

AN ABSTRACT OF THE THESIS OF

Peggy Ellen Siemers for the Master of Science

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Title: Comparison of SASSI-2 Classification Outcomes and Blood Alcohol Concentration in Driving Under the Influence Suspects

Abstract approved: 

With so much focus on drunk driving, evaluation of drunk driving offenders is an important issue. This study centered on the Substance Abuse Subtle Screening Inventory-2 (SASSI-2), a widely used and readily accepted instrument for screening drunk drivers.

For this study, comparisons were made between drivers with low (.08 to .149) blood alcohol concentrations and drivers with high (.150 to .300) blood alcohol concentrations. Drivers chosen for this study were only those who were first time offenders, individuals who had not been given the SASSI-2 prior to this assessment, and who had agreed to a blood alcohol concentration (BAC) measure at the time of their arrest. Fifty-eight participants who fit this category were found, with 28 participants in each group. Each had been court referred to a mental health center to complete a comprehensive alcohol and drug evaluation in 1996.

Chi square analysis of the data revealed that the SASSI-2 was unable, with any degree of significance, to categorize drivers as chemically dependent whose high blood alcohol concentrations indicated a high degree of tolerance to alcohol.

Results of an analysis of variance on the data indicated no significant differences in scores overall or with any of the eight scales of the SASSI-2 when groups were compared by BAC or by SASSI-2 classification of chemically dependent or non chemically dependent. The exception to this was a difference in the self-report scales; individuals classified as chemically dependent scored slightly higher on these two scales (Face Valid Alcohol and Face Valid Other Drugs). Additional research was suggested with the court referred population using blood alcohol concentrations as an indicator of alcohol abuse or dependence.

COMPARISON OF SASSI-2 CLASSIFICATION  
OUTCOMES AND BLOOD ALCOHOL CONCENTRATION  
IN DRIVING UNDER THE INFLUENCE SUSPECTS

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A Thesis

Presented to

the Division of Psychology and Special Education

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In Partial Fulfillment

of the Requirements for the Degree

Master of Science

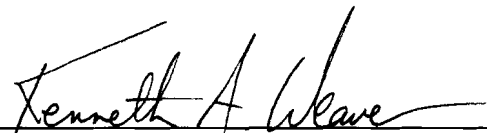
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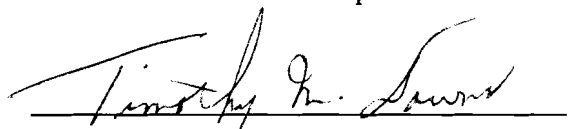
Peggy Ellen Siemers

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Approved for the Division of Psychology  
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## CHAPTER 1

### INTRODUCTION

Alcohol and drug abuse are ongoing problems in society. Early detection and effective treatment are priorities, intensified by the advent of managed health care. With the lowering of blood alcohol levels from .10 to .08 for prosecution and more stringent enforcement of drunk driving laws, accurate diagnosis of alcohol and drug abuse and dependency plays a key role in the effectiveness of treatment and punishment of drunk driving offenders. Procedures for testing of driving under the influence (DUI) suspects in a Midwestern community include referral to a community mental health center, where individuals complete a Substance Abuse Subtle Screening Inventory-2 (SASSI-2) along with another assessment instrument which includes the MacAndrew Alcoholism Scale (MAC) and the Michigan Alcohol Screening Test (MAST). A qualified mental health professional receives test results, interviews each individual for approximately one hour, then offers a diagnosis and recommendations for treatment.

The SASSI-2 is widely used and is touted by the SASSI Institute as a superior assessment instrument for determining the absence or presence of chemical dependency in individuals arrested for DUI offenses, as well as other areas requiring screening or diagnostic tools (Consultation, Education and Research Associates, Inc., 1996). One major advantage of using the SASSI-2 is its reputed ability to detect alcohol as well as other drug dependence. The SASSI-2 is designed to measure subtle behavioral and personality characteristics not obvious to the examinee but highly associated with chemical dependency (Miller, 1990). The test consists of 62 subtle statements and 26 direct



