UNDETECTED SUBSTANCE ABUSE AND DEPENDENCE AMONG JUVENILE OFFENDERS IN A DIVERSION PROGRAM

By

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TABLE OF CONTENTS

LIST OF TABLES ........................................................................................................... 7
ABSTRACT ..................................................................................................................... 8
CHAPTER 1: INTRODUCTION ....................................................................................... 9
   Background Information .......................................................................................... 9
   Statement of the Problem ...................................................................................... 11
   Research Questions ................................................................................................. 12
   Rationale for the study ............................................................................................ 12
   Contributions to Knowledge ................................................................................... 14
      New and Improved Evidence .............................................................................. 14
      New and Improved Methodology and Measures ................................................ 15
      New and Improved Policies and Procedures ...................................................... 15
   Definition of Terms ................................................................................................ 16
   Assumptions Underlying the Study ....................................................................... 19
   Limitations of the Study ......................................................................................... 19
CHAPTER 2: REVIEW OF THE LITERATURE ........................................................... 20
   Prevalence of Substance Abuse among Adolescents .............................................. 20
   Substance Abuse among Juvenile Offenders .......................................................... 21
   Self-Reporting in Threatening Situations ............................................................... 25
   Preventing Substance Use among Adolescents ...................................................... 29
   The Adolescent Substance Abuse Subtle Screening Inventory (SASSI-A2) ............ 30
CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY ..................................... 34
   Research Questions ................................................................................................ 34
   Research Participants .............................................................................................. 34
   General Design of the Study ................................................................................... 35
   Procedure ................................................................................................................ 36
   Instrument Used ..................................................................................................... 37
   Analysis of Data ..................................................................................................... 39
CHAPTER 4: RESULTS ................................................................................................. 41
Sample Characteristics ................................................................. 41
Research Question #1 ................................................................. 42
Research Question #2 ................................................................. 43
Additional Findings ................................................................. 44

CHAPTER 5: SUMMARY, DISCUSSION, AND RECOMMENDATIONS ........ 46
Summary ................................................................................. 46
Discussion of Results ............................................................. 48
Recommendations ................................................................. 51

REFERENCES ........................................................................... 55
LIST OF TABLES

TABLE 4.1, Misdemeanor Class, comparison of SASSI-A2 scores..........................41
TABLE 4.2, Substance Abuse Class, comparison of SASSI-A2 scores.........................42
TABLE 4.3, Substance Abuse and Dependency Disorders within all Classes.................43
TABLE 4.4, Frequency Distribution of Substance Dependence Disorder by Gender........44
ABSTRACT

The harmful effects of substance abuse among adolescents and its close association with juvenile crime and recidivism have been well documented. While a legal referral to the juvenile court may prompt an assessment of substance abuse or dependence, juvenile court diversion personnel must often rely only on an informal interview to determine the presence or severity of a juvenile’s substance abuse problem. This may result in a failure to detect underlying substance abuse problems and to initiate appropriate treatment. The present study explored whether or not a standardized instrument, the Adolescent Substance Abuse Subtle Screening Inventory (SASSI-A2) might improve identification of substance abuse problems in juvenile offenders who had been referred to one of two early intervention classes (a Misdemeanor class or a Substance Abuse class).

Fifty-four percent of the sample met the criteria for a high probability of either a Substance Abuse Disorder or a Substance Dependence Disorder as measured by the SASSI-A2. Nearly twenty-six percent (25.9%) of juveniles in the Misdemeanor class and 35.7% of the juveniles in the Substance Abuse class met the criteria for a substance abuse disorder. Nearly fifteen percent (14.7%) of juveniles in the Misdemeanor class and 33.3% in the Substance Abuse class met criteria for a Substance Dependence Disorder. These findings suggest that the use of the standardized test was significantly better at detecting substance abuse problems among juvenile offenders in diversion than a standard informal interview-only.
CHAPTER 1
Introduction

This section contains the background information relevant to the present study. A statement of the problem, research questions, and hypotheses is presented followed by the rationale for the study. Finally, contributions to knowledge, definitions of terms, assumptions underlying the study and limitations of the study are discussed.

Background Information

Substance abuse problems in the United States in general are well documented, as are their social consequences. More specifically the problem of drug and alcohol use among teenagers has been shown to be extensive. In a National Institute of Drug Abuse (NIDA) funded study (2002) it was reported that 49% of 12th graders polled in the U.S. had used alcohol in the previous 30 days; for 10th graders, the use rate was 39%; and for eighth graders 21.5%. Of greater concern are the findings regarding heavy drinking. This same report revealed that 30% of 12th graders who were polled nationally reported having had five or more drinks in a single sitting within the previous two weeks; for 10th graders the rate dropped to 26.2% and for eighth graders, it was 14.1%. Marijuana was found to be the third most frequently abused substance following drugs/alcohol and tobacco. The figures for previous-month use of marijuana were 22% of 12th graders, 19.8% of 10th graders, and 9.1% of eighth graders. In addition, small yet significant percentages of students reported previous-month use of inhalants and 2.4% of 12th graders, previous-month use of cocaine (NIDA, 2002).
Many juveniles are also involved in delinquent behavior. In 1997, two million juveniles were arrested, accounting for 19% of all arrests and 13% of all violent crime in the United States (Siegal & Senna, 2000). The Children's Defense Fund (1998) reported that every 15 seconds a child is arrested, every three minutes a child is arrested for drug abuse, and every five minutes a child is arrested for violent crime.

Often substance abuse and delinquent behavior are intimately linked. Kingery, Pruitt, and Hurley (1992), in a representative sample of U.S. adolescents, found evidence that drug users were involved in more acts of violence than non-drug users and were more likely to be victims of assault. Greenblatt (1998) analyzed a national survey and found that youth (aged 12 to 17) who had admitted to using marijuana within the past year had also reported a variety of behavioral problems with delinquent behavior being the greatest difference between users and non-users. Although no conclusions regarding causality could be made, a strong positive correlation between self-reporting of marijuana use and problem behaviors was demonstrated.

Drug use is strongly correlated with nearly every other problem behavior demonstrated by adolescents. This includes the full range of antisocial and violent behaviors and many other social problems such as delinquency, domestic violence, and sexually transmitted diseases (Grilo, Becker, Fehon, Edell, & McGlashan, 1996; Pransky, 1991). Coker, Smith, McKeown, and King (2000) concluded that violent crime is related to drug/alcohol use. The use of alcohol by the adolescent is also suggested as an independent risk factor for delinquent and/or violent behavior (Komro, Williams, & Forster, 1999).
Recent research thus suggests that the problem of drug and alcohol abuse by adolescents in this country is significant and has serious societal consequences. The need for prevention and early-intervention treatment programs to alleviate substance abuse problems in adolescents before they become associated with more serious behaviors is crucial. Appropriate secondary prevention programming or treatment, however, cannot occur until the juvenile is identified as a drug and/or alcohol user.

Adolescent drug users are sometimes identified by self-report but often their behavior at home or school alerts the supervising adult to a problem. It is often difficult to accurately assess adolescent substance abusers since many teens deny their alcohol and drug use (Schaeffer, 2000). Once a problem is identified, appropriate treatment interventions can be offered. Teenage users of drugs and alcohol may also be identified when an arrest and subsequent referral to the juvenile court is made. If the legal offense is alcohol- or drug-related the nature of the offense alerts the probation officer to the problem. Assessing for drug/alcohol-related charges if the adolescent is arrested for a non-drug/alcohol offense becomes more problematic particularly because the adolescent may be aware that revealing such information could lead to increased consequences.

