THE EFFECTS ON TREATMENT OUTCOMES OF COUNSELORS' ACCESS TO THE ADDICTION SEVERITY INDEX SCORES OF SUBSTANCE ABUSERS

by

Octavia D. Madison

Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

IN

COUNSELOR EDUCATION AND STUDENT PERSONNEL SERVICES

APPROVED:

Libby R. Hoffman, Ed.D, Chair

Richard Paritzky, Ph.D

Marilyn Lichtman, Ed.D

Sandra Stith, Ph.D

Carolyn Jackson-Sahni, Ph.D

April 2, 1997

Blacksburg, Virginia

Keywords: Outcome, Treatment Efficacy, Substance Abuse Treatment, ASI.
THE EFFECTS ON TREATMENT OUTCOMES OF COUNSELORS'
ACCESS TO THE ADDICTION SEVERITY INDEX SCORES OF
SUBSTANCE ABUSERS

by

Octavia D. Madison
Dr. Libby R. Hoffman, Chair

(ABSTRACT)

An experimental design, (the pretest/posttest design) was used in this study to investigate the efficacy of substance abuse treatment using two instruments, the Addiction Severity Index (ASI) and the biopsychosocial assessment.

Fifty-six subjects admitted to the SYMBA TEAM Substance Abuse Treatment Program were assessed during the initial stage of treatment using the biopsychosocial assessment and the ASI. Through the process of random selection, subjects were placed in one of two groups, an experimental group or a control group. Counselors working with the subjects in the experimental group had access to the results of the ASI and biopsychosocial assessment for treatment planning, and the counselors working with the subjects in the control group had access only to the results of the biopsychosocial assessment. At the end of treatment (90-days), the subjects in both groups were re-assessed using the ASI to determine what differences, if any, occurred between the two sample groups.

Data was analyzed using descriptive statistics along with the Student t-test. Results revealed that there were no statistically significant differences between the two sample groups at the .05 alpha level. However, significant reductions between the ASI pre- and posttests mean scores were noted among several of the variables in both sample groups. Also, the counselors’ perceptions of the ASI suggested that the ASI was preferred over the biopsychosocial assessment for treatment planning, because of its structure and the amount of time required to administer the instrument.
DEDICATION

This dissertation is dedicated to the staff at the SYMBAS TEAM Treatment Program, and to all of the substance abuse clinicians who continue to reform addicts and alcoholics despite the barriers and challenges we often face.
ACKNOWLEDGEMENTS

I am indebted to many individuals for assistance, support and encouragement throughout this entire process. I first like to give an honor to God for giving me strength to accomplishment one of the most difficult tasks in my life. I particularly want to express my deepest appreciation to Dr. Libby R. Hoffman for immeasurable amounts of support, encouragement and assistance. I would like to thank Dr. Richard Paritzky, Dr. Marilyn Lichtman, Dr. Sandra Stith and Dr. Carolyn Jackson-Sahni for taking the time to serve as members of my dissertation committee and, for assisting me throughout this entire process.

I am deeply indebted to Mr. Willie Sutton for making available to me his expertise and literature on substance abuse, and Mr. Dimakatso Motshabi for providing methodological and statistical assistance. My deep appreciation also goes to my supervisor, Mrs. Nancie Connolly, and my colleagues and co-workers at Arlington County Substance Abuse Bureau.

I am incredibly thankful to my fellow doctoral students, especially Portia Bookhart, Roylan Dick, John Abrahms, Johannes Mokoele, Brenda Lewis-Holmes, Linda Livingston and Tammy Davis for their friendship and technical support. Without the help of these friends, it would have been difficult to accomplish this task. My
gratitude also goes to Dr. Rita Graves-Giles for her
guidance, Victoria Pouny for her clerical support and
friendship, and Janice Koslowski for making my gloomy days
brighter.

My very special appreciation goes to my late father,
Raymond B. Madison, Sr., and brother, Raymond B. Madison,
Jr., my mother, Doreatha M. Anderson, my sisters, Wanda, Rae
Denise, and Doreatha, my niece, Tiffany, my nephew, Donnie
Jr., and my dearest friend, Ronald Colmore, for their
support, and gifts of love. From my family I learned the
value of love and perseverance. More importantly, I learned
the meaning of unconditional love and giving.

Last but not least, I thank my many friends at Diamond
Hill Baptist Church and Mount Pleasant Baptist Church for
their prayers and words of encouragement. I also thank the
clients and staff of Save Your Mind Body and Spirit, Takes
Every Allowable Measure (SYMBAS TEAM) Treatment Program of
Washington, D.C. Without the support and cooperation of the
these individuals, this study would not have been possible.
TABLE OF CONTENTS

ABSTRACT .............................................. iii
DEDICATION ........................................... iii
ACKNOWLEDGEMENTS ................................. iv

CHAPTER

I. INTRODUCTION
  BACKGROUND OF THE PROBLEM ............ 4
  STATEMENT OF THE PROBLEM .......... 13
  PURPOSE OF THE STUDY ................. 13
  RESEARCH QUESTIONS ................. 14
  SIGNIFICANCE OF THE STUDY .......... 15
  ASSUMPTIONS .......................... 16
  DEFINITIONS .......................... 16

II. REVIEW OF THE LITERATURE
  ALCOHOL AND OTHER DRUGS IN SOCIETY:
    HISTORICAL PERSPECTIVE ............. 20
  EFFORTS TO CONTROL THE USE OF ALCOHOL  24
  OTHER DRUGS OF ABUSE ............... 28
    NARCOTICS .......................... 28
    DEPRESSANTS ........................ 31
    STIMULANTS ........................ 32
    HALLUCINOGENIC ...................... 36
    CANNABINOIDS ........................ 38
  EFFORTS TO CONTROL THE USE OF ILLEGAL
  DRUGS ....... .................................. 39
  DEFINITIONS OF ALCOHOLISM AND
  ADDICTION .............................. 42
  CAUSES OF ADDICTION .................. 43
  DEVELOPMENT OF TREATMENT PROGRAMS . 48
  TREATMENT SETTINGS ................. 51
  PROCESS OF TREATMENT ............... 53
  COST AND FUNDING OF TREATMENT ..... 68
  EFFICACY OF SUBSTANCE ABUSE
  TREATMENT ............................. 70
  SUMMARY .................................. 91

III. METHOD ........................................ 94
  DESIGN ..................................... 94
  SUBJECTS .................................... 96
  INSTRUMENTS ................................ 97
  PROCEDURE .................................. 103
  TIME SCHEDULE ............................ 107
DATA ANALYSIS .......................... 108
DESCRIPTION OF THE SYMBAS TEAM
TREATMENT PROGRAM ....................... 108

IV. RESULTS .................................. 112
PROFILE OF THE SAMPLE ................. 113
COMPARISON OF THE PRE- AND POSTTESTS
MEAN SCORES BETWEEN THE TWO SAMPLE
GROUPS ...................................... 118
DIFFERENCES BETWEEN PRE- AND POSTTESTS
MEAN SCORES OF THE SEVEN VARIABLES. 121
COUNSELORS PERCEPTIONS OF THE ASI.. 124

V. DISCUSSION, CONCLUSIONS, AND
RECOMMENDATIONS ........................... 127
DISCUSSION ................................ 127
CONCLUSION ................................ 131
RECOMMENDATIONS ........................ 132

REFERENCES ................................. 135

APPENDICES ................................. 150
A. INFORMED CONSENT ..................... 151
B. ADDICTION SEVERITY INDEX ............. 152
C. BIOPSYCHOSOCIAL ASSESSMENT ....... 159
D. COUNSELORS' PERCEPTION
QUESTIONNAIRE ............................. 179

VITA ........................................ 180
CHAPTER ONE

INTRODUCTION

Alcohol and other drug abuse has emerged as one of the leading social, economic, and health problems in this country. It is a multifaceted problem that affects all segments of society, including the young and old; rich and poor; residents of rural, urban, and suburban areas; and all racial and ethnic groups.

The Institute for Health Policy (1993) reports more deaths, illnesses, and disabilities from alcohol, illicit drug, and tobacco use than from any other preventable health condition. According to Moos, Finney and Cronkite (1990), accidents resulting from alcohol use are the leading cause of death among young people ages 15 to 24. Alcohol and other drug abuse is also associated with injuries on the job, school-related problems, maltreatment of children, homelessness, unemployment, increased criminal activity, family violence, and the growing rate of violent deaths.

A major societal response to the growing awareness of alcohol and other drug abuse has been to expand specialized treatment services. Although treatment programs are generally considered effective in reducing the use of drugs, critics question their efficacy because of the high costs involved and the high recidivism rate of those who have
received treatment.

For instance, the Institute for Health Policy (1993) estimated the total economic costs of alcohol and drug abuse treatment in 1990 to be more than $238 billion. Studies conducted on habitual smokers, heroin addicts, and alcoholics show that approximately 66% of the participants who receive treatment, relapse by the 90-day, follow-up assessment (Dimeff & Marlatt, 1995).

Several hundred outcome evaluation studies have been conducted to assess the efficacy of treatment programs; however, the findings are mixed and, in some instances, controversial. These mixed findings may be due to the fact that single variables (e.g., treatment modality, duration in treatment, or abstinence) have been measured, as opposed to multidimensional factors (e.g., medical status, educational level, employment status, family and social relations, and psychological issues). Multidimensional factors may provide a more comprehensive picture of the client's needs, which promote appropriate treatment planning, and contribute to positive outcomes. Furthermore, there has been limited use of standardized assessment instruments in research studies to evaluate client needs and treatment outcomes.

Because of these shortcomings, multidimensional assessment instruments for measuring treatment efficacy are in great demand. Graham (1994) stated that information about
a number of life functioning areas in which a client has improved provides a more convincing case for treatment success than does a single estimate of the client's current substance abuse problem.

Several assessment instruments which measure multidimensional factors have been developed and are available for use. Many of these instruments are limited (e.g., lack sound psychometric properties and provide information that focuses only on the use of alcohol) in providing an accurate and comprehensive picture of client's needs. Moreover, many of these instruments do not evaluate treatment outcome.

