2005) investigated the degree to which variation in normal personality accounts for the comorbidity of eight common psychiatric and substance use disorders. The authors assessed for internalizing disorders including major depression, generalized anxiety and panic disorders, and phobias; externalizing disorders including alcohol and drug dependence, antisocial personality, and conduct disorders; and personality dimensions of neuroticism, extraversion and novelty seeking. Participants included 7588 people from a population-based twin registry. Results indicated that neuroticism accounted for the highest proportion of comorbidity within internalizing disorders and between internalizing and externalizing disorders. The authors

concluded high neuroticism appears to be a broad vulnerability factor for comorbid psychiatric disorders. Novelty seeking was reported as modestly important for comorbid externalizing disorders.

Treatment of substance abuse disorders has been a concern due to the high rates of substance abuse and the costs of treatment. Researchers have compared treatment outcomes in order to determine the most effective treatment. Additionally, long-term effectiveness of treatment is an important aspect to consider. Ouimette, Finney, and Moos (1997) compared treatment effectiveness of the 12-step program and cognitive-behavioral models of substance abuse treatment. Participants included 3,018 patients from 15 programs at the Veterans Affairs Medical Centers. Results indicated 12-step, cognitive-behavioral, and combined 12-step-cognitive-behavioral treatment programs were equally effective in reducing substance use and improving most other areas of functioning. Interestingly, patients with only substance abuse diagnoses, those with concomitant psychiatric diagnoses, and patients who were mandated to treatment showed similar improvement at the 1-year follow-up, regardless of treatment type.

One of the largest alcohol treatment investigations was Project MATCH. Gordis (2000) summarized the results from this project in his article on the contributions of behavioral science. Project MATCH was a large multisite clinical trial initiated by the National Institute on Alcohol Abuse and Alcoholism. The hypothesis in Project MATCH was that outcome would be improved for patients who were matched to treatments based on patient characteristics. In this 8-year, multisite trial, patients were matched to 12-step facilitation, cognitive behavioral coping skills therapy, and motivational enhancement therapy. Interestingly, results found that patient treatment matching did not substantially alter

treatment outcome. With regard to outcomes of treatment, all three treatment types produced substantial change; however, no clinically significant difference between the treatment types was noted. Conrod, Stewart, Pihl, Sylvana, Fontaine, and Dongier (2000) conducted a study on the efficacy of brief coping skills interventions that match different personality profiles of female substance abusers. Their goal was to conduct a preliminary test of the effect of matching motivation-specific cognitive-behavioral interventions to different personality and motivational profiles for substance abuse. The interventions targeted four different profiles including anxiety sensitivity, introversional hopelessness, impulsivity, and sensation seeking. Results indicated brief interventions were shown to be more effective than a motivational control intervention in facilitating abstinence and remission rates and reducing drug-related problems and concerns. The authors noted female substance abusers might require content-specific cognitive training in anxiety, mood, or impulsivity management in order maximally to reduce their dependence on alcohol and prescription drug use. A trend noted for post-intervention treatment indicated women who received the mismatched and motivational-film interventions required more mental health services during the follow-up period relative to those who received the matched intervention. In their comments about the study, the authors hoped the results renewed interest in research on client treatment matching designs, particularly with respect to designs that focus on personality and motivational risk factors for substance abuse.

Messina, Farabee, and Rawson (2003) investigated treatment responsivity of cocaine dependent patients with antisocial personality disorder. The authors noted that empirical literature assessing the relationship between antisocial personality disorder and substance abuse treatment outcomes is lacking. Existing research has been limited by small sample

sizes, nonrandom designs, and/or the absence of an appropriate control group. The current study compared cognitive-behavioral therapy, contingency management, a combination of cognitive-behavioral and contingency management, and methadone maintenance. Participants included 120 volunteers from two licensed narcotic treatment programs in Los Angeles. Results indicated that a diagnosis of antisocial personality disorder was significantly and positively related to treatment responsivity. Patients with antisocial personality disorder were more likely to abstain from cocaine use during treatment than those without the disorder. Antisocial patients in each of the treatment conditions performed significantly better than antisocial patients in the control condition. Interestingly, antisocial patients in the contingency management condition were significantly more likely to abstain from cocaine use than those in the cognitive-behavioral only condition. Regarding post-treatment outcomes, antisocial patients in the contingency management conditions maintained the highest levels of post-treatment cocaine abstinence. Antisocial patients in all three treatment conditions were more likely to abstain from cocaine use during follow-up than those in the control condition. A clear pattern of post-treatment performance was not evident for the non-antisocial patients. The authors suggested these findings provide evidence against the perception that substance abusers with antisocial personality disorder are unresponsive to drug treatment.

Mullaney (2003) conducted a study to explore the effect of antisocial personality disorder on the outcomes of group treatment interventions with men who have problems with substance abuse. The hypothesis was individuals who were assessed as substance abusers with antisocial personality would be less successful in a substance abuse group treatment program compared with substance abusers who were not diagnosed as antisocial. Participants

included 59 men on parole. One group was assigned to social group work treatment while others were assigned to regular supervision. The hypothesis was not supported. However, significant relationships were found between avoidance of relapse and number of friends, assessment to have dysthymic or post-traumatic stress disorder, and having higher severity scores in drug dependency. The author indicated the need for further study in the generalized area of group treatment for dual diagnosed persons.

In treating substance use, group therapy appears to be the treatment of choice. Due to the high rates of comorbid mental disorders, research has been conducted to determine how patients with these diagnoses function in groups. Bermudez (1998) indicated there is more to addiction than the use of illegal drugs, drug traffic, and the war on drugs. The author noted addiction is more than genes, biochemistry, peer pressure, and social phenomena. The missing link is reported as the addict's lived experience of his personal and collective world that demands inclusion and interpretation. The author indicated the core of any intervention is caring and the goal should be to form a therapeutic alliance that far surpasses the addict's fixation.

Gillaspy, Wright, Campbell, Stokes, and Adinoff (2002) studied group alliance and cohesion as predictors of drug and alcohol abuse treatment outcomes. Participants included 49 men attending group therapy three times per week in a 21-day intensive, residential substance abuse treatment program. Results indicated only group alliance was predictive of clients' ratings of reduced psychological distress. Sena (2003) investigated group cohesion and self-disclosure in group therapy for patients with schizophrenia and substance use disorders. Participants included 38 patients at the Combined Psychiatric and Addictive Disorders Outpatient Clinic at Beth Israel Medical Center in New York City. The two

treatment groups included patients who received Targeted Assertive Outreach and Patients who participated only group treatment. Patients completed the Group Climate Questionnaire at the end of each group for 38 consecutive sessions. Videotaped sessions were evaluated for individual patients emotional involvement and self-disclosure. Emotional involvement was significantly associated with group engagement and self-disclosure was not associated with group engagement. Patients who participated in the Targeted Assertive Outreach did not show an association with emotional involvement and self-disclosure. Group treatment alone groups showed a positive association with self-disclosure. Results also indicated that engagement predicts emotional involvement one to three sessions later.

Litt, Kadden, Cooney, and Kabela (2003) investigated treatment outcomes in cognitive-behavioral and interactional group therapy for alcoholism. The purpose of this study was to determine the role of coping skills in the treatment outcomes of patients assigned to either cognitive-behavioral coping skills or to interactional treatment. It was hypothesized that patients in the cognitive-behavioral therapy group would report greater use of coping skills than would patients in the interactional group. Both treatments produced significant reductions in drinking as well as increases in abstinence rates. Neither treatment proved superior. The authors suggested the results raised questions about what aspects of treatment are necessary to effect change in substance-abusing persons and in other populations as well. They indicated the working alliance as one of the variables to investigate.

Moos (2003) noted when intervention programs are cohesive and expressive, individuals tend to experience high morale and to feel bonded to the setting. When programs emphasize independence and task orientation, individuals tend to become more assertive and

self-confident. Moos noted the need for more research in the area of individuals with severe

substance abuse and psychiatric disorders.

In summary, rates of comorbid occurrence of substance use disorders and mental

disorders are quite high. A variety of research has been conducted in the area of personality

characteristics and how these characteristics relate to substance use. Group therapy is an

effective treatment of substance use, and one type of therapy does not appear to be

significantly better than another type. A noted shortcoming of the literature involving

patients with comorbid diagnoses is research of how these patients function within the

treatment process. Group cohesion and the therapeutic alliance have been cited as the more

salient variable involved in successful treatment. In order to understand cohesion, the

literature on group cohesion will be reviewed.

Group Cohesiveness

Yalom (1985) compared group cohesion with the therapeutic relationship in

individual therapy. In individual therapy, Yalom noted research supports the idea that

successful therapy is mediated by a relationship between therapist and patient that is

characterized by trust, warmth, empathic understanding, and acceptance. Additionally, he

noted the quality of the relationship is independent of the individual therapist's school of

therapy. Yalom noted the relationship in group therapy must have a broader concept. It

should include the patient's relationship to the group therapist, to other group members, and

to the group as a whole. He termed these factors group *cohesiveness*. Further, group cohesion

is not necessarily a therapeutic factor, however, Yalom believed it to be a necessary

precondition for effective therapy.