Statement of the Problem

Substance abuse among adolescents is a serious problem with widespread ramifications. However, it often goes undetected. Although no specific research is available regarding the degree of undetected substance abuse among juvenile offenders, the Office of Juvenile Justice and Delinquency Prevention (1998) states that “The first step to effective intervention (treating juvenile substance abusers) is to identify those
youth who are engaged in substance abuse" (p. iii). Taxman (2000) discusses the problem of implementing appropriate treatment services among offenders and lists the lack of clear assessment as one of the six major obstacles to effective intervention. Farabee et al. (1999) concurs, finding that client assessment is critical in identifying which treatment efforts should be implemented. Within the juvenile justice diversion system if the assessment procedure is inadequate, juvenile offenders who also have a drug/alcohol problem may go undetected and thus may be under-served.

Research Questions

The author investigates if juveniles referred to two early-intervention programs have substance abuse problems that are not being adequately addressed. This study seeks to determine whether or not the use of a formal testing instrument compared to an informal interview-only procedure will lead to an increased identification of substance abuse among juvenile offenders in diversion. The formal testing instrument in this study is the Adolescent Substance Abuse Subtle Screening Inventory (SASSI-A2) (Miller & Lazowski, 2001). This is a standardized instrument that has cut-off scores identifying the high probability of both a Substance Abuse Disorder diagnosis and a Substance Dependence Disorder diagnosis.

Rationale for the Study

Undetected substance abuse/dependence problems among adolescents who have been arrested can distort the evaluative process and increase the likelihood that incomplete or inappropriate rehabilitation plans will be executed. The current method of evaluating additional risk factors, such as substance abuse, for juveniles in diversion is
limited to direct questioning of the offender and his or her parent(s) by the probation officer. Utilizing an interview evaluation only, the juvenile offender or their parent(s) must be willing to report a substance abuse problem before it can be detected. Formal methods of substance abuse evaluation such as standardized testing are not typically utilized. As a result, Juvenile Court personnel may not identify a substance abuse concern or they may underestimate the extent of the substance abuse problem. Substance abuse and dependence problems that are undetected and/or untreated increase the likelihood of the juvenile experiencing problems at home, at school, and in the community.

The current study attempts to identify whether or not probation officers using only an interview evaluation may underestimate juvenile offenders' substance abuse problems, relative to formal substance abuse testing. More specifically, this study first attempts to identify whether or not juvenile offenders referred by juvenile court to a five-hour early intervention diversion program for non-drug/alcohol related charges may also have substance abuse problems that are relatively undetected. Secondly, this study attempts to identify whether or not juveniles referred to a five-hour program for drug/alcohol–related charges have more extensive substance abuse problems than can be adequately addressed in a five-hour early intervention program.

In both instances, if the standardized instrument identifies more extensive substance abuse problems, the juvenile offender could have been alternately referred to a more appropriate treatment program to adequately address his/her substance abuse problems. At a minimum, if the probation officer is able to detect that the juvenile may be abusing drugs or alcohol, then a referral to the Substance Abuse Class would be more
appropriate than a referral to the Misdemeanor Class. If a more extensive substance abuse problem is identified (substance dependence), a referral to a more intensive treatment program such as an outpatient or inpatient treatment program would be appropriate.

The results of this research are expected to encourage juvenile court administrators to pursue further research: first, to determine whether or not the use of a formal substance abuse evaluation instrument, such as the SASSI-A2, would lead to improved assessment of substance abuse problems; second, to determine whether or not amended detection methods would improve the identification of substance abuse issues among juveniles, lead to more appropriate treatment, and result in reduced recidivism.

Contributions to Knowledge

New and Improved Evidence

Important potential outcomes of this research include the collection of further evidence that substance abuse is a serious problem among juvenile offenders in diversion. The research may also show that substance abuse is a significant concern not only in individuals who have been arrested for a substance abuse-related charge but, in many cases, in juveniles who have been arrested for non-substance abuse related charges. Further, current court assessment procedures and referral policies may be assigning juveniles to an early intervention program when there are substance abuse problems that are being left untreated. Substantiating this is a critical first step toward solving it.

The Juvenile Court is the countywide agency targeting juvenile offenders. Most counties have similar agencies addressing juvenile crime. This study makes an initial
contribution to knowledge by describing substance abuse problems in a sample of juvenile offenders in diversion.

The SASSI-A2 may be a useful tool for detecting substance abuse among juvenile offenders entering diversion. The possibility of including a quick and easy-to-administer standardized assessment instrument for identifying substance abuse was explored in this study. Juvenile court personnel may choose to incorporate the SASSI-A2 into a series of procedures to screen for substance abuse among juvenile offenders entering diversion.

New and Improved Methodology and Measures

In this study, an agency that receives referrals from the Juvenile Court agreed to provide profiles from the SASSI-A2 for research purposes. These profiles provided the data needed to analyze the instrument statistically.

One objective of this project is to investigate the feasibility of using the SASSI-A2 as a screening device with juvenile offenders in a diversion program. The SASSI-A2's effectiveness as a screening device with juvenile offenders will be further investigated in a future study correlating SASSI-A2 findings and numerous other variables with case outcomes and recidivism. The present research was designed to describe incidence data relative to juveniles referred as a result of arrest for substance abuse-related charges and non-substance abuse-related charges. The research investigates the possibility that substance abuse problems may be inadequately addressed in juveniles referred for substance abuse/non-substance abuse charges and draws attention to the problem of undetected substance abuse among juvenile offenders. A longer-term goal is
to conduct a follow-up study to determine whether or not undetected substance abuse ultimately affects the rate of recidivism.

New and Improved Policies and Procedures

Ideally, the outcome of this study may result in new Juvenile Court policies and procedures designed to better meet the needs of the population it serves. Currently, specific procedures to conduct formal screening for substance abuse among all juvenile offenders in diversion do not exist. In cases where the arrest has been for a substance abuse-related offense, urinalysis may be required to screen for drug use. This technique, however, is expensive and time-consuming and does not screen for alcohol. If information derived from a standardized screening instrument improves identification of substance abuse problems in juvenile offenders a more relevant treatment referral becomes possible.

In this era of severely limited resources, overlooking substance abuse may be detrimental in the court’s efforts to reduce recidivism. Conditions of optimal offender rehabilitation need to be achieved. Screening for substance abuse and supporting juvenile offenders who enter diversion programs in becoming drug-and-alcohol free may be a way to reduce recidivism and thus, maximize court resources.

Definition of Terms

The following terms are defined for this study:

Juvenile offender indicates a juvenile under the age of 18 who has been formally arrested by a law enforcement officer either through a physical or paper referral, but
Unlike a juvenile delinquent, has not been adjudged in a juvenile court (Yablonsky, 2000).

*Diversion* indicates the referral of a juvenile offender to dispositional alternatives outside the formal juvenile justice system (Bartollas, 2001). The juvenile offender agrees to "take responsibility" for the alleged offense and follow court conditions as determined by the assigned probation officer. The juvenile, by accepting diversion programming, avoids a court conviction as long as he or she complies with agreed-upon requirements.

*Substance Abuse Disorder* is defined in the American Psychiatric Association Diagnostic and Statistical Manuel (4th ed.) (DSM IV) as:

A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:

1. recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household
2. recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)
3. recurrent substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance
(e.g., arguments with a spouse about consequences of intoxication, physical fights)

The symptoms have never met the criteria for Substance Dependence for this class of substance (p. 182).