The Addiction Severity Index (ASI), however, is an instrument that not only provides an accurate and comprehensive assessment of the client's needs for use in treatment planning, but also measures treatment efficacy. The ASI is a highly structured, interviewer-administered instrument that elicits data across multiple diagnostic and treatment domains: alcohol and other drug use, physical and mental health, employment and legal issues, and family and social relations. It is also highly reliable, valid and sensitive to gender and racial or ethnic differences. Unlike other standardized assessment instruments, the ASI can be used for intake assessment, treatment planning, referral decisions, and follow-up evaluation (McLellan et al.,

**BACKGROUND OF THE PROBLEM**

One definition of alcoholism preferred by many clinicians and researchers is that alcoholism is a chronic, progressive and potentially fatal disease characterized by tolerance and physical dependence or pathologic organ changes, or both (Flavin & Morse, 1991, p. 267; Keller & Doria, 1991, p.258). Alcoholism is also viewed as a model for all forms of addiction and, therefore, the core concepts used to define alcoholism are applicable to the term, drug addiction (Doweiko, 1996).

Because of the nature of this disease, frequent and periodic treatment is sometimes necessary to maintain abstinence and psycho-social functioning. However, treatment for alcoholism and addiction is costly, and the recidivism rate of those who receive treatment is relatively high. This high cost of treatment and high recidivism rate raise many questions about the efficacy of treatment, such as: 1) is treatment cost effective? 2) do clients really improve following treatment? and 3) how is improvement measured?

Hundreds of studies have been conducted on the efficacy of alcohol and drug abuse treatment; however, the findings vary among researchers. This variation may be attributed to the type of studies conducted. Moos, Finney and Cronkite
(1990) stated that many of the studies conducted on the efficacy of treatment focused on the "black box paradigm," in which patients were assessed at intake and at one or more follow-up interviews. Attention was limited to the use of single variables, such as a description of treatment modality, duration of treatment, or abstinence.

For instance, in a study by Emrick, Tonigan, Montgomery and Little (1993), and another study by Tonigan and Hiller-Sturmhofel (1994), both of which investigated the extent of Alcoholics Anonymous (AA) involvement on treatment outcome, results indicated that for subjects who were more involved in AA, reduced alcohol consumption could modestly be predicted. Imlah (1989) stated that Alcoholics Anonymous has not been subjected to enough controlled research to make data-based generalization possible.

In a study investigating the effects of the duration in a residential treatment center on treatment outcome, results indicated that clients with less severe impairment and longer periods of treatment show greater improvement than those with moderate to severe impairment who also had longer periods of treatment (Gottheil, McLellan & Druley, 1992). In other words, the healthy get healthier. However, Alterman, McLellan, and Shipman (1993) stated that those with moderate to high levels of severity who receive enhanced regimens of professional treatment show evidence of better outcomes than
those who receive "standard care." Schnoll (1992) stated, "although clients with less severity are likely to have better outcomes, the concept of severity is not well defined" (p.77).

Studies conducted on the rate of abstinence and treatment effects have received mixed reviews, partly due to how abstinence is defined and how it is used in the research. For example, one definition of abstinence makes it synonymous with better social functioning (Duckert, 1993). Another defines it in terms of the length of time one has been sober or clean from drug use (Duckert, 1993). Total abstinence, according to Babor et al. (1994), is viewed as the best indicator of successful response to treatment.

However, Frawley (1991) stated that evaluating the length of time one has abstained from alcohol and drug use following completion of treatment (whether it be in an outpatient or inpatient setting) is difficult because the duration of treatment varies among programs. Moreover, Frawley (1991); Imlah (1989); and Lewis, Dana, and Blevins (1994) implied that abstinence is not the only goal of successful treatment, and it is important to view alcohol and other drug abuse problems as multivariate syndromes (e.g., employment, family relations, mental and physical issues). Longabaugh, Mattson, Conners and Cooney (1994) stated that changes in alcohol consumption following
treatment do not necessarily result in improvements in other areas of life functioning and, therefore, measuring dimensions of functioning and quality of life provides greater understanding of treatment effects.

Related to this, many of the studies fail to include the use of standardized assessment instruments prior to and/or after treatment. Allen (1991) stated:

*traditional treatment programs provide little if anything in the way of detailed assessment for treatment matching for addiction programs.*

*Many inpatient programs rely on poorly trained personnel to administer some kind of "twenty questions" screening test to determine the presence or absence of alcoholism or other addictive disease. Individual differences in age, gender, ethnic status, personality, cognitive functioning, socioeconomic status, social support, coping skills and belief systems are too often overlooked or blended together under a single disease entity, or attributed largely to genetic predisposition or the unifying influence of physical dependency (p. 178).*

Moreover, a large number of available standardized assessment instruments measure only issues pertaining to the
use of alcohol (e.g., Alcohol Dependence Scale - Revised, Alcohol Use Inventory, Comprehensive Drinking Profile, Alcohol Use Disorders Identification Test, Michigan Alcoholism Screening Test, Short Alcohol Dependence Data Questionnaire, Ten-Question Drinking History, and Quantitative Inventory of Alcohol Disorders). Alcohol, however, is no longer the primary drug of choice for many clients. In fact, multiple substance use is likely to be prevalent, along with serious psychological, physical, or social problems that require specialized treatment (National Institute on Drug Abuse [NIDA], 1994).

Because of the single-variable studies, the limited use of standardized assessment instruments, and the multiplicity of problems faced by individuals seeking treatment for alcohol and other drug abuse, the effectiveness of alcohol and other drug treatment remains questionable among researchers and health care providers. To alleviate this uncertainty, attention is being devoted to the utilization of multidimensional assessment instruments for treatment planning and measuring treatment efficacy. Conners et al. (1994); Doweiko (1996); and Meyers, et al. (1995) stated that assessment instruments measuring multidimensional areas of functioning are particularly useful for an adequate appraisal of a client's need for treatment services. Meyers et al. (1995) also stated that evaluating multiple areas is
critical to the treatment outcome and evaluation. Geller (1991) implied that for assessment instruments to be useful in the treatment setting, they must measure various aspects of a client's symptoms and history that are relevant to clinical decision making.

Ehmann et al. (1995) stated that a multidisciplinary approach to diagnostic evaluation has been positively related to improving treatment outcomes. In a study conducted by Ehmann et al. (1995) using the Routine Assessment of Patient Progress (RAPP) with a population sample of 71 subjects (49 males and 22 females), results indicated that RAPP was not only reliable (.84), but also valid in ascertaining a patient's level of functioning. Results also indicated that the RAPP can accurately discriminate those in need of further inpatient treatment from those ready to be discharged to independent or semi-independent living situations (Ehmann et al., 1995). RAPP is a standardized scale that allows trained nurses to incorporate both interview and observational data into a comprehensive assessment of psychiatric inpatients in order to assess the presence and severity of multiple domains of patient functioning, develop treatment plans and provide ancillary judgments of psychopathology that may affect diagnosis (Ehmann et al., 1995).

Several instruments which measure multidimensional
factors have been developed and widely used in the field of alcoholism and addiction. However, many of these instruments are limited in providing data on treatment outcome. For example, the Alcohol Use Inventory (AUI), the Comprehensive Drinker Profile (CDP), the Chemical Dependency Assessment Profile (CDAP), and the Recovery Attitude And Treatment Evaluation (RAATE), are more clinical than research-oriented (Allen, Columbus and Fertig, 1995). These instruments are helpful for planning treatment, but do not provide adequate information for measuring treatment outcome.

One instrument, however, that is applicable in both clinical and research evaluation is the ASI. The ASI is a multidimensional assessment instrument used to collect information regarding the nature and severity of problems alcoholics and addicts often have. It is also used to evaluate treatment outcomes. The ASI has been tested and proven to be highly reliable and valid.

In a study conducted by McLellan et al. (1985, 1992) examining the reliability and validity of the ASI in three treatment centers with a sample of 181 subjects, results of concurrent reliability among trained technicians averaged .89. Test-retest reliability showed that the information obtained from the ASI was consistent (.92) over a three-day interval along with clear evidence of discriminant, concurrent and predictive validity (McLellan et al., 1985,
1992). Kosten, Rounsaville and Kleber (1983) investigated the concurrent validity of the ASI with a population sample of 204 opiate addicts, and found the ASI to have good concurrent validity.

Brown, Alterman, Rutherford, Cacciola and Zaballero (1993) investigated the use of the ASI with four gender and racial or ethnic groups of methadone maintenance patients, and found the ASI to be sensitive to gender and racial or ethnic differences among lower socio-economic minority groups.

Lewis, Dana and Blevins (1994) stated that the ASI is one of the few well-tested instruments that address drugs other than alcohol. Flynn et al. (1995) implied that the ASI has highlighted the need for assessment across multiple domains and, other than the ASI, few instruments developed to assess impairment have been validated for use with alcohol and other drug abusing populations. McLellan et al. (1985) stated that the ASI is a "model instrument" for satisfying its requirements for a comprehensive patient admission assessment leading to an individualized treatment plan.

Unlike other standardized assessment instruments, the ASI features not only the client's own numerical rating of his or her perception of problems, but also the ratings of the interviewer. This client-interviewer collaborative
approach to assessment is believed to contribute significantly to the ASI's goal of comprehensively assessing clients for optimal individualized treatment (NIDA, 1993).

Finally, several studies have been conducted using the ASI to measure such constructs as abstinence, duration in treatment, treatment modalities, matching clients to the appropriate treatment setting and using incentives to predict treatment outcome. However, few studies have been conducted using the ASI in conjunction with other instruments for treatment planning and treatment outcomes. McLellan, Luborsky, Woody, and O’Brien (1980) stated that the ASI may be of special assistance in determining a treatment plan for an individual client. Because of this gap in the literature, further research is needed to determine if the ASI is more effective than the program intake assessment or biopsychosocial assessment instrument in improving treatment outcomes for alcohol and other drug abusers.

Longabaugh (1991) stated that monitoring the outcome of alcoholism treatment provides two major benefits: (1) a basis for improving treatment and, (2) third parties such as companies or regulatory agencies, with evidence that a given treatment is likely to benefit a given type of client. He further stated that in an increasingly competitive market, most treatment providers want to know how effective their
program is in relation to other programs. This question can only be answered when standard outcome measures are implemented to form a basis for comparison.

STATEMENT OF THE PROBLEM

The efficacy of treatment programs remains a very controversial issue in public health. The widespread use of alcohol and other drug abuse is astronomical, and its economic and social impact on society is of great magnitude. A societal response to the widespread use of alcohol and other drugs is to try to improve treatment services. One method of determining whether or not treatment services for alcohol and other drug abusers are effective is to use a standardized assessment instrument that is both clinical and research oriented.

