Dually diagnosed mental health clients: A comparative study of those receiving treatment in a dual diagnosis program and those receiving only mental health treatment

Guadalupe Leon Gomez Flores

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A COMPARATIVE STUDY OF THOSE RECEIVING
TREATMENT IN A DUAL DIAGNOSIS PROGRAM AND
THOSE RECEIVING ONLY MENTAL HEALTH TREATMENT

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Social Work

by

Guadalupe Leon Gomez Flores
June 1997
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ABSTRACT

Large numbers of individuals who were diagnosed with both a psychiatric illness and a chemical dependency problem came to the attention of both public and private agencies. Licensed Clinical Social Workers have become aware of more individuals with both psychiatric and substance related problems seeking help in their sector. Although some research attributes the increase of "dually diagnosed" clients to the closing of the state mental institutions in the 1960s and a general increase in the abuse of alcohol and other chemical substances in our society, little research exists as to the efficacy of treating these clients in combined mental health and chemical dependency treatment programs. The lack of research concerning dual diagnosis programs can be attributed to the novel nature of such programs and the vast differences in treatment philosophy and treatment approaches between the two types of programs.

This research project examined a dual diagnosis program situated in a rural county mental health clinic in order to determine if the combined approach of treatment did in fact benefited the individual who had been diagnosed with both a psychiatric illness and a chemical dependency problem. A questionnaire was administered to the participants after the completion of a formal treatment program.
ACKNOWLEDGMENTS

I want to thank the Riverside County Mental health Research Committee for reviewing and accepting my research project proposal.

Many thanks and appreciation go to the consumers for their participation and cooperation in completing the questionnaire for my research project.

Many, thanks go to my Project Advisory, Dr. Marjorie Hunt, for her patience, guidance and knowledge on Drugs and Alcohol Research. Thanks a million Dr. Hunt for your encouragement and faith that I could do it.

Thanks to my family and friends for their inspiration, love and support.
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INTRODUCTION

There was a significant rise in drug and alcohol use and abuse during the early 1980s which has carried over to the present. "During the last two decades, deinstitutionalization has been increasingly associated with the emergence of large numbers of individuals with concomitant substance disorders and severe, chronic psychiatric disorders." (Minkoff, 1990, p.13). This has resulted in an increase of both mental health and chemical dependency clients requiring crisis intervention and/or psychiatric hospitalization and medical detoxification units. Recent studies indicate that "approximately 50 percent of people with a diagnosis of severe mental illness also meet lifetime criteria for a diagnosis of substance use disorder." (Drake, 1995, p.5).

Because dual diagnosis is a new treatment perspective, many pertinent treatment modalities are still in experimental stages, and "there are virtually no data about concurrent treatment of coexisting disorders." (Lian, Kania, Walsh & Atkinson, 1986, p.867). Also, there have been difficulties with collaboration of mental health and drug/alcohol agencies during treatment, proper diagnosis,
different ideologies with treatment staff and the lack of qualified and trained staff to work with this population.

**Difficulties with Collaboration of Treatment: Chemical Dependency**

Historically, the degree of collaboration between mental health and drug and alcohol agencies has made it difficult for clients who are dually diagnosed to receive proper treatment. There has been a vast separation of funding and treatment for mental illness and chemical dependency/substance abuse at each of the federal, state, and local levels. (Minkoff, 1993, p.412). This has resulted in the client being referred back and forth between two very different systems of care, initiating a process that has been described by Minkoff (1994, p. 412) as "ping-pong therapy." Many clients have "fallen through the cracks" because of this, meaning that as their mental illness symptoms and dual diagnosis symptoms are not severe, or they are not in crisis, they are often denied immediate services and/or placed on a waiting list for an open appointment. The fields of mental health and chemical dependency have different foci, different philosophies, and a history of contentious behavior toward one another. (Ridgely, Osher & Talbott, 1987, p.17).
To fully comprehend the complex relationship between mental illness and substance abuse/chemical dependency, treatment program ideologies of chemical dependency must first be examined.

**Alcohol and Drug Treatment**

The basis of most all substance abuse/chemical dependency programs or treatments is using the Twelve Steps of the Alcoholic's Anonymous (AA) movement as tools for recovery. A key concept in this self-help group treatment approach is to have group members admit that they are powerless over alcohol and their life has become unmanageable (Alcohol Anonymous, 1981, p.21). Through the care from God or of another higher power, their life can be restored to sanity. This is interpreted by subscribers to this method that the alcoholic or chemically dependent person is unable to stop the use of alcohol or addictive chemical substances on their own. The belief is maintained that clients must look outside of themselves, to the above-referenced God or higher power. Alcoholics Anonymous also stresses that the individual must be completely abstinent from alcohol in order to regain sanity and restore one's life. To help the recovering individual there are AA
support groups that are available seven days a week with regular meetings running hourly each day. The AA program encourages the person to seek a sponsor, a recovering individual with similar experiences, to help guide the recovering individual through their recovery and the twelve steps.