statements about drugs and alcohol. These statements comprise eight scales which determine whether the individual should be classified chemically dependent or non-dependent. Because the SASSI-2 is not widely researched, studies of this instrument are timely and have been encouraged by The SASSI Institute. Especially lacking are empirical studies of the DUI offender population. Although the SASSI Manual contains information on a probation sample of individuals arrested for driving a vehicle under the influence of alcohol, it also states that a full analysis of multiple criteria including blood alcohol level and classification decisions has not been completed and will be summarized in a future supplement to the manual (Miller, 1985). The original SASSI sample consisted of three geographically separate court systems in Indiana. The SASSI sample included male and female offenders with the majority having no prior drunk driving offenses. According to the SASSI Manual, "The court programs further agreed to gather a sample of offenders prior to being given the scoring key on the SASSI so that the counselor's judgment would not be influenced by these scores. It was hoped that the SASSI decision rules could be validated against these independent judgments" (Miller, 1985, p. 7-3).

Early analyses of these data indicated agreement between the SASSI scores and clinical judgment in the majority of cases. However, it also became apparent that the expectation of the counselors' judgments being reasonably independent of any specific source of data was unrealistic. Given the large case load, little time available for each offender, and the multitude of other responsibilities, the counselors' judgments appeared nearly perfectly predicted from the items they were accustomed to using to make this decision. As a consequence, the hoped-for cross validation of the SASSI with clinical

judgment really became a comparison of the concurrent decisions of the SASSI and other assessment items used in each court program. As noted, “at this point this is intended to be normative information only, because there is no acceptable external criterion of the proportion or identity of these offenders who are chemical abusers” (Miller, 1985, pp. 7-3 & 7-4). Further information on this topic is unavailable.

## REVIEW OF THE LITERATURE

### Drunk Driving Assessment Problems

A statement from the U.S. Department of Health and Human Services (1988) declares:

Because of the wide variations in the structure and quality of assessment and treatment programs from state to state, the Surgeon General should promote and encourage states to develop mechanisms for high-quality diagnostic and referral procedures for DUI offenders and, specifically, should encourage the use of uniform diagnostic criteria and assessment instruments and treatment approaches, since this would greatly facilitate research studies on the effectiveness and cost-effectiveness of treatment. (p. 79)

Since this statement was issued, the SASSI-2 has become the most prominent and widely-used assessment instrument for DUI offenders.

Kansas statutes read that a blood alcohol concentration (BAC) of .08 or higher at the time of arrest constitutes a charge of driving under the influence (DUI). Underage drinkers (under 21 years of age) are charged with .02 BAC, while individuals who hold commercial drivers licenses receive DUIs at a .04 BAC. Blood alcohol concentrations are measured by the number of grams of pure alcohol (ethanol) present in 100 milliliters of blood. According to the Kansas Bureau of Investigation's Larry Mann (1998), this level can be measured either by a breathalyzer machine or by blood test. If it is determined that offenders are legally intoxicated, they are court-ordered to complete a drug and alcohol assessment process for diagnosis and recommendation for treatment. This study focused on alcohol abuse or dependence.

#### Alcohol Abuse and Dependence

In order to receive a diagnosis of alcohol abuse or dependence, individuals need to meet certain criteria set forth in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV). Criteria from the DSM-IV (1994) for substance dependence are defined 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 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 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)

Substance abuse criteria is defined in the DSM-IV (1994) as:

A. 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-related legal problems (e.g., arrests for substance-related disorderly conduct)

(4) continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights)

B. These symptoms have never met the criteria for Substance Dependence for this class of substance. (p. 183)

### Blood Alcohol Concentrations

Although the DSM-IV diagnostic criteria do not designate blood alcohol concentration (BAC), associated laboratory findings under the heading of "Additional Information on Alcohol-Related Disorders" in the DSM-IV include:

The most direct test available to measure alcohol consumption cross-sectionally is blood alcohol concentration, which can also be used to judge tolerance to alcohol. An individual with a concentration of 100 mg of ethanol per deciliter of blood who does not show signs of intoxication can be presumed to have acquired at least some degree of tolerance to alcohol. At 200 mg/dl, most nontolerant individuals demonstrate severe intoxication. (p. 200)

KDHE (1998) explains that standards for measurement include either grams per deciliter or grams per milliliter, the difference being the placement of the decimal point. The DSM-IV uses milligrams per deciliter, law enforcement uses grams per milliliter, and a Bureau of Justice Statistics Clearinghouse (1989) report uses grams per 100 liters. All of these methods, confusing as they may sound, translate to the same number, usually seen on BAC reports. In legal terms, .08 is equal to 8 grams per 100 liters or milliliters or 80 milligrams per deciliter. For the purpose of this study, BAC was given in decimal terms.