PURPOSE OF THE STUDY

The study was designed to determine the effectiveness of treatment services using the ASI in conjunction with the program intake or biopsychosocial assessment (a non-standardized assessment instrument that elicits data across multiple diagnostic and treatment domains). Specifically, this study examined the use of the ASI and the biopsychosocial assessment in treatment planning and treatment outcomes using two groups, an experimental
group and a control group.

The ASI and the biopsychosocial assessment were administered to the subjects in the treatment and control groups at the beginning of treatment. Counselors working with the subjects in the experimental group had access to the results of both the ASI and biopsychosocial assessment for treatment planning. Counselors working with the subjects in the control group did not have access to the results of the ASI for treatment planning, only to the data provided by the biopsychosocial assessment. The researcher kept confidential the results of the ASI for the subjects in the control group. At the end of treatment (90 days), both groups were re-assessed using the ASI to determine what statistically significant differences, if any, occurred between the two groups. Data was analyzed using descriptive statistics and the Student t test statistic.

**RESEARCH QUESTIONS**

1. Does the use of the ASI in conjunction with the biopsychosocial intake assessment contribute to:
   a. A more detailed assessment of the clients' presenting problem?
   b. More effective treatment planning?
   c. Improved treatment outcomes as compared to the use of the biopsychosocial alone?
2. Are there significant differences between the mean scores on the pre- and posttests on the ASI with the experimental and control groups?
   a. Which of the seven variables measured by the ASI showed the most significant differences on the posttest?
   b. Which of the seven variables measured by the ASI showed the least significant differences on the posttests?

3. What are the perceptions of the counselors who have participated in the study regarding the usefulness of the ASI for treatment planning and measuring treatment outcomes?

**SIGNIFICANCE OF THE STUDY**

The information gathered from this study will assist researchers, program managers, and other health care providers to determine if the cost and effort of using the ASI improve treatment services for alcohol and other drug abusers. Additionally, the information gathered from this study will provide data to use in seeking additional funding for alcohol and drug treatment programs, adding new program elements, and boosting staff morale.
ASSUMPTIONS

1. It was assumed that the subjects understood the questions correctly as posed by the interviewer.
2. It was assumed that the clients answered questions honestly and to the best of their ability. Some clients may suffer from organicity damage due to excessive alcohol and/or other drug use, which may inhibit their cognitive abilities. Others may answer questions dishonestly to avoid legal consequences.
3. It was assumed that accurate diagnosis and appropriate treatment planning led to appropriate treatment delivery.
4. It was assumed that any apparent differences between pre- and post-treatment measures of the ASI were due to client's participation in the treatment program.
5. It was assumed that because participants were randomly assigned to the two groups, the results can be generalized to lower socio-economic, substance abusing populations.
6. It was assumed that the researcher followed the rules of the ASI manual in administering, scoring and interpreting the results in order to avoid biases or inaccurate information.

DEFINITIONS

Abstinence: Abstaining completely from alcoholic beverages. Addiction: A progressive, chronic, primary
disease that is characterized by compulsion, loss of control, continued drug use despite adverse consequences, and distortions in normal thinking, such as denial. **Alcohol:** A nonbarbiturate, nonbenzodiazepine sedative-hypnotic drug that causes depression of the central nervous system. **Alcoholic:** A person with the disease of alcoholism. **Alcoholism:** A chronic primary hereditary disease that progresses from an early, physiological susceptibility into an addiction characterized by tolerance changes, physiological dependence, and loss of control over drinking. Psychological symptoms are secondary to the physical disease and not relevant to its onset. **Assessment:** The act of determining the nature and causes of a client's problem. **Drug Abuse:** The use of psychoactive drugs in such a way that it seriously interfere with a person's life, including physical, psychological, occupational, legal, education, spiritual, or social functioning. **Evaluation:** The systematic collection and analysis of data needed to make decisions. **Outcome Evaluation:** Instruments designed specifically to assess the end results of treatment. **Random Sampling:** The process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of being selected for the sample. **Reliability:** The degree to which a test consistently measures whatever it measures. **Screening:** A range of
evaluation procedures and techniques which does not enable a clinical diagnosis, but merely indicates whether there is a probability that the condition looked for is present.  

**Severity:** The need for additional treatment.  

**Test-Retest Reliability:** The degree to which scores are consistent over time.  

**Treatment Planning:** Scales to assist the clinician in developing client-specific treatment plans.  

**Validity:** The extent or degree to which a test measures what it is supposed to measure.
CHAPTER TWO

REVIEW OF THE LITERATURE

This chapter is divided into six sections. The first section begins with a brief historical overview on alcohol and other drugs. Included in this historical overview is: (1) a discussion on the most commonly used drugs in the United States, (2) alcoholism in Colonial America, (3) attitudes toward alcoholism, (4) efforts to control the use of alcohol, (5) how alcoholism is viewed today, (6) other drugs of abuse, and (7) efforts to control the use of illegal drug use.

The second section addresses the various definitions of alcoholism and addiction along with the definition preferred by many clinicians.

The third section discusses four theoretical perspectives relating to the cause of addiction; the biological theory, the psychological theory, the sociological theory and the disease theory.

The fourth section begins with a brief overview on the development of treatment programs followed by a discussion on the various treatment settings. Also, the process of treatment: formal verses informal assessment instruments, the assessment process, screening instruments, comprehensive assessment, and multidimensional standardized assessment instruments are discussed in this section.
The fifth section addresses the cost and funding of treatment, and the sixth section concludes with a discussion on a number of studies conducted on treatment outcome followed by a summary on this chapter.

**ALCOHOL AND OTHER DRUGS IN SOCIETY:**

**A HISTORICAL PERSPECTIVE**

The use of alcohol and other drugs is certainly not a new phenomenon. Inaba and Cohen (1989) stated that as long as we have had to think, we have searched for ways to alter our state of consciousness by seeking religious experiences, pushing our bodies past their physical limits, immersing ourselves in our work, becoming insane, or taking psychoactive drugs. Main and Zervas (1994) implied that almost every culture throughout history has found a way to alter moods using such catalysts as leaves, fruit, or root of plants. Bender and Leone (1994) asserted that people have always used intoxicants or drugs. Doweiko (1996) stated that for thousands of years people have found ways to alter their normal state of consciousness by ingesting naturally occurring hallucinogenic (drugs which alters reality), employing techniques to induce oxygen deprivation, and consuming alcohol.

Gold (1988) asserted that since the dawn of history people have always used herbs, potions, and other mood
altering substances to curb pain, relieve tension, misery, and disease, and cure ailments such as the common cold, toothache, and headache. Mood altering substances are drugs, including alcohol, which change the behavior of an individual (Milhorn, 1994). In addition to its medicinal value, mood altering substances, especially alcohol, were often used to celebrate major meetings, to show hospitality, and to observe the rites of birth, initiation, marriage, and death.

THE HISTORY OF THE MOST COMMONLY USED DRUGS IN THE UNITED STATES

Alcohol, one of the most commonly used drugs in the United States, dates back to our earliest ancestors. Archaeologists have found that wine and beer were used by most primitive people. Milhorn (1994) implied that the use of breweries to make alcoholic beverages can be traced back 6000 years to ancient Egypt and Babylonia. However, Doweiko (1996) asserted that alcoholic beverages, particularly beer, was in common use around the year 8000 BC, nearly 10,000 years ago. Although the exact nature of their original discovery remains open to speculation, historical evidence suggests that alcoholic beverages have been around for thousands of years. Alcohol, therefore, is considered to be the oldest intoxicating drug ingested by man (Landry,
During those primitive years, the use and sometimes misuse of alcohol was often associated with the worship of gods and demons. Dionysus, (whose name was later changed to Bacchus by the Romans) one of the most powerful Greek Gods, celebrated the love of wine. Festivals and holidays associated with Bacchus were often celebrated with the drinking of wine (Fishman, 1986; Gold, 1988; and Schnoll, 1992). Because alcoholic beverages were considered a gift from the gods, excessive use of alcohol was a major part of this celebration. Persons who loved to drink or "inebriates" were looked upon as "lovers of wine." Since ancient times, beer and wine have been used in religious services, both as a salute to the gods and as a sacred drink from which man could receive "godly" powers (Siegel et al., 1994).

**Alcoholism in Colonial America**

In Colonial America the view of alcohol as a beneficial gift from God prevailed. Alcoholic beverages were regarded as a gift from God. Excessive use of alcohol was not permitted. Because of the precarious health situation (antibiotics were not available at the time), colonists firmly believed that alcoholic beverages had great medicinal and spiritual value (Okello, 1988). Alcohol was considered a medicinal healer for the sick, a tonic for the healthy, an
uplifter for the saddened, and a required fare for the celebrants (Fishman, 1986; Siegel et al., 1994). In addition to its medicinal and spiritual value, alcoholic beverages were believed to have nutritional value. Okello (1988) stated that alcoholic beverages were used at meal time instead of water because water was considered unsafe to drink. Berger (1992) summed up the role of alcoholic beverages during the early colonial years by stating, “rum was the good creature of God...Beer, cider, rum, gin, and brandy were believed to be nutritious and healthful for body and mind, good medicine for many ailments” (p.13). At this time, the use of alcohol was limited to the purposes of celebration of births, marriages, funeral ceremonies, or for use during religious and political occasions. Because of the limitations on the well-established social standards for acceptable rates of drinking, alcohol-related problems were relatively low (Okello, 1988).

**Attitudes Toward Alcoholism Begin to Change**

Prior to the American revolution, attitudes toward alcohol began to change. This change was associated with increased problem drinking. The number of breweries and stills increased, turning out greater amounts of alcoholic beverages at decreasing prices (Fishman, 1986). Alcohol,
having previously been accorded high medicinal and spiritual value, became a powerful medium of barter for gold, spices and other commodities from the old world (Okello, 1988). Other alcoholic beverages such as liquor and beer became profit-making commodities. The use and misuse of alcohol spread across all socioeconomic groups and soon became the norm as well as the status symbol among urban workers, soldiers, and the elites (Okello, 1988). This, along with other factors, forced the government to take action against alcohol consumption.

**Efforts to Control the Use of Alcohol**

In 1619, excessive use of alcohol or "drunkenness" was punishable by law in the colony of Virginia (Fishman, 1986; Seigel et al., 1994). Penalties for breaking the law included such punishments as being whipped, placed in the stocks, fined, or forced to wear a big red "D" identifying oneself as a "drunkard" (Seigel et al., 1994). In spite of this law, the use of alcohol continued to escalate.