The philosophy of most chemical dependency treatment programs is that alcoholism is a disease and recovery can only be accomplished by being totally abstinent. Many of the counselors in this field are ex-addicts or alcoholics who are described as recovering individuals. A college education is usually not required to work in this capacity although some agencies require this for supervisory positions. The AA philosophy is that alcoholics, by sharing their own life experiences or self-disclosing can help other alcoholics in their treatment. The substance abuse counselor's method of treatment is confrontive, examining the negative consequences of the client's addiction in order to generate motivation for recovery. (Minkoff, 1991). Alcoholics Anonymous does not believe it is necessary to examine the etiology of psychological factors that might be contributing to chemical dependency. AA philosophy does not support the notion that some alcoholics need to take
psychotropic medications in order to maintain sobriety. Many in the AA movement consider such medication as simply another addictive drug. The AA movement or program also discourages individuals from socializing outside of their recovery group because of the belief that they may "slip" and drink alcohol and/or use drugs again.

Mental Health

The foundation for effective treatment for most mental health clinicians is a comprehensive and complete psychosocial assessment of the client. This allows an examination of the etiology of the client's mental disorder and potential stressors which can often exacerbate his or her mental disorder and substance abuse/chemical dependency. In order for a worker to complete such an assessment, the worker must be licensed as a nurse, clinical social worker, psychologist, psychiatrist or a medical doctor. A college education is necessary in order to work in most capacities within the mental health system. The mental health clinician's philosophy is to encourage the client to ventilate his or her feelings, concerns and express other social stressors, in the hope of reducing their stress level, so the client can better function in the community.
In the therapeutic setting, most mental health clinicians do very little self-disclosure because of theories and beliefs that self-disclosure can weaken the client/therapist relationship and also takes importance and time from the client's session. Clinicians educate the individual about both his or her mental disorder and chemical dependency issues and how they impair the daily function of the client. They also provide information about local resources such as homeless shelters, food banks, medical services and legal aid referral as practical assistance to the client. Total abstinence is not demanded by mental health clinicians but is presented as a goal to work towards. Many hybrid dual diagnosis programs encourage clients to make incremental steps toward the goal of total abstinence through gradual reduction in the amount and frequency of substance use. (Minkoff, 1991, p.16). The philosophy of most mental health programs does not emphasize a spiritual orientation, but rather encourages long term psychosocial and pharmaceutical therapy to facilitate stabilizing the client's psychiatric and chemical dependency symptomatology.

The vast difference between the ideologies and treatment modalities of the mental health programs/systems and chemical dependency treatment programs has often
resulted in treatment which is inappropriate for dually diagnosed clients.

The Hybrid Program

New approaches which address the needs of the dually diagnosed population are being studied. Minkoff (1994) suggests the development of a hybrid program in which mental health and chemical dependency agencies integrate their already existing programs as a solution to the treatment problems dually diagnosed clients encounter. These clients will be provided ongoing attention to both disorders and a synthesis of treatment principles. This program is divided into four treatment phases; engagement, persuasion, active treatment and relapse prevention.

Engagement

In this phase of the program, the client must feel that he or she will benefit from what the program offers. This can often be accomplished by enticements where the client might obtain food, clothing, shelter, avoid legal penalties, or obtain relief from distressing symptoms by participating in treatment. (Osher & Kofoed, 1993, p. 11). Enticement can also be facilitated through family members, the public
guardian or the criminal justice system with each entity stressing participation in the treatment program and what the client will likely gain from participation. An example of enticement is a client's involvement with the criminal justice system with the proposal or recommendation that the client receive a reduced fine or less jail time for an offense if he or she completes a dual diagnosis treatment program. During the phase of engagement, stability or some remission of the client's symptoms in the mental health or chemical dependency area generally occurs. This stability gained in the initial phase makes the advances for the treatment of the client.

**Persuasion**

In the second phase, clients are encouraged to accept long term abstinent oriented treatment. There are a number of obstacles encountered by the clinicians that can impede the client's progress. First, clinicians must consider the patients impaired ability to process information due to thought disorder, depression or organic brain syndrome in addition to the chemical dependency symptoms of denial. Second, there are some clients who are unemployed or disaffiliated and may escape social pressures to seek recovery treatment. Finally, the client's therapist may
excuse substance abuse as secondary to the psychiatric disorder. An important factor that clinicians must consider if treatment is to be successful is the client's readiness for treatment. Clinicians working with this population must be clear and consistent in presenting diagnosis and treatment implications. (Osher & Kofoed, 1993, p.13).