In his survey of articles regarding cohesiveness, Yalom noted that definitions of group cohesion varied widely. He indicated, in general, groups differ in the amount of group solidarity. Groups with greater solidarity value the group more highly and protect the group against threats. Yalom broadly defined group cohesion as the attractiveness of a group for its members. He also reported a difference between total group cohesion and individual member cohesion. These two types of cohesion are interdependent, and total group cohesion is often determined by the individual members' cohesion. However, it is important to note the individual members' cohesion may differ. Yalom also noted that amount of cohesion fluctuates during the existence of the group.

Yalom (1985) reviewed the therapeutic factors and indicated the paramount factor is the affective sharing of one's inner world and then acceptance by others. This acceptance can challenge one's belief of being repugnant, unacceptable, or unlovable. Groups typically accept individuals regardless of past lifestyles or offenses. Yalom reported knowing many isolated patients for whom the group was their only deeply human contact. Some patients may remember the sense of belonging and group acceptance years afterward. Therapeutic change may persist because the members are unwilling to let the group down. Yalom stressed the importance of group cohesion as beginning in childhood. He noted the importance of belonging to childhood peer groups, cliques, and fraternities. Nothing is more important than being included in a social group and nothing more devastating than being excluded. People rely on each other not only for approval and acceptance, but also for validation of our value systems. So, members of a therapy group come to mean a lot to one another. The group typically experiences a variety of emotional experiences together.

Dickoff and Lakin (1963) indicated group cohesiveness is of major therapeutic value. More than half of the patients they surveyed indicated the primary mode of help as mutual support. The patients who felt improvement were significantly more likely to have felt accepted by the other members, perceived similarity of some kind among group patients, and made specific references to particular individuals when queried about their group experience. Cabral, Best, and Paton (1975) indicated acceptance as the only variable powerfully related to improvement. Kapp, Gleser, Bressenden, Emerson, Winget, and Kashdan (1964) reported self-perceived personality change correlated significantly both with the group members' feelings of involvement in the group and their assessment of total group cohesiveness.

Yalom conducted a study on outpatient therapy groups. Results indicated positive outcome in therapy significantly correlated with group cohesiveness and general popularity. Falloon (1981) found attraction to the group correlated significantly with improved self-esteem and inversely correlated with the group dropout rates. Flowers, Booraem, and Hartman (1981) revealed more patients had greater improvement in high-cohesive groups than in low-cohesive groups. Additionally, patients were more likely to disclose details of major problems in the highly cohesive groups. Clark and Culbert (1965) concluded the quality of the member-to-member relationship is a prime determinant of individual change during the group experience. Lieberman, Yalom, and Miles (1973) found attraction to the group is a powerful determinant of outcome. They noted a patient who felt little sense of attraction to the group, even when measured early, was unlikely to benefit from the group and was more likely to experience a negative outcome. Additionally, groups with higher overall levels of cohesiveness had significantly higher total outcome than groups with lower cohesiveness.

Yalom (1985) examined the method of action for group cohesiveness. He referred to Carl Rogers'(1965) views of the therapeutic relationship and noted the therapist in individual and group therapy functions as a facilitator. This therapist must assist to create conditions favorable for self-expansion. Truax (1961) reported patients in cohesive groups were significantly more likely to engage in deep and extensive self-exploration. Rogers (1969), in reviewing group therapy, indicated acceptance and understanding by group members may carry greater power and meaning than that from a therapist. Peer acceptance is relatively rare for many group members and validation from a group member may prove to be extremely powerful. Rogers (1969) pointed out group members' acceptance of each other may be an extremely slow process as acceptance by others and self-acceptance are mutually dependent. Group members may have considerable self-contempt and a deep contempt for others.

Yalom also discussed self-esteem in relationship to group worth. He viewed self-esteem as a core concept in any approach to personality change. This concept is divided into two areas; self-esteem, one's evaluation of one's identity and public esteem, the group's evaluation of the worth of that aspect of a person's identity that is important to that particular group. Self-esteem is linked to a person's experience in social relationships and is always influenced by the personal evaluation provided by the groups to which one belongs. The influence of a group's public esteem on an individual depends on several factors including how important one feels the group to be, the frequency and specificity of the group's communication to the individual about that public esteem, and the salience to the individual of the traits in question. In other words, the more attracted an individual is to the group, the more the individual respects the judgment of the group, and the more the individual will listen to and take seriously any discrepancy between self-esteem and public esteem. The

discrepancy between public esteem and self-esteem creates a state of dissonance for that individual, and the individual will initiate activity to reduce the dissonance. Yalom (1985) noted non-therapeutic ways of dealing with dissonance, such as devaluing the group. These individuals usually drop out of therapy. The therapeutic method of handling dissonance is to attempt to raise public esteem by changing the traits and attitudes that have been criticized by the group. This resolution is more likely if the individual is highly attracted to the group and if the discrepancy between public esteem and self-esteem is not too great.

An interesting relationship in group therapy is when an individual's self-esteem is lower than the public esteem. Yalom (1985) reported this situation results in the patient trying to resolve the discrepancy by revealing personal inadequacies. In therapy groups, this behavior tends to raise public esteem even more, since disclosure is a group norm and further enhance acceptance by the group. He indicated the most desirable events occur when the patient alters a low level of self-esteem. Chen and Mallinckrodt (2002) found perception of the group atmosphere is influenced by members' individual differences.

Yalom (1985) related public esteem to group popularity. He reported data on group popularity indicated that patients designated by group members as the most popular had significantly better therapy outcomes than the other group members at the end of one year. Three variables which correlate significantly with popularity include previous self-disclosure, group members who were often chosen as leisure companions or work companions, and interpersonal compatibility. He noted the most unpopular patients to be markedly rigid, moralistic, nonintrospective, and the least involved. Some individuals attacked the group and quickly became group isolates. Others never entered the interactional process of the group. Lieberman, Yalom, and Miles (1973) found individuals who were most influential were also

those who engaged in behavior closely in harmony with encounter group values. These members also had a significantly higher outcome. Yalom (1985) summarized this outcome as the social skills the individual displays in the group to attain popularity are reinforced by the popularity the individual achieves, and these very same skills are likely to help the individual deal more effectively with interpersonal problems outside the group.

In addition to greater acceptance, intimacy, and understanding, cohesive groups also allow greater development and expression of hostility and conflict. Hostility can be damaging when unexpressed as hostile attitudes may interfere with effective interpersonal learning. However, when communication is open, there is the possibility for conflict resolution, personal growth, and attitude change. Cohesiveness encourages open communication as group members mean enough to each other to bear the discomfort of working through a conflict. Yalom (1985) related several research studies that demonstrate cohesiveness is positively correlated with risk taking and intensive interaction. Cohesive groups can derive constructive benefit from conflict. Also important in the therapeutic process is for patients to have the experience of dealing with an attack. Conflict can enhance self-disclosure and many patients are able to go beyond statements of position, and understand other patient's experiential world. Working through and resolving extreme dislike of another patient can be an experience of great therapeutic power.

In addition to expressing hostility within the group, cohesive groups are more able to express hostility toward the leader. Despite personal style or skill of the group leader, the therapy group will often experience some degree of resentment toward the leader. If group members avoid these feelings, they may attack each other or discourage open expression of

feelings. The process of confronting the leader is self-reinforcing. An attack on the leader that is handled in a nondefensive and non-retaliatory way serves to increase cohesiveness.

Berzon, Pious, and Farson (1963) indicated that main therapeutic mechanisms resided in the interaction among group members rather than any involving the therapists. Patients completed a questionnaire in which they described the incident they considered the most personally important. The most frequent responses included increased awareness of emotional dynamics, recognizing similarity to others, feeling positive regard for others, seeing self as seen by others, expressing self assertively in the group, witnessing honesty/openness in others, feeling responded to by others, feeling warmth generally in the group and ventilating emotions. Dickoff and Lakin (1963) found social support was experienced by the patients as the chief therapeutic mode.

Yalom, Tinklenberg, and Gilula (1975) reviewed the therapeutic factors in twenty successful long-term group therapy patients. The researcher asked the therapists to select their most successful patients. The most important therapeutic factor by the consensus of patients was discovering and accepting previously unknown or unacceptable parts of themselves. The other items most helpful were being able to say what was bothering them instead of holding it in, other members honestly telling others what they thought of them, learning how to express their feelings, and the group's teaching about the type of impression members made on others.

The therapeutic factors least valued by the patients were also discussed (Yalom, 1985). Therapy group and personal growth group research reported the same outcome for these factors. The factors include family re-enactment, guidance, and identification. This

outcome suggested the most important part of the therapeutic process in therapy groups is an affectively charged, self-reflective interpersonal interaction.