**Temperance Movement**

In the 1820's, a movement began in the United States to encourage temperance (minimum or moderate use of alcohol). By 1832 most of the states had at least one temperance organization operating within them. Advocates of temperance
focused on persuasion as the way to bring about moderation (Fishman, 1986). Unfortunately, this approach failed. Advocates were then forced to create regulations for the licensing of taverns and taxation of alcoholic beverages (Fishman, 1986). Over the next 20 years, the use of alcohol decreased and the temperance movement succeeded in establishing prohibition laws in 13 states.

**Prohibition**

By 1919, the United States Congress adopted the Eighteenth Amendment, which prohibited the manufacturing, importation, exportation, transportation, and sale of alcoholic beverages in the United States (Fishman, 1986; Seigel et al., 1994; and Stimmel, 1991). This amendment, however, did not prohibit the use or illegal purchase of alcoholic beverages. As a result, people began selling alcohol illegally or "bootlegging," creating vast fortunes (Fishman, 1986; Seigel et al., 1994). By 1930, pressures to end prohibition escalated. In 1933, shortly after Franklin Roosevelt became president, the Twenty-First Amendment to the Constitution was passed, making alcohol legal (Fishman, 1986; and Seigel et al., 1994). Drinking increased among women, on college campuses, among high school students, and among the armed forces. Alcohol advertisements increased as well. At this time, alcoholism was not recognize as a
medical disorder or disease.

**Alcoholism Today**

Today, the use of alcohol continues to prevail. Fishman (1986) stated that nearly every town and city in the United States has an abundance of places where alcohol can be purchased and consumed. Because of its availability, more than 175 million Americans consume alcohol (Fishman, 1986). The 1993 National Household Survey on Drug Abuse reported that approximately 103 million persons age 12 and over had used alcohol in the month prior to the interview (U.S. Dept. of Health and Human Services [HHS], 1994). This report also indicated that about 11 million Americans were heavy drinkers. Heavy alcohol use is defined as drinking five or more drinks per occasion on five or more days in the past month (U.S. Dept. of HHS, 1994).

Schnoll (1992) stated that 10 to 13 million Americans suffer from alcoholism, and one out of every ten Americans develop a serious alcohol-related problem sometime in his or her lifetime. These problems include the following: (1) liver damage, (2) brain damage, (3) hepatitis, (4) cirrhosis, (5) cancer of the mouth, (6) chronic pancreatitis, (7) enlarged kidney, and (8) heart damage.

Fetal Alcohol Syndrome (FAS), a cluster of permanent physical deformities and mental retardation that result from
drinking, is also a major problem associated with alcohol consumption. Falco (1992) stated that approximately 40,000 newborns each year are at risk of fetal alcohol syndrome. Gold (1991) and Meyer and Murray (1992) noted that there are one to three FAS babies for every 1,000 births.

In addition to the medical problems, the use and misuse of alcohol is associated with a wide range of accidents and injuries. The National Institute on Alcohol and Alcohol Abuse [NIAAA], (1991) reported that the majority of deaths of people between the ages of 5 and 34 years in the United States are due to accidents and injuries. Over one-half of these deaths are due to traffic accidents, and alcohol has been implicated in recent years in about one-half of the estimated 46,000 annual traffic deaths. Meyer and Murray (1992) stated that alcohol use is involved in nearly 100,000 deaths annually. In regard to nonfatal injuries, alcohol and other drugs are believed to be responsible for more than one half million a year (Falco, 1992).

NIAAA (1991) also reported that alcohol is a factor in approximately 30 percent of all suicides. In one study, researchers found that between 1978 and 1983, 46 percent of adolescents who took their own lives had been drinking just before committing their final act (NIAAA, 1991). Schuckit (1989) noted that there is a close relationship between suicide attempts or completions and abuse of substances, 70%
of men and 40% of women who attempt suicide have had blood alcohol concentrations that exceeded the legal limit at the time of the attempt. Social problems (e.g., divorce, child abuse, loss of employment, homelessness, marital discord, intentional violence, and various forms of psychological distress) are also related to the use and misuse of alcohol (Moos, Finney & Cronkite, 1990).

OTHER DRUGS OF ABUSE

Alcohol, however, is not the only drug consumed by man. According to the United States Drug Enforcement Administration (DEA), some 100 separate illicit substances are being abused by significant numbers of people. These substances include: narcotics, depressants, stimulants, hallucinogenic drugs, and cannabinoids (Avraham, 1988).

NARCOTICS

Narcotics, or drugs made from opium, date back to about 5000 BC in Mesopotamia. Siegel et al. (1994) stated that archaeologists found records from ancient Mesopotamia from 5000 to 4000 BCE (Before the Common Era) that refer to poppy. Opium comes from a certain type of poppy flower known as the Popover Soraniferum. In 1500 BC Egyptian physicians used narcotics as an anesthetic, and in 1200 AD narcotics were used as an intoxicant and a pain reliever in the Middle
East (Siegel et al., 1994). Narcotics were also used in the Roman Empire and from there spread to Persia, China, and India.

The term, narcotics, is derived from the word, narcosis, meaning sleep (Milhorn, 1994). In addition to inducing sleep, narcotics can also produce feelings of euphoria. Because of this dual effect, narcotics are frequently used and abused. Two of the most commonly used and abused narcotics are morphine and heroin.

**Morphine**

Morphine, the principle psychoactive ingredient of opium, was first extracted from the opium plant in 1803. Morphine comes from the word, Morpheus, meaning the god of sleep and dreams (Milhorn, 1994). In 1825, Morphine was introduced to the medical profession and prescribed as a pain reliever. During the Civil War (1861-1865) morphine was used liberally as an anesthesia and pain reliever. Because of its availability and benefits, more than 400,000 morphine addicts were created during that period (Milhorn, 1994). This epidemic became known as the “soldiers disease” (Stimmel, 1991).

**Heroin**

Heroin was derived from morphine in 1874, and
produced commercially by the Bayer Pharmaceutical Company in 1898 (Milhorn, 1994). It comes from the German word heroiisch, meaning powerful. As noted by Stimmel (1991), heroin can be smoked, snorted, or injected under the skin into a muscle or a vein. In the 1960’s, heroin gained much popularity and is currently on the rise again replacing crack as the drug of choice for the 1990’s.

**Narcotics and Their Effects**

In medicine today, narcotics are the main drugs used to treat severe pain. They are also prescribed to suppress coughs. In proper doses, when they are really needed, narcotics are safe and extremely effective (Weil & Rosen, 1983). However, frequent and excessive use of narcotics can result in a number of medical problems. These problems include: (1) Cellulitis - a superficial skin infection; (2) Thrombophlebitis - an infection of the veins; (3) Endocarditis - a heart valve infection; and (4) Hepatitis B - a viral liver infection (Milhorn, 1994). Other problems associated with the use of narcotics is their potential to cause addiction, death from accidental overdose, and the danger of contracting Human Immunodeficiency Virus (HIV), the virus that causes Acquired Immunodeficiency Syndrome (AIDS).
DEPRESSANTS

Depressants, which were introduced in the mid 1800's, are drugs that lower the energy level of the nervous system, reducing sensitivity to outside stimulation and, in high doses, inducing sleep (Beasley, 1989; and Weil & Rosen, 1983). In addition to alcohol, two of the most commonly used depressants are barbiturates and benzodiazepines.

Barbiturates

Barbiturates were synthesized in 1864 from barbituric acid, and manufactured and used in medicines in 1882 (Milhorn, 1994). During the early 1900's, barbiturates were widely prescribed for anxiety, insomnia and convulsant disorders (Landry, 1994). By the mid 1900's, barbiturates were known as the most abused drug in the United States. According to Weil and Rosen (1983), barbiturates can be grouped as either long-acting drugs because their effect lasts 12 to 24 hours (e.g., Barbital and Phenobarbital), or short-acting drugs because their effects last six or seven hours (e.g., Amytal, Nembutal, and Seconal). Because of the side effects (addiction with dangerous withdrawal symptoms such as convulsions and death), barbiturates have been largely replaced by benzodiazepines, which are more effective and have fewer side effects.
**Benzodiazepines**

Benzodiazepines were synthesized in 1955 and marketed in 1960 (Milhorn, 1994). Benzodiazepines are the most widely prescribed medications in the world for the management of anxiety and insomnia (Landry, 1994). Valium and Librium are two of the most commonly prescribed benzodiazepines. In 1971 alone, physicians wrote 50 million prescriptions for Valium and 24 million for Librium, amounting to about $200 million in sales (Milhorn, 1994). In 1985, a total of 81 million prescriptions for both Valium and Librium were filled (Milhorn, 1994). Other commonly used benzodiazepines are Xanax, Ativan, and Halcion.

**Depressants and Their Effects**

Barbiturates and benzodiazepines are not only frequently used, but also used in combination with other drugs. Because of this, the effects can be complex, producing a number of medical problems. Among these problems are: (1) hypotension; (2) respiratory arrest; (3) hypothermia; (4) stupor; (5) coma; and (6) death (Milhorn, 1994).

**STIMULANTS**

Stimulants are drugs that make people feel more alert and energetic by activating or exciting the nervous system.
(Beasley, 1989; and Weil & Rosen, 1983). In other words, stimulants promote emotional and behavioral stimulation. Stimulants were introduced around the same time as depressants in the early 1800's. Among the most commonly used stimulants in the United States are cocaine, caffeine and nicotine (Landry, 1994).

**Cocaine**

In 1859, Alfred Niemann extracted a pure substance from the plant, Erthroxylon Coca, and named it cocaine. It was considered to be of divine origin - a gift from the sun God (Milhorn, 1994). Cocaine grows alone the Andes Mountains in Bolivia and Peru and is considered to be one of the most powerful and dangerous stimulants. It is a white, powder like substance that is used in several forms in the United States: cocaine hydrochloride, freebase cocaine, and rock or crack cocaine (Milhorn, 1994).

Sigmund Freud, Father of Modern Psychiatry experimented with the use of cocaine and prescribed it to his patients for a variety of psychological disorders (Doweiko, 1996; and Milhorn, 1994). He discontinued the practice when one of his colleagues became addicted to cocaine and one of his patients died of an overdose.

At the turn of the century, Coca-Cola and several patent medicines containing cocaine were marketed.
However, in 1906, because of widespread cocaine addiction, cocaine was replaced in Coca-Cola by another stimulant, caffeine (Milhorn, 1994; and Stimmel, 1991).

In the late 1960’s and early 1970’s, cocaine use re-emerged. Its primary route of administration was intra-nasal. In the late 1970’s and early 1980’s, the use of freebase cocaine spread rapidly, and in the mid-1980’s, crack cocaine became the predominant form of cocaine abuse (Milhorn, 1994).