**Active Treatment**

Active treatment is the dual diagnosis program phase in which clients are taught the skills necessary to remain sober. A wide range of psycho educational, behavioral and medical interventions are presented or taught. Treatment for dual diagnosis is considered to be more difficult than that for individuals with only a psychiatric or chemical dependency diagnosis because of the dual disorder. The consequences of both disorders are often more severe for the dually diagnosed individual. Some research suggests that the dually diagnosed client's tolerance to alcohol or illicit drugs is much lower than for those only chemically dependent. Also they suggest that those belonging to the dually diagnosed population are often not required to maintain abstinence by their treating clinic which creates problems for the individual because it allows them to avoid participation in Alcohol Anonymous self-help groups which
profess sobriety. It is recommended that contracts with contingencies that stipulate abstinence and consequences for failing to maintain abstinence be used to formalize the dual diagnosis client's commitment to change. However, in working with this population, reasonable expectations suggest that the cognitive and emotional state of operation of these individuals must be considered. (Lehman, Myers, & Corty, 1993, p.13).

Relapse Prevention

Relapse prevention is an after-care treatment phase where clinicians continue to meet regularly with their clients in order to monitor compliance in taking medication, psychiatric symptoms, and chemical dependency issues. During this phase clinicians should focus on the success of the treatment. Chemical dependency issues or concerns about relapse should be addressed during these follow up meetings or sessions. After-care treatment can be difficult for the client who lives alone and tends to isolate. It is up to the clinician to motivate and encourage this type of client to participate in dual diagnosis support groups in which they can connect with others.

The time it takes to progress through these phases may take more time for some clients, depending on the severity
of their symptoms. Some clients may regress to earlier addictive behaviors and express ambivalence to their treatment goals. It is suggested that clinicians attend Al-Anon meetings to maintain a balanced relationship with the clients. (Osher & Kofoed, 1993, p.13).

Diagnostic Difficulties

The improperly diagnosed client is negatively impacted in terms of their treatment and progress towards wellness and recovery. Many mental health practitioners suggest that clients with chemical dependency disorders must be abstinent for a considerable length of time or it will be difficult to make the correct diagnosis and provide the appropriate treatment for the client. When a client ingests drugs and/or alcohol and becomes psychotic, it is difficult to determine the cause of the psychotic episode. In such instances, questions often asked by a mental health practitioner are "What caused the psychosis? Is it due to the mental disorder? Was it drug and/or alcohol induced? Was it simply a coincidence that the client used the substances and then became psychotic?" If the mental health practitioner believes the psychotic episode is drug and/or alcohol induced then the client should referred to a drug
and alcohol center, unless he or she is suicidal or homicidal. If this occurs then other measures must be taken to ensure the safety of the client.

**Lack of Qualified and Trained Staff**

In order to become a counselor in a chemical dependency program, only minimal educational background and/or life experiences are required. It is these minimal qualification requirements that has hindered the development of dual diagnosis treatment programs. Addict clinicians are often ill-equipped to deal with addicted clients who have psychotic symptoms (Minkoff, 1991, p.13-14). Most chemical dependency center counselors are trained to work with the addict or alcoholic, not with individuals in a psychotic state due to mental illness. When mental health agencies are referred clients in an inebriated state, they often believe that they were wrongfully referred to their agency. Practitioners spend time and energy trying to determine what the primary diagnosis is, with assumption that the secondary diagnosis might be cured by treating the real problem. This 'which came first...the chicken or the egg' argument contributed to the so-called 'revolving door' phenomenon in which dually diagnosed clients would be treated for one
disorder, only to relapse in the other. (Pepper, 1994, p.2).

In the past there has been resistance by staff due to "different staff philosophies and an unwillingness to integrate the two modalities by individual staff members." (Clark, & Drake, 1992, p. 3). With the emergence of this population and the increased need for treating dually diagnosed clients, staff at both mental health agencies and chemical dependency treatment centers will have to break away from their traditional roles and ideologies in order to incorporate the new treatment modalities to integrate and treat both disorders holistically. Those willing to work with the dually diagnosed will need to reflect a balanced understanding of mental health and chemical dependency service needs and approaches. (Thacker & Tremaine, p.23).

The purpose of the dual diagnosis study is to determine the impact of dual diagnosis treatment on the client. Because of the lack of statistics for long term treatment programs, the impact of treatment aimed specifically for the dually diagnosed is currently inconclusive. Within the broad category of dually diagnosed clients there is a diagnostically and functionally heterogeneous group of individuals with a variety of clinical needs. (Ridgely, 1987, p.30). As more data becomes available on the outcome
of dual diagnosis treatment and modalities, there will be a
better understanding of their needs.

