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THE PREVALANCE OF SUBSTANCE ABUSE IN ADOLESCENTS WITH A
MENTAL ILLNESS AND THE EFFICACY OF ON-GOING PSYCHIATRIC
TREATMENT

by
Kristin Short-Giles

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University
May 2009

Approved by _____
Dr. John Klanderman

Date Approved 5-6-09

May 2009 Kristin Short-Giles

ABSTRACT

Kristin Short-Giles

THE PREVALANCE OF SUBSTANCE ABUSE IN ADOLESCENTS WITH A MENTAL ILLNESS AND THE EFFICACY OF ON-GOING PSYCHITRIC TREATMENT

2008/09

Dr. Roberta Dihoff

Master of Arts in School Psychology

The purpose of this study was to research adolescents with a mental illness and their substance use. The study compared adolescents receiving on-going psychiatric treatment to those without treatment and their current substance use. In reference to this study, on-going psychiatric treatment included out-patient counseling and psychiatric medications. It was hypothesized that the adolescents who were receiving on-going psychiatric treatment, whether it was out-patient counseling or psychiatric medications, were less likely to use substances compared to their peers who received zero psychiatric treatment. It was also hypothesized that the females in the study were less likely to substance use compared to their male peers. There was no significant correlation found between out-patient psychiatric treatment and substance abuse among adolescents with a mental illness. The data ran did not yield any significant results, but there were interesting trends revealed in respect to gender, specific diagnoses, and substance use.

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Chapter One: The Problem

Need

It is not uncommon for adolescents diagnosed with an Axis I psychiatric diagnosis to be substance users. There has been a generous amount of research which has shown co-morbidity between mental illness and substance use. But there is limited research discussing psychiatric on-going treatment and the effects it has on substance abuse. Although psychiatric on-going treatment may not incorporate substance abuse treatment, it provides adolescents with a support system; it may educate adolescents on the importance of medication, and also the dangers of combining medications with uncontrolled substances or other consumer's prescriptions. Also, many therapists and psychiatrists help demonstrate to their clients, valuable skills, such as, coping mechanisms, or anxiety and stress relief applications. Becker and Curry (2007) found that almost one third of adolescents receiving treatment for Major Depressive Disorders are substance abusers. Due to such a considerable amount of adolescents with mental illness are substance users, it would be valuable to research whether adolescents in treatment for psychiatric symptoms were less likely to use substances, compared to those adolescents not receiving treatment.

Adolescents that are receiving on-going psychiatric treatment are receiving support, needed medication, and various interventions. If the adolescents are diagnosed with an Axis I Diagnosis and receiving psychiatric treatment, are they just as likely to substance use than the adolescents not receiving on-going psychiatric treatment or does the treatment have an effect? Waldron and Turner (2008) reported that the co-occurring conditions of mental illness and substance use may influence the onset, identification, course and treatment of substance abuse problems.

Some adolescents diagnosed with an Axis I Diagnosis may be suffering from symptoms of depression, anxiety, adjustment, psychosis. Depending on a variety of factors, limited or no treatment may be available or provided. Are these adolescents more likely to substance use, finding other means to self-medicate or cope? In Seiffge-Krenke's book, (1995) she explains that some children may use substances to self-medicate to eliminate symptoms of stress or depression. If the adolescents receive appropriate medications and are taught coping skills in psychiatric treatment, it may be possible that the provided on-going treatment would curb or reduce substance use in the treated adolescents. Ludden and Eccles (2007) reported that depressive symptoms are more commonly associated with high substance use compared to moderate use of substances. With substance use and mental illness coinciding in adolescents, it would behoove the industry to be knowledgeable of the effects of psychiatric treatments and become more responsive to the substance use, which is prevalent in adolescents with mental illness.

Problem/Purpose

The purpose of this study was to research adolescents with a mental illness and their substance use. The study compared adolescents receiving on-going psychiatric treatment to those without treatment and their current substance use. The study will examine whether or not on-going psychiatric treatment has an effect on the adolescent's substance use.

Hypothesis

There has been an abundance of research which has shown a high co-morbidity rate between mental illness and substance use, but there has not a great deal of research into the effect on-going psychiatric treatment and substance use. It was hypothesized that the adolescence that are receiving on-going psychiatric treatment will be less likely to be substance users compared to the children not receiving any on-going psychiatric treatment. It was also hypothesized that the females, either in on-going psychiatric treatment or not in on-going psychiatric treatment, are less likely to be substance users compared to the males.

Operational Definitions

Adolescents with an Axis I Diagnosis:

Derived from the DSM IV, In reference to this study, children aged thirteen to seventeen diagnosed with a clinical disorder. The adolescents studied were diagnosed with Mood Disorders, Anxiety Disorders, Psychotic Disorders, or Attention-Deficit and Disruptive Behavior Disorders.