The National Council on Alcoholism (NCA) proposed using BAC as a criterion for a diagnosis of alcoholism, and it was included as one of the Court Procedures for Identifying Problem Drinkers, which referred to it as the Mortimer-Filkins test (Wieczorek, Miller, & Nochajski, 1992). There is a stipulation that to be classified as an alcoholic, an individual with a BAC of 0.15 must be "without gross evidence of intoxication" (p. 419). The rationale of the NCA as well as that of Ray and Ksir (1990) is that the 0.15 BAC is indicative of tolerance, impairment and increased response times. Although this is not a scientific axiom, it is a widely accepted assumption, also confirmed by information in the DSM-IV. Unfortunately, the only information available from the arresting officer on the DUI arrests included in this study is the BAC, so it is not within the scope of this study to determine whether the participants were or were not without gross evidence of intoxication. It may be assumed, however, that there was some evidence of intoxication because these individuals were stopped by officers for some suspicion of breaking the law.

A Bureau of Justice Statistics (1989) study of jailed drunk drivers examined the BAC levels of the jailed offenders and discovered that these DUI offenders averaged .21 BAC at the time of their arrest. More than half of these inmates charged with or convicted of DUI described themselves as alcoholic, and 44% reported drinking alcohol daily (p. 2). This information reinforces the argument of a higher BAC being indicative of serious problems with alcohol consumption.

Challeen (1995), a judge who has seen hundreds of drunk drivers, suggests that lowering the legal intoxication level does nothing to get at the drunk driving problem. He

believes the real problem is drivers who start with a .10 BAC in the morning and build from there. These individuals have developed tolerance to alcohol. He suggests police focus on the characteristics of the hard-core group of drinkers; those who will ignore any limit on BAC levels and driving. High BAC is a red flag to officers and other professionals and occurs less frequently with nontolerant individuals. An individual with a BAC of .20 or higher would almost certainly have to have developed tolerance to alcohol, or they would be physically incapable of operating a vehicle. According to the DSM-IV, at high BACs (.20 to .30) a nontolerant individual is likely to fall asleep and enter a first stage of anesthesia, while higher levels (in excess of .30 to .40) can cause inhibition of respiration and pulse and even death in nontolerant individuals (DSM-IV, 1994, p.200). This would suggest that a driver operating a vehicle with a BAC over .20 would most certainly have developed physical tolerance to alcohol; otherwise, he would not be awake and driving.

### Diagnostic Instruments

Finding problem drinkers and referring them to treatment is a priority addressed by drunk driving laws, but breaking through the conscious or unconscious deception of such individuals is extremely difficult. Also, as stated in the SASSI manual, counselors do not have a lot of time to spend with each individual in order to conduct an assessment of their problem, so testing instruments are used and should be able to reliably assist assessment professionals.

Studies have shown that results of the MAC and the MAST need to be viewed with extreme caution with regards to alcoholism (Martell, 1995; Hess, 1997). Miller (1990)



states that the SASSI-2 is a new approach to properly screen for substance abusers. CompScreen, a computer version of this instrument (CERA, 1996) claims that the SASSI-2 "will identify substance abuse problems in individuals who are being deliberately or unconsciously deceptive" (p. 1). CompScreen also claims that research has indicated "an accuracy rate approaching 98% for detecting drug users" (p.1).

### The SASSI-2

The SASSI was originally created by questioning hundreds of confirmed alcoholics and addicts and throwing out statements that were not indicative of average responses from these populations. Questions that had strong "social desirable" ratings also were dropped. This process was repeated several times with different participants until there were 62 subtle statements that tended to identify the chemically dependent population (Miller, 1994). In 1994, Miller revised the original to become the SASSI-2.

The 62 true/false statements were placed into categories to form six "subtle" scales used to identify chemical dependent or non dependent individuals. Included in these subtle scales are 23 statements taken from the Psychological Screening Inventory (PSI). Several of the statements are used more than once in two to five different scales.