In providing services to the dually diagnosed client at
one treatment facility or agency, the social worker will be
able to provide a more integrative and complete treatment
plan. By assessing all of the client's biopsychosocial
needs, the social worker will have a comprehensive history
for both the client's mental health and chemical dependency
problems. Holistic treatment, at a single agency, will
ensure that the client receives the treatment required with
less confusion, stress and with greater efficiency for all
involved. The clinician will be able to monitor symptoms
and progress more closely when the client is treated in one
agency. Additionally the treatment plan for the client can
be modified to meet both his mental health and chemical
dependency needs.

Study Design

A Positivist paradigm was used in this research. This
paradigm's ontology examined the cause and affect or
causality of dual diagnosis treatment on this population.
The epistemology of the Positivist paradigm purposes a
distant and non-interactive posture with the client. It
excludes the writer's values and biases. The methodology asks experimental manipulative questions and/or hypotheses in advance in propositional form and are subjected to empirical tests (falsification) under carefully controlled conditions. (Guba, Reading 3, p.20). It was explanatory and required the gathering of client data referring to mental disorder and drug and/or alcohol use and abuse, psychiatric hospitalizations, crisis intervention, suicidal ideations and attempts, relapse and cause, medical and financial problems, relationships including marital status, and the individual's support system. It was a quantitative study that examined the relationship between dual diagnosis clients receiving dual diagnosis treatment and the recidivist rate of relapse to drugs and/or alcohol, crisis intervention, hospital detoxification and psychiatric hospitalization, as compared to the dually diagnosed who refused dual diagnosis treatment. Social work research has other paradigms of which the writer will now discuss.

The ontologically of post-positivism moves from a "naive" realist posture to the term critical realism. The essence of this posture is that, "although a real world driven by real natural causes exists, it is impossible for humans truly to perceive it with their imperfect sensory and
intellectual mechanisms." (Cook & Campbell, 1979, p.29). The epistemology of post-positivism recognizes "the absurdity of assuming that it is possible for a human inquirer to outside the pale of humanness while conducting inquiry." (Guba, Reading 3, p.20). To correct this problem, post-positivism incorporated a modified objectivity, hewing to objectivity as a "regulatory ideal" even though it cannot be reached. However, it can be assumed that it can be reached reasonably close, by being neutral and not having one's predispositions affect the research. It is important to have consistent reports that coincide with the peers in the "critical community," that is, the editors and referees of journals as well as their readers. (Guba, Reading 3, p.21). With the research on dual diagnosis clients it will be important to obtain results on the outcomes of dual diagnoses treatment in order to better prepare in establishing treatment programs. However, with this post-positivism paradigm the research would not be conclusive as in the positivism paradigm. Research in dual diagnosis treatment and results of it are limited, the writer chose the positivism paradigm because of the cause and affect design. With this paradigm the results are based on quantitative and objective data analysis.
The critical theory paradigm incorporates an "ideologically oriented inquiry," including neo-Marxism, materialism, feminism, Freireism, participatory inequity, and other similar movements as well as critical theory." (Guba, Reading 3, p.23). Critical theory is sensitive to the needs of the oppressed and encourage empowerment of these individuals to act and transform their world. This was accomplished through inquiry and by raising the individual to a new level of true consciousness. This paradigm was not value free, and depending on whose values are chosen it can empower some and disenfranchise others. In critical theory there is an objective reality as in positivism; however, it cannot be seen except through a value window. The ontology of critical theory is the same as in post-positivism where reality exists but it cannot be completely understood. The epistemology of critical theory is based on a value mediated inquiry which empowers the oppressed and raises them to a higher level of consciousness to act on. The methodology used is dialogic, in order to transform and energize the oppressed and empower them around a common theme. (Guba, Reading 3, p.24) This paradigm does not fit the dual diagnosis research because it allows the values of the researcher to interfere with the research.
The constructivism paradigm is based on theory in the context of a mental framework. Ontology is based on relativism, "which is the key to openness and the continuing of more research for more constructions." (Guba, Reading 3, p.26). There are many realities that can only be seen through multiple windows of the individual. Constructivist paradigm theory cannot be tested because of the problems of induction. Research and knowledge are human constructions and are often not true but problematic and ever changing. Epistemology is the finding of subjective knowledge by inquiry and bring the constructions together to form a consensus. To accomplish this the hermeneutic/dialectic methodology is used. The methodology of constructivism uses the hermeneutic and dialectic design. It is through the process of construction and reconstructing the knowledge of the world, as it is, in the minds of the constructors that a consensus will be reached. In the constructivism paradigm one is constantly searching and seeking new constructs and there is not a conclusion to research. This constructivism paradigm would not be useful in doing research for dual diagnosis treatment program because of the research and information being sought. The information from the research
on dual diagnosis treatment would be inconclusive, as it is now. (Guba, Reading 3, p.25-27).