Adolescent Substance Use:

Adolescents using alcohol, marijuana, cocaine, or prescription drugs to become intoxicated or obtain sought after altered state.

Cape May County, New Jersey:

The southernmost county of New Jersey, population of 100,000, consisting of ninety-two percent European Americans, five percent African Americans, three percent Latin or Hispanic Americans and one percent of another race.

Crisis Center:

A mental health facility, designed to provide clinical assessment and crisis stabilization in the least restrictive, clinically appropriate setting, to individuals needing psychiatric services or psychiatric commitment.

Mental Health Evaluation:

An assessment to evaluate dangerousness to self or others and the need for psychiatric services, completed by a designated Crisis Center.

On-going psychiatric treatment:

Mental Health Treatment provided by a licensed therapist and/or psychiatrist.

Treatment may include individual therapy, group therapy, psychiatric medications, or a combination of two or more.

Assumptions

It was assumed by this researcher, for the purpose of this study, that the adolescents researched from the Cape May Crisis Center was a population similar to the general population and to other county's Crisis Center's consumers.

It was assumed by this researcher, for the purpose of this study, that the mental health evaluator was able to obtain a correct diagnosis for the adolescents, in the course thorough evaluation and acquired client history.

It was assumed by this researcher, for the purpose of this study, that the Urine Drug Screens and Blood Alcohol Tests, given by the Crisis Center's medical staff, were reliable and valid methods substance use screenings.

Limitations

One of the limitations to the study was the lack of diversity of the studied population. The sample studied was adolescents in Cape May County, New Jersey, which is a predominantly Caucasian populated area, and is not as racially diverse as the general population.

Another limitation was a reliability of self-disclosure of substance use. The children were tested for drugs and alcohol upon admission to the hospital, but, if the drugs or alcohol were not in the adolescent's system at the time of the mental health evaluation, the mental health evaluator relied on the validity of the adolescent or family's disclosure.

Overview

In Chapter 2, the researcher will examine the preceding research that has been conducted on adolescent substance use, adolescent psychiatric disorders, and adolescent psychiatric treatment. In Chapter 3, the researcher will explain the details of the study, including the description of the methodology, the participants, and the measures and procedures of the design.

Chapter II: Literature Review

In order to successfully research the effects psychiatric treatment has on adolescent substance use, a comprehensive review of psychiatric treatment, adolescent psychiatric disorders, and adolescent substance use is necessary. It is essential to study the previous research completed on the efficacy of various adolescent substance treatments and adolescent psychiatric treatments. Also necessary, is attempting to locate information derived from earlier research on the co-morbidity of substance use and mental illness in adolescents, and its effects on the construction of effective treatment programs.

One of the most popular references used by countless professionals in the field of psychology, is the Diagnostic and Statistical Manual of Mental Disorders, Volume Four (DSMIV). The DSM IV is a reference used by professionals to help diagnose adolescent and adult clients suffering from mental illness. Like adults, adolescents may experience symptoms of depression, anxiety, psychosis, and other mental disorders. The prevalence of mental illness in adolescents will be explored, and also preview the possibility that mental illness may increase the chance of the adolescents becoming a substance abusers.

Some may argue that substance use is normal for the general population among

adolescents; Prado et al (2005) explains that substance use is often initiated in adolescence. But, is there a stronger correlation between adolescents with a mental illness and substance use compared to their peers? There has been a large array of studies that investigate the co-morbidity of adolescent mental illness and substance use. It has been recorded that between fourteen and twenty percent of youths in the general population have been diagnosed with a mental illness, and fifty six percent of the persons with a mental or addictive disorder have at least one other co-occurring disorder or substance disorder. (Roberston, Dill, Husain, & Undesser, 2004). This topic will be reviewed further to study the comparison of mental health and substance use.

Many professionals strive to facilitate the best therapeutic intervention to help adolescents overcome substance use and diminish symptoms of mental illness. There is a definite need for mental health professionals to be cognizant of the prevalence of substance use in adolescents and the consequences it may have, not only on the adolescent's mental illness, but also on the effectiveness of treatment. A review of various treatment plans will be studied further to examine the efficacy of treatment plans on substance use and psychiatric symptoms.

Because all adolescent's mental illness and substance use are not alike, a review of various interventions will be looked over to determine if there has been a link to certain treatment plans working more efficiently with different populations. There have been numerous studies that focus on therapeutic interventions being more successful with certain populations, whether it is sex, ethnicity, or race.

Also, there has been extensive research on adolescent substance use, adolescent mental illness, co-morbidity, and treatment of both substance use and mental illness, but there has been limited research on the effect of psychiatric treatment on adolescent substance use. There have been many a variety of studies that correlate environmental factors that may have an effect on adolescent substance use, but, there is limited research about the relationship of supportive on-going psychiatric treatment and its effect on substance use, either in adults or adolescents.