*Substance Dependence Disorder* is defined in the *DSM IV* (1994) as:

A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

1. tolerance, as defined by either of the following:
   
   (a) a need for markedly increased amounts of the substance to achieve intoxication or the desired effect
   
   (b) markedly diminished effect with continued use of the same amount of the substance

2. withdrawal, as manifested by either of the following:

   (a) the characteristic withdrawal syndrome for the substance …

   (b) the same (or closely related substance) is taken to relieve or avoid withdrawal symptoms

3. the substance is often taken in larger amounts or over a longer period than was intended

4. there is a persistent desire or unsuccessful efforts to cut down or control substance use
5. A great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain smoking) or recover from its effects.

6. Important social, occupational, or recreational activities are given up or reduced because of substance use.

7. The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption) (p. 181).

**Assumptions Underlying the Study**

For the purpose of this study, the following assumptions were made:

1. Subjects were able to understand the SASSI-A2 items. (The instrument was presented verbally).

2. Subjects provided honest responses to the SASSI-A2 items.

**Limitations of the Study**

Adolescents were not randomly sampled over a wide geographical area. Instead, questionnaires completed by juvenile offenders who had been referred over a continuous four-month period to one community program were evaluated. The sample size (N) provided ample subjects for analysis of the research questions.
CHAPTER 2

Review of the Literature

A review of the relevant literature is presented herein. This section begins with estimates of the prevalence of substance abuse among the adolescent population in the United States, Arizona, and Pima County, where this study takes place. It is followed by a discussion of substance abuse and the juvenile offender and a discussion of the reliability of self-reporting, particularly in threatening situations. Levels of intervention for preventing substance use among adolescents and the development and validation of the Adolescent Substance Abuse Subtle Screening Inventory (SASSI-A2) are also described.

Prevalence of Substance Abuse among Adolescents

The Monitoring the Future Study (NIDA, 2002) found that an estimated 14 million Americans (6.3% of the population) aged 12 and older are current illicit drug users. In Arizona and Pima County, where this study takes place, the problems with substance abuse among adolescents are even more extensive (Arizona Criminal Justice Commission, 2002). Nationwide, 21.5% of eighth graders report using alcohol within the last thirty days. In Arizona the number rises to 34.4% and in Pima County the number is 41.6%. These percentages increase to 49.8% of 12th graders nationwide, while in Arizona 58.9% and in Pima County 58.8% of teenagers in 12th grade report using alcohol in the past thirty days.

In Arizona, 14.3% of eighth graders have tried marijuana in the past 30 days and in Pima County 18.9% say they have. Nationwide, 9.2% of eighth graders report using
marijuana in the past 30 days. By 12\textsuperscript{th} grade 25.4\% have used marijuana in the past thirty days. Cocaine use by eighth graders in Arizona in the past thirty days is reported to be 3.0\% and 12\textsuperscript{th} graders at 5.1\%. In Pima County, 5.2 \% of eighth graders report taking ecstasy in the past thirty days.

\textit{Substance Abuse among Juvenile Offenders}

In the Tucson Project Youth Task Force (1995) report entitled "Tucson’s Youth: A Vision of the Future," the interdepartmental team from the Tucson City Manager’s Office concluded that “Substance abuse can be viewed as both a risk factor and an underlying cause of violent and criminal behavior” (p. 32). Authors of the National Institute of Justice’s Arrestee Drug Abuse Monitoring Program (2000) annual report concluded that in Tucson, Arizona, 56\% of male juveniles and 41\% of females arrested for serious crimes and subsequently drug tested were positive for recent substance usage. Belenko (1998) reports that 1.4 million of the 1.7 million inmates in the United States either committed crimes while under the influence, stole to buy drugs, have a history of drug abuse, or are in jail for violating alcohol or other drug laws. The report stated that drugs and alcohol are the reason that the prison population has risen 239\% since 1980, and that drugs are directly linked to repeat offenses.

Misuse of drugs and alcohol and related problems are widespread during adolescence (Ellickson, McGuigan, Adams, Bell, & Hayes, 1996; Windle, Shope & Bukstein, 1996). The American Psychological Association (1993) acknowledges that drugs and alcohol play a major role in violence among youth. A number of specific studies support their position and have found that substance abuse is associated with
violent adolescent lifestyle (Dembo et al., 1991; Fagen, 1993; Elliot, 1994). More recent findings from a study of youthful serious violent delinquents indicate that 58% were alcohol users and 34% were marijuana users (Huizinga & Jakob-Chen, 1998). Arrests for violent offences were much lower when alcohol or marijuana use was not a factor. Thornberry, Huizinga, and Loeder (1995) in a review reported similar findings of the overlap of violent delinquency and substance abuse in youth.

Alcohol abuse is frequently associated with adolescent criminal and delinquent behavior. (Huizinga, Weiher, Espiritu, & Esbensen, 2003). Ultzen and Hamilton (1998) found that 39% of juvenile delinquents evaluated were alcohol dependent while Ruchkin, Schwab-Stone, Koposov, Vermeiren and Steiner (2002) reported that 56% of juvenile delinquents investigated were alcohol abusers. It is a major public health problem and has been linked to such adverse consequences such as auto accidents, suicide, delinquency, criminal behaviors, and psychological difficulties. Furthermore, the presence of alcohol abuse and other drug use is the single most predictive factor for adult alcohol dependence (Swadi, 1999). Also, particularly for children meeting the criteria for conduct disorder, childhood antisocial behaviors predict early initiation of alcohol use, adolescent alcohol-related problems, and the onset of alcohol use disorders (Clark, Parker, & Lynch, 1999).

Adolescent alcohol use has a substantial impact on the juvenile and criminal justice systems. In 1997, nearly 14% of all arrests of persons under 18 were for alcohol-related offenses of driving under the influence, drunkenness, liquor law violations, and disorderly conduct (Federal Bureau of Investigation, 1998). Various authors have shown that the early onset of alcohol/drug abuse is a major risk factor for problem behaviors that
include disruptive behavior disorders and violent crime (Donavan & Jessor, 1985; Elliot, 2000; Haapasalo & Hamalainen, 1996; Kandel et al., 1999). In a long-term study of the relationship between substance use and delinquency, Huizinga, Loeber, and Thornberry (1995) found a larger impact on the increase in delinquency events when preceded by increased substance use, while increased delinquency alone had a relatively smaller impact on frequency of drug use. Researchers found the reverse also to be true, the lessening of substance use reduced delinquency to a greater extent than reducing delinquency reduced drug use. The results of numerous studies have established that substance abuse is related to a higher level of co-morbid psychopathology (Dryfoos, 1990; Morris et al., 1995, Pliszka, Sherman, Barrow & Irick, 2000).

Besides its direct adverse affects, drug abuse contributes to the violent lifestyle of young people. Forty-two percent of males arrested for serious crimes in New York City in 1985, tested positive for cocaine use and by 1998, the percentages had increased to 74% of male arrestees and 75% of female arrestees (National Institute of Justice, 2000).

Drug abuse among adolescents who have been arrested is quite common. In Dallas, Texas, for instance, marijuana was the most commonly used drug by both males and females who had been arrested. More than half of the juvenile males and nearly 40% of females arrested tested positive for marijuana. In San Diego, 15.8% of juvenile male and juvenile female arrestees tested positive for methamphetamines in 1999.

Over the last decades the relationship between adolescent drug use and other delinquent behavior is one of the more sturdy empirical findings (Huizinga & Jakob-Chien, 1998). Recently the authors of the Denver Youth Study, a survey of 1527 children,
reported results that support the relationship between drug abuse and delinquency in youth (Huizinga, Weiher, Espiritu & Esbensen, 2003). Although 65% of the respondents were neither involved in delinquency or substance abuse, 20% of those involved in delinquency were using substances and a 67% of those experimenting with drugs/alcohol were also delinquent. The study also found that serious delinquents (aggravated assault, robbery, rape, gang fights) were substantially more likely to be drug users and to use drugs more often than less serious offenders, and non-delinquents were less likely to use drugs than offenders of any kind.