A direct assessment of substance abuse is approached by 12 statements that form the Face Valid Alcohol (FVA) scale and 14 statements for the Face Valid Other Drugs (FVOD) scale. These statements are rated on a continuum ranging from "never" to "repeatedly," High scores on either of these scales are indicative of honesty or recovery and are grounds for a classification of chemically dependent. Low scores are assumed to indicate either denial or non use of substances.

The 17 items on the Obvious Attributes (OAT) scale measure attitudes toward the use of alcohol or drugs. The statements indicate pain or conflict. Six of these items are taken from the PSI, four are also scored for SAM, two for FAM. Elevated OAT scores above 15 (80T) may indicate physical or sexual abuse as well as chemical dependency. Scores below three (40T) may indicate individuals who generally see themselves as unique and different, usually not open to admitting to problems with substances. A score of 12 (70T) or more is required for classification as chemically dependent, but for first-time DUI offenders, a score of eight (55T) or above may indicate that individuals should be considered chemical abusers and referred to an educational program. This information is not covered on the scoring sheet; it may be found in "Basic Notes for Understanding the SASSI Scales," a single sheet of suggestions given out at SASSI-2 training sessions.

The 11 statements on the Subtle Attributes (SAT) scale measure value systems and cover subtle pain and conflict that individuals may not recognize in themselves. These individuals would be referred to as being in denial, if proven to be chemically dependent. Three of these items are from the PSI, and one item, if marked false, not true, would be scored in FAM. Individuals who score high on this scale and low on the OAT scale are less likely to be open to looking at themselves as having a problem or at treatment as a possibility to reduce their pain. For a decision of chemically dependent, a score of six (70T) is required. For first DUI offenses, individuals who score lower (5-6 or 60T to 70T) should be considered chemical abusers and referred to educational programs (from Basic Notes for Understanding the SASSI Scales).

The Defensiveness (DEF) scales measures defensiveness. High scores on this fourteen statement scale identify self-righteous individuals who see themselves as superior to others. High scores may be indicative of conscious, active deception. Six items on this scale are from the PSI, six also are scored in FAM, one in SAM. High scoring individuals resent accurate negative feedback and are generally hard to work with. Low scores may identify individuals who have been abused, have suicidal ideations, or lack ego strength to cope with life. To be considered chemical abusers, first-time DUI offenders may have scores of eight (60T) and above. A score of 11 (70T) or above classifies a chemically dependent individual according to the SASSI-2.

The Supplemental Addiction Measure (SAM) scale is to be used only when the DEF scale is elevated. This is an independent scale consisting of fifteen statements, seven taken from the PSI and four also scored on OAT and one each on DEF and FAM. Miller states “there is not enough data to say anything more about this scale” (1996a, p.3).

There are two additional clinical scales which are not used in the decision process for chemical dependency. The statement Family vs. Controls (FAM) scale is a codependent scale. Elevated scores may identify individuals who are people pleasers, battered women, overweight individuals, or those with general psychiatric problems. Six items are from the PSI, six also are scored on DEF, two on OAT and one each on SAM and SAT. Miller states “further investigation is warranted if this scale is elevated” (1996a).

The 16 statement Correctional (COR) scale identifies individuals who demonstrate social nonconformity. Nine items are taken from the PSI, the other seven statements are

original, they are not scored on any other scale. A score of 12 (80T) or above generally indicates an individual who is twice as likely as others to have a continued broad range of legal problems.

The Random Answering Pattern (RAP) scale consists of six items. Although this scale is not involved in scoring, a score of more than 2 indicates a questionable response set for the entire instrument. The results should be viewed with extreme caution and the individual should be encouraged to repeat the process of filling out this instrument. Three of these statements are true; three are false. They include items such as "I have never felt sad over anything" and "Most people make some mistakes in their life." This scale is only used if it is two or more; then, the individual is assumed to be responding randomly or not paying attention, and should be retested.

Some not-so-subtle statements on the SASSI-2 which would be indicative of a problem if answered as true are:

I have used alcohol or 'pot' too much or too often.

I smoke cigarettes regularly.

I have neglected obligations to family or work because of drinking or using drugs.

I have had a drink first thing in the morning to steady my nerves or get rid of a hangover.

I have sometimes drunk too much.

The SASSI-2 score sheet includes a decision tree that takes into account all the scales except FAM and COR and offers various ways of determining whether the individual is chemically dependent or non dependent. The RAP scale is scored first and, if the score is two or more, it is suggested that the results may be random and the individual

should be retested or the entire instrument should be viewed with extreme caution. If RAP is less than two, the other scales are checked against the decision tree.