Prevalence of Adolescent Mental Illness

The National Alliance on Mental Illness (NAMI) defines mental illness as a medical condition that disrupts a person's thinking, feeling, and mood, their ability to relate to others, and daily functioning often diminish the capacity for coping with ordinary demands of life. Approximately twelve to twenty percent of the youths in the general population have a diagnosable mental illness, with nine to thirteen percent having a serious mental disorder (Robertson, Dill, Husain, & Undesser, 2004 & Smith, Buzi, & Weinman, 2001). NAMI quotes over four million of our Nation's children and adolescents are suffering from a serious mental illness. Research is starting to highlight the ever-growing population of adolescents in our nation suffering from mental illness and the need for psychiatric treatment. The occurrence of behavioral and psychiatric problems, like depression, has been rapidly increasing among our youth (Cousins, Bootzin, Stevens, Ruiz, & Haynes 2007).

Of all the mental illnesses affecting our children, Oppositional Defiance Disorder

(ODD) is the leading cause of referral to mental health services (Nock, Kazdin, Hiripi, & Kessler, 2007). ODD is a common psychiatric disorder, typically diagnosed during childhood.

Prevalence of Adolescent Substance Use

Substance abuse among adolescents is becoming a widespread problem across our nation. It is not uncommon for adolescents to misuse alcohol, marijuana, cocaine, or abuse prescription medications. Unfortunately, adolescence is a time when many begin to use substances and show an increased vulnerability to psychological distress (Cousins et al, 2007). Not only are adolescents more susceptible to substance use or misuse, but, transition from substance use to a diagnosis of Substance Use Disorders are more likely to occur within a few years of adolescence (Wittchen et al, 2008).

Even though there have been numerous studies researching adolescent substance use, there have been very little studies which have studied adolescent substance use other than alcohol and cannabis (Chung & Martin, 2005). Due to the increasing problem of adolescent substance use, it was surprising to find very little research completed on adolescents abusing cocaine, methamphetamines, opiates, or prescription medications.

Co-Morbidity of Adolescent Mental Illness and Substance Use

There has been a large amount of research done on the co-existence of substance use and mental illness in adolescents. Plenty of research on adolescent co-morbidity of substance use and various mental health disorders have been completed, but seem to be limited to the relationship between substance use and depression. Depressive co-

morbidity has been researched more than any other disorder (Armstrong & Costello, 2002). There is a remarkable amount of research on the connection of alcohol and depression, but, more evidence is emerging on the relationship of cannabis and depression, and an association of cannabis and Psychotic Disorders (Smith). Also, cocaine dependence is often coupled with Major Depressive Disorder (MDD) (Rubin et al, 2007). MDD is a common diagnosis among adolescents, and almost one third of the adolescents receiving treatment, also have a Substance Abuse Diagnosis (Becker & Curry, 2007).

Mental health and substance abuse treatment settings have a high prevalence of individuals with co-existing substance abuse and mental health disorders (Couto, 2007). Couto (2007) stresses the importance for all treatment settings to be aware of the importance of early detection of a substance use disorder when treating an adolescent with a mental illness. Because research has found a strong correlation between mental illness and substance use, Couto (2007) states, “that individuals with a co-occurring disorder should be the expectation, not the exception, in substance abuse and mental health treatment systems.” There is strong evidence that psychiatric disorders especially conduct disorders, may increase the risk of developing a substance use disorder (Armstrong & Costello, 2002). Also, there is a strong connection between substance use and Attention Deficit Disorders, Oppositional Defiant Disorders, and Conduct Disorders (Armstrong & Costello, 2002). It seems to be a development of more studies in the recent years that have studied the substance use and the correlation it has with different

and various mental health disorders, other than Depression disorders. Meeting the DSMIV's criteria for co-morbid internalizing disorders, a behavioral disorder, or both, was more likely to have a substance use disorder (Lansford et al, 2008). In 30's (200) research, he found young substance users to exhibit increased rates of psychosomatic complaints, such as, anxiety, relationship problems, and social dysfunction, all which may be incorporated into a debilitating mental illness.