Opportunities to get and try marijuana predicted violence at age 18 after controlling for school and family factors (Herrenkohl et al., 2001). The same has been found to be true whether measured in elementary, middle school, or high school (Herrenkohl et al., 2000). Chung, Hill, Hawkins, Gilchrist and Nagin (2002) found that opportunities to get marijuana predicted membership in diverse violence paths from ages 13 to 21. Kosterman, Hawkins, Guo, Catalano, and Herrenkohl (2000) also found that opportunities to get marijuana predicted violence in adolescence and early adulthood.

Self-reported opportunities to get and try marijuana have predicted joining a gang (Hill, Howell, Hawkins, & Battin-Pearson, 1999). Ayers et al. (1999) found that both belief in the moral order and norms against drug use directly predicted a decrease in delinquency status. O'Donnell, Hawkins and Abbott (1995) found that norms against drug use at age 12-13 predicted less involvement in serious delinquency at age 13-14 among aggressive boys.
To determine whether or not school violence is associated with substance abuse and the availability of illegal drugs at school, Lowery, Cohen, and Modzeleski (1999) examined data from the 1995 Youth Risk Behavior Survey. The number of substances used and the location of use, on or off school property, reflected increased school violence. A study of 4,300 high school students revealed a correlation between excessive marijuana and cigarette use and subsequent school violence (Ellickson & McGuigan, 2000).

Hunzinga et al. (1994) in their review of three prominent youth surveys noted that delinquency and drug use often appear prior to teenage years. Early onset of drug use and delinquent behavior related to more serious and long-lasting behaviors, with drug use stimulating delinquent behaviors more than the reverse.

Adolescent drug and alcohol abuse is a significant problem in this country and potentially leads to an increase in delinquency as well as an increase in violent crime. Additionally, many other social problems are related to adolescent drug and alcohol abuse. It is often the precursor to adult substance abuse and dependence problems that also has associated costs to the individual, their family, and society. A teenager's arrest is an opportunity to identify an underlying drug/alcohol problem and to provide a treatment intervention that can help avoid these additional problems. Unfortunately, identification of a juvenile offender's drug/alcohol problem has its own set of difficulties.

_Self-Reporting in Threatening Situations_

National prevalence rates of substance abuse are based on surveys which rely heavily on the assumption that respondents accurately self-report their substance use and
misuse (Shillington, Cottler, Mager, & Compton, 1995). The accuracy of self-reporting in prevalence surveys, however, is called into question when the roles of denial, the difficulty that individuals face in reporting their drug use and the need to please or manipulate are closely examined. (Heien and Pittman, 1989; Secedas-Villa & Fernandez-Hermida, 2002).


In contrast, Watson, et al. (1985) found subjects tended to underestimate drinking compared to collateral reports of uncontrolled consumption. When the client abstained or drank in a controlled manner; the reports did support each other. Popham and Schmidt (1981) also contended that the errors in self-reporting were not linear. Rather, underreporting increased with consumption.

Findings from more recent studies suggest that although the self-reporting of drug use is generally reliable results may depend on a variety of factors and therefore must be interpreted with caution. For instance, Magura and Kang (1997) utilizing personal interviews reported a high incidence of underestimation of self-reported drug use particularly with high-risk young adult or criminal justice populations. Reasons given
were possibly fear of consequences, attempting to project a more favorable image and infrequent use leading to poor recall. In another study Akinci, Tarter, and Kirisci (2001), using a structured face-to-face interview compared adolescent’s self-report of marijuana use with results obtained from urinalysis. Even with prior knowledge that a urine screen would be performed; a significant number of juveniles inaccurately (either over or under) reported their drug use. The author gave no specific reasons why some adolescents under-reported their drug use but for those who over-reported, it was suggested that these individuals may underestimate the risks associated with their drug usage. Schwarz (1999) reported that a variety of factors influence reliability of adolescents self-report including context of the evaluation, perceived threat to confidentiality and characteristics of the evaluator. Although a number of variables are reported to affect the validity of self-report, all of these authors agreed that in most cases if the possibility of a negative consequence is perceived, honesty is reduced. Darke (1998), in a review of the literature regarding injecting drug users, concluded that in the vast majority of studies self-report interview methods are sufficiently reliable and valid to provide descriptions of drug use and drug related problems. However, he states that if “drug users are asked questions in which truthful answers will result in negative consequences, valid responses should not be expected” (p. 262).

Research has demonstrated that once respondents are asked to self-report information in a situation that they perceive as threatening, or if they believe that reporting may have negative ramifications for them, reliability consistently diminishes as dishonesty and/or withholding rises. This was initially reported in a classic study, which
included a comparison between survey responses and records. Parry and Crossley (1950) showed that respondents over-reported voting, having a library card and several other socially desirable characteristics as compared to the respondent’s behavior recorded in external records. Additionally, in a record validation study, Locander, Sudman and Bradburn (1976) reported similar findings and also demonstrated that respondents under-report bankruptcy and being charged with drunken driving. These early studies addressed a key concern of those who rely on the accuracy of responses to questions that respondents might perceive as threatening.

In more recent studies, researchers have also tested the accuracy of self-reporting when the questions asked are likely to be perceived as threatening in nature. Smith (1992) reviewed responses to a question regarding number of sexual partners and found men likely over-reported while females under-reported. In addition, women reported a higher number of sex partners when responding by using self-administered means as contrasted to one-on-one interview settings. Similar conclusions about self-reporting of abortion were made by Jones and Forest (1992). When comparing self-reported abortion history to reliable recorded information, respondents directly admitted only 45% of the actual abortions recorded.

Researchers, reasoning by analogy with other behaviors for which records or other criteria are available and knowing that marijuana use is illegal, historically have made the assumption that marijuana use is under-reported and that methods which increase reporting accuracy will improve the validity of the reporting (Schaeffer, 2000).
investigations to test methods that might improve reporting of drug use (NIDA, 2000). Results demonstrated that reporting marijuana usage is higher when questions are self-administered than when administered by an interviewer (Schaeffer, 2000).

Self-reported rates of use of more stigmatized drugs (such as cocaine) were found to be lower than those of more accepted substances such as marijuana (Harrison, 1995). When the reporting of threatening behaviors is expected, self-administered instruments often seem to improve honesty (Tourangau & Smith, 1998).

When juveniles or their parents are required by a probation officer to self-report substance abuse they may perceive that an honest answer will result in increased negative consequences. As a result, research would suggest that the reliability of their self-report would diminish. A self-administered instrument, although subject to similar concerns, may acquire more honest information about the participant's drug use than in a face-to-face interview with a probation officer.

_Preventing Substance Use among Adolescents_

Drugs and alcohol abuse have been shown to cause serious problems and harm to teenagers, therefore every effort should be made to prevent, or at least minimize, adolescent substance abuse. The extent and complexity of the problem demands a wide range of prevention approaches. Various techniques and services in the context of primary, secondary, and tertiary prevention models are required (Hawkins, Catalano, & Miller, 1992). Each of these levels of intervention has its own goals.
Primary substance abuse prevention programs attempt to prevent adolescent substance use through reducing risk factors and increasing protective factors (Felner, Silverman, & Adix, 1991). The hope is to prevent substance abuse before it begins.