In 1986, the use of cocaine became quite popular among the young adult population, creating what became known as the “drug epidemic.” In the early 1990’s, the use of cocaine began tapering off, only to be replaced by heroin. In light of this decline, the manufacturing and selling of cocaine remained relatively high. Doweiko (1996) stated that 303 tons of pure cocaine are consumed annually in the United States at an estimated expense of $18 to $100 billion each year.

**The Effects of Cocaine**

Medically, cocaine is used as a topical anesthetic and as a vasoconstrictor in nasal surgery (Milhorn, 1994). By constricting blood vessels, cocaine reduces tissue swelling and makes it easier for physicians to see into the nose. Aside from this, frequent and excessive use of cocaine can
result in a number of health problems. Among these problems are: (1) nasal bleeding, (2) sinusitis, (3) difficulty swallowing, (4) chronic cough, (5) bronchitis, (6) impaired lung infection, (7) hepatitis B, (8) heart attacks, (9) irregular heart beat, and (10) death (Milhorn, 1994). Crime, violence, neonatal drug exposure and AIDS are also highly associated with cocaine use (Higgins et al., 1994).

The 1993 National Household Survey on Drug Abuse reported an estimated 1.3 million Americans age 12 and older were current cocaine users (U.S. Dept. of HHS, 1994). This figure did not differ from the 1992 estimates.

Caffeine

Caffeine, the most popular natural stimulant, is found in a number of plants throughout the world. The drug was first isolated from coffee in 1821. It is generally used to combat drowsiness, mental fatigue, and, more recently, partial treatment for migraine headaches (Landry, 1994). Caffeine can be found in coffee, tea, prescribed medications and various over-the-counter preparations.

In the 17th century when coffee was first brought to Europe, great opposition was stirred up, encouraging authorities to prohibit its use. This effort failed. Today, coffee is a thoroughly approved drug -- so approved, that many who drink it regularly are surprised to learn it is a
drug at all, let alone a powerful drug can cause dependence and illness (Weil & Rosen, 1983).

**Nicotine**

Nicotine, the predominant drug in tobacco, is the most addictive drug known. It accounts for more sickness and deaths than all other psychoactive drugs combined (Landry, 1994). Weil and Rosen (1983) stated that it is harder to break the habit of smoking cigarettes than it is to stop using heroin or alcohol.

Nicotine acts primarily on the automatic nervous system, which is the part of the nervous system that controls voluntary body processes such as heart rate. However, the effects vary among individuals and are often due to differences in dosage and tolerance. In 1985, 60 million Americans were smokers. The 1993 National Household Survey on Drug Abuse reported an estimated 50 million Americans were current smokers (U.S. Dept. of HHS, 1994). Current smokers are more likely to be heavy drinkers and illicit drug users (U.S. Dept. of HHS, 1994).

**HALUCINOGENIC**

Hallucinogenic, drugs that induce hallucinations or distort reality, have been in existence for more than 2,000 years. Native American tribes used hallucinogenic drugs,
particularly, the "sacred" mushroom (psilocybin) and the peyote cactus (mescaline), in religious ceremonies (Milhorn, 1994; and Siegel et al., 1994). Peyote Cactus, a hallucinogenic drug, is still part of religious ceremonies conducted by members of the Native-American Church (Siegel et al., 1994). In addition to the Peyote Cactus, the most frequently used hallucinogenic drug is Lysergic Acid Diethylamide (LSD).

**Lysergic Acid Diethylamide (LSD)**

Lysergic acid diethylamide (LSD), the most dangerous hallucinogenic, was developed in 1943 by Albert Hoffman at Sandoz Laboratories in Switzerland (Stimmel, 1991). LSD was derived from a substance found in a parasitic fungus that grows on rye and other grains.

From 1949 to 1954, LSD was widely studied. The United States Army tested LSD for use as a brainwashing agent and as a way of making prisoners talk more readily (Milhorn, 1994). Psychiatrists believed that its effects mimicked schizophrenia and used it in an attempt to better understand mental illness (Milhorn, 1994). In 1962, illegal use of LSD on a broad scale began in the United States.

**Hallucinogenic Drugs and Their Effects**

LSD, along with other hallucinogenic drugs, are
quite potent and capable of causing distortions in sensory perception, emotions, thinking and ego boundaries (Landry, 1994). Also, deaths from suicide and injuries are highly associated with hallucinogenic.

**CANNABINOIDS**

Cannabinoids, which date back thousands of years, were derived from the Indian hemp plant, Cannabis Sativa (Milhorn, 1994; and Siegel et al., 1994). The plant contains more than 60 cannabinoids, of which delta-9-tetrahydrocannabinol (THC) is the major psychoactive substance. The most commonly used cannabinoid is marijuana.

**Marijuana**

A reference to marijuana was made in a Chinese pharmacology treatise in 2737 BC, and a reference to its use in 2000 BC was found in India (Milhorn, 1994). An urn containing marijuana, dating back to 500 BC, was found in Germany indicating early introduction of the drug in Europe (Milhorn, 1994).

In 1545, the Spaniards introduced the hemp plant to South America. In 1611, early colonists in Virginia cultivated the plant for fibers from which cloth was made (Milhorn, 1994). By the mid-1800’s, marijuana was used in medicines believing to cure headaches, relieve pain,
stimulate appetite and help against asthma and other medical problems such as convulsive disorders, hysteria, glaucoma, and labor pains (Siegel et al., 1994; and Stimmel, 1991). Today, marijuana is often used to prevent nausea and vomiting following chemotherapy (Stimmel, 1991). It is also used to treat weight loss in AIDS patients (Schuckit, 1989).

Marijuana is the most widely used, illicit drug in America. The results from a 1990 survey by NIDA indicated that about one-third of the population has used marijuana at least once, about 10 percent used marijuana within the previous year, and about five percent used marijuana within the previous month (Landry, 1994). The 1993 National Household Survey on Drug Abuse reported an estimate of 9 million Americans age 12 and older as current users of marijuana (U.S. Dept. of HHS, 1994).

**Medical Problems Associated With the Use of Marijuana**

Marijuana is associated with the following medical problems: (1) sinusitis, (2) bronchitis, (3) decreased sperm count and mobility, (4) disruption of the menstrual cycle, and (5) pharyngitis - inflammation of the throat (Milhorn, 1994).

**Efforts to Control the Use of Illegal Drugs**

By the beginning of the 20th century, there were
no restrictions on opiates, cocaine or marijuana in the United States. These drugs were readily available from mail-order catalogues, pharmacies and grocery stores (Falco, 1992). American pharmaceutical companies and patent medicine manufactures used marijuana, cocaine, opium and their more powerful derivatives in a wide variety of products. Medical professionals and law enforcement officials soon came to the realization that the unregulated buying and selling of potentially dangerous drugs could go unchecked (Avraham, 1988). Because of this, pressures were mounted for stringent controls.

**Laws to Control the Use of Drugs**

In 1906, Congress adopted the Pure Food and Drug Act which required packages and labels on medicines to list any narcotic, cocaine, and alcohol content (Falco, 1992). Within three years, the use of patent medicines containing opiates and cocaine dropped by more than one-third. In 1914, Congress passed the Harrison Narcotic Act which required anyone who imported, manufactured, or sold narcotics and cocaine to register with the government and pay a special tax. Under the terms of this Act, physicians were still permitted to prescribe these drugs as medicine, but were forbidden to dispense any morphine or opium to people who were addicted (Avraham, 1988). Forty-four clinics throughout
the country were established by the government to help those addicted. Because of the restrictions, dope smugglers and peddlers carried on a profitable "underground" trade through Mexico and Canada (Avraham, 1988).

In July, 1987, the state's Comprehensive Drug Reform Act took effect. Under the auspices of this Act, drug offenders and users were held accountable for their actions (Gold, 1991). In other words, offenders who were likely to get caught suffered meaningful punishment.

**Other Efforts to Control the Use of Drugs**

Other efforts to control the use of drugs were implemented, but to no avail. These efforts included (1) reducing the supply, (2) reducing demand, (3) promoting treatment and rehabilitation (Stimmel, 1991), (4) implementing drug-free school and block zones, and (5) confiscating possessions from drug dealers (Gold, 1991). Thirty-nine states allow authorities to seize the cash resulting from drug sales.

Former President Ronald Reagan believed that America's drug problems resulted not only from a ready supply, but also from widespread tolerance of drug use. He advocated "zero tolerance" of all drugs and stepped up enforcement against dealers and users (Falco, 1992). However, this did not stop or reduce the spread of drug usage. In 1986, he
admitted that "all the confiscation and law enforcement in
the world will not cure this plague" (Falco, 1992, p.6).
Falco (1992) stated, "not only have we failed to reduce the
supplies of illicit drugs, we have failed to reduce the
human toll of our drug problem" (p.9).

DEFINITIONS OF ALCOHOLISM AND ADDICTION

Various definitions of alcoholism and addiction have
evolved over the years, creating a multiplicity of meanings.
For instance, the disease model defines addiction as: "a
chronic, progressive illness characterized by significant
impairment that is directly associated with persistent and
excessive use of a psychoactive substance. Impairment may
involve medical, psychological or social dysfunction"
(Milhorn, 1994, p. 105).

Gordis (1995) stated that the disease concept defines
alcoholism as an independent disorder characterized by a
craving for alcohol. In articles written by Flavin and Morse
(1991, p. 266) and Keller and Doria (1991, p. 258)
alcoholism is defined as any use of alcoholic beverages that
causes any damage to the individual or society or both.
These authors also agree that alcoholism is a pathologic
dependency on alcohol.

A joint statement by the American Society of Addiction
and the National Council on Alcoholism and Drug Dependence
(1990) defines it as follows:

Alcoholism is a primary, chronic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations. The disease is often progressive and fatal. It is characterized by continuous or periodic impaired control over drinking, preoccupation with the drug alcohol, use of alcohol despite adverse consequences, and distortions in thinking, most notably denial (Flavin & Morse, 1991, p. 267; Keller & Doria, 1991, p. 258; Doweiko, 1996, p. 4).

The definition preferred by many clinicians is that alcoholism is a primary, progressive and potentially fatal disease characterized by tolerance and physical dependence or pathological organ changes, or both (Flavin & Morse, 1991, p.267; Keller & Doria, 1991, p. 258). Doweiko (1996) stated that because alcoholism is viewed as a model for all forms of addiction, the core concepts used to define alcoholism is applicable to the term drug addiction.