Svanum and McGrew (1995, p. 205) report that the SASSI lacks sufficient documentation of criterion validity and predictive utility. Even lacking independent empirical support, the SASSI has been used by over 12,000 assessment programs, with total use of approximately two million copies of the instrument (p. 206). Svanum and McGrew's study of 495 university students indicated that the SASSI correctly identified substance abusers one time in four, at a cost of missing two-thirds of substance dependent individuals (p. 207). Their conclusion was that most individuals reporting alcohol or drug related problems are better identified by direct inquiry (p. 212). While this study indicated that the SASSI demonstrated a statistically reliable degree of discrimination between substance dependent and non dependent individuals, this was below a range that would be useful in screening settings.

Kilkunas' (1988) evaluation of the construct validity of the SASSI as a screening test for chemical dependence indicated the SASSI was superior to the MAST when classifying drug addicts, but not with alcoholics, normals, or psychiatric outpatients when used with a five group criterion (alcoholic, normal, psychiatric outpatient, co-dependent, or drug addict). In a two group criterion of abuser/non-abuser, the SASSI did not outperform the MAST or the MAC with either alcoholics or drug addicts (p. 5522-B).

In the Twelfth Mental Measurements Yearbook (1995), Vacc believes that the SASSI provides validity information without adequate information about the validity data populations. Vacc also is critical of the SASSI manual for its difficulty, while Kerr

appears to take a more optimistic view, agreeing with SASSI advertisements that honesty is not a requirement for detection by the SASSI as a substance abuser.

In a report from the Center for Substance Abuse Treatment (Inciardi, 1994), recommendations for instruments for clinical assessment included the Addiction Severity Instrument, the Michigan Alcoholism Screening Test, and the CAGE, a screening instrument containing the following four questions: Have you ever felt the need to CUT down on your drinking? Do you feel ANNOYED by people complaining about your drinking? Do you ever feel GUILTY about your drinking? Do you ever drink an EYE-OPENER in the morning to relive the shakes? The SASSI is not mentioned in this Center for Substance Abuse Treatment report.

The evidence is contradictory. Most of the highly supportive evidence of the usefulness of the SASSI-2 comes from the SASSI Institute and from the widely accepted use of the SASSI-2. To further verify claims that the SASSI-2 is a reliable instrument for DUI screening, or to refute that evidence, more studies involving court-ordered evaluations of DUI offenders need to be conducted. Hess (1997) found no relationship between BAC and SASSI-2 classifications of DUI suspects. Hess' study included some individuals with prior DUI offenses.

Scherl (1997) compared SASSI-2 scale elevations of a local DUI offender population with the mean scale elevations reported in the SASSI manual. He found the validity of the SASSI-2 well below the rates claimed by the producers of the instrument.

A summary of validity data sheet from the SASSI Institute (1996a) shows 88% of 574 subjects correctly classified. The 574 subjects include only 49 individuals from a

county probation department. Of those 49 subjects, 22 are identified as true positives, nine are identified as false negatives, 17 are true negatives, and one is false positive. This SASSI validity data indicate 88% of the subjects correctly classified. The probation sample demonstrates an accuracy rate of 80%. But there is no information that indicates how determination of true or false was reached.

### Hypotheses

This study compared two groups of court-ordered suspects who have been arrested for the first time on DUI charges. One group had BACs ranging from .075 to .146, while the other group's BACs ranged from .150 to .300. Hypothesis 1 proposed that a positive relationship existed between the BAC and the SASSI-2 classification of chemically dependent or non dependent. The higher the BAC, the more likely it would be that the individual will receive a chemical dependent classification from the SASSI scores. Hypothesis 2 proposed that significant differences existed between the eight SASSI-2 scale scores of individuals with BAC levels of .149 and below and those with BAC levels of .150 and above. These differences would be most likely be higher scores on the OAT, SAT, and DEF scales for the individuals with higher BAC levels.