Secondary programs focus on early intervention with adolescents who are already using drugs/alcohol before serious side effects have occurred, or when difficulties are beginning to increase. In this level of intervention the first step is to identify those juveniles who have begun abusing substances (Gonet, 1994).

Tertiary prevention involves the prevention of secondary symptoms among those adolescents who have already engaged in problematic patterns or compulsive substance use. Tertiary prevention typically involves active medical or psychological treatment including intensive counseling, residential treatment and relapse prevention (Hohman & Buchik, 1994).

The level of intensity of service should attempt to match the level of risk exhibited by the adolescent. (Hoge, 2001). Unfortunately, the lines dividing primary, secondary and tertiary interventions are not always clear, particularly when an accurate assessment is not available (Coie, 1996).

_The Adolescent Substance Abuse Subtle Screening Inventory (SASSI-A2)_

The SASSI-A2’s unique contribution is its ability to detect substance abuse problems even when the examinee denies or tries to conceal such problems. (Miller & Lazkowski, 2001).

The original version of the Substance Abuse Subtle Screening Inventory-Adolescent (SASSI-A) was first published in 1990. Ten years later, the SASSI-A2 was
developed and subsequently released in August 2001. The new version has a significantly improved accuracy rate in classifying Substance Abuse and Substance Dependence Disorders. Because of the recent release of the SASSI-A2, studies have not yet been released except for those provided in the test instrument manual. The information below is reported directly from the SASSI-A2 manual (Miller & Lazowski, 2001).

The criterion variable used in formulating the SASSI-A2 is diagnosis rendered by clinicians during the process of assessing clients in human service settings. The rationale for this approach is that there is a need for an addiction-screening instrument that does not expect substance abusers to be open in reporting behaviors that are relevant. Thus, the SASSI-A2 is specifically intended to identify some people who would not be diagnosed as having a Substance Use Disorder on the basis of a diagnostic instrument that relies exclusively on self-reports of substance misuse, but who would be so diagnosed by a clinician (p. 26).

The clinical data set that was used to formulate and examine various aspects of the SASSI-A2 consisted of 1470 respondents. The development and cross-validation data were obtained from four types of service settings: addiction treatment centers, inpatient psychiatric hospitals, outpatient behavioral health facilities, and juvenile correction programs. Approximately 64% of respondents were drawn from the juvenile corrections program. Consequently, a large proportion (84%) of the participants reported having a history of encounters with law enforcement. The SASSI-A2 manual notes that this high percentage reflects the fact that the SASSI-A was commonly used in juvenile correction settings.
Although some substance abuse screening takes place in other contexts, this may suggest that the juvenile justice system is the primary setting in which adolescents are screened for substance use disorders (p. 27).

Samples of adolescents, ages 12 through 18 were used to develop and validate the SASSI-A2. No significant variation in accuracy was cited as a function of age or gender (p. 42). The accuracy of the SASSI-A2 does not appear to be significantly affected by ethnic group, although Asian Americans were not well represented in the sample (p. 46). No significant differences in the accuracy of the SASSI-A2 results were observed as a function of adolescent living situation or whether they were employed or not (p. 51-52). The accuracy of the SASSI-A2 was not affected by the adolescents histories of legal difficulties (p. 50).

With regard to reliability of the SASSI-A2, two-week test-retest reliability coefficients were calculated from data collected on 70 adolescents. In 94% of the cases, the results of the SASSI-A2 decision rules did not change between first and second administrations of the SASSI-A2. The stability coefficients of the scales that entered into the decision rules range from .81 to .92 (p. 29).

With regard to validity of the SASSI-A2, test classifications correspond to clinical diagnosis of the presence or the absence of substance use disorders in 94% of the cases. The SASSI-A2 correctly identified 94% of the adolescents who were diagnosed as having a Substance Use Disorder. The sensitivity in identifying people with a substance abuse disorder is 88%; the sensitivity for Substance
Dependence Disorder is 98%. The SASSI-A2 correctly identified 92% of the adolescents who do not have either type of substance use disorder (p. 30).

The overall accuracy of the SASSI-A2 in the cross-validation sample is 95%. The overall sensitivity is 96%, with sensitivity rates in specific of 93% for adolescents with a Substance Abuse Disorder diagnosis and 98% for adolescents with a Substance Dependence Disorder diagnosis. The rate of accurate identification of adolescents who were diagnosed as not having a Substance Abuse/Dependence Disorder is 87% (p. 30).
CHAPTER 3
Research Design and Methodology

In this section, the research design, methods, and research procedures used in the present study are presented. This section is organized into the following topics: research questions, research participants, general design of the study, procedure, instrument used, and analysis of data.

Research Questions

The two primary research questions are:

1. Is there a significant difference between the number of juvenile offenders assessed by informal interview-only and referred to a diversion program for non-drug/alcohol-related problems (Misdemeanor Class) and the number of juveniles referred who have a high probability of a Substance Abuse or Dependence Disorder as measured by a standardized instrument (SASSI-A2)?

2. Is there a significant difference between the number of juvenile offenders assessed by informal interview-only and referred to a diversion program for drug/alcohol-related problems (Substance Abuse Class) and the number of juveniles referred who have a high probability of a Substance Dependence Disorder as measured by a standardized instrument (SASSI-A2)?

Research Participants

This study utilized archived data. Subjects consisted of male and female juvenile offenders who had been referred between May and August of 2002 by Juvenile Court probation officers to a local counseling program. The adolescent offenders had been
referred by their probation officer to one of two early intervention programs depending on the nature of the arrest and whether or not they had drug or non-drug related problems. Juveniles had completed SASSI-A2 questionnaires as part of either a five-hour “Substance Abuse Class” which primarily addressed substance abuse issues, or a five-hour “Misdemeanor Class” which had a more general focus. The completed questionnaires originally had been used as education tools and as an aid to facilitate class discussion.

Permission to use the completed SASSI-A2 questionnaires for the present study was obtained from the counseling program. The questionnaires contained no identifying information. A total of 272 juvenile offenders had completed questionnaires, 143 in the Misdemeanor Class and 129 in the Substance Abuse Class. The questionnaires were collected from the agency, scored, and the resulting profiles were used for purposes of the present study.

General Design of the Study

This study was designed to survey the rate of substance abuse/dependence, as determined by the SASSI-A2, among juvenile offenders who were referred to one of two classes. One program, the Substance Abuse Class, addressed the specific problems of substance abuse. The other program, the Misdemeanor Class, addressed a much wider variety of issues that adolescents face.

The research questions were designed to determine to what degree a juvenile offender’s substance abuse problems were either undetected or not addressed by probation officers who must rely solely on an informal interview evaluation. The study
tests whether or not the use of a standardized evaluation instrument (SASSI-A2) exposes a treatment referral that inadequately addressed the degree of the juvenile’s substance abuse problem.

The SASSI-A2 questionnaires had been collected from all participants in both early intervention programs. If the cut-off scores indicated a high probability of a diagnosis of a Substance Abuse Disorder, then the probation officer’s referral to the Misdemeanor Program was deemed inadequate to address the juvenile’s substance abuse problem. If the juvenile’s test scores suggested a high probability of a diagnosis of a Substance Dependence Disorder, then the probation officer’s referral to either the Misdemeanor Class or the Substance Abuse Class was deemed inadequate. To address the severity of the drug/alcohol problem a referral to a more intensive treatment program would have been more appropriate.

Procedure

Juvenile court personnel had referred the juvenile offender to either the Misdemeanor Class or the Substance Abuse Class at a local agency between May and August 2002. The completed SASSI-A2 questionnaires utilized in this study were collected from the agency with its permission.