Following Yalom's lead in the exploration of group cohesion, other researchers conducted studies of group cohesion and the working alliance in therapy. Although the initial concept remained the same, some researchers expanded and modified the definition of cohesion. Dion (2000) noted the word *cohesion* is from the Latin word meaning to cleave or stick together. He described the process of cohesion as keeping members of a small group or larger social entity together and united to varying degrees. He also used attraction, morale, syntality, and solidarity as being applied to groups as cohesion. In this article, Dion reviewed the history of the term *cohesion* and how this term applies to groups. One difference, he noted, is that some investigators believe cohesion is a property of the group as a whole and some believe that cohesion is manifested at the individual level. Additionally, Dion related an emergence of task cohesion and social cohesion. This task-social distinction has been proposed as being a primary dimension of cohesion that applies to most groups.

Burlingame, Fuhriman, and Johnson (2001) defined cohesion as including all therapeutic relationships in group psychotherapy, namely member-to-leader, member-to-member, and member-to-group relationships of all kinds. As member-to-member and member-to-group relationships are found to be primary therapeutic mechanisms in group therapy, development of the optimal therapeutic environment in groups requires attention be directed to both individual growth and growth of the group as a whole. This article indicated the group therapist as often able to contribute most to the group members by fostering relationships among the members and assisting the members to learn to help each other. The therapeutic tasks for the group members is to successfully negotiate the group therapy

relationships so that the group therapy format becomes curative instead of a competition between group members for the therapist's time and attention. Burlingame described the therapeutic processes underlying cohesion as intrapersonal and interpersonal. Intrapersonal elements include a group member's sense of belonging and acceptance and a personal commitment and allegiance to the group. Intragroup elements include attractiveness and compatibility felt among the group; mutual liking and trust; support, caring, and mutual stimulation; and collective commitment to the group work.

Burlingame et al. (2001), in a survey of the literature, reported a variety of contributors deemed important to the emotional climate of the group. Positive benefits result from group therapists who are warm, accepting, and who convey a positive regard for the individual member and the group. Positive effects are also noted from therapists who are empathic and display genuineness in their interaction with the members. Some members who drop out of group report their therapist as being unsupportive and remote. Characteristics of group members include empathy, support, caring, acceptance, and trust. The lack of these elements may contribute to member dropout. Some literature suggests a client's acceptance by the other group members may be as important as acceptance by the therapist. Burlingame further notes the literature primarily emphasized a single relationship dimension focusing on the member to group relationship. More neglected relationship dimensions include member-to-member, leader-to-group, and leader-to-leader.

Chen and Mallinckrodt (2002) described group cohesion as an emotional bond among the group members and leaders, or a form of attachment held by an individual member for the group as a whole. As such, the level of cohesion in a therapy group may be affected by personality characteristics in general. Group members with attachment avoidance or anxiety

may experience difficulty developing an emotional bond in the initial stages of group development. The authors reported cohesion has been increasingly theorized as a group version of working alliance in individual therapy. Additionally, Chen and Mallinckrodt noted although group cohesion may be defined and measured from different perspectives and at both group and individual levels, analysis of cohesion from the individual's perspective, or one's attraction to the group, is of particular significance in the context of group therapy. This study investigated attachment theory as applied to therapy groups. Participants in the study included 18 male and 58 female counseling psychology graduate students. Results support the utility of the integration of attachment theory and the interpersonal circumplex for understanding group therapy phenomena. Chen and Mallinckrodt reported results of the study provided considerable correlational evidence consistent with Yalom's view that the perception of the group atmosphere is influenced by members' individual differences.

Gillaspy, Wright, Campbell, Stokes, and Adinoff (2002) studied group alliance and cohesion as predictors of drug and alcohol abuse treatment outcomes. Participants included 49 men attending group therapy 3 times per week in a residential substance abuse treatment program. Outcome was measured at 30 days following discharge. Results indicated group alliance was predictive of client ratings of reduced psychological distress.

Ogrodniczuk and Piper (2003) examined the effect of group climate on outcome in short-term group therapy. This article reported a variety of factors involved in group climate. Engagement reflects cohesion and self-disclosure among the members as well as group members' attempts to understand the meaning of their behavior. Challenge and tactful confrontation promote social learning. Avoidance perpetuates members' dependence on both the therapist and other group members. As a result of avoidance, members are reluctant to

address difficult issues. Conflict is likely to lead to withdrawal or outbursts of anger. This study used data from a completed randomized clinical trial that investigated the efficacy of interpretive and supportive forms of group psychotherapy for patients experiencing complicated grief. Participants included 107 patients who were referred from the Psychiatric Treatment Clinic in Alberta, Canada, if they met inclusion criteria for complicated grief. Therapists included a male psychologist, a female social worker, and a female occupational therapist. In this study, each patient received a form of group therapy that emphasized interpretive or supportive features. Results revealed engagement was significantly related to favorable treatment outcome. Interestingly, neither avoidance nor conflict was significantly related to outcome. The authors noted engagement captures many elements of cohesion. An explanation offered for the significant effect of engagement was group members who perceive that patients get along well with each other are better able to engage in the treatment and thus receive greater benefits from the group. Results from this study clearly showed group climate has an important relationship to therapeutic gain. The authors noted a need to examine group climate more closely in order to understand how clinicians may enhance a favorable group climate and improve the outcome of group therapy.

Burlingame, Fuhriman, and Mosier (2003) explored the relationship between improvement rates in group psychotherapy and several treatment, therapist, client, and methodological variables. The authors conducted a meta-analysis of 111 studies conducted during the past 20 years. The settings were most often university counseling centers, correctional institutions, and outpatient mental health organizations. Professionals identified in the studies were largely doctoral-level psychologists and cognitive-behavioral was the most used theoretical orientation. The authors expressed a need for research from various

settings. They cited the group efficacy literature as encompassing a broad range of content areas but more limited regarding the sources of data. Source and content variables were not significantly related to the effectiveness of treatment. Results indicated clients in homogeneous groups outperformed those in groups with mixed symptoms. Outpatient groups showed more improvement than inpatient groups. Members of mixed gender groups had higher gains than all-male and all-female groups. Patients with depression benefited significantly more from group treatment than did patients with medical conditions, stress-related disorders, no diagnoses, and neurotic disorders. Patients with eating disorders improved significantly more from group therapy than did patients with medical or stress-related conditions, sexually abused patients, outpatients, inpatients, neurotics, normals, and those in correctional institutions. The study found social adjustment measures yielded the highest levels of improvement for group treatment. Overall the data from the study confirmed the general and selected diagnostic effectiveness of group treatment.

Piassick (2004) compared short-term theme group and short-term process group interventions on the dimensions of cohesion, symptom reduction, and client satisfaction. The study included thirty-two process group participants and thirty-six theme group participants who completed self-report measures at the conclusion of the first, fourth and final sessions. Results found cohesion did correlate with, and predict, client satisfaction regardless of the group type. This article noted group members who reported their groups to be cohesive were more likely to report greater satisfaction with the experience in the group. This study also noted symptom reduction was greater in theme groups than in process groups. Interestingly, symptom reduction did not correlate or predict client satisfaction.

A number of studies examined the relationship between therapist and client in individual therapy and how mental disorders can complicate the formation of a therapeutic alliance. These types of relationship influences have not been investigated in group therapy. Barber, Connolly, Crits-Christoph, Gladis, and Siqueland (2000) investigated the relationship between the therapeutic alliance and outcome. Participants in the study included 86 patients with generalized anxiety disorders, chronic depression, or avoidant or obsessive-compulsive personality disorder. The patients received supportive-expressive dynamic psychotherapy. Results indicated measures of the therapeutic alliance from the early phase of treatment predicted the outcome of psychotherapy. The authors noted patients whose symptoms improved tended to have a stronger bond and collaboration with their therapists, and that, in turn, led to subsequent improvement in depression.

Horvath (2001) defined therapeutic alliance as the quality and strength of the collaborative relationship between client and therapist in therapy. Early alliance is a marginally better predictor than mid-therapy alliance. This article reported three client factors that impact the quality of the alliance: problem severity, type of impairments, and quality of attachments. Also pointed out in this article were the difficulties in developing an alliance with borderline and other personality-disorder clients. Problems noted with this population include these clients find it difficult to engage in an intimate relationship with a therapist and are likely to solicit negative therapist responses. Additionally, Horvath noted clients with severe problems are more likely to have difficulties developing a strong alliance with new therapist as opposed to more experienced therapists. This article also reported collaboration as a key feature of the therapeutic alliance.

Taft, Murphy, Musser, and Remington (2004) indicated personality disorder characteristics and interpersonal problems influence the working alliance indirectly through motivational readiness to change. Individuals who possess rigid personality disorder traits and interpersonal styles tend to be less likely to see a need to change their behavior and are, therefore less amenable to positive alliance formation. In their study, Taft et al (2004) investigated predictors of the working alliance among a sample of men in a Cognitive Behavior Therapy group for partner violence. Participants included 107 men seeking counseling for perpetration of domestic abuse at a community-based agency. Results indicated a number of factors to be associated with positive working alliance formation among partner violent men. These factors included high motivational readiness to change, low psychopathic personality characteristics, low borderline personality disorder traits, fewer total and hostile-dominant interpersonal problems, self-referred status, married status, and higher age and income. This study noted motivational readiness to change was particularly important for establishing a positive working alliance. In summary, patients who enter treatment with low motivation to change are unlikely to agree with the therapist on the goals and tasks of treatment, and may have difficulty developing a warm and trusting therapeutic bond.