The strengths of this paradigm are: 1) it examines cause and effect to test the hypothesis, and 2) it uses quantitative measurements to test the hypothesis. This is accomplished by the statistical data gathered through experimental testing methods. Another strength of this paradigm is that it is value free and unbiased. The weaknesses of this paradigm are: 1) it proposes a distant and non-interactive posture with the client, 2) data results can be manipulated to affect the outcome of the research, 3) questions on questionnaire are limited as how they may be phrased, as they must be specific and concise and 4) social action data cannot be collected.

A preview of the positivism paradigm was just presented. This paradigm was used to complete a research paper with dual diagnosis clients in a dual diagnosis treatment program. The significant problems regarding the dually diagnosed have been highlighted as well as the differences in mental health and chemical dependency ideologies in treatment programs. The literature review indicated that there is a lack of research data available regarding the effectiveness of various treatment programs.
available for this population. However, programs are being developed that integrate the ideologies of both mental health and chemical dependency treatment programs.
METHODS

The hypothesis tested whether dual diagnosis treatment benefited the dually diagnosed who participated in a dual diagnosis intervention program. The hypothesis suggests that they will show a decreased rate of requiring crisis intervention, psychiatric hospitalization, medical detoxification and relapse to alcohol and/or drug usage within a twelve month time period.

Sampling

The unit of analysis that was studied were those individuals identified, according to the DSM IV, as having a dual diagnosis disorder who are participating in a dual diagnosis treatment program and those identified with a dual diagnosis disorder but are not in treatment. The sample consisted of individuals who are on Social Security benefits, or pay a sliding scale fee according to their income. The client's primary diagnosis, or Axis I, was a mental disorder with a secondary diagnosis of chemical dependency or had a primary diagnosis of chemical dependency with a secondary diagnosis of a mental disorder. These individuals were receiving dual diagnoses treatment within a County Mental Health Clinic. The experimental group
consisted of individuals participating in a dual diagnosis treatment group voluntary. The control group, those dually diagnosed and are not participating in dual diagnosis treatment, were selected from the various mental health clinics within the County Mental Health system. The reason for selecting this population was to see what impact dual diagnosis treatment has on those participants, identified with a dual diagnosis disorder, as compared to those dually diagnosed who did not participate in the treatment program. The questionnaire that was used in this study is attached as Appendix A.

The results of this research and data gathered can be helpful for those working with this population in a clinical or private setting. It can facilitate improved treatment plans to meet the client's needs. It can improve the structuring and implementation of the program, by identifying what was significant or not, in the dual diagnosis treatment program.

Data Collection and Instruments

After six months of participation, a treatment questionnaire was given to each participant. The researcher explained the purpose of this research project and explained
the confidentially procedures to be taken by the researcher. Both the experimental and control groups were identified by a number placed on the top right corner of their questionnaire. The researcher personally administered and collected all testing materials to ensure confidentiality.

It was a comparison study of the dually diagnosed in dual diagnosis treatment programs, compared to the dually diagnosed who did receive this treatment. The test measured to see if there was a reduction of recidivism rates in crisis intervention, relapse to drugs and/or alcohol, inpatient psychiatric hospitalization and medical detoxification by the dual diagnosis group receiving the intervention.

Cultural sensitivity was addressed by the researcher prior to administering the questionnaire. The researcher reviewed the questions with each client and asked if there where any questions that they did not understand or they felt were offensive in any way. Ample time to answer the questionnaire was allowed. The interview consisted of questions that were non-discriminatory or biased toward males, females, sexual orientation, ethnicity, disability or socioeconomic status.

The data collection for this study did not appear to be
hindered by the cognitive functioning level of some of the individuals being tested. Some dually diagnosed client's ability to understand and process information have been impaired by their mental disorder, alcohol and/or drug abuse, medications, and severity of their mental disorder.

**Procedure**

The researcher gathered the data for the Experimental Group on the same day the questionnaires were administered. It took this researcher three weeks to review and administer the questionnaires to the control group at the three different sites in the County Mental Health Clinics. The client's charts were reviewed for crisis intervention, medical detoxification, psychiatric hospitalizations and relapse to alcohol and/or drug.