Personnel had administered the SASSI-A2 in both the Substance Abuse Class and Misdemeanor Class as part of the curriculum. The program instructors, trained in accordance with procedures outlined in the SASSI-A2 Manual, administered the instrument. In most circumstances when the SASSI-A2 is administered the subject reads and fills out the questionnaire within 15 minutes. In these particular classes the SASSI-
A2 had been presented verbally, reportedly for ease of class management. This is an adaptation that is approved by the authors and there is no available evidence to suggest the procedure will impact the validity of the test (W. Renn, personal communication, May 5, 2003).

**Instrument Used**

The Adolescent Substance Abuse Subtle Screening Inventory (SASSI-A2) was used in this study as a tool to screen for substance abuse among juvenile court referrals. The SASSI-A2 has three separate sections that the participant must complete. The first is a 72-item inventory. A sample of SASSI-A2 items follows:

- T F People will probably succeed if they work hard.
- T F At least one of my parents has often been very sad, anxious, or unhappy.
- T F I have never been in trouble with the principal or police.
- T F I can be friendly with people who do many wrong things.
- T F I do not like to sit and daydream.

The subject is asked to mark the square in the column headed “T” if the statement is “Mostly True” and “F” if the statement is “Mostly False” as it relates to him or herself.

The second section consists of 12 questions regarding the subject’s history of alcohol use and 16 questions regarding the subject’s history of other drug use. The subject is asked to answer each question by circling a number that represents one of four possible responses: 0-Never; 1-Once or Twice; 2-Several Times; and 3-Repeatedly. The first question from each of the two categories follows:

**ALCOHOL**
0123 1. Drank alcohol during the day?

OTHER DRUG(S)

0123 1. Taken drugs to improve your thinking and feeling?

The third section consists of six questions related to specific behaviors. An example of a question in this section is: "Describe your current alcohol or drug use." The possible responses are: "More than twice a week," "About twice a week," "About once a week," "Between one and three times a month," "Less than once a month," or "None."

The instrument required approximately five minutes to score with the use of a printed plastic overlay and is accompanied by Male and Female Profile Charts used to graph sub-scale totals. There are 10 sub-scales: Face Valid Alcohol (FVA); Face Valid Other Drug (FVOD); Family-Friends Risk (FRISK); Attitudes (ATT); Symptoms (SYM); Obvious Attributes (OAT); Subtle Attributes (SAT); Defensiveness (DEF); Subtle Addiction Measures (SAM); and, Correctional (COR).

In addition there are two scales, Validity Check (VAL) and Secondary Classification Scale (SCS) which, if elevated, suggest that further assessment should be considered. These scales suggest that the SASSI-A2 may sometimes underreport Substance Abuse Disorder in particular and the respondent should be evaluated further for the possibility. The score on the SCS scale is also used to determine if a Substance Abuse or a Substance Dependence Disorder is more likely.

Before classifying an individual as being low or high probability of having a Substance Use Disorder or Substance Dependence Disorder, various sub-scale scores are combined to determine whether nine different decision rules are scored as "yes" or "no."
If all rules are marked "no," then the subject is considered to have a low probability of having a Substance Abuse or Substance Dependence Disorder. However, if either the Validity Check score is five or more or if the Secondary Classification Scale (SCS) score is 16 or more, the validity of the profile is in question and further assessment should be considered. If any rules are marked "yes," then the subject is determined to have high probability of a Substance Use Disorder or Substance Dependence Disorder. Additionally, if the subject is considered to have a high probability of having a Substance Abuse Disorder or Substance Dependence Disorder, further examination of the Secondary Classification Scale (SCS) score determines whether Substance Use Disorder or Substance Dependence Disorder is more probable. A score of 16 or more suggests that a Substance Dependence Disorder is more probable (SASSI-A2 User's Guide, n.d.).

Analysis of Data

The independent variable is the type of substance abuse assessment employed, the informal interview, or a formal standardized test instrument. The dependent variable is the score on the SASSI-A2, categorized as having or not having a high probability of a substance abuse or dependence diagnosis based on standardized cut-off values.

In this study, two different assessment methods (informal interview evaluation and formal test instrument) were compared to determine their ability to detect a substance abuse problem in the same group of juvenile offenders. This design requires a nonparametric test which will: (1) compare at least two conditions, and (2) evaluate data from subjects that are the same individuals in each condition. The McNemar Test for
Significance of Changes was developed specifically to meet these research requirements and has been used since 1955 (Siegel, 1956; Reynolds, 1985).

The McNemar test was therefore used to determine the change in the number of juveniles who were identified as having a Substance Abuse or Dependence Disorder diagnosis when assessed by informal interview in contrast to being assessed by a formal standardized instrument. The significance level associated with this analysis was set at $\alpha=.05$. 
CHAPTER 4

Results

The purpose of this section is to provide a description of the proportion of juvenile offenders who have been referred to a diversion program that also have a high probability of a diagnosis of a Substance Abuse Disorder or Substance Dependence Disorder as determined by a formal testing instrument (SASSI-A2).

Sample Characteristics

Misdemeanor Class

One hundred and forty-three participants completed the SASSI-A2 for the Misdemeanor Class. Seventy-seven were men and 57 were women. The mean age was 14.39, the median age was 15, and the age range was from 12 to 17 years. The ethnic breakdown was 52.6% Hispanic, 31.1% Caucasian, 7.3% African American, 4.4% Native American, 2.9% Mixed Race, and 7% Other. Six participants did not report their ethnicity.

Substance Abuse Class

One hundred and twenty-nine participants completed the SASSI-A2 for the Substance Abuse Class. Seventy-nine were men and 50 were women. The mean age was 15.09, the median age was 15, and the age range was from 12 to 17 years. The ethnic breakdown was 45% Hispanic, 40.4% Caucasian, 4.6% African American, 4.6% Mixed Race, 1.8% Native American, 1.8% Asian American, and 1.8% Other. Twenty participants did not report their ethnicity.
Research Question #1

Is there a significant difference between the number of juvenile offenders assessed by informal interview-only and referred to a diversion program for non-drug/alcohol-related problems (Misdemeanor Class) and the number of juveniles referred who have a high probability of a Substance Abuse or Dependence Disorder as measured by a standardized instrument (SASSI-A2)?

The McNemer test was used to compare the juveniles who were referred to the Misdemeanor Class by interview-only and those who were determined to have a high probability of a Substance Abuse Disorder or Substance Dependence Disorder as measured by the SASSI-A2. The .05 level of significance (alpha level) was used for the present analysis. As shown in Table 4.1, the achieved significance levels were less than .05 ($\chi^2 = 56.017$, $p = .000$), which indicates that there were a significant number of juveniles referred to the Misdemeanor Class who also tested positive for a Substance Abuse or Dependence Disorder as measured by the SASSI-A2. Thus, a significant difference was found in the number of juvenile offenders assessed by informal interview-only and the number of juveniles referred who have a high probability of a Substance Abuse or Dependence Disorder as measured by a standardized instrument (SASSI-A2)

<table>
<thead>
<tr>
<th>Misdemeanor Group</th>
<th>N</th>
<th>%</th>
<th>Chi-square</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Substance Abuse Disorder</td>
<td>85</td>
<td>59.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance Abuse or Dependence Disorder</td>
<td>58</td>
<td>40.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100.0</td>
<td>56.017</td>
<td>.000</td>
</tr>
</tbody>
</table>
Research Question #2

Is there a significant difference between the number of juvenile offenders assessed by informal interview-only and referred to a diversion program for drug/alcohol-related problems (Substance Abuse Class) and the number of juveniles referred who have a high probability of a Substance Dependence Disorder as measured by a standardized instrument (SASSI-A2)?