**CAUSES OF ADDICTION**

The reasons people use alcohol and other drugs are unclear. Theories abound. Some researchers contend that
there is a biological or genetic predisposition to alcohol and other drug use (Maltzman & Schweiger, 1991; and Ullman & Orenstein, 1994). Other researchers suggest that sociological or environmental factors influence the use of alcohol and other drugs (Sheppard, Wright & Goodstadt, 1985; and Ullman & Orenstein, 1994). Gordis (1995) noted that a combination of genetic and environmental factors influence vulnerability to alcoholism. Pope, Smith, Wayne and Kellshew, (1994); and Tachann, Adler, Irwin and Millstein, (1994) implied that people who use alcohol and other drugs have what psychologists refer to as an addictive personality. According to Landry (1994), the onset of alcoholism is influenced by various biological, psychological and sociological factors, and once alcoholism has emerged, it will affect biological, psychological and social areas of a person's life. For this reason, alcoholism is often referred to as a biopsychosocial disease.

The Biological Theoretical Model

The biological model contends that people who become addicted are in some ways biologically or genetically different from people who do not become addicted to alcohol and other drugs. Evidence from studies on twins and adopted children of alcoholic fathers strongly suggests that genetic predisposition is a contributing factor (Cermak, 1990; Gold,
1991; Goodwin, 1982; Gordis, 1995; Milhorn, 1994; and Stimmel, 1991). Studies of alcoholism in twins have shown that if one identical twin is alcoholic, the other has about a 50% chance of also being alcoholic. If a nonidentical twin is alcoholic, the other twin has only about a 25% chance of being alcoholic (Milhorn, 1994). Dr. Donald Goodwin, chairman of psychiatry at the University of Kansas Medical School strongly believes that "some people are biologically more likely to become alcoholic than other people" (Seigel et al., 1992, p. 14). Fishman (1986) stated, "the observation that alcoholism tends to run in families does not prove that it is inherited; family members may learn to drink simply through observation and imitative behaviors" (p. 53).

A significant number of people, however, who do not have an alcoholic parent also develop alcoholism. Seigel et al. (1994) stated that alcohol consumption alone is not the cause of alcoholism; in fact, 9 out of 10 people who drink do not become alcoholics. NIAAA (1992) noted that genetic factors alone cannot account for the development of the disease; psychological and environmental factors also have an important effect.

The Psychological Theoretical Model

The psychological model proposes that certain
personality traits, or other abnormal psychological states, predispose individuals to addiction. This model also proposes that drug use is likely to stop once its cause has been effectively treated. Craig (1995) stated that drug-dependent persons are predisposed to addiction because they suffer painful affective states associated with underlying psychiatric disorders. However, studies examining personality characteristics have shown little or no difference between individuals who later become addicted to drugs and those who do not (Milhorn, 1994). Stimmel (1991) stated that addictive personality has never been clearly defined, and characteristics commonly seen in the drug dependent person are seen just as frequently in those without signs of alcohol or drug problems. Marlatt, an expert in addiction, stated, "anyone can become an alcoholic, not just those who have a genetic link to alcoholism" (Seigel et al., 1994, p.15).

**The Sociological Theoretical Model**

The sociological model suggests that substance abuse is learned from environmental influences and experiences, in much the same way that language and social customs are learned (Milhorn, 1994). Drug abuse is believed to be controlled by external, environmental stimuli (e.g., underemployment, poverty, family discord, and job or school
stress). Gordis (1995) asserted that sociocultural factors provide a framework for beliefs and attitudes about alcohol that encourage drinking and may lead to addiction. In regard to the study of twins cited previously, Stimmel (1991) noted that identical twins tend to have more social contact with each other during adulthood than do fraternal twins. This frequent contact seems to affect their drinking patterns. Fishman (1986) stated that a number of factors contribute to an individual's decision to drink or not drink on any given occasion, and the most obvious is the environment or socio-cultural influences.

**The Disease Theoretical Model**

The disease model proposes that because drug addiction is a pathological state with characteristic signs and symptoms along with a predictable course and outcome, most authorities consider it to be a disease state (Milhorn, 1994). This model considers drug addiction as involving an inter-play among three factors: (1) biological, (2) psychological, and (3) sociological. Thus, it is considered to be a biopsychosocial disease. The disease model further holds that once individuals develop the disease of drug addiction, they can never return to social drug use (Landry, 1994). Abstinence is the only effective long-term treatment of the disease.
Although no uniformly accepted theory can consistently predict drug dependency, most health professionals recognize and treat addiction based on the disease model. Seigel et al. (1991) stated that in a Gallup poll conducted in 1988, 78 percent of those surveyed strongly agreed that alcoholism is a disease, 10 percent somewhat agreed and the others were undecided.

In support of the disease model, the World Health Organization (WHO) acknowledged alcoholism as an illness in 1951. In 1956, the American Medical Association (AMA) declared alcoholism to be an illness and, in 1987, extended its declaration to all drugs of abuse (Milhorn, 1994). In 1965, the American Psychiatric Association (APA) recognized alcoholism as a disease.

THE DEVELOPMENT OF TREATMENT PROGRAMS

Since the acknowledgment of alcoholism as a disease, perceptions of alcoholics and addicts have, for the most part, changed. National organizations such as Mothers Against Drunk Drivers, Students Against Drunk Drivers, Employment Assistance Programs, and other organizations, spread throughout the United States. This change of attitude toward alcoholism by a majority of the public contributed to strong support for research funds and an increased number of treatment programs. Moreover, this acceptance of alcoholism
as a disease opened the door for alcoholics to be admitted to hospitals as patients.

**Historical Steps in the Treatment of Addiction**

In the 1930's, the federal government set up two drug treatment hospitals. The first hospital was established in Lexington, Kentucky and the second in Fort Worth, Texas (Avraham, 1988). These two hospitals were largely unsuccessful at keeping addicts from returning to drug use once they were released from the hospital.

In 1935, a historical step in the treatment of addiction took place. Bill Wilson, a stock broker and chronic alcoholic, described what he calls a "mystical experience" that resulted in his being able to stop drinking (Fishman, 1986). This experience was later shared with a friend, Dr. Bob, who was also an alcoholic. Working together the two men devised a nonprofessional self-help group known as Alcoholics Anonymous or AA (Avraham, 1988). In 1939, Bill Wilson's philosophy of treatment was published in the book entitled: *Alcoholics Anonymous*. This unprecedented book presented an entirely new approach to the treatment of all drug addictions today.

During the 1950's through the 1970's, a number of developments signaled a growing awareness of the need for new approaches to the treatment of drug addiction. Hundreds
of different treatment programs began to spring up around the country including experimental inpatient and outpatient programs. Also during this time, telephone hotlines such as 1-800 COCAINE were established to provide immediate assistance and help for addicts.

By the early 1980's, seeking treatment for alcohol and drug abuse had become an acceptable and commendable step, taken publicly by many well-known people. In 1982, former first lady Betty Ford, a recovering addict, established a treatment center in her name in Mirage, CA (Avraham, 1988).

Today, most experts recognize and support the need for drug addiction treatment. Because of this recognition, thousands of treatment programs have been established in the United States (Avraham, 1988). Stimmel (1991) stated that on October 30, 1987 approximately 600,000 people were being treated in 6,866 alcohol and drug programs nationwide (p. 45). According to a 1991 survey on alcoholism and other drug abuse treatment facilities and their patients, almost 575,000 patients were treated in 8,928 facilities in the United States (McCaul and Furst, 1994). Gold (1991) implied that there are approximately 9,000 programs in the United States serving about 600,000 addicts at any given time. Forty years ago there was only one drug treatment center in the United States (Gold, 1991). Fishman (1986) stated, "the enormous growth of alcoholism treatment facilities
throughout the country testifies to the country's raised consciousness about the dangers of alcohol" (p. 29).

**TREATMENT SETTINGS**

Treatment for addiction can take place in a variety of settings, including acute-care hospital programs, residential programs, outpatient programs and partial hospitalization programs. The required level of treatment is generally determined by evaluating the severity of the person's addiction, including psychological and physiological symptoms (Schnoll, 1992).

**Acute-Care Hospital Programs**

Acute-care hospital programs are recognized as providing the most intensive level of treatment. Such programs are often located in major medical centers and are designed to: (1) assess clients' psychological and physical states through the use of observation and diagnostic tests, (2) stabilize clients' condition, (3) provide a safe, medically approved method of withdrawal from addictive substances, (4) help clients realize the severity of their problem, (5) educate clients about the nature of addiction, and (6) encourage clients to continue treatment at other levels of care (Schnoll, 1992). Treatment is oriented toward
achieving specific recovery goals, and the typical stay in acute-care hospital programs is 3 to 30 days.

**Residential Care**

Residential care, the next level of treatment, is less intense than acute-care. Treatment is provided in a 24-hour facility that provides maximum structure for the client. The program focuses on rehabilitation which includes education and therapy. The length of stay which varies among programs ranges from 28 days to approximately 18 months of treatment. Landry (1994) stated that residential treatment is designed to mimic the natural, healthy family.

**Partial Hospitalization Programs**

Partial hospitalization programs, frequently referred to as day treatment programs, represent an intermediate level of treatment which generally provide treatment three to four hours per day, five times per week (Schnoll, 1992). Compared to programs in residential care facilities, day treatment programs are less structured. Self-help groups, educational films and seminars, individual, and family and group therapy are utilized (Schnoll, 1992).

McCaul and Furst (1994) stated that intensive outpatient treatment provided in partial hospitalization programs offers two advantages. First, it has clinical
advantages by allowing patients to practice relapse prevention and self-management skills while being in a highly structured treatment setting. Second, it has practical advantages, such as the ability to serve larger number of patients, increased schedule flexibility (e.g., offering evening programs for employed patients), and an opportunity for the patients to maintain their established roles of employee, spouse, or parent while receiving intensive treatment.

**Outpatient Care**

Outpatient facilities, treatment outside a residential setting, provide the least intense level of care. Programs range from informal follow-up to intensive psychotherapy treatment. Services typically consist of at least one weekly individual or group session, or as many as ten sessions per week (Landry, 1994; and Milhorn, 1994). Methadone maintenance, educational seminars, vocational and educational counseling, individual, family and group therapy, are provided in these sessions. Because of rising health care costs, increased emphasis is currently being placed on outpatient care (McCaul and Furst, 1994).