Although personality difficulties have not been notably explored in group therapy, group similarities have been studied. Dumas-Brown (1999) found homogenous groups were more cohesive and were more likely to make the transition to group identification. Additionally, homogenous group made the transition to group identification faster than did heterogeneous groups. Kuentzel (2004) conducted research regarding perceived social support and the therapeutic alliance. The study involved 54 outpatient psychotherapy clients

where pretreatment personality and symptoms were measured with the MMPI-2. Levels of global perceived support and ratings of the working alliance were strongly correlated. Pretreatment personality and symptoms were significantly predictive of perceived support scores. However, these scores were not predictive of the therapeutic alliance. Results from this study indicated clients who saw their therapists as similar to themselves had better working alliances with their therapists. This perception may facilitate judgment of the therapist as supportive.

The therapeutic alliance has been deemed as important during therapy; however, several studies have noted that patients and therapists have different interpretations regarding the relationship. Cowle (2003) noted therapists and clients had different perceptions of the therapeutic alliance. This study's goals were to use a qualitative research approach to provide a phenomenological understanding of how clients and therapists experience and perceive the alliance, and to explore whether there are systematic ways in which clients' and therapists' alliance evaluations differ. The sample for this study included twelve therapy dyads where clients and therapists were interviewed individually after the fourth session of psychotherapy. A semi-structured interview format was used. Results from this study indicated clients were in general more positive than therapists about the alliance. Clients tended to view the alliance from a personal level, while therapists viewed the alliance more business-like. Therapists were generally more skeptical than clients regarding progress. Hadge (2003) examined predictors of the working alliance at an early stage of psychodynamic psychotherapy. Predictors included patients' personality traits such as narcissism, depression, and optimism and therapy process variables such as empathy, narcissistic gratification, idealization, externalization, and criticalness/devaluation. Participants in this study included 44 patient-

therapist dyads from an outpatient psychiatric clinic affiliated with a large university. This study found patients' and therapists' views of alliance were uncorrelated. Additionally, therapists rated the alliance of patients with high overt narcissism and high depression more favorably than they rated patients in other narcissism-depression groups. Male therapists tended to rate the alliance more favorably and felt more idealized by patients than did female therapists.

This difference in perception between therapist and patient was also noted in group therapy. Helms (2003) investigated the therapeutic factors found in a group therapy treatment program for male batterers. Participants included 22 male batterers and 6 therapists. Group members indicated the most helpful factors as instillation of hope, catharsis, altruism, and interpersonal learning input. Interestingly, group members who showed improvement did not value the factors differently than group members who did not show improvement. Additionally, results showed that therapists and group members did not agree on which therapeutic factors were most and least helpful to group members.

Therapists' intentions differ between group therapy and individual therapy although the alliance remains an important consideration. Building on Yalom's work, Kivlighan and Kivlighan (2004) hypothesized individual therapists used intention dimensions involving direct work with their clients, whereas group therapists used intentions reflecting a more indirect focus of work. Group climate is a concern in group therapy and client issues is a concern in individual therapy. Participants in this study included 20 experienced doctoral-level therapists. These therapists represented a variety of settings, although the majority worked in university counseling centers. Results provided some support for the direct versus indirect distinction in therapists' endorsement of intentions in their group versus individual

treatment. Therapists who reviewed group therapy tapes were more likely to focus on relationships and climate of the therapeutic interaction. The therapeutic factors considered the most important were interpersonal learning and group cohesiveness.

The working alliance has been investigated for influence on outcome and reduction of symptoms. Carozzoni (2002) assessed the hypothesized relationships between the working alliance and four measures of individual career counseling outcome. The final sample included 89 students. Results found working alliance as an important process variable in facilitating positive outcomes in individual career counseling. Geller (2002) conducted a qualitative analysis during 7 interviews with expert therapists who are proponents of the quality of presence in psychotherapy. A working model of presence was designed with 3 overarching categories of therapeutic presence. This model was used as the basis to form a self-report measure reflecting the experience of presence. Results indicate clients' perception of therapists' presence contributed to clients' perspective of the therapeutic alliance and good session outcome. Therapists' ratings of their own presence did not relate to alliance or outcome, as rated by the clients.

Magyar-Moe (2004) conducted a study in order to determine how much of the variance in psychotherapy treatment outcome can be explained by the constructs of working alliance, hope and client expectations, and personal growth initiative, all categories of Wampold's model of therapy outcome. Another goal of this study was to determine the outcome variance of these variables when using two different outcome measures. Participants in the study included 124 clients from eight university counseling centers located throughout the Mid-Western and Southern United States. This study found clients who reported high levels of hope and personal growth initiative, along with elevated working alliance scores

and positive expectancies about counseling also reported experiencing higher subjective well-being and lower levels of symptom distress.

Marmarosh, Holtz, and Schottenbauer (2005) examined group cohesiveness, group-derived collective self-esteem, group-derived hope, and the well-being of group therapy patients. This study was designed to test Yalom's hypothesis that group therapy cohesiveness is the precursor to the development of group-derived collective self-esteem, hope for self, and psychological well-being. Participants included 102 university counseling center group therapy clients from process and theme groups. Specific measures were the Collective Self-Esteem Scales, Cohesiveness Questionnaire, and assessment of hoped-for self. Results supported Yalom's hypotheses about group cohesiveness and how group cohesiveness leads to group collective self-esteem, hope, and measure of well-being such as depression and self-esteem. The authors used the group members' individual perception of group cohesiveness instead of an actual group factor of group cohesiveness. They noted group therapists should be aware that in addition to building a sense of value and liking of the group, it is important to address how group members internalize the group and perceive others to view their group. Additionally, they reported group members may feel positively about their therapy group but feel that they are unimportant members. Collective self-esteem investigates all of these different aspects of group membership. The authors reported the need for additional research for different types of therapy groups.

In reviewing the direction of future research, MacNair-Semonds (2000) identified a concern as the overrepresentation of investigations with confined populations and laboratory group experiments. The author cited a need to provide studies of groups in more realistic settings.

The purpose of the present study was to gain insight into group therapy variables with substance abusers that have a comorbid personality disorder. Limited research was available in this area, particularly in real-life settings. By examining aspects of cohesion in an inpatient facility that treats substance abusers with and without personality disorders, this study added needed information regarding differences in the variables effecting group therapy outcome. Understanding differences in group therapy variables among this population could influence future treatment interventions. Although there has been some research on how personality disorders effect the therapeutic alliance in individual therapy, little has been conducted in group therapy. Understanding how personality disorders affect the group atmosphere will add to the quality of the treatment and assist therapists in group leadership.

Hypotheses

The present study addressed the need for further research in the area of comorbid substance use disorders and personality disorders. As group cohesion has been cited as necessary for positive outcomes, this variable was measured in several ways. The overall atmosphere of the group was assessed to determine how each member felt about the group's work. Self-worth or self-esteem of each member was assessed in order to determine the individual member's self-evaluation or how valuable they felt they were to the group. Another aspect of cohesion is the therapeutic alliance. Each group member assessed the group leader and their perception of the relationship between leader and member. Group members with personality disorders were compared to group members without personality disorders on all aspects of cohesion to determine if there were differences in perception on variables involved in cohesion.

Another shortcoming in the literature that was addressed in this study is that of real-life setting. The study was conducted in an ongoing inpatient treatment facility with a variety of substance abuse counselors who regularly conduct group therapy. No additional training or instruction occurred prior to the study.

Introduction to Hypothesis Set 1

The Group Climate Questionnaire has been used to assess overall group cohesion. This questionnaire is divided into three scales. Scale 1, Engaged, describes the positive working group atmosphere. Scale 2, Conflict, reflects anger and tension in the group. Scale 3, avoiding, describes behaviors indicating avoidance of personal responsibility of group work by the members (MacKenzie, 1983).

Hypothesis 1A. It was hypothesized that there would be a significant difference between groups on Scale 1 of the Group Climate Questionnaire, with patients without personality disorders rating engagement as higher.

Hypothesis 1B. It was hypothesized that there would be a significant difference between groups on Scale 2 of the Group Climate Questionnaire, with patients with comorbid personality disorders rating conflict higher.

Hypothesis 1C. It was hypothesized that there would be a significant difference between groups on Scale 3 of the Group Climate Questionnaire, with patients with comorbid personality disorders rating avoidance as higher.

Introduction to Hypothesis Set 2

Another aspect of cohesion is self-worth or how an individual feels about him/herself. This perception can impact the person's function within the group and impact how valuable they believe their contribution is to the group. The Contingencies of Self-Esteem measure

focuses on seven domains suggested to be important internal and external sources of self-esteem in previous research and theory (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). These domains include others' approval, physical appearance, outdoing others in competition, academic competence, family love and support, being a virtuous or moral person, and God's love.