The McNemer Test was used to compare the juveniles who were referred to the Substance Abuse Class by interview-only and those who were determined to have a high probability of a Substance Dependence Disorder as measured by the SASSI-A2. The .05 level of significance (alpha level) was used for the present analysis. As shown in Table 4.2, the achieved significance levels were less than .05 (χ² = 41.023, p = .000), which indicates that there were a significant number of juveniles referred to the Substance Abuse Class who also tested positive for a Substance Dependence Disorder as measured by the SASSI-A2. Thus a significant difference was found in the number of juvenile offenders assessed by informal interview-only and the number of juveniles referred who have a high probability of a Substance Dependence Disorder as measured by a standardized instrument (SASSI-A2)

Table 4.2
Substance Abuse Class, comparison of SASSI-A2 scores

<table>
<thead>
<tr>
<th>Substance Abuse Group</th>
<th>N</th>
<th>%</th>
<th>Chi-square</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Substance Dependence Disorder</td>
<td>86</td>
<td>66.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance Dependence Disorder</td>
<td>43</td>
<td>33.3</td>
<td>41.023</td>
<td>.000</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Additional findings

The current study did not specifically endeavor to explore the rate of substance abuse among juvenile offenders in general or whether gender/ethnicity were factors which might influence the detection of a substance abuse disorder, however, a further investigation of the data revealed these findings. A high rate of substance abuse problems among juvenile offenders in diversion was detected. As shown in Table 4.3, a total of 54% of referred juvenile offenders to either early intervention class was found to have a high probability of a Substance Abuse or Dependency Disorder (40.6% within the Misdemeanor Class and 69% within the Substance Abuse Class). These percentages may be even higher as the profiles of another 13% were questionable suggesting that further assessment be considered. The SASSI-A2 has two scales (VAL and SCS) which if elevated suggest that the individual’s profile is unusual and therefore additional screening is indicated before a Substance Abuse Disorder in particular should be ruled out.

Table 4.3
Substance Abuse and Dependency Disorders within all Classes

<table>
<thead>
<tr>
<th>Misdemeanor Class</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Probability of a Substance Abuse/Dependence Disorder</td>
<td>66</td>
<td>46.2</td>
</tr>
<tr>
<td>Consider further assessment particularly for Substance Abuse Disorder</td>
<td>19</td>
<td>13.2</td>
</tr>
<tr>
<td>High Probability of a Substance Abuse Disorder</td>
<td>37</td>
<td>25.9</td>
</tr>
<tr>
<td>High Probability of a Substance Dependence Disorder</td>
<td>21</td>
<td>14.7</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance Abuse Class</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Probability of a Substance Abuse/Dependence Disorder</td>
<td>25</td>
<td>19.4</td>
</tr>
<tr>
<td>Consider further assessment particularly for Substance Abuse Disorder</td>
<td>15</td>
<td>11.6</td>
</tr>
<tr>
<td>High Probability of a Substance Abuse Disorder</td>
<td>46</td>
<td>35.7</td>
</tr>
<tr>
<td>High Probability of a Substance Dependence Disorder</td>
<td>43</td>
<td>33.3</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Total N = 272   Total N with Substance Abuse or Dependence Disorder = 147 or 54%
Total N = 272   Total N to be considered for further assessment = 34 or 13%
Among juveniles referred to the Substance Abuse Class significantly more females than males were found to have a high probability of a Substance Dependence Disorder as measured by a standardized instrument (SASSI-A2). The .05 level of significance (alpha level) was used for the present analysis and as shown in Table 4.4, the achieved significance levels were less than .05 ($\chi^2 = 7.9, p = .005$).

Gender, however, made no difference among juvenile offenders referred to the Misdemeanor Class and ethnicity had no significant effect on the rate of undetected substance abuse/dependence within either the Misdemeanor or the Substance Abuse Class.

Table 4.4
Frequency distribution of Substance Dependence Disorder (classification, outcomes) by gender within Substance Abuse Classes

<table>
<thead>
<tr>
<th>Substance Abuse Classification</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>No Substance Dependence Disorder</td>
<td>60</td>
<td>75.9</td>
<td>26</td>
<td>52.0</td>
</tr>
<tr>
<td>Substance Dependence Disorder</td>
<td>19</td>
<td>24.1</td>
<td>24</td>
<td>48.0</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>100.0</td>
<td>50</td>
<td>100.0</td>
</tr>
</tbody>
</table>

$\chi^2 = 7.9, p < .005$
CHAPTER 5
Summary, Discussion and Recommendations

In this section, a summary of the present study is presented followed by a discussion of the results. Recommendations for future research are explored.

Summary

Substance abuse among adolescents and its close association with juvenile crime has been well-documented (Kingery et al., 1992; Greenblatt, 1998; Huizinga & Jakob-Chien, 1998). Alleviating the juvenile's substance abuse problem may be one way to reduce crime and the rate of recidivism among juvenile offenders (Komro et al., 1999). The juvenile offender's substance abuse problem, however, must first be identified before it can be successfully treated. A legal referral to the juvenile court is an occasion that may prompt an investigation of the possibility of substance abuse contributing to the juvenile's behavior problem.

Juvenile court diversion personnel, whose responsibility it may be to conduct the assessment, often must rely on an informal interview-only and thus the adolescent's self report to determine the presence or severity of a potential substance abuse problem. A juvenile offender, however, may be unwilling to disclose a substance abuse problem as he/she may assume that reporting his/her drug usage may result in a negative consequence. Consequently, an informal interview-only assessment may allow a juvenile offender with underlying substance abuse problems to go undetected and appropriate treatment for the drug/alcohol problem would not be ordered as part of their legal consequences.
The broad question in the present study was whether or not a formal testing instrument, the Adolescent Substance Abuse Subtle Screening Inventory (SASSI-A2) compared to an informal interview-only might improve identification of the rate or severity of substance abuse problems in juvenile offenders in diversion. Improved identification may enable the evaluating probation officer to order a more appropriate intervention.

The present research, utilizing archived data, evaluated juvenile offenders in diversion who had been referred through the juvenile court to one of two early intervention classes (Misdemeanor Class or Substance Abuse Class). A standardized instrument, (SASSI-A2), had been administered as part of the curriculum to all juveniles who attended these classes between May and August, 2002. The questionnaire results were utilized to test for substance abuse problems that may or may not have been detected by an informal interview-only.

Results of the present study indicate that a formal testing instrument (SASSI-A2) was able to identify juvenile offenders whose substance abuse problems were previously undetected or underestimated by an interview-only assessment. A significant number of juveniles referred to an early intervention class without a substance abuse focus were found to have a high probability of a substance abuse problem. Further, a significant number of juveniles referred to an early intervention class which did have a substance abuse focus were found to have a high probability of substance dependence problems. In both situations, had the juvenile offender's existing substance abuse problem been
accurately identified, other, more appropriate, treatment strategies may have been advised.

Additional findings included first, an unexpected high rate of identified substance abuse problems, in general, among juvenile offenders referred to an early intervention class. Second, females referred to the Substance Abuse Class were significantly more likely to have a high probability of a Substance Dependence Disorder as determined by a standardized instrument than their male counterparts.