**Protection of Human Subjects**

The dual diagnosis clients that participated in the dual diagnosis sample were assured of confidentiality. Their tests were not identified by their names. The researcher used numbers, in place of their name, notated on the upper right hand corner of the tests. Only the researcher had access to this information.
Data Analysis

Univariate analysis was used to present the independent variable, this being the dual diagnosis treatment. The data results were presented in the form of central tendency, using the mode, mean and median. The statistical results of this data indicates where the client is in his or her addiction and mental status, the average age of the client receiving treatment, the number of different ethnic participants, income levels, drug preference, etc. Another method of measuring the averages of data is through the dispersion of the responses. This is known as the range, which separates the highest from the lowest value of an attribute. An example of this would be the range between the youngest and oldest client in this study.

The study consisted of comparing the independent variable, the dual diagnosis clients, in the experimental and control group and gather data that reflected their need for crisis intervention, relapse to drugs and/or alcohol, medical detoxification and psychiatric hospitalizations during the past twelve months. It was assumed that both groups had the same or similar data results at the beginning of the study.

In completing the dual diagnosis study a bivariate
table format was used to demonstrate the outcome of the data collection of the comparison study between the dual diagnosis clients in treatment and those dually diagnosed who are not receiving treatment. A bivariate table format measures two variables, dependent and independent, to examine the relationship between them.

This study examined the effects of the Dual Diagnosis treatment on those dually diagnosed, as compared to those identified with dual diagnosis who are not receiving dual diagnosis treatment.

The method of measurements conducted was the nonparametric tests, which tested the dual diagnosis population that had been randomly selected. The study used the chi-square statistical test. This test assesses the data gathered and the frequencies of reported events. The hypothesis is observed along with how it differs from the results and whether or not these occurred by chance or causality. To help explain the probability of chance or error occurring, one needs to examine the estimates of population parameter and estimates of error, in the theory which deals with the probability of making an error in estimation or rejecting the null hypothesis that is false.

The questionnaire gathered variables with nominal and
interval/ratio level measurements. Nominal measurement consists of variables such as client's sex, marital status and ethnicity. An example of this measurement is: 1=male and 2=female. Another example variable might be presented as the question, "How much do you drink?": 0 = never, 1 = daily, 2 = weekly, 3 = sporadic and 4 = holidays only. Although never is presented as a 0 (zero), the distance between the numbers is not the same so this variable cannot be considered interval or ratio. As the answers are impossible to put in lowest to highest order because of the inclusion of sporadic, it would be difficult to consider this variable ordinal. Interval/Ratio measurements consist of variables such as age and income level. While the equidistant requirement of Interval and Ratio measurements is discussed above, Ratio level data must have a true zero so only income might quality as a true Ratio level variable.

Once the study was completed, the data was collated and analyzed, the writer used an explanatory method to explain the results of the hypothesis. The results of this study can benefit the clinicians who work with the dually diagnosed population in a public or private sector. The data results will indicate whether the dual diagnosis treatment program was successful or not. Success will be
demonstrated by a reduction in psychiatric hospitalizations, relapse to drugs and/or alcohol, detoxification hospitalization and crisis intervention. Should the hypothesis be incorrect then new methodologies of intervention need to be investigated and examined. The dual diagnosis population is steadily growing, new treatment methodologies need to be in the forefront of program development, program implementation and intervention.
RESULTS

In order to test the hypothesis that the subjects receiving treatment for dual diagnosis would have lower rates and/or odds of Crisis Intervention, Relapse, Medical Detox and Psychiatric Hospitalization, both the risk and odds ratio were computed, when relevant, per group. The Epi Info 6 program was used to analyze the data. Due to the lack of participants in the study this writer was unable to provide significant quantitative data to prove the hypothesis although the research did illuminate some useful information about this population.

The two experimental and control groups were remarkably similar in makeup for a number of demographic variables including age, gender, ethnicity and education. The following Table presents the demographic characteristics of the two groups.
Table 1: Demographic Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>All Subjects</th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>13% (2)</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>30-39</td>
<td>56% (9)</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>40-49</td>
<td>25% (4)</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>50-59</td>
<td>6% (1)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>60 or older</td>
<td>(0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% (16)</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>62% (13)</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Female</td>
<td>38% (3)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% (16)</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 to 9 years</td>
<td>(0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10 to 12 years</td>
<td>94% (15)</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>13 and up</td>
<td>6% (1)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% (16)</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>White</td>
<td>57% (9)</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>25% (4)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Asian/Pacific</td>
<td>(0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>African-Ameri.</td>
<td>28% (3)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Native Ameri.</td>
<td>(0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>(0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100% (16)</td>
<td>10</td>
<td>6</td>
</tr>
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</table>
In both the control and experimental groups no statistically significant differences were found in the relapse rate during a six month period. However, the analysis indicated that the odds of the control group relapsing were twice as high during a year's time as compared to the experimental group. This was based on a 95% confidence risk ratio.