In a study instrumented by Becker and Curry (2007) they found that adolescent substance users experienced a unique set of problems, including a faster progression from their first use to abuse or dependence, and were more likely to have more co-occurring psychiatric problems. "Enhancing our understanding of the co-occurring relationship between depression and substance use thus has important implications for prevention and intervention programs, as well as for understanding the overall picture of adolescent mental health" (Fleming, Mason, Mazza, Abbott, & Catalano, 2008). There has been plenty of research which validates that adolescents, who suffer from a mental illness, are more likely to use or misuse illegal substances. In a study completed by Kelder et al (2001) symptoms of depression were strongly and positively in relation to substance use. But, there is still not a lot of research explaining why the relationship between substance use and mental illness is so strong. Some believe that the increased levels of depression can be a powerful factor leading adolescents to increase substance use as a form or self-medication for the unwanted depressive symptoms. If this is to be true, it is possible adolescents who are diagnosed with a Mood Disorder, Anxiety Disorder, Attention

Deficit Disorder, or another childhood disorder are self-medicating through depressants, such as alcohol and marijuana, or stimulators, such as cocaine, or abusing medications. Also, with the increasing number of adolescents in mental health treatment, more adolescents are relying on medication to help them regulate their moods. Alcohol is frequently used to self-medicate other Axis I diagnoses, such as, depression and anxiety, or may precede and precipitate their development (Perepletchikova, Krystal, & Kaufman, 2008). Is the reliance of medication for mood regulation encouraging children to become dependent on drugs to properly adjust mood and behavior?

It is likely; adolescents with a mental illness may become substance abusers, but can substance abuse lead to a mental illness? Fleming et al (2008) researched adolescent's relationship between substance use and depressive symptoms. He found that there was an increase in depression, associated with and increase of alcohol abuse and marijuana use. The four-year study concluded, observing that there was a positive association with changes in depressive symptoms and substance use. The study found the depressive symptoms and substance use were developmentally intertwined and there was a significant correlation between episodes of substance use and depressive symptoms.

Childhood anxiety disorders have also been acknowledged as being potential risk for adolescents developing substance use disorders (Kendall, Safford, Webb, & Flannery-Schroeder, 2004). Like other studies have found, Kendall et al's (2004) study hypothesized that "due to a temporal relationship (of substance use and anxiety) that at least some anxious adolescents may be using alcohol and other drugs to 'self-medicate'

or manage their anxiety symptoms.” After a seven year follow-up of the adolescents with anxiety, Kendall et al (2004), using chi-square analyses, observed the adolescents who had an anxiety diagnosis, they founded that the adolescents who completed a successful treatment for anxiety were less involved with substance use and problems associated with substance use. Successful treatment for child anxiety was directly correlated to less substance use (Kendall et al, 2004)

Ethnic studies were also found during the researching process, Becker & Grilo (2007) found drug abuse for the African American population was affected not only on the presence of depression, but, age was also a factor. They found depression does has an association with drug use in the African American population, but, coping motives were better predictors of alcohol abuse in the African American community.

There is plenty of research linking depression to substance use and vice versa, but, Evans & Frank (2004) did find contradictory results. In the study the relationship between alcohol abuse and depression was only present when the adolescents acknowledged either very high or very low depression. Evans & Frank (2004) founded that depression in adolescents was a risk factor for excessive drinking only when the adolescent’s depression arrived at clinical levels.

Treatment for Adolescents with a Mental Illness

There has been a lot of research on attempting to find the best treatment for adolescents and adults, depending on their mental illness. NAMI suggests that in addition to medication treatment, psychosocial treatment, interpersonal therapy, peer

support groups, and other community services can be advantageous in the treatment and recovery plan for mental illness. Not only are professionals in the field of psychology searching for effective approaches to prevent mental health problems, but also, we are in need of cost-effective approaches (Bayer, Hiscock, Ukoumunne, Price, & Wake, 2008). Mental health costs to our nation and society are increasing, but finding appropriate and cost-effective treatment for mental illness may decrease other costs incurred by school dropout, substance abuse, poor vocational outcomes, and learning problems (Bayer et al, 2008).

Professionals search for the treatment program most beneficial for the client, but, even though there has been a large amount of research done, it is still unknown which type of programs, services, and interventions are most appropriate for which types of patients, and at what stage of their illness (Karp, 2006). Many children may suffer from depression, anxiety, attention disorders, ODD, or symptoms of a Mood Disorder. Due to the effects various mental illnesses have on the adolescent's daily activities, therapeutic intervention or medication is often needed. Adolescents with ODD may have defiant behaviors that may lead them to having interpersonal, academic, or legal difficulties, which may cause increased anxiety, mood, or substance problems (Nock et al, 2007). Psychiatric treatment may help to curtail not only the adolescent's symptoms of the primary disorder, but, also may prevent future or co-existing symptoms and/or disorders. In a study done by Karp (2006), adolescents were studied after they were introduced to two different outpatient psychiatric programs. The two programs, a continuing day

program, and a psychosocial program, were observed and Karp (2006) concluded that both treatment programs had both reduced recidivism. Karp (2006) also found that the antipsychotic medications combined with the programs, successfully reduced the adolescents symptomology. Also, like Karp's (2006) programs, other psychiatric interventions have been effective in treating adolescents at a high risk for relapse, such interventions are, assertive community based treatment, vocational rehabilitation, and skill training.