Hypothesis 2A. It was hypothesized that there would be a significant difference between groups on the domain of competition on The Contingencies of Self-Esteem, with patients with comorbid personality disorders rating competition as higher.

Hypothesis 2B. It was hypothesized that there would be a significant difference between groups on the domain of virtue on the Contingencies of Self-Esteem, with patients with comorbid personality disorders rating virtue as higher.

Hypothesis 2C. It was hypothesized that there would be a significant difference between groups on the domain of others' approval, with patients with comorbid personality disorders rating others' approval as higher.

Introduction to Hypothesis 3

The third aspect of cohesion in this study was the therapeutic alliance. As the patients' perception is considered to have the most impact on outcome, the Working Alliance Inventory – Client Form was administered. This instrument includes items that fall into three domains: bond, goal, and task. Patients indicate their opinions about their therapists and their therapy sessions (Tracey & Kokotovic, 1989).

Hypothesis 3. It was hypothesized that there would be a significant difference between groups on the scores obtained from the Working Alliance Inventory – Client Form, with patients without a comorbid personality disorder rating the alliance as higher.

Data Analysis

For this study, the independent variables included four groups: substance abuse patients with Cluster A personality disorders, substance abuse patients with Cluster B personality disorders, substance abuse patients with Cluster C personality disorders, and substance abuse patients with no personality disorders. The dependent variables were the scores on the administered tests including the score on Scale 1 of the Group Climate Questionnaire, the score on Scale 2 of the Group Climate Questionnaire, the score on Scale 3 of the Group Climate Questionnaire, the score on the competition domain of the Contingencies of Self-Esteem, the score on the virtue domain of the Contingencies of Self-Esteem, and the overall score on the Working Alliance Inventory – Client Form. Statistical significance was determined by using Analysis of Variance (ANOVA) for each hypothesis. A post-hoc analysis using Tukey's HSD was conducted to determine the specific group differences.

Summary

Substance abuse disorders have been the topic of extensive research (Gillaspy, Wright, Campbell, Stokes, & Adinoff, 2002; Gordis, 2000). Of particular concern are substance abusers that have a comorbid mental disorder. Research indicated that this population is more complicated to treat (Messina, Farabee, & Rawson, 2003; Tomasson & Vaglum, 2000). In reviewing treatment options, group therapy is the treatment of choice in substance abuse (Moos, 2003). When comparing types of group therapy, no one therapy

appears significantly better than others (Gordis, 2000). While substance abusers with comorbid mental disorders have been the subject of research, this research is limited. Real-life settings have rarely been used to determine salience of therapy variables (Moos, 2003). Much of the research is focused toward outcome rather than differences in process variables (Litt, Kadden, Cooney, & Kabela, 2003). Although difficulties in personality characteristics of patients with mental disorders have been acknowledged, these difficulties have not been tested in group settings.

The current study attempted to address these shortcomings in the research by comparing substance abuse patients with comorbid personality disorders to substance abuse patients without a personality disorder on variables salient to the therapy process. The variables were included within the dynamics of group cohesion. Three surveys were administered to determine overall group cohesion, individual member self-esteem, and the patients' perception of the working alliance. It was predicted, based on the personality characteristics of the patients with comorbid personality disorders, that the patients with a comorbid personality disorder would rate conflict and avoiding as higher when looking at overall group climate. Prediction for the patients without a personality disorder was they would rate engagement as higher. Regarding member self-esteem, it was predicted that patients with a comorbid personality disorder would rate competition, virtue, and need for others' approval as higher. The third variable involved in cohesion is the working alliance. It was predicted that patients with a comorbid personality disorder would rate the alliance lower than patients without a comorbid mental disorder. In order to address the need for research in actual treatment settings, this study was conducted in an active substance abuse treatment facility.

CHAPTER 2

Method

Participants

Participants were all 64 inpatients from a private substance abuse treatment facility.

All of the participants were informed of their right to withdraw participation in the study and

that withdrawal would not impact their treatment.

Measures

Participants received a packet that contained measures of group therapy factors,

individual factors, and a personality inventory. The specific measures were the Group

Climate Questionnaire (MacKenzie, 1983), the Contingencies of Self-Worth Scale (Crocker,

Luhtanen, Cooper, & Bouvrette, 2003), the Working Alliance Inventory – Client Form, Short

Form (Horvath, 1981, 1986), and the Millon Clinical Multiaxial Inventory – III (MCMI-III;

Millon, 1997a).

Group Climate Questionnaire

The Group Climate Questionnaire – Short Form (GCQ-S) was administered in order

to measure each participant's perception of the group atmosphere (MacKenzie, 1983). The

GCQ-S is composed of 12 items rated on a 6-point Likert scale indicating degree of

agreement ranging from 1 (not at all) to 6 (extremely). According to a factor analysis

(MacKenzie, 1983), three dimensions emerged including engaged (5 items measuring the

degree of cohesion and work orientation in the group); avoiding (4 items indicating the

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degree to which individuals rely on the group members or leader); and conflict (2 items describing the amount of interpersonal conflict and distrust, and 1 item addressing the amount of intrapersonal uneasiness and tension). Kivlighan and Goldfine (1991) administered the GCQ-S to students in personal growth groups and reported coefficient alphas for the scales ranged from .88 to .94.

Contingencies of Self-Worth Scale

The Contingencies of Self-Worth Scale consists of seven domains hypothesized to be important internal and external sources of self-esteem: others' approval, physical appearance, outdoing others in competition, academic competence, family love and support, being a virtuous or moral person, and God's love. Although research using this measure is limited, there are indications that the measure is reliable and valid (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). Correlations among the contingencies of self-worth indicate that they fall on a continuum from internal to external. In the Crocker et.al. (2003) study, the test-retest correlations ranged from .68 to .92 for the 3-month interval and .51 to .88 for the 8.5-month interval. The most stable contingency noted was God's Love, and the least stable was Academic Competence. Correlations with other personality characteristics never exceeded .30.

Working Alliance Inventory – Short Form

The Working Alliance Inventory – Short From (WAI; Horvath & Greenberg, 1989; Tracey & Kokotovic, 1989) consists of 12-items designed to assess the client's relationship with a treatment provider. The WAI measures one general alliance dimension as well as three specific alliance factors including task, bond, and goal. Busseri and Tyler (2003) compared the short form with the expanded Working Alliance Inventory and found that the

scores were highly correlated and had comparable descriptive statistics, internal

consistencies, and subscale intercorrelations within and across rater perspectives. Results

supported the interchangeability of scores from these two measures. Internal consistency

estimates for client and therapist on the WAI – S subscales and total scores ranged from .83

to .98.

Millon Clinical Multiaxial Inventory – III (MCMI-III)

The MCMI-III (Millon, 1994) is a 175-item, true-false, self-report inventory that

measures personality disorders and clinical syndromes grouped by level of severity. These

disorders correspond closely to most of the Axis I and II categories of the diagnostic system

of the *DSM-IV-TR* (2000). A base rate of 85 or greater suggests a disorder of clinical

significance and this cutoff was used to define the groups in the study. The MCMI-III has

four scales that are used to detect the presence of response sets and invalid profiles.

Following test manual recommendations, invalid profiles were excluded from the study. It is

noted that the MCMI has been criticized as a diagnostic instrument and few studies have

used the MCMI-III in substance abusers.

Regarding reliability, the MCMI-III internal consistency results for the clinical scales

range from .66 for the Compulsive scale to .90 for Major Depression. Alphas exceed .80 for

20 of the scales.

Procedures

Participants were asked to participate voluntarily in a study assessing the differences in measures of group cohesion between substance abusers with mental disorders and substance abusers with no diagnosed mental disorders. Prior to the study, participants were informed of the purpose of the study and given a consent form to read and sign (See Appendix A for Human Subjects Consent form). This consent form assured the participants of their rights to confidentially and anonymity, and of their right to refuse to participate in the study any time during the course of the study. Consenting participants completed a protocol composed of a short demographics section (See Appendix B) and four other instruments: the Group Climate Questionnaire; See Appendix C) the Contingencies of Self-Worth (See Appendix D); the Working Alliance Inventory; and the Millon Clinical Multiaxial Inventory – III. The Working Alliance Inventory and the Millon Clinical Multiaxial Inventory – III were not reproduced in the Appendix due to copyright protection. In order to protect the privacy of the patients, only facility staff administered the instruments. The patients gathered in one room in order to complete the packet. There were no distractions. Patients completed that packet in 1.25 hours to 2 hours. The packet sequence was as follows: Consent Form, Demographics, MCMI-III, the WAI, the CSW, and the GCQ. The researcher received the raw data and demographic information only.

Following the administration of the survey packet,   The Millon Clinical Multiaxial Inventory – III (MCMI-III, 1997a) was used to assign patients into groups consistent with the *DSM-IV-TR* (2000) classification of personality disorders. Six patients were excluded based on invalid profiles. The remaining patients were assigned to groups including Cluster A personality types, Cluster B personality types, Cluster C personality types, and a group with

no typology. A base rate over 85 was used to determine the presence of a personality type. The patients were divided as follows: Cluster A – 6 males, 1 female; Cluster B – 14 males, 8 females; Cluster C – 10 males, 10 females; and None – 9 males, no females.