An analysis of the control and experimental groups requiring Crisis Intervention during a six month period was not computed because neither group sought crisis intervention. However, the difference between the groups in regards to use of Crisis Intervention during the last 12 months was statistically significant. The control group was twice as likely to require crisis intervention than the experimental group. This was based on a 95% confidence odds ratio.

No statistically significant difference between the groups was found in regards to hospitalization during a six month period because of the lack of consumers utilizing the hospital for psychiatric treatment. However, in a year's time period 75% of the control group had been hospitalized at least once as compared with zero for the experimental group. This indicates the risk factor of the control group
being hospitalized was 6.66 or almost three times more than the experimental group based on the odds ratio which is 95% confidence limits.

The analysis for the medical detox was not computed because neither the control or the experimental groups utilized a medical detox facility during the past six months or year.

A question of interest posed by mental health staff for both the control and experimental groups was, "Do you participate in the County Dual Diagnosis Program: Yes, if so, Why? No, if not, why not? Of the sixteen participants only nine respondent with a Yes. The following are some of the reasons for attending dual diagnosis group: because I have two illnesses, it helps me stay sober, I am learning about my sickness and I have friends there.
DISCUSSION

The findings of this research project were minimal because of the small sample in both the control and experimental groups. The researcher had expected to have thirty dually diagnosed participants in each of the groups but only ten participated in the experimental group and six in the control group for a sum of sixteen participants. The study used quantitative measurement to test the hypothesis. Because of the small number of participants some of the data results were inconclusive.

The study of those requiring hospitalization was significant in that the control group which did not participate in the dual diagnosis treatment program were hospitalized almost three times more due to either drugs and/or alcohol at least once during the past year as compared with the experimental group. This reflects the hypothesis statement that the experimental group which participated in the Riverside County Dual Diagnosis Program did show evidence of a decreased rate of hospitalizations during the past year. The data for those who would relapse during a six month period was insignificant for both the control and the experimental groups. However, there was a significant difference between groups concerning relapse for
the past year and the odds for relapse. The data for the control group demonstrated that they were more likely to relapse during a year's time than the experimental group. There was other data calculated that was important with the substance abusers. A discussion will follow.

The questionnaire posed a question "Do you attend any twelve-step meetings?" The majority of both the control and experimental participants indicated they did. The meetings of attendance more frequented were Alcohol Anonymous, Narcotics Anonymous and the Stems Group. Other results from this study were that some participants began using alcohol as young as 5 years of age and drugs at 11 years of age. The research proceeded to show the prevalence of regular drug use began at 16 years of age and alcohol at 11 years of age. The questioner also examined the highest level of education completed by both groups. As a total group the highest level of education completed were the levels between 10-12 years of school with 93.8% completion. Had the researcher being able to draw a larger sample of participants this data would have been of significance because of the drop-out rate in high school students today and substance abuse being a contributing factor. This type of information is important to those working with students
at school base programs.

As stated in the literature review section, the dually diagnosed population is difficult to treat because of the following factors: missing of appointments, continued substance use and non-commitment to their treatment regimen. This writer used a random selection of samples in both the dependent and independent variable to administer the questionnaire. This was very time consuming, especially with the control group, because this writer would preview the doctors' appointment lists for the day and examine the chart to determine if the client had a substance use and abuse history and then approach them on the questionnaire. Of the thirty samples, the writer was only able to have six questionnaires completed because the consumers did not show for their scheduled appointments. In discussing this with the secretarial staff of their perspective clinics, I was told that some consumers had forgotten their appointment date and/or time, some overslept or did not have transportation, some were homeless and lost track of their appointment, and some had other matters to attend too. It appears that if more research is to be completed with this population other strategies must be considered.

This writer proposed that the dually diagnosed
consumers need case management services to monitor their psychiatric symptoms, medications, placement, and support for any daily living stressors that may arise. If the consumer is to comply with the doctor's treatment regimen and relinquish their choice of substances, the system must give them something of equal value or better to replace their drug of choice. This researcher recommends intensive day treatment programs that are mandated as a component of their treatment regimen. Both the mental health and drug and alcohol agencies should collaborate, frequently, to share and discuss successful treatment interventions and consumer cases to better address and meet the consumers unique needs. As more dual diagnosis treatment programs emerge it is vital that both mental health and drug/alcohol agencies improve their communication with one another, improve responsibilities and acceptance of this population.
APPENDIX A: Dual Diagnosis Questionnaire

Participant Number:

Instructions: Check or fill in the answers that apply to you.