Treatment for Adolescents with Substance Use

Although there are plenty of treatment plans and rehabilitations for substance use among adolescents, less than ten percent of adolescents in the community who meet the criteria for substance abuse, receive treatment (Becker & Curry, 2008). But, there has been plenty of research that has evaluated the effectiveness of various types of treatment plans. Many of the problems arising while creating an effective substance abuse program to prevent or eliminate use are due to many adolescents not interested in the treatment. Unlike adults, most adolescents are forced to attend treatment, either by guardians or court-mandates.

Cannabis is the most widely used illicit drug in the Nation, especially affecting the youth of America. There is limited research conducted on adolescents and cannabis use, but, evidence is beginning to show that it has an association with a number of psychosocial problems (Nordstrom & Levin, 2007). Psychotherapy, a psychiatric approach to substance use, has revealed to have a positive effective in aiding patients

decrease cannabis use, but, no one therapy has been recognized as being superior in treatment of cannabis use (Nordstrom & Levin, 2007).

In a study conducted by Ames et al (2007), they observed the predictors of marijuana use among at-risk adolescents and decided primary and secondary prevention and treatment programs for substance use may counteract drug related spontaneous effects, and produce alternative behaviors, other than drug use, which would create a rewarding experience for the adolescents. After thorough evaluation of their research they felt that the interventions that would be successful for deterring substance use in adolescents would have to be coupled with prohealth associations (Ames et al 2007). Another intervention studied was by Winters & Lieten (2007), who researched the efficacy of Brief Intervention for adolescent substance users. Brief Intervention is a non-intensive therapy aimed to reduce drug use and related consequences among adolescents. The Brief Intervention therapy did surpass the positive changes compared to the assessment-only control group, but, Winters & Lieten (2007) found there was greater change in substance use among the adolescents if the intervention included a parent session. The positive changes which were studied included the number of days illicit drugs or alcohol were used, the number of binge-drinking days, and the number of drug-related consequences (Winters & Lieten, 2007).

There also was a large amount of studies that researched specific treatment plans designed for certain populations, such as adolescents of a specific culture or race. Prado et al (2007) researched the efficacy of a Parent-Centered Intervention in preventing

substance use in a Hispanic community. They found that families receiving two types of treatment plans were more successful than the families receiving only one. The treatment plans both consisted of a design that included increasing parental involvement. They also found that the intervention that included family support and teachings of positive parenting to be more successful in decreasing substance use among the adolescents in the family.

Perepletchikova et al (2008) reviewed many types of treatment plans to eliminate or decrease substance use in adolescents and found the Multidimensional Family therapy style and group administered cognitive behavioral therapies to have the most empirical data supporting their effectiveness. Motivational Interviewing, pharmacological treatments, and Alcoholics Anonymous were also treatments mentioned in the studies that had successful outcomes for the treatment of adolescent substance use.

Adolescents may be more difficult to engage in treatment plans compared to adults due to the possibility the therapeutic intervention is not voluntary, but, clinical evidence has suggests substance misuse in adolescents is more likely to be successfully treated than in adulthood (Swadi, 2000). Typically, adolescents take drugs because they may identify illegal substances as a positive; therefore, dependence is atypical (Swadi, 2000).

Treatment for Adolescents with a Dual Diagnosis of Substance Use and Mental Illness

There is very limited research on dual diagnosis treatment of adolescents with a substance use disorder and mental illness disorder. Like stated before, many adolescents

are forced to attend treatment and because of this, it is difficult to implicate a therapeutic intervention, which would be successful due to the adolescent's minimal involvement or interest. Dually diagnosed adolescents with a substance dependency and psychiatric disorder exhibit limited compliance with aftercare treatment (Santa Ana, Wulfert, & Nietert, 2007).

One of the few studies which consisted of treatment for substance use and psychiatric disorders was conducted by Santa Ana et al (2007) who researched the efficacy of Group Motivational Interviewing. The study found the adolescents who participated in Group Motivational Interviewing participated more in aftercare treatment sessions, had a lower intake of alcohol, and engaged in less binge drinking compared to the adolescents which were in a control group (Santa Ana et al, 2007). They also provided research which determined that Group Motivational Interviewing, added with standardized treatment, for dually diagnosed adolescents with chemical dependency, were more likely to have a positive outcome than those with a standardized treatment plan.