**THE PROCESS OF TREATMENT**

The goal of most treatment programs is to
rehabilitate or help the individual regain productivity. However, Fishman (1986) stated that the treatment goal depends on how the problem of alcoholism or addiction itself is defined. For example, if alcoholism or addiction is a disease, then the goal is total abstinence. If it is triggered by internal or external stimuli, then the goal is deconditioning, or unlearning, the habit response (Fishman, 1986). Because alcoholism is recognized as a disease, the treatment goal for most community-based programs is abstinence.

To accomplish the goal of abstinence or regain productivity, substance abusers must first be assessed and deemed appropriate for services. The assessment process can be formal (using a standardized assessment instrument) or informal (using a non-standardized assessment instrument). Because of the budgetary restraints and the need to provide outcome measures of treatment, researchers, program managers, and other health care providers are now placing more attention on formal or standardized assessment instruments, as opposed to informal or non-standardized assessment instruments.

**Formal Verses Informal Assessment Instruments**

- Unlike informal assessment, formal assessment instruments provide a number of benefits. For example,
Allen, Columbus and Fertig (1995) stated that the utilization of formal assessment instruments for evaluating program efficacy are: (1) economical in terms of cost, clinician time, and effort required to succinctly and clearly communicate with other clinical staff treating the client, (2) standardized and, therefore, permit uniformity across interviews in administering and scoring by professional staff with diverse experiences, training, and treatment philosophy, (3) more credible in terms of results, (4) more accurate and efficient in determining the treatment needs of the client, (5) more quick and valid in evaluating the severity of dependence and adverse consequences resulting from problematic drinking or drugging, (6) capable of giving patients individualized feedback based on test results, which may enhance their motivation to change and help them formulate personal goals for improvement, (7) capable of analyzing results to determine needs for additional services, and (8) responsive to a broad range of client management questions because of the large number and variety of formal techniques.

**The Assessment Process**

The assessment process generally begins with a screening, which may be done either in person or by way of telephone. The term, screening, is defined as a range of
evaluation procedures and techniques which does not enable a clinical diagnosis, but merely indicates whether there is a probability that the condition looked for is present (Winters & Zenilman, 1994). In addition to identifying individuals with alcohol and other drug abuse problems, screening sets the stage for subsequent assessment and, as warranted, interventions (Conners, 1995).

According to NIAAA (1990), there are two types of screening techniques. The first type includes self-report questionnaires and structured interviews; the second type includes clinical laboratory tests. Although some researchers and clinicians believe that information from self-reports on alcohol-related variables generally are invalid, many others believe these reports can be valid and useful in screening, assessing, and treating alcohol abusers (Conners, 1995). Because of this dichotomy, Sobell and Sobell (1995) stated that there are several factors one might consider to enhance the accuracy of self-reporting. These factors include: (1) individuals being drug free when interviewed, (2) giving individuals assurances of confidentiality, (3) conducting the interview in a clinical or research setting (versus, an interview with a probation officer), and (4) clear, understandable wording of questions.
Screening Instruments

A number of self-report questionnaires and structured interviews have been developed and advocated for use. These measurement approaches range in length from the brief four-item CAGE to the 350-item Computerized Lifestyle Assessment. Those that are recognized by experts in the field of substance abuse include: (1) Addiction Admission Scale (AAS), (2) Addiction Potential Scale (APS), (3) Alcohol Clinical Index (ACI), (4) Alcohol Use Disorders Identification Test (AUDIT), (5) CAGE, (6) Computerized Lifestyle Assessment, (7) Drug Use Screening (Revised), (8) MacAndrew Alcoholism Scale (MAC), (9) Michigan Alcoholism Screening Test (MAST), (10) Munich Alcoholism Test (MALT), (11) Self-Administered Alcoholism Screening Test (SAAST), (12) Substance Abuse Subtle Screening Inventory (SASSI), (13) TWEAK, and (14) Young Adult Alcohol Problems Screening Test (YAAPST) (Conners, 1995). Of these 14 screening instruments, those that are frequently used by clinicians are: (1) AUDIT, (2) CAGE, and (3) MAST.

The AUDIT contains a series of 10 questions: 3 questions on alcohol consumption, 4 questions on dependence symptoms, and 3 questions about alcohol-related problems (Cooney, Zweben & Fleming, 1995). It specifically addresses the drinking activity during the past year and further characterizes drinking patterns by including questions
related to the quantity and frequency of drinking (Bushsbaum, 1994). Because the AUDIT is difficult to score and takes longer than other measurements to administer, it is somewhat less attractive to the busy clinician.

The CAGE questionnaire, a mnemonic for attempts to cut down on drinking, annoyance with criticisms about drinking, guilt about drinking, and using alcohol as an eye-opener, is a four-item, yes-no alcohol, self-report screening instrument (NIAAA, 1990). The CAGE deals with the consequences of drinking, not with the quantity and frequency with which alcohol is consumed. The CAGE takes less than one minute to complete. Two positive responses are the cut-off for a positive test. Because of its simplicity and brevity, the CAGE has the greatest clinical use (Bushsbaum, 1994).

The MAST questionnaire, a relatively simple, inexpensive, and widely used alcoholism screening instrument consist of 25 face-valid questions that require a "yes" or "no" response. The MAST focuses on the consequences of problem drinking and on the subjects' own perceptions of their alcohol problems (NIAAA, 1990). Compared to the CAGE the MAST takes longer to administer (approximately ten minutes), but is generally more sensitive than the CAGE. An advantage to using the MAST is that it can be used to group people according to problem severity (Bushsbaum, 1994).
Other Screening Tools

Although screening instruments are important clinical devices, it is important to note that no "gold standard" exists for evaluating the accuracy of screening instruments. To confirm accuracy of a particular screening instrument, clinicians can compare evidence for alcoholism or drug addiction from clinical examination with screening results (NIAAA, 1990).

Clinical laboratory procedures, the second type of screening test, frequently are used to corroborate results of interviews and self-administered questionnaires. These procedures involve the use of breathalyzers, urine specimens, blood tests and, more recently, dipsticks.

Because screening instruments primarily tap information about drinking and related behaviors, relying on such minimum information is not enough to evaluate the severity of alcoholism, addiction, or both, or develop an effective plan for treatment. Donovan (1995) stated that a broad range of factors must be considered in the treatment planning process since alcohol and other drug use both affects and is affected by a number of areas of life.

Comprehensive Assessment Instrument

The goal of a comprehensive assessment of substance
abusers is to determine personal characteristics that can influence the treatment of a patient's alcohol or drug problem (NIAAA, 1991). This assessment generally includes the use of an intake assessment or data base developed and implemented by the treatment program itself, the use of a standardized assessment instrument, or both. Intake assessments developed by treatment programs usually consist of questions that are broad and, in some instances, vague. Additionally, these assessments are typically not tested to determine whether or not they are reliable or valid, and effective in measuring treatment outcome. Because of their design, the majority of these assessments are subjected to interviewer or professional bias.

Standardized assessment instruments, however, (Gay, 1992), are typically developed by experts and are, therefore, well constructed. Also, the reliability and validity of the measures are tested, and, directions for administering and interpreting standardized instruments are carefully specified, eliminating the likelihood of interviewer or professional bias (Gay, 1992).

As noted by Peterson and Sobell (1994) standardized assessment instruments serve a number of functions: (1) determining a diagnosis, (2) examining the client's life in greater detail, (3) making client more aware of other resources, (4) planning treatment and setting goals, (5)
monitoring treatment progress, (6) deciding when to end treatment, and (7) dealing with problem recurrence. Because of these functions, standardized assessment instruments that measure multidimensional factors provide a more comprehensive assessment of the clients' treatment needs. A comprehensive assessment is defined as a thorough evaluation whose purpose is to establish definitively the presence or absence of a diagnosable disorder or disease (Winters and Zenilman, 1994).

**Multidimensional Standardized Assessment Instruments**

Several standardized assessment instruments which measure multidimensional factors have been developed and are available for use. Those recognized by experts in the field and used frequently by most clinicians and other health care providers include: (1) the Individual Assessment Profile (IAP), (2) the Drug Abuse Treatment for AIDS Risk Reduction (DATAR), 3) the Alcohol Use Inventory (AUI), (4) the Chemical Dependency Assessment Profile (CDAP), (5) the Comprehensive Drinker Profile (CDP), (6) the Recovery Attitude and Treatment Evaluator (RAATE), and (7) the Addiction Severity Index (ASI) (Conners, 1995).

The IAP is a structured clinical, management, and research instrument used in drug abuse treatment programs of all types (Flynn et al., 1995). It takes approximately 50
minutes to complete and is available in a paper-and-pencil version as well as a computer-assisted version.

The IAP is designed to provide data for the multiple purposes of initially screening patients, planning client's treatment, and providing data to meet numerous reporting requirements. It consists of 121 items covering eight major domains: (1) background, (2) admission information, (3) living arrangements, (4) drug, alcohol and tobacco use, (5) illegal activities, (6) sources of support, (7) health, and (8) treatment history and mental health.

Reliability coefficients ranged from .50 to .60 or higher. Through the test-retest administration of the IAP several items were identified as having reliability coefficients below .40 (Flynn et al., 1995).

The IAP has been pilot-tested in a central intake unit as well as a methadone outpatient program with a sample of patients of various ethnic backgrounds. However, no definitive normative data are available as yet (NIDA, 1994). Currently, the IAP is being used in several studies including the Evaluation of Campus Treatment Demonstration Programs, District of Columbia Initiative, Mobile Health Services Demonstration Program and Methadone Treatment Quality Assurance System (Flynn et al., 1995).

The DATAR is a comprehensive instrument that consists of two parts: the Intake Form, a structured interview format
for administration by the intake worker or drug counselor, and the Self-Rating Form, which is self-administered by the client (NIDA, 1994). The DATAR is used primarily for improving drug abuse treatment retention rates, reducing relapse, and planning treatment.

The Intake Form includes sections on sociodemographic background, family relations, peer relations, health and psychological status, criminal involvement, and drug history (NIDA, 1994). The Self-Rating Form covers the subscales Self-Esteem, Depression, Anxiety, Antisocial Personality, Risk-Taking, Decision Making, Self-Report of Drug Use, Desire for Help, and Readiness and Motivation for Treatment (NIDA, 1994). The DATAR has been tested for both reliability and validity and proven to be satisfactory.

The AUI is a multidimensional measure that consist of 228 items and 24 scales. It can be administered in approximately 35 to 60 minutes, either as a self-report questionnaire or by computer. Scoring takes approximately five minutes.