## CHAPTER 2

### METHOD

#### Participants

Participants for this study were obtained from medical records in a midwestern community mental health center. These records belonged to individuals who were court-referred to alcohol/drug evaluations due to a charge of driving under the influence (DUI). Only first-time offenders (or those who reported being first-time offenders and not proven otherwise by prior criminal record) were included in this study. These suspected DUI offenders were all from a seven county catchment area (which also translates to seven geographically separate court systems) and completed court ordered alcohol assessments sometime in 1996. All participants were male. Ages ranged from 18 to 62, with 24 of the 59 participants between 18 to 22 years of age. Mean age of all participants was 29 (low BAC group was 22; high BAC group was 28; chemically dependent group was 35; non chemically dependent group was 28). The standard deviations of the sample, low BAC group, and high BAC group were 11.13, 6.6, and 12.9, respectively. The median age for the entire population was 24.

#### Instrumentation

The court-referred assessment of these participants consisted of a group testing session with two alcohol/drug clinical interns as administrators and scorers of the instruments. Participants were given the SASSI-2 and a locally-created instrument which included the MAC and the MAST as well as a personal alcohol and drug history



questionnaire. Participants were then seen by a clinician who conducted a personal interview, gave each individual a diagnosis, and made recommendations to the court.

### Procedure

A research proposal was submitted to the mental health center research committee. Upon approval, 1996 records of individuals court-referred for assessment were searched to find those with an arrest for a first-time charge of DUI to be participants in this study.

The initial search for participants began with letter files from each assessment counselor. Letters with BAC levels, SASSI-2 findings, and information suggesting no prior DUI records were chosen, then each participant's medical record file was searched to obtain data including the SASSI-2 scale scores and overall classification of either chemically dependent or non dependent, each participant's responses to the SASSI-2 items, reported BAC at time of arrest, age, and date of testing. Each participant was assigned an identification number to assure confidentiality. Participants were disqualified by prior DUI offenses, utilizing interpreters to complete forms and assessment, and using the experimental Spanish version of the SASSI. Participants were then separated into two groups according to their reported BAC. Thirty participants for each group were obtained by this method. Two participants had RAP (random answering pattern) scores of two. As a result, one participant was eliminated from each group, because his response appeared to be invalid. The individual in the first group was classified chemically dependent based on other scores, and although the individual from the second group was not classified chemically dependent, his elevated DEF score suggested a deeper look at his answers and

probably a second administration of the instrument, which was not done by the assessment professional.

## CHAPTER 3

### RESULTS

Low (.149 and below) and high (.150 and above) BAC groups were compared. A Chi Square was used to determine if there was a positive effect of high BAC to chemical dependent classification. An analysis of variance was performed on scale scores of both groups of high and low BAC and on scale scores of those classified chemically dependent and non dependent by the SASSI-2.

Results of the Chi Square analysis indicate that the SASSI-2 does not find individuals with higher BACs to be chemically dependent more often than individuals with lower BACs. The statistical design consisted of a 2 (.149 and below or .150 and above BAC) x 2 (CD or non-CD) between subjects design. The second independent variable of chemically dependent or non-chemically dependent was based on the classification from the SASSI-2 scores. Results indicated that no positive relationship existed between BAC and SASSI-2 classifications, so the null hypothesis was not rejected and Hypothesis 1 was not supported.

An analysis of variance performed on the data showed no significant differences between groups classified according to their BAC, either high or low; nor any significant differences according to SASSI-2 classifications ( $p < .05$ ). There were no significant differences between any of the scores in the low BAC group and scores in the high BAC group ( $p < .05$ ). Both groups had scores that varied widely, although there were no significant differences between scores within the groups. Therefore, Hypothesis 2, that

significant differences exist between the eight SASSI-2 scale scores of the low BAC and those in the high BAC group, was not supported.

Table 1 reports the Chi Square analysis between the participants classified chemically dependent by the SASSI-2 and those classified not dependent. The mean SASSI-2 scale elevations for the entire DUI suspect sample are reported in Table 2. The mean SASSI-2 scale elevations for the DUI suspect sample are further broken down for those with BAC levels of .149 and below and those with BAC levels of .150 and above in Table 3. Table 4 reports scale score elevations for individuals from both BAC groups of the sample who were classified chemically dependent and those classified non dependent by the SASSI-2.

According to this study, the SASSI-2 failed to classify individuals with high BACs (.20 to .30) as chemically dependent, even though the DSM-IV suggests that non-tolerant individuals would be asleep at this point. There were 12 such individuals (with BACs from .20 to .30) in this study, and only two of these were classified by the SASSI-2 as chemically dependent, from their answers on the face valid alcohol scale, not from the other subtle scales.