Children diagnosed with Oppositional Defiant Disorder (ODD), like other psychiatric disorders, have a more of a likelihood of deviant behavior and substance use (Marshal & Molina, 2008). Children with ODD may have a difficult time in therapeutic relationships, very often dismissing authoritative figures and unable to take direction. But, there has been research which concentrates on prevention and intervention programs, which main focus is remediation of impairment in adolescence which may be

successful in eliminating long-term detrimental outcomes of the disorder (Marshall & Molina, 2008). The effective preventative and direct interceptive programs may lead to a decrease of future substance use and a decline in deviant behaviors.

Post-traumatic stress disorder is also a common childhood disorder, most commonly affected by adolescents who have been witness or victims to sexual, emotional, or physical abuse. In studies, negative affects, which were provoked by trauma recall, have proved to have a positive increase of cravings for alcohol and cocaine among alcohol and cocaine abusers, respectively (Baschnagel, Coffey, & Rash, 2006). It also has a strong prediction to future diagnosis of a substance abuse disorder (Ford, Russo, & Mallon, 2007). They found the goal of individual counseling or case management for adolescents with Post-traumatic stress disorder is to provide the adolescent with therapeutic structure to have recovery and life management in an organized manner to be their focal point in treatment. They found the leading problem inhibiting success in treatment was not addressing the Substance Abuse Disorder (Ford et al, 2007). In order to proceed with beneficial treatment the professional must tackle the substance abuse with the symptoms of the Post-traumatic stress disorder collectively.

Environmental Factors Influencing Use or Deterrence of Substances

Many professionals in the field of psychology recognize environmental factors may influence an adolescent's substance use or likeliness to use. Exposure to violence or trauma will affect millions of children, and if the incident is not addressed, the child has a

greater chance for academic failure; anxiety, depression, and PTSD; substance use; and may engage in violent acts later in life (Harris, Lieberman, & Marans, 2007).

In a study accomplished by Cousins et al (2007), parental involvement, psychological distress and sleep were examined to determine if they correlated with adolescent substance abuse. The study found no relationship between sleep and parental involvement to substance use, but they did deduce there were direct correlations that linked substance use and problems associated to substance use to mental health distress (Cousins et al, 2007).

Another study looked at the efficacy of Relationship Enhancement therapy to treat adolescent mental illness and substance dependence. Relationship Enhancement therapy not only is used to treat the adolescent, but is effective in treating the family as a whole unit (Accodino, Keat, & Guerney, 2003). The approach is formed because it is believed the adolescent with severe mental illness and substance dependence; it is likely there is a severe dysfunction in family behavior. Accordino et al (2003) found positive effects from the family based intervention using Relationship Enhancement, there was a large reduction of relapse of mental illness symptoms, it was cost effective, and there was an overall efficacy of treatment compared to educational-based assessment alone.

Contrary to Accordino, et al's study, Pomery et al (2005) found that both parents and peers have a vital impact on adolescent behavior, most importantly, substance use. They found that substance use and deviant behaviors were shaped by parental and peer influence, but, most importantly, sibling influence (Pomery et al, 2005). The

adolescent's relationship with the family and their friends was an important predictor of their future substance use.

Chapter III: Research Design

Sample

The information studied in this sample was taken from archival research from a mental health crisis center, located in Cape May Courthouse, NJ. The participants studied included adolescents ranging from age thirteen to seventeen. The participants were all screened for a mental health evaluation at Cape May County's screening center, located in Cape May Courthouse, NJ. All the participants involved were diagnosed with a mental illness.

The adolescents in the study represented various religions, backgrounds, races, and cultural, also, both sexes were represented. Cape May County has a population of approximately one hundred thousand people, ninety-two percent European American, five percent African American, three percent Hispanic or Latin American, and one percent represents people of another race.

The study included ninety-six adolescents, which represented forty-four males and fifty-two females. Of the ninety-six adolescents, ranging in ages from thirteen to seventeen, 08.99 percent were thirteen years, 18.99 percent were fourteen years, 26.53 percent were fifteen years, 22.45 percent were sixteen years, and 22.45 percent were

seventeen years old. In the sample population 83.33 percent were of European-American, 13.55 were of African-American, and 3.12 were Hispanic/Latino.

All the adolescents' studies were diagnosed with an Axis one disorder, derived from the DSM IV. Of the ninety-eight adolescents studied, 80.61 percent were diagnosed with a Mood Disorder, 14.29 percent were diagnosed with an Attention-Deficit or Disruptive Behavior Disorder, 3.06 were diagnosed with Schizophrenia or a Psychotic Disorder, and 2.04 were diagnosed with an Anxiety Disorder.

Procedure

Prior to any data collection, the researcher obtained permission from Cape May County's Mental Health Agency to collect data from their Screening Center's archival records. The researcher sent formal letters describing the research to be conducted and the Mental Health Agency discussed the proposal during an Internal Review Board.