Data Analysis

When patients were assigned to either Cluster A, Cluster B, Cluster C, or the group with no diagnosed personality disorders; a oneway Analysis of Variance was used to test each hypothesis. If a significant difference was determined, a post-hoc comparison using Tukey's HSD was conducted.

CHAPTER 3

Results

The following chapter presents the outcome of data analyses and hypothesis testing of the current study. Descriptive statistics for each of the variables are presented first. This is followed by a description of the method used to define the groups. Finally, the results of each of the research hypotheses are presented. At the conclusion of the chapter, a summary of the results of the research hypotheses is presented.

Demographics

To determine the effect of mental disorders on measures of group cohesion, all patients in a private substance abuse treatment facility were surveyed. The majority of the patients were Caucasian. Of the 64 total patients who participated in the study, 44 were men and 20 were women. Participants ranged in age from 18 to 60 with a mean of 33.7 and a standard deviation of 11.35. Substance used included alcohol (28%), cocaine (13%), methamphetamines (12%), opiates (28%), heroin (3%), marijuana (4%), ecstasy (4%), benzodiazepines (12%), and other substances (12%). Twenty percent of participants used multiple substances. Forty-one percent of participants received no pharmacological treatment. Of those receiving pharmacological treatment, 37% received an antidepressant, 12% received an antipsychotic, and 9% received a mood stabilizer.

Selection Procedure

The Millon Clinical Multiaxial Inventory – III (MCMI-III, 1997a) was used to assign patients into groups consistent with the *DSM-IV-TR* (2000) classification of personality disorders. Six patients were excluded based on invalid profiles. The remaining patients were assigned to groups including Cluster A personality types, Cluster B personality types, Cluster C personality types, and a group with no typology. A base rate over 85 was used to determine the presence of a personality type. The patients were divided as follows: Cluster A – 6 males, 1 female; Cluster B – 14 males, 8 females; Cluster C – 10 males, 10 females; and None – 9 males, no females.

Descriptives

Table 1 displays the means and standard deviations for each group on the measures of the independent variables included in the hypothesis testing.

Table 1: *Means and Standard Deviations of Total Group on Measures of the Dependent Variables*

Measure	M	SD
WAI – Total Score	5.5182	0.9447
WAI – Task Scale	5.5921	0.8997
WAI – Bond Scale	5.5747	1.0949
WAI – Goal Scale	5.2579	1.1265
CSW – Competition Scale	5.0842	1.2392
CSW – Virtue Scale	5.5228	0.7917

CSW – Approval from Others Scale	4.8632	1.2712
GCQ – Engaged	4.6965	0.8071
GCQ – Conflict	1.1389	1.0610
GCQ – Avoiding	3.3611	1.1005

Hypotheses

In the following section, the results of the seven experimental hypotheses are presented. The first three hypotheses compared the responses of patients with identified personality typologies and patients with no personality typology on perceptions of group climate, an aspect of group cohesion. The fourth, fifth, and sixth hypotheses examined aspects of self-worth between the four groups. The final hypothesis compared scores on perceptions of the working relationship in therapy between the four groups.

Hypothesis 1A

The first hypothesis tested in the current study was perceptions of the group climate among the various groups. More specifically, it was hypothesized that the group without personality typology would rate group engagement higher than the groups with mental disorders. A oneway Analysis of Variance was used to test this hypothesis, with personality group as the independent variable and GCQ – engagement score as the dependent variable. Table 2 illustrates the results of this analysis. The results of the analysis did not support this hypothesis, indicating that there was no significant difference in ratings of group engagement.

Table 2: *Results of Analysis of Variance for the Dependent Variable GCQ – Engaged*

	Sum of Squares	*df*	Mean Square	*F*	*p*
Between Groups	2.698	3	0.899	1.411	0.250
Within Groups	33.781	53	0.637		
Total	36.479	56			

Hypothesis 1B

The second hypothesis tested in the current study compared perceptions of group conflict. More specifically, it was hypothesized that groups with personality disorders would rate group conflict higher than the group with no personality disorder. An Analysis of Variance was used to test this hypothesis, with personality group as the independent variable and GCQ – conflict score as the dependent variable. Table 3 illustrates the results of this analysis. Interestingly, analysis indicated that the opposite occurred in that one of the groups identified as having personality disorders rated conflict significantly lower.

Table 3: *Results of Analysis of Variance for the Dependent Variable GCQ – Conflict*

	Sum of Squares	*df*	Mean Square	*F*	*p*
Between Groups	11.249	3	3.750	3.838	0.015
Within Groups	51.787	53	0.977		
Total	63.036	56			

Post-hoc comparisons using Tukey's HSD indicated a significant difference between the group of patients identified with Cluster B personality disorders and the group of patients with no personality disorder. The patients with Cluster B personality disorders rated conflict in the group significantly lower than the group with no personality disorders.

Hypothesis 1C

This hypothesis examined group members' perceptions of avoidance in the overall group climate. Specifically, it was hypothesized that group members in the groups with a personality disorder would rate avoidance on the GCQ higher than group members with no personality disorder. A oneway Analysis of Variance was used to test this hypothesis, with personality group as the independent variable and GCQ – avoidance score as the dependent variable. Table 4 illustrates the results of this analysis. The results of the analysis did not support this hypothesis since there was no significant difference in the ratings between the groups.

Table 4: *Results of Analysis of Variance for the Dependent Variable GCQ – Avoiding*

	Sum of Squares	*df*	Mean Square	*F*	*p*
Between Groups	.204	3	6.784	.053	.984
Within Groups	67.622	53	1.276		
Total	67.826	56			

Hypothesis 2A

This hypothesis examined the relationship of group membership to ratings of competition. More specifically, it was hypothesized that group members with personality disorders would rate competition higher on the CSW than group members with no personality disorder. A oneway Analysis of Variance was used to test this hypothesis, with personality group as the independent variable and CSW–competition rating as the dependent variable. Table 5 illustrates the results of this analysis. The results of the analysis did not support this hypothesis.

Table 5: *Results of Analysis of Variance for the Dependent Variable CSW – Competition*

	Sum of Squares	*df*	Mean Square	F	*p*
Between Groups	6.602	3	2.201	1.469	.233
Within Groups	79.394	53	1.498		
Total	85.996	56			

Hypothesis 2B

This hypothesis examined the relationship of group membership to members' perception of virtue. More specifically, it was hypothesized that groups of patients with personality disorders would rate virtue higher than the group without personality disorders. A oneway Analysis of Variance was used to test this hypothesis, with personality group as the independent variable and CSW–virtue rating as the dependent variable. Table 6 illustrates the results of this hypothesis. The results of this analysis did not support this hypothesis.

Table 6: *Results of Analysis of Variance for the Dependent Variable CSW – Virtue*

	Sum of Squares	*df*	Mean Square	*F*	*p*
Between Groups	.903	3	.301	.466	.707
Within Groups	34.198	53	.645		
Total	35.100	56			

Hypothesis 2C

This hypothesis examined the relationship of group membership to ratings of the need for approval from others. More specifically, it was hypothesized that groups with personality disorders would rate the need for approval from others higher than the group with no personality disorders. A oneway Analysis of Variance was used to test this hypothesis, with personality group as the independent variable and CSW–need for approval rating as the dependent variable. Table 7 illustrates the results of this analysis. The results did not support the hypothesis.

Table 7: *Results of Analysis of Variance for the Dependent Variable CSW – Approval from*

Others

	Sum of Squares	df	Mean Square	F	p
Between Groups	7.771	3	2.590	1.660	.187
Within Groups	82.721	53	1.561		
Total	90.493	56			

Hypothesis 3

The final hypothesis tested in the current study examined group members'

perceptions of the therapeutic relationship. More specifically, it was hypothesized that groups

with personality disorders would rate the therapeutic alliance lower than groups with no

personality disorder. A oneway Analysis of Variance was used to test this hypothesis, with

personality group as the independent variable and WAI – total score as the dependent

variable. The results of the analysis supported this hypothesis since there was a significant

difference between the groups.

Table 8: *Results of Analysis of Variance for the Dependent Variable WAI – Total Score*

	Sum of Squares	*df*	Mean Square	*F*	Significance
Between Groups	8.117	3	2.706	3.425	.024
Within Groups	41.865	53	.790		
Total	49.982	56			

Based on results of post-hoc comparison using Tukey's HSD, it is noted that the group identified as having a personality disorder within Cluster A rated the therapeutic alliance significantly lower than the group identified as having Cluster B personality disorders.

Summary

This chapter presented results of the seven hypotheses of the current study. The results revealed that patients in the Cluster B group of personality disorders rated conflict in the group significantly lower than the group with no personality disorders. This result was the opposite of the predicted hypothesis.

Group engagement and group avoidance were not rated significantly different between groups. When comparing ratings from the CSW, no significant differences were noted between groups.