Discussion of the Results

The present investigation indicates that a significant number of juvenile offenders referred both to the Misdemeanor Class and the Substance Abuse Class had a high probability of an undetected Substance Abuse Disorder or a Substance Dependence Disorder that was not being adequately addressed by the referral. Among juvenile offenders referred to the Misdemeanor Class the use of a standardized instrument (SASSI-A2) was far more effective in identifying substance abuse problems than the standard informal interview-only. More than forty percent (40.6%) of these juvenile offenders’ test scores indicated they had a high probability of meeting the criteria for a DSM-IV diagnosis of Substance Abuse Disorder or Substance Dependence Disorder. The research results suggest that their substance abuse problems were not being adequately addressed by the probation officer’s treatment referral. Thirty-seven juvenile offenders (25.9%) who had been referred to the Misdemeanor Class met the criteria for a Substance Abuse Disorder. These juveniles may have been better served by a referral to the Substance Abuse Class. Another twenty-one (14.7%) met the criteria for a Substance
Dependence Disorder. These juveniles may have been better served by a referral to more intensive treatment, possibly outpatient or even inpatient counseling.

Among juvenile offenders referred to the Substance Abuse Class, the SASSI-A2 test results were also more effective in identifying substance abuse dependence problems than an informal interview-only. One third (33.3%) of these juvenile offenders’ test scores indicated they had a high probability of meeting the criteria for a DSM-IV diagnosis for Substance Dependence Disorder. Results suggest that more than 3 out of 10 juvenile offenders had substance abuse problems that could not be adequately addressed by the probation officer’s treatment referral. A referral for more intensive treatment, possibly outpatient or even inpatient may have been more appropriate.

The results suggest that the probation officer’s interview-only assessment strategy failed to detect substance abuse problems among a significant number of juvenile offenders. The research supports Darke’s (1998) that self-report may not be reliable when the situation is perceived as threatening. False negatives may have been avoided had the probation officer used an assessment strategy that included a standardized formal testing instrument such as the SASSI-A2. A significant number of juveniles may have had their substance abuse problems exposed and more appropriate treatment strategies ordered.

Another finding was the high rate of substance abuse problems among juvenile offenders in diversion. This finding supports the research that substance abuse may be a major contributing factor in juvenile crime. The rate of substance abuse among juveniles arrested for serious crimes and subsequently testing positive for recent substance use has been documented. In Tucson, Arizona, 56% of male juveniles and 41% of female
juveniles arrested for serious crimes and subsequently drug tested were positive for substance usage (National Institute of Justice, 2000). However, no data exist on the severity of substance abuse among juvenile offenders who have committed less serious crimes and have been placed in diversion.

This research did not evaluate whether or not juvenile offenders in diversion had recently used drugs but rather assessed for substance abuse disorders. More than half (54%) of all juvenile offenders who had been referred for the early intervention classes were found to have a high probability of a Substance Abuse or Substance Dependence Disorder. The percentage could even be higher as an additional 13% of the juvenile offenders tested had SASSI-A2 profiles that were of questionable validity and thus may underreport Substance Abuse/Dependence Disorder. The SASSI-A2 manual recommends evaluating these respondents further, particularly for Substance Abuse Disorder.

For those referred for a non-drug offense (Misdemeanor Class), there was a particularly unexpected finding, 40.6% were found to have a high probability of a Substance Abuse or Substance Dependence Disorder. Among those referred to the Substance Abuse Classes 69% were found to have a high probability of a Substance Abuse or Substance Dependence Disorder. A score on the SASSI-A2 that rates a high probability of a Substance Abuse Disorder or a Substance Dependence Disorder means that the juvenile offender’s pattern of drug/alcohol use meets the criteria for the DSM-IV diagnosis (Miller & Lazowski, 2001). These juveniles would have extensive and sometimes long-standing patterns of drug/alcohol abuse.
Other results found that, in either the Misdemeanor or Substance Abuse Classes, there was no significant difference in the rate at which juvenile offenders from different ethnic groups were found to have Substance Abuse or Dependence Disorder. Further, gender made no difference among offenders in the Misdemeanor Class. However, within the Substance Abuse Classes the number of female juvenile offenders who were found to have a high probability of a Substance Dependence Disorder relative to male offenders in the same classes was significant. One possible explanation for this finding is that girls seem to have increased risk when using drugs and are likely to develop drug abuse and addiction problems more quickly than boys, even when using the same amounts (National Center on Addiction and Substance Abuse, 2003). However, there are numerous other possible explanations and further research is needed.

Recommendations

The outcome of the present study underscores the need for continued research to determine if utilizing a relatively inexpensive and easy-to-administer standardized instrument in addition to the usual informal interview assessment would improve detection of substance abuse problems among juvenile offenders in diversion. Currently, many juvenile offenders appear to enter and leave the juvenile justice diversion system with their substance abuse problem never being detected or at least being underestimated. The logical extension from this study would be further research to determine that when probation officers are better able to detect substance abuse problems, appropriate treatment referrals that reflect the juvenile offender’s severity of substance abuse are
ordered. Finally, future research should evaluate whether or not appropriate substance abuse treatment has an impact in reducing recidivism.

The present study was designed as an initial study to evaluate whether or not a standardized instrument, the SASSI-A2, might improve identification of the rate and severity of substance abuse problems in juvenile offenders enabling probation officers to make more appropriate treatment referrals. New research is needed, however, to fully determine the value of using the SASSI-A2 within the juvenile court system. First, in the present study archived data were utilized and the SASSI-A2 had not been administered in the same setting and context, as it would be if administered by juvenile court personnel. Court personnel would typically administer the SASSI-A2 at the juvenile court, which might affect the juvenile’s willingness to answer honestly. The SASSI-A2 is designed to detect substance abuse even when the respondent attempts to conceal their usage; however, having juvenile court personnel administer the SASSI-A2 at juvenile court would clarify its effectiveness in the actual setting.

Second, it is possible that when probation officers referred juvenile offenders to each of the early intervention classes they may have used different criteria than was originally intended. In the present study, because no identifying information was available, test scores on the SASSI-A2 could not be compared with the juvenile offender’s legal status and record. Regardless, the severity of substance abuse detected in this study could not have been adequately addressed by the treatment referral. However, future research is needed which could access the juvenile offender’s legal record which could then be compared against the treatment referral.
A high rate of substance abuse problems among juvenile offenders in diversion was detected in this study. Research to determine how these rates are moderated by different variables might be useful in utilizing court resources more efficiently. For instance, accumulating data as to gender, ethnic background, education, the rates of substance abuse problems in first versus second time offenders and type of offense (e.g., shoplifting versus simple assault) among others could help with assessment and treatment program design. In the present study there was a significant difference found in the rate of Substance Dependence Disorder among females compared to males within the Substance Abuse Classes. Various explanations are plausible but there is no research regarding this issue and further investigation is warranted.

Many of the juvenile offenders in the present study have a high probability of diagnosable substance abuse problems as determined by a standardized instrument. Federal and state surveys each year measure what percentages of youth have used various drugs, how often they use, their age, and ethnic background to name a few. However, no comprehensive study exists to date using a standardized instrument to determine how many youth have substance abuse patterns that meet the criteria for a DSM-IV diagnosis of a substance abuse disorder. If the results of the present study are any indication, the percentages may be much higher than we would like to believe. At least this appears to be the case with juvenile offenders in diversion.

The outcome of the present study lends support for juvenile court administrators to consider the use of more comprehensive assessments to detect substance abuse problems among juvenile offenders. The use of a formal instrument that is relatively
inexpensive and quick and easy to administer uncovered substance abuse problems among juvenile offenders that may have gone undetected. The identification of a substance abuse problem would enable juvenile court personnel to assign more appropriate treatment in many instances. In the long run juvenile courts may reduce their costs by reducing recidivism if offenders with substance abuse problems are detected and if they receive adequate treatment before legal problems escalate.
REFERENCES