The researcher had on-going access to the archival records; the researcher was employed by Cape Counseling Service's Screening Center during the conduction of the study. Data was collected on all the adolescents who had visited the Screening Center during March 2008 to February 2009. Information obtained from the participant's archival data included, the participant's age, race, psychiatric diagnosis, psychiatric treatment, and substance abuse information.

Data was compiled in graph form.

Design

The archival data were compiled and used in a correlation study. The adolescents studied all have mental illness, with an Axis one diagnosis, derived from the DSM IV. The study mainly focused on the efficacy of out/patient treatment on substance use of the studied adolescents. Substance use, the dependent variable, was ran against if the adolescents were attending or not attending on-going psychiatric treatment, the independent variable.

Hypothesis

It was hypothesized that the adolescents who were receiving on-going mental health treatment (psychiatric counseling, psychiatric medication) were less likely to be substance users compared to the adolescents who were receiving zero treatment for their mental illness. Also, it was hypothesized females are less likely to abuse substances, compared to their male peers.

Analysis Design

For the first hypothesis, in which it was believed that adolescents who were receiving on-going mental health treatment (psychiatric counseling, psychiatric medication) were less likely to be substance users compared to the adolescents who were receiving zero treatment for their mental illness, a cross tabulation was used to compare the data. The second hypothesis, female adolescents were less likely to substance use

compared to their male peers, cross tabulations and descriptives were used to compare the different results depending on the adolescent's sex.

Summary

In Chapter three, the research design was discussed and included subject information, procedure, and analysis of the data obtained. Research conducted through archival data will prove or disprove the hypotheses described in Chapter three. The information explained in this chapter can aid future students in replication of this study, which can increase the field's knowledge on adolescent's mental health treatment and substance use. In the chapters to follow, the data analysis and results of the study will be described.

Chapter IV: Results

This study began in attempt to understand what variables in an adolescent's lifestyle may influence their substance use. In the field of psychology, there is limited research compiled on adolescent mental health in regards to substance use and there is a need for further understanding of the efficacy of adolescent treatment plans for both mental illness and substance use.

Information was obtained by archival data and the researcher assigned each client with a number, one through four, to represent their hierarchy of treatment. The adolescents assigned the number one, were those who received zero treatment. Those assigned a two, received out/patient counseling. Adolescents assigned a three, represented those prescribed psychiatric medication, and a four was assigned to clients receiving both out/patient counseling and psychiatric medication. Also, the clients were assigned either a number one or number two, to represent the presence of substance use. Adolescents who did not abuse substances were assigned a number one, and those, which did abuse substances, were assigned a number two.

Hypothesis I

The first hypothesis was that adolescents with a mental illness who were receiving out/patient counseling, psychiatric medication, or a combination of both, were less likely

to substance use compared to their peers which were not receiving any on-going psychiatric treatment.

Results

A cross tabulation was conducted between psychiatric treatment and substance use. The following results were yielded, $p=0.701$, which was statistically not significant. Of the ninety-six adolescents, forty-five were not receiving any type of treatment on-going psychiatric treatment. Of the forty-five adolescents, approximately sixty-seven percent did not substance. Of the remaining fifty-one adolescents, that were receiving some level of psychiatric treatment, sixty-three percent did not substance use. The percentages were very similar, despite the presence of on-going treatment that provided the adolescents with support and possible medication.

Hypothesis II

The second hypothesis predicted that female adolescents with a mental illness were less likely to substance use compared to their male peers.

Results

A cross tabulation was conducted between gender and substance use, yielding the following results, $p= 0.359$. Mathematically, the correlation is not significant. There were forty-four males and fifty-two females in the study. Of the forty-four males,

approximately forty-eight percent were substance users. Of the fifty-two females, forty percent were substance users. There was no significant difference found between the sexes among the substance users.

There were no significant results obtained by this study and neither hypotheses could lend positive support for the study.

Neither of the results was close to being significant, and the hypothesis could not positively support by the analysis of the data set, but, there were interesting and valuable trends uncovered in reference to adolescent's gender, type of substance use and diagnosis, which the researcher will describe in the following chapter.

Chapter V: Summary & Discussion

Summary

Chapter one was an explanation of the study's need and purpose, which was in effort to distinguish any effects on-going psychiatric treatment may have on adolescents and substance use. The two hypotheses were researched through obtaining archival data from a community mental health agency that serves adolescents with a mental illness.

Chapter two encompassed a thorough literature review of adolescent substance use, adolescent mental illness, treatments for adolescent substance use and psychiatric interventions for adolescent mental illness.

Chapter three described how the study was conducted and designed. Archival data was used to research adolescent with a mental illness and whether or not substance abuse was present. The information was compiled and chapter three outlines the study's demographics, in reference to the individual's ages, sex, diagnosis, and ethnicity.