The hypothesis regarding the therapeutic alliance was partially supported. The patients in the Cluster A personality disorders group rated the total therapeutic alliance significantly lower than the Cluster B personality disorders group who rated the alliance highest.

CHAPTER 4

Discussion

The present study examined differences in perceptions of group cohesion among substance abusers with co-morbid personality disorders. Specifically, substance abusers were identified as having Cluster A personality disorders, Cluster B personality disorders, Cluster C personality disorders, or no personality disorders. The Millon Clinical Multiaxial Inventory – III (MCMI-III, 1997a) was used to assign patients into groups consistent with the *DSM-IV-TR* (2000) classification of personality disorders. . According to the *DSM-IV-TR* (2000), personality disorders are grouped into three clusters based on descriptive similarities. Cluster A includes the Paranoid, Schizoid, and Schizotypal Personality Disorders. People within this cluster often appear odd or eccentric. Cluster B includes the Antisocial, Borderline, Histrionic, and Narcissistic Personality Disorders. People within this cluster often appear dramatic, emotional, or erratic. Cluster C includes the Avoidant, Dependent, and Obsessive-Compulsive Personality Disorders and people within this cluster often appear anxious or fearful. Six patients were excluded based on invalid profiles. The remaining patients were assigned to groups including Cluster A personality types, Cluster B personality types, Cluster C personality types, and a group with no typology. A base rate over 85 was used to determine the presence of a personality type. The patients were divided as follows: Cluster A – 6 males, 1 female; Cluster B – 14 males, 8 females; Cluster C – 10 males, 10 females; and None – 9 males, no females. Of particular interest was each group's response to specific measures of

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group cohesion including overall group cohesion, the relationship with their group leader, and their individual ratings of self-worth.

The sample consisted of 64 patients in a private, inpatient substance abuse treatment facility. Each participant completed a packet that included a demographics section, the Group Climate Questionnaire, the Working Alliance Inventory – Short Form, the Contingencies of Self-Worth, and the Millon Clinical Multiaxial Inventory - III.

Interesting findings include that there was a significant difference between patients defined as having Cluster A personality disorders and patients having Cluster B personality disorders on the Working Alliance Inventory total score. Patients having Cluster A personality disorders rated the alliance as significantly lower than Cluster B patients. Another finding was a significant difference between Cluster B patients and patients with no personality disorder on their rating on the GCQ – Conflict Scale. Patients with Cluster B personality disorders rated conflict in group climate significantly lower than patients with no personality disorders. This finding was not predicted.

Findings of Hypothesis Set 1

Hypothesis 1A stated that there would be a significant difference between groups on Scale 1 of the Group Climate Questionnaire, with patients without personality disorders rating engagement as higher. This hypothesis was based upon the difficulty of establishing relationships in individual therapy for patients with personality disorders. This hypothesis was not supported with the data analysis. Type of group therapy may have contributed to a lack of a significant finding for this hypothesis. This setting's therapy consists of intense 12-step and cognitive-behavioral groups. Most of the patients reported a high rate of disclosure during groups and this disclosure may have facilitated their feeling of group engagement.

Hypothesis 1B stated that there would be a significant difference between groups on Scale 2 of the Group Climate Questionnaire, with patients with co-morbid personality disorders rating conflict higher. This hypothesis was based on the nature of patients with personality disorders (*DSM-IV-TR,* 2000). Interestingly, the reverse was supported by data analysis. The patients with Cluster B personality disorders rated conflict significantly lower than the group with no personality disorders. The finding is useful in that it does suggest a difference in perceptions of conflict in the group between patients with personality disorders and patients with no personality disorders. Perhaps the patients with Cluster B personality disorders rated conflict lower due to being accustomed to interactions of this type with others. Another alternative is that of apparent competence. The patients with Cluster B personality disorders may have felt that admitting to conflict within the group may have been admitting a shortcoming within themselves. Understanding and investigating this difference further could be useful in determining the effect of conflict in group therapy as well as how conflict affects outcome. Administering additional surveys over time to investigate if opinions change may further determine how the group views conflict.

Hypothesis 1C stated that there would be a significant difference between groups on Scale 3 of the Group Climate Questionnaire, with patients with co-morbid personality disorders rating avoidance as higher. This hypothesis was based on the symptoms and behaviors noted to occur with people with personality disorders (*DSM-IV-TR,* 2000). The data did not support this hypothesis. In reviewing responses to the surveys, most respondents indicated that the group leaders controlled the group topics and direction. As a result, group members were unlikely to avoid difficult topics.

Findings of Hypothesis Set 2

Hypothesis 2A stated that there would be a significant difference between groups on the domain of competition on The Contingencies of Self-Worth, with patients with co-morbid personality disorders rating competition as higher. This hypothesis was not supported by the data.

Hypothesis 2B stated that there would be a significant difference between groups on the domain of virtue on the Contingencies of Self-Worth, with patients with co-morbid personality disorders rating virtue as higher. This hypothesis was not supported by the data.

Hypothesis 2C stated that there would be a significant difference between groups on the domain of others' approval, with patients with co-morbid personality disorders rating others' approval as higher. This hypothesis was not supported by the data.

All three of these hypotheses were based on Yalom's (1985) ideas related to group cohesion. He noted that the individual patient is important to group functioning. A person's ratings of virtue, other's approval, and competition as related to themselves would appear to be based on their personality patterns. Perhaps reviewing whether each patient is externally oriented or internally oriented with regard to self-worth rather than using the ratings would provide more insight in this area.

Findings of Hypothesis 3

Hypothesis 3 stated that there would be a significant difference between groups on the scores obtained from the Working Alliance Inventory – Short Form, with patients without a co-morbid personality disorder rating the alliance as higher. This hypothesis was based on Yalom's (1985) review of the importance of the relationship between therapist and patient in individual therapy. As group leaders are viewed as the facilitator in therapy, this variable was

felt to be important in group cohesion. The data analysis in this study supported this

hypothesis. Interestingly, there was a significant difference between patients with Cluster A

personality disorders and patients with Cluster B personality disorders. This finding is

unusual in that Cluster B personality disorders are typically much more behaviorally

expressive, thereby alienating others (*DSM-IV-TR*, 2000). The patients with Cluster B

personality disorders rated the alliance significantly higher than the patients with Cluster A

personality disorders who rated the alliance significantly lower. This finding with Cluster A

personality disorders is not unusual in that they typically have difficulty in forming

relationships with others and often appear odd or eccentric (*DSM-IV-TR*, 2000).

General Discussion

Probably the most significant finding of the present study is that there are differences

in ratings of both group climate and the overall therapeutic relationship between patients with

Cluster A personality disorders, patients with Cluster B personality disorders, patients with

Cluster C personality disorder, and patients with no personality disorders. Another unusual

aspect of this study is that it was conducted in a real-life treatment setting. Although group

cohesion has been studied with regard to outcome of treatment, this study found differences

in actual group functioning during treatment.

There are few studies that have investigated group differences during the treatment

process, and the fact that the current study produced significant differences despite small

sample sizes is noteworthy. Understanding these different dynamics can impact the

therapeutic relationship. As indicated by Carl Rogers (1992), positive change does not occur

except in a relationship. If patients have a different perception of the therapeutic relationship,

positive change may be difficult. Although outcome studies suggest that substance abuse

treatments are successful (Gordis, 2000), it would be interesting to investigate the unsuccessful cases in order to determine if personality disorders may have influenced outcome. Understanding the differences in group process variables may assist the therapist in developing ways to strengthen the therapeutic relationship in patients with personality disorders. In summary, the current study supports the importance of considering personality disorders when conducting group therapy.

<div align="center">Implications</div>

The primary purpose of this study was to examine the impact of personality disorders on measures of group cohesion in a real-life setting. Group cohesion has been noted to be an important factor in the success of group therapy (Yalom, 1985). In fact, Yalom indicated that group cohesion is considered to be a necessary condition for therapy. Research in this area has mainly consisted of outcome studies. The current study sought to capture measures of group cohesion during the actual treatment process.

Ratings from measures of overall group conflict and measures of the therapeutic alliance indicated significant differences between groups. This significant difference in ratings may influence these patients' relationships with each other during group and with the group leader. Understanding that there may be differences in individual group members' opinion of the climate of the group and of the group leader may cause therapists to be more sensitive and aware. Building in more feedback opportunities may improve this outcome.

As this study was conducted in a real life setting, a finding of actual significant differences between groups is noteworthy. Most therapists are aware of some differences within their group, however, finding these differences according to personality clusters may allow for more efficient therapy. Another important finding was the large number of patients

with personality disorders. All but nine of the patients surveyed had personality disorders. If this high percentage is representative of most real-life treatment settings, then understanding the differences in functioning during group therapy could have more applicability than previously thought.