Table 1

Chi Square Analysis of SASSI-2 Classification and BAC Group of all DUI Suspects


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	<u>SASSI-2 Classification</u>	
	Chemically Dependent	Non Dependent
<u>BAC Group</u>		
.149 and below	3	26
.150 and above	5	24
	Chi Square Value = .58	df = 1      p < .05
	Yates Correction = .15	df = 1      p < .05

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Table 2

SASSI-2 Ranges, Mean Scale Scores and Standard Deviations for the Entire  
DUI Suspect Sample

Scale	<u>n</u>	<u>Range</u>	<u>M</u>	<u>SD</u>
FVA	58	0-16	4.40	3.79
FVOD	58	0-19	1.74	3.44
OAT	58	1-14	5.26	3.02
SAT	58	2-6	3.84	1.18
DEF	58	1-14	8.05	2.50
SAM	58	3-11	6.74	1.78
FAM	58	4-11	8.72	1.33
COR	58	1-12	4.81	2.57

Note: FVA = Face Valid Alcohol Scale; FVOD = Face Valid Other Drug Scale; OAT = Obvious Attributes Scale; SAT = Subtle Attributes Scale; DEF = Defensiveness Scale; SAM = Supplemental Addiction Measure; FAM = Family versus Controls Scale; COR = Correctional Scale.

Table 3

SASSI-2 Mean Scale Scores and Standard Deviations of Low and High BACGroups by SASSI-2 Classification

Scale	Low BAC		High BAC	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
FVA	4.17	3.91	4.62	3.72
FVOD	2.14	4.15	1.35	2.57
OAT	5.62	3.51	4.90	2.44
SAT	3.52	1.15	4.17	1.14
DEF	7.76	2.64	8.35	2.37
SAM	7.07	2.03	6.41	1.45
FAM	8.72	1.60	8.72	1.03
COR	4.90	2.91	4.72	2.23

Table 4

SASSI-2 Mean Scale Scores and Standard Deviations for Two DUI Suspect  
Samples Classified Chemically Dependent

Scale	Low BAC		High BAC	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
FVA	11.33	7.23	8.20	5.72
FVOD	8.00	9.64	3.20	4.44
OAT	12.67	2.31	5.60	1.52
SAT	5.33	.58	5.80	.45
DEF	4.00	2.65	9.60	1.95
SAM	10.00	1.73	6.80	1.48
FAM	6.00	1.73	8.40	1.34
COR	11.00	1.73	6.40	.55

Note: Low BAC = .149 and below; High BAC = .150 and above



Table 5

SASSI-2 Mean Scale Scores and Standard Deviations for two DUISuspect Samples Classified Non Dependent


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Scale	Low BAC		High BAC	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
FVA	3.36	2.47	3.88	2.79
FVOD	1.47	2.69	.96	1.93
OAT	4.81	2.60	4.75	2.60
SAT	3.31	1.01	3.83	.92
DEF	8.19	2.32	8.08	2.39
SAM	6.73	1.81	6.33	1.47
FAM	9.04	1.28	8.79	.98
COR	4.19	2.06	4.38	2.30

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Note: Low BAC = .149 and below; High BAC = .150 and above

## CHAPTER 4

### DISCUSSION

The present study was an attempt to determine whether the SASSI-2 is a useful tool for screening driving under the influence (DUI) suspects and offenders. There is a need for an instrument that can identify alcoholics or alcohol abusers, but according to this study and previous studies, the SASSI-2 is not useful for the court referred DUI suspects. The information from the SASSI Institute does not include enough data to support claims of the high validity of the instrument, especially with a court referred population. The SASSI Institute claim that the SASSI-2 approaches 98% accuracy even with court referred individuals was not supported by this study.

The SASSI-2 results suggest that only 8 out of 58 individuals arrested for driving under the influence could be classified as chemically dependent, even when they had recorded blood alcohol concentrations that would suggest tolerance. Most of these individuals were classified chemically dependent based on their own report of alcohol consumption, not based on the subtle scales of the SASSI-2. This fact would suggest that direct report is the best method for testing alcohol dependence or abuse.