Chapter four presented the study's results. It outlined both hypotheses and a cross tabulation was used for both hypotheses. A graph was used to represent the output information in reference to substance use and gender. Also, interesting trends found within the study were described.

Chapter five presented the description of findings, the connections made to previous research and lended opinion to where future research should be directed, to help the field better understand and treat adolescent mental illness and substance use.

Description of Findings

The main study of the research focused on adolescents, ages thirteen to seventeen, and the efficacy of on-going psychiatric treatment and its efficacy on adolescent substance use. The first hypothesis, examined if adolescents in on-going psychiatric treatment, either on-going mental health counseling, psychiatric medication, or a combination of both, were less likely to substance use due to the psychiatric interventions and professional support, compared to their peers with an Axis I Disorder, who were not in any type of treatment.

Even though the results of the test did not produce any significant correlation or result, there were interesting results in reference to specific diagnoses and substance use. Like most previous research has found, the adolescents were most likely to abuse marijuana and alcohol. It was found that 32% of the adolescents abused marijuana, and 25% abused alcohol. There was also interesting trends which were found among the adolescents in reference to their diagnoses. The adolescents diagnosed with either a depressive diagnosis were much more likely to abuse substances compared to the adolescents diagnosed with other Axis I disorders. Forty percent of the adolescents researched, were diagnosed with a depressive disorder, and of the thirty-nine adolescents, 36% abused marijuana, 28% abused alcohol, and 10% abused other substances. The use

among the adolescents diagnosed with depression was much higher compared to the adolescents diagnosed with another diagnosis. It is possible that the children who were suffering from depressive symptoms, and were not medicated, were self-medicating through substances to reduce or relieve unwanted symptoms typical to their psychiatric diagnosis.

Like stated before, there is a high co morbidity rate of adolescent mental illness and substance use. Roberston, et al (2004) explains that fifty six percent of adolescents who are diagnosed with a mental illness have a co-occurring mental illness or substance use.

In the second hypothesis, the researcher compared the adolescent's gender to substance use, it was hypothesized that the females were less likely to substance use compared to their male peers. The results produced a non-significant correlation between substance use and gender. There were no significant results founded, but, also, there were interesting trends in substances used by females compared to their male peers. The most common substance abused by both sexes was marijuana. Eighty-three percent of males that were substance abusers used marijuana, and sixty-seven percent of the female substance users abused marijuana. Also, there was a high use of alcohol among the substance users, fifty-seven percent of the males that abused substances abused alcohol, compared to fifty percent of the females. Although there were no overall significant results founded and the hypothesis could not be supported, there was more use among the males in reference to marijuana. Also, there was heroin and cocaine used by several of

the males, none of the females researched had used these substances. There were three females reported using opiates, all of which abused random pills, such as Percocet or Oxycontin. The males that reported opiate use were heroin abusers.

Relations to Previous Research

Research that has focused on adolescent mental illness in the past has mainly concentrated on adolescents with a depressive disorder. Due to the rise in the diagnosis of adolescent bipolar disorder or mood disorders, more research should be started to help identify the rates of co morbidity of bipolar disorder and substance use, and possible treatment plans which would help to educate, eliminate, and treat adolescent substance abuse. Mental health professionals need to be aware of the various disorders and the co morbidity of substance use and the earlier detection, the more successful the treatment may be.

Previous research that focused on adolescent substance use has been limited to adolescents and marijuana use. Although studies have shown adolescents are more likely to abuse marijuana, rather than other substances, research on adolescent substance use, other than marijuana needs to be researched and observed. Marijuana may be the most popular of the substances, but, adolescents are abusing other substances. Other substances, such as, cocaine, amphetamines, opiates, and other prescription drugs, need to be researched and the need for interventions to help prevent and educate adolescents on substances and how it may affect their mental illness is needed. If there are more

researched interventions, which will better identify and treat adolescent substance use along with their mental illness, early detection is possible, which may reduce the likelihood the adolescents may substance abuse.

Future Directions

Although there were no significant results found from the research, there were interesting trends that led some insight into adolescent substance use. Because of such a large amount of adolescent substance use in the United States, it would behoove practitioners in the mental health field to have more research on both adolescent mental health treatment and substance use. It would be beneficial to the adolescent's treatment for mental illness to also include substance abuse information, to help educate and prevent use in adolescents, due to the high rate of co morbidity.

Also, it would be beneficial for future researchers to look at other mental illnesses, other than depression, which affect adolescents. Because there has already been a large amount of research completed on depression in adolescents, there has been insight provided into adolescent substance and the effects it has on mental illness. Researchers have found that adolescent substance use can increase the vulnerability to psychiatric distress (Cousins, 2007), but more research needs to be done to help identify what type of psychiatric distress, what therapeutic interventions would be beneficial.

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