Limitations

One limitation of this study is the small sample size and single facility participation. The small sample size resulted in especially small cell sizes for the analyses. Only 7 patients were in the group with Cluster A personality disorders, 22 patients were in the group with Cluster B personality disorders, 20 patients were in the group with Cluster C personality disorders, and only 9 patients had no personality disorder. The participants were mainly Caucasian, affluent patients. Another concern is gender. Most of the patients were male. Age was also a concern in that the age range was from 18 to 60 with a group of patients being in their early 20s and a group of patients being in their early 40s. These factors would limit the applicability of this research.

Another limitation is the self-report aspect of the surveys. Patients may be attempting to present themselves more positively, therefore influencing the results. This concern may be especially evident on the Contingencies of Self-Worth scale. As this scale was more reflective of a patient's personal beliefs, patients may have been more likely to be concerned about the choice of answer.

Order effects may be considered as another limitation. All patients completed the test packet with the same order. The MCMI-III was administered prior to the other surveys. Some patients may have become tired following this administrations and concentrated less on the remainder of the surveys.

Suggestions for Future Research

As the current study found significant differences among and between patients with personality disorders and patients without personality disorders, this area of research should be expanded. Understanding how these personality differences impact the group relationship and the therapeutic relationship can assist group leaders in monitoring the group more closely. Larger sample sizes may indicate additional differences. Following these patients throughout the therapy process could determine the impact of these characteristics upon both length of treatment and outcome of therapy. It would be interesting to determine if patients with a certain type of personality disorder are more likely to relapse than other patients.

Another suggestion for future research is to investigate aspects of group cohesion as related to substance abused. Patients who abuse alcohol could be compared to patients who abuse a different substance. Determining if substance type impacts cohesion could provide additional information to therapists.

Finally, future studies should include larger sample sizes and more culturally diverse samples. Providing replication for the current study could have implications for treatment and outcome.

Summary

The primary purpose of the present study was to determine if there were differences in ratings of group cohesion between substance abuse patients with co-morbid personality disorders and substance abuse patients without personality disorders. Three measures of group cohesion were included in the study: the Group Climate Questionnaire, the Contingencies of Self-Worth, and the Working Alliance Inventory – Short Form. The Millon Clinical Multiaxial Inventory - III was used to define the four groups: patients with Cluster A

personality disorders, patients with Cluster B personality disorders, patients with Cluster C personality disorders, and patients with no personality disorders.

The findings indicated that there is a significant difference in ratings between these four groups on the GCQ – conflict scale and the WAI – total score. Patients with Cluster B personality disorders rated group conflict significantly lower than patients with no personality disorder. Patients with Cluster A personality disorders rated the therapeutic alliance significantly lower the patients with Cluster B personality disorders. These findings suggested that there are differences in measures of group cohesion based on type and presence of personality disorders in patients with substance abuse.

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APPENDIX A

HUMAN SUBJECTS CONSENT FORM

The following is a brief summary of the project in which you are asked to participate. Please read this information before signing the statement below.

TITLE OF PROJECT: Effect of Co-Morbid Psychiatric Disorders on Measures of Group Cohesion in Substance Abusers

PURPOSE OF STUDY/PROJECT: To determine the differences, if any, in measures of group cohesion between substance abusers with mental disorders and substance abusers with no mental disorders.

PROCEDURE: Approximately 75 inpatients in a substance abuse treatment facility will complete a packet of self-report inventories, including a group climate questionnaire, a self-esteem survey, and a working alliance inventory. Data will then be analyzed to determine the relationship between groups based on these scores.

INSTRUMENTS: The Working Alliance Inventory-Client Form is a 12-item rating scale developed by Adam O. Horvath. This scale is designed to measure the working alliance between counselors and their clients during therapy sessions. The Contingencies of Self-Worth Scale is a 35-item survey developed by J. Crocker, R. Luhtanen, M. L. Cooper, and A. Bouvrette. This survey is designed to measure internal and external sources of self-esteem. The Group Climate Questionnaire (GCQ-S) is a 12-item inventory developed by K. Roy MacKenzie. This scale is designed to measure the overall atmosphere of the group. Additionally, a brief self-report instrument developed by the researchers will be used to collect demographic information and additional characteristics. All collected information will be held confidential and only viewed by the researchers. It is noted that patients will be concerned about confidentiality. Only employees of the facility will be allowed access to names of patients. The researchers will be given raw data and demographic information only.

RISKS/ALTERNATIVE TREATMENTS: There are no risks associated with participation in this study. It requires completion of a survey composed of the aforementioned instruments. There are no alternative treatments. Participation is voluntary.

BENEFITS/COMPENSATION: None

     I, _____, attest with my signature that I have <u>read and understood the following description of the study,</u> "_____", and its purposes and methods. I understand that my participation in this research is strictly voluntary and <u>my participation or refusal to participate in this study will not affect my relationship with Louisiana Tech University or my treatment at this facility.</u> Further, I understand that I may withdraw at any time or refuse to answer any questions without penalty. Upon completion of the study, I understand that the

results will be freely available to me upon request. I understand that the results of my survey will be <u>confidential, accessible only to the principal investigators, myself, or a legally appointed representative.</u> I have not been requested to waive nor do I waive any of my rights related to participating in this study.

CONTACT INFORMATION: The principal experimenters listed below may be reached to answer questions about the research, subjects' rights, or related matters.

Tony R. Young, Ph.D. (318-257-4315)
Sharon B. Robbins, M.S. (573-234-1079)

Members of the Human Use Committee of Louisiana Tech University may also be contacted if a problem cannot be discussed with the experimenters:
     Dr. Les Guice (257-4647)
     Dr. Mary M. Livingston (257-2292)
     Stephanie Herrmann (257-5075)

APPENDIX B

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APPENDIX B

DEMOGRAPHIC INFORMATION

1. Age: _____

2. Gender: Male   Female

3. Substance Abused: _____

4. Medication: _____

5. Diagnosis: _____

APPENDIX C

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APPENDIX C

GROUP CLIMATE QUESTIONNAIRE

Read each statement carefully and as you answer the questions think of the group as a whole. For each statement fill in the box under the most appropriate heading that best describes the group during the sessions. Each statement is rated as follows:

0-Not at all; 1-A little bit; 2-Somewhat; 3-Moderately; 4-Quite a bit; 5-A great deal;

6-Extremely

1. The members liked and cared about each other.

2. The members tried to understand why they do the things they do, tried to reason it out.

3. The members avoided looking at important issues going between themselves.

4. The members felt what was happening was important and there was a sense of participation.

5. The members depended upon the group leader for direction.

6. There was friction and anger between the members.

7. The members were distant and withdrawn from each other.

8. The members challenged and confronted each other in their efforts to sort things out.

9. The members appeared to do things the way they thought would be acceptable to the group.

10. The members rejected and distrusted each other.

11. The members revealed sensitive personal information or feelings.

12. The members appeared tense and anxious.

APPENDIX D

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APPENDIX D

CONTINGENCIES OF SELF-WORTH

Please respond to each of the following statements by circling your answer using the scale below. If you have not experienced the situation described in a particular statement, please answer how you think you would feel if that situation occurred.

1=Strongly disagree; 2=Disagree; 3=Disagree somewhat; 4=Neutral; 5=Agree somewhat; 6=Agree; 7=Strongly agree

1. When I think I look attractive, I feel good about myself.

2. My self-worth is based on God's love.

3. I feel worthwhile when I perform better than others on a task or skill.

4. My self-esteem is unrelated to how I feel about the way my body looks.

5. Doing something I know is wrong makes me lose my self-respect.

6. I don't care if other people have a negative opinion about me.

7. Knowing that my family members love me makes me feel good about myself.

8. I feel worthwhile when I have God's love.

9. I can't respect myself if others don't respect me.

10. My self-worth is not influenced by the quality of my relationships with my family members.

11. Whenever I follow my moral principles, my sense of self-respect gets a boost.

12. Knowing that I am better than others on a task raises my self-esteem.

13. My opinion about myself isn't tied to how well I do in school.

14. I couldn't respect myself if I didn't live up to a moral code.

15. I don't care what other people think of me.

16. When my family members are proud of me, my sense of self-worth increases.

17. My self-esteem is influenced by how attractive I think my face or facial features are.

18. My self-esteem would suffer if I didn't have God's love.

19. Doing well in school gives me a sense of self-respect.

20. Doing better than others gives me a sense of self-respect.

21. My sense of self-worth suffers whenever I think I don't look good.

22. I feel better about myself when I know I'm doing well academically.

23. What others think of me has no effect on what I think about myself.

24. When I don't feel loved by my family, my self-esteem goes down.

25. My self-worth is affected by how well I do when I am competing with others.

26. My self-esteem goes up when I feel that God loves me.

27. My self-esteem is influenced by my academic performance.

28. My self-esteem would suffer if I did something unethical.

29. It is important to my self-respect that I have a family that cares about me.

30. My self-esteem does not depend on whether or not I feel attractive.

31. When I think that I'm disobeying God, I feel bad about myself.

32. My self-worth is influenced by how well I do on competitive tasks.

33. I feel bad about myself whenever my academic performance is lacking.

34. My self-esteem depends on whether or not I follow my moral/ethical principles.

35. My self-esteem depends on the opinions others hold of me.