While treatment providers frequently refer to "denial" as a defense mechanism in substance dependence, the SASSI-2 claims to break through that denial, "to identify individuals with either a drug or alcohol problem, even if they are deliberately or unconsciously deceptive" (CERA, 1997, p. 12). Denial is the refusal to acknowledge the existence of a potential external source of anxiety" (Bootzin et al., 1993, p. 31). Denial is not referred to in the DSM-IV, nor in a Dictionary of Psychology (Chaplin, 1985). The

DSM-IV describes delusion as "a false belief based on incorrect inference about external reality that is firmly sustained despite what almost everyone else believes and despite what constitutes incontrovertible and obvious proof or evidence to the contrary" (p. 765).

Chaplin (1985) also states "persistent or systematic delusions are characteristic of psychotic states" (p. 120).

Alcoholics Anonymous (1976) suggests that alcoholics suffer from delusions. In Chapter 3, More About Alcoholism, of the book Alcoholics Anonymous, the authors state:

The idea that somehow, someday he will control and enjoy his drinking is the great obsession of every abnormal drinker. The persistence of this illusion is astonishing. Many pursue it into the gates of insanity or death....

The delusion that we are like other people, or presently may be, has to be smashed. (p. 30)

Delusions are apt to come with their own set of objective criteria which may include deception at the unconscious level, such as that supposedly tapped by the SASSI-2.

Perhaps the unconscious level of delusion required to sustain the alcoholism is resistant to attempts at invasion. Perhaps these individuals must maintain the delusion in order to continue the practice of using alcohol. Detection begins when the alcoholic becomes willing to face his own shortcomings and the SASSI-2 asks questions that intrude on the delusions of the alcoholic. The SASSI-2 statements may be affirmed by individuals who are ready and willing to change. The practicing alcoholic who is not ready for change is

probably not willing to admit that he is uncaring toward others, selfish, worthless, or practicing any other less than acceptable behaviors in his life.

The SASSI-2 may be useful in treatment settings and may serve to alert therapists and counselors to problems with co-dependency, eating disorders, or abuse. The SASSI-2 has its assets, but the detection of alcoholism in those still suffering from delusions is not one of them. That is what this study and others before it have shown. Further exploration of this problem may support or refute these findings. Scientific research of such instruments are what confirm their usefulness to which populations.

As this study had such a small number of participants (58), a larger sample would be more representative of the DUI suspect population. Another look might be taken at this instrument and its usefulness in DUI offender population by comparing scores of court referred individuals with those of individuals in recovery who are instructed to take the SASSI-2 with the idea in mind that they do not wish to be detected as alcoholic. It would be interesting to see how the scores would compare.

Of great concern was the information from the SASSI Institute that assessment counselors relied so much on the SASSI because of their work load and lack of time. This would indicate that further study of the SASSI-2 is imperative, considering the ramifications of an instrument that would not classify individuals with high BACs (.20 to .30) as chemically dependent, even though the DSM-IV suggests that non-tolerant individuals would be asleep at this point. Remember, there were 12 such individuals (with BACs from .20 to .30) in this study, and only two of these were classified by the SASSI-2 as chemically dependent, from only their answers on the face valid alcohol scale.

Further research should be conducted on the relationship between BAC and SASSI-2 classifications. Larger samples should be sought. Comparing SASSI-2 classifications with assessment counselor's diagnosis would be helpful as well, to see if dependence on the SASSI-2 is a widespread practice that makes agreement so high.

Further research might also be warranted into the reason for the scarcity of women available for inclusion in studies such as this one. Why are there so few women? Is it because they refuse a breath test? Or are women let off while men are arrested? The few women who had been assessed had prior convictions for DUI or had not submitted to the breath testing. Is there some underlying female attribute to cause such phenomena?

DUI arrests continue to rise. Public outcry for stricter laws doesn't necessarily guarantee safer streets. The participants in this study had BACs high enough to warrant consideration for treatment, but they were still driving. Individual assessment may have found them candidates for alcohol education, but not treatment. The Surgeon General was right; a more effective assessment system is needed to provide effective treatment. Is the SASSI-2 contributing to that system? Although it is indeed widely used, further investigation into how well the SASSI-2 performs is imperative.

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Date

Comparison of SASSI-2 Classification  
Outcomes and Blood Alcohol Concentration  
in Driving under the Influence - Suspects  
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Signature of Graduate Office Staff Member

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