**Age**

<table>
<thead>
<tr>
<th>Age</th>
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<tbody>
<tr>
<td>18 - 29</td>
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<tr>
<td>30 - 39</td>
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<tr>
<td>40 - 49</td>
<td></td>
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<tr>
<td>50 - 59</td>
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<tr>
<td>60 and over</td>
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**Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
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<tbody>
<tr>
<td>Male</td>
<td></td>
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<tr>
<td>Female</td>
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**Ethnicity**

<table>
<thead>
<tr>
<th>Ethnicity</th>
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</thead>
<tbody>
<tr>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
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<tr>
<td>Asian/Pacific Islander</td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td></td>
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<tr>
<td>Native American</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
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**Marital Status**

<table>
<thead>
<tr>
<th>Marital Status</th>
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<tbody>
<tr>
<td>Never Married</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td></td>
</tr>
<tr>
<td>Widow/Widower</td>
<td></td>
</tr>
<tr>
<td>Live together</td>
<td></td>
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</table>

**Family Size**

<table>
<thead>
<tr>
<th>Family Size</th>
<th></th>
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<tbody>
<tr>
<td>One</td>
<td></td>
</tr>
<tr>
<td>Two</td>
<td></td>
</tr>
<tr>
<td>Three</td>
<td></td>
</tr>
<tr>
<td>Four</td>
<td></td>
</tr>
<tr>
<td>Five and more</td>
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</tr>
</tbody>
</table>
**Employment**

Unemployed  
Disabled  
Part-time  
Full-time  

Date last employed  

**Income Level (Annual)**

0 - 4,500  
4,500 - 9,000  
8,000 - 13,500  
13,500 - 16,000  
16,000 - 21,500  
21,500 and up  

**Education Level**

7 - 9  
10 - 12  
13 and up  

**Drug History**

Yes  
No  

**Drug History (Continued)**

Age first used  
Age of regular use  
When did you last use?  
Drug(s) of Choice (Put in order of preference)


**Alcohol History**

Yes  
No  

Age first used
Age of regular use ______
When did you last use? ______

Alcoholic Drink of Choice (Put in order of preference)
__________________________________________  ______________________________________
__________________________________________  ______________________________________
__________________________________________  ______________________________________

Drug and Alcohol Treatment

Have you received previous treatment for drugs or alcohol?
Yes___ No___ What type?
Inpatient ______
Rehab ______
Outpatient ______
None ______

How many times have you been hospitalized in the past year?__________

Have you required crisis intervention in the past year?
Yes _____
No _____

Have you had a relapse in the past year?
Yes _____
No _____

What stressors caused you to relapse?
Financial ______
Marital ______
Noncompliant with meds ______
Job ______
Family ______
Living Situation ______

Did you call someone before using?
Yes _____
No _____
If no, why not? Explain ______
_______
_______
_______
_______
_______
_______
_______
_______
Have you required medical detox for drugs and/or alcohol in the past year?

Yes

No

Do you attend any twelve-step meetings?

Narcotics Anonymous

Alcoholics Anonymous

Cocaine Anonymous

Other Support Groups
APPENDIX B: Informed Consent/Debriefing Statement

The study in which you are about to participate is designed to investigate the impact of Dual Diagnosis Treatment on those identified with a dual diagnosis disorder. This study is being conducted by Guadalupe L. Flores under the supervision of Dr. Majorie Hunt, professor of Drug and Alcohol Studies. This study has been approved by the Institutional Review Board of California State University San Bernardino.

In this study you will be asked to complete a questionnaire regarding your drug and/or alcohol history. You will be asked to check and complete the answers that apply to you. It will take you approximately ten minutes to complete the questionnaire. The researcher requests that you not reveal the nature of this study to others.

Please be assured that any information you provide will be held in strict confidence by the researcher. At no time will your name be reported along with your responses. You will be identified by a number, not by your name. All data will be reported in group form only. At the conclusion of this study, you may receive a report of the results. If there are any questions about your participation in this study you may contact Guadalupe L. Flores through the Social
Work Department Office at (909) 880-5501, or you may also contact my research advisor, Dr. Marjorie Hunt at (909) 880-5496.

Please understand that your participation in this research is totally voluntary and you are free to withdraw at any time during this study without penalty, and to remove any data at any time during this study.

I acknowledge that I have been informed of, and understand, the nature and purpose of this study, and I freely consent to participate. I acknowledge that I am at least 18 years of age.

Participant's Signature __________________________ Date __________
Researcher's Signature __________________________ Date __________
Letter of Consent

The letter of approval was authorized by the County of Riverside Mental Health on April 10, 1997 for the dual diagnosis project to be completed.
References


Egon, C.G. The alternative paradigm dialog. 3, 20.