The AUI was developed primarily as a clinical assessment tool to help clinicians decide on appropriate treatment settings, intensity of treatment, and treatment modality (Donovan, 1995). The AUI assesses four broad domains: (1) perceived benefits of drinking, (2) styles or patterns of drinking, (3) physical and psychosocial
consequences of drinking, and (4) concerns and acknowledgment of problems that reflect the individual's awareness of drinking problems and readiness to accept help for these problems (Donovan, 1995).

Good to excellent levels of internal consistency, test-retest reliability, and both concurrent and construct validity have been demonstrated with the AUI.

The CDAP is a multidimensional self-report clinical research questionnaire that consists of 232 multiple-choice, true-false, and open-ended items and 10 subscales. The CDAP takes approximately 45 minutes to administer and five minutes to score. Scoring is done by computer, which generates a three to six page narrative report.

The primary purpose of the CDAP, as noted by Donovan (1995), is to evaluate parallel dimensions of cognitive and behavioral dysfunction related to alcohol use, use of other drugs, and mixed or poly-drug abuse over a two-month period prior to entering treatment. The CDAP assesses chemical use history, patterns of use, symptoms, beliefs and expectancies, self-concept, and interpersonal relations (Donovan, 1995). Content dimensions provides measures of frequency/quantity of use, physiological symptoms, situational stressors, antisocial behavior, interpersonal skill, affective dysfunction, attitude toward treatment, and degree of life impact (Donovan, 1995).
Internal consistency range from 0.78 to 0.88 across the CDAP subscales. Also, high test-retest reliability were found following a one-week interval. Content and construct validity have been found to be good (Donovan, 1995).

The CDP is a highly structured clinical instrument that consist of 88 items. It takes approximately two hours to administer and 30 minutes to score. The CDP is designed to obtain data on the client's status at intake and follow-up in multiple domains: demographic information, drinking history, motivation, and self-efficacy. Good levels of test-retest reliability and both criterion and content validity has been demonstrated with the CDP (Donovan, 1995). Similar to the AUI, the CDP does not include a section on drugs, just alcohol.

The RAATE- Clinical Evaluator and (RAATE - Questionnaire I instruments were designed to assist in placing patients into the appropriate level of care at admission, making continued stay or transfer decisions during treatment, and documenting appropriateness of discharge (Donovan, 1995).

The RAATE-CE is a 35-item structured clinical interview measuring the following constructs: (1) resistance to treatment, (2) resistance to continuing care, (3) severity of biomedical problems, (4) severity of psychiatric and
psychological problems, and (5) social and environmental support.

The RAATE-QI is a 94-item, true-false, self-report questionnaire designed to be compatible with and assess the same five underlying dimensions as the RAATE-CE from the patient's point of view. The RAATE-QI takes approximately 30 to 45 minutes to complete. Both instruments require less than five minutes each to score.

Donovan (1995) stated that both instruments demonstrate good face and content validity. He also stated that the RAATE-CE's average interrater reliability range from 0.59 to 0.77 (n=143) and the internal consistency reliability range from 0.65 to 0.87. The RAATE-QI internal consistency reliability ranged from 0.63 to 0.78. The test-retest reliability ranged from 0.73 to 0.87.

The ASI is a 140-item assessment instrument that is both clinical and research oriented. It takes approximately 50 minutes to administer and ten minutes to score. The ASI consist of two parts: (1) identifying personal and family background characteristics and (2) questions on current status and problems (NIDA, 1993). The ASI measures seven domains: medical, employment/support, alcohol and drug use, legal status, family history, social relations, and psychiatric status. NIDA (1993) stated that the ASI is probably the most thoroughly developed and researched
instrument available for intake assessment, tracking of clients in treatment and treatment outcome evaluation.

The ASI has been tested and proven to have good to excellent results for reliability and validity. The test-retest reliability within three days of repeated measure had a coefficient of concordance which equaled .92 along with clear evidence of discriminant, concurrent and predictive validity (McLellan et al., 1980, 1985, 1992).

**Summary**

Assessment instruments measuring multidimensional factors provide a number of advantages to the clinical process. All of the instruments mentioned can be administered in two hours or less, and scored in approximately five to ten minutes. Most can be self-administered, thus decreasing the amount of time clinicians spend with each client for initial assessment. Also, the reliability and validity of the instruments are fairly good. Despite these advantages, all of the assessment instruments cited, except the IAP and the ASI, are limited in terms of providing outcome data regarding program efficacy. However, the IAP does not appear to have good test-retest reliability. Thus, the ASI seems to be the most effective, reliable, and valid instrument available to measure both clinical and research factors.
THE COST AND FUNDING OF TREATMENT

Public interest in and demand for treatment of alcoholism and drug abuse have resulted in the development of numerous programs to meet ever-increasing needs. Delivering high-quality, cost-effective health care has become a special challenge in this era of concern about health care costs (Mezochow, Miller, Seixas & Frances, 1987).

NIDA (1991) estimated the direct costs of treating alcoholism and addiction, (e.g., personal health care; treatment-related costs; expenditures for research; training costs; program administration; and crime related activities), indirect costs (e.g., morbidity and mortality) and the costs of AIDS treatment in 1985 to be a total of $44.1 billion. AIDS, an incurable disease, often is contracted through the sharing of drug needles or syringes with someone who is infected with the AIDS virus. NIAAA (1991) estimated the total economic cost of alcohol abuse and alcoholism at $70.3 billion.

With inflation in the medical care market and expenditures for crime related activities, NIDA (1991) estimated the costs for drug treatment in 1988 to be $58.3 billion. According to NIDA (1991), these cost estimates are likely to be low due to data limitations (e.g., hospital records not listing drug abuse diagnoses because of the
stigma associated with this disorder, and not including transient and military populations). Dayhoff, Pope and Huber (1992) estimated the direct and indirect cost of alcohol and drug treatment in 1988 to be $85.8 billion. Dayhoff, Pope and Huber (1992) implied that funding, supply, utilization and characteristics of the specialty treatment for alcohol related problems vary among treatment programs and, therefore, lead to differences in actual treatment costs. Falco (1992) stated that the costs of health care and lost productivity caused by alcoholism and drug addiction exceed $140 billion annually.

The Institute for Health Policy (1993) estimated the total economic costs of alcohol and drug abuse treatment in 1990 to be more than $238 billion. This include not only direct and indirect costs, but also expenditures for the cocaine epidemic that began in the late 1980's. Angell and Kassifer (1994) estimated the cost for alcohol treatment nationally to be between $100 and $130 billion, and $76 to $150 billion for drug treatment. Doweiko (1996) stated that the cost for alcohol abuse is estimated at $600 for every man, woman and child in the United States. Falco (1992) stated that the annual cost of illegal drugs, both monetary and human casualty costs, is comparable to the total cost of the ten-year Vietnam War.
Although the findings vary somewhat, they all indicate substantial economic costs. In light of the costs associated with alcohol and other drug treatment, the average health care costs for untreated alcoholics are at least 100 percent greater than those for non-alcoholics (NIAAA, 1991). In other words, treating alcoholism reduces general care costs. In a study sponsored by NIAAA involving 3,000 treated alcoholics, results indicated that alcoholism treatment was associated with statistically significant reductions in total health care costs (Mezochow et al., 1987).

To cover the cost of treatment many substance abuse treatment programs depend on federal, state, and local government grants for income. Because of cuts in this funding, increasing numbers of programs are competing for the same resources. Qualifying for continued support from established funding sources and garnering new sources of funding will require formulation of development plans that include careful monitoring and evaluation of service delivery (Center for Substance Abuse Treatment [CSAT], 1992).

EFFICACY OF SUBSTANCE ABUSE TREATMENT

Several studies have been conducted on the efficacy of substance abuse treatment. Kosten, Rounsaville, and Kleber (1987) conducted a 2.5 year follow-up study examining the
relationship of drug abstinence to other psychosocial dimensions of outcome. The study was designed to address the following questions: 1) is improvement in clients during these 2.5 years global or limited to specific areas, 2) is outcome multidimensional, 3) what is the relationship of abstinence, a traditional unidimensional outcome, to other measures of treatment success?

One-hundred fifty opiate-addicted applicants seeking treatment at the Substance Abuse Treatment Unit (SATU) of the Connecticut Mental Health Center and the Yale University Department of Psychiatry were selected as subjects for this study. The subjects were predominantly male (76%), 41% White and 27% currently married. The mean age was 28 years.

All subjects were administered the Addiction Severity Index (ASI) at admission and again at follow-up. Data were analyzed using the t test, factor analyses and analyses of covariance.

Results indicated that during the 2.5 year follow-up, subjects had substantial improvement in many areas of their lives. The area of greatest improvement was drug abuse, and the area of least improvement was alcohol abuse. Thus, the answer to the first question appears to be that improvement was global, and that improvement in drug abuse was more substantial than in the other areas (Kosten et al., 1987).
The results also indicated that the outcome appeared to be multidimensional and not strongly dependent on drug abstinence. The authors stated that a previous study conducted by McLellan et al. (1980) found that among male veterans at a six-month follow-up the seven ASI problem areas, except psychological problems, were relatively independent. Additionally, the abstinent subjects had significantly less severe problems or better outcomes than the continued abusers. However, the differences were substantial for only the drug abuse and legal problem areas. The authors concluded that overall, subjects who remained abstinent did not improve substantially more than did subjects who continued to abuse drugs and, improvement in drug abuse did not insure improvement in most other areas.

Finally, the authors concluded that the clinical implications of these findings seem to be that treatment of opioid addicts need to address multiple areas of functioning. The simple attainment of abstinence is not sufficient to insure complete psychosocial adjustment (Kosten et al. 1987).

Kosten, Rounsaville & Kleber (1987) conducted another 2.5 year follow-up study to determine (1) whether pretreatment public assistance predicted a globally poor outcome, and (2) whether methadone maintenance patients supported by public assistance showed more improvement than
those getting minimal treatment. These authors stated that a previous study conducted by McLellan et al. (1981) suggested that an inability to become self-supporting during methadone maintenance treatment may be limited to patients who are supported by public assistance before applying for treatment.

One hundred and fifty applicants seeking treatment at the Substance Abuse Treatment Unit (SATU) of the Connecticut Mental Health Center and the Yale University Department of Psychiatry in New Haven, Connecticut were selected as subjects for this study. The subjects were predominantly male (76%), 41% were White, and 27% currently married. The mean age was 28, and 51% were employed (Kosten et al. 1987).

All subjects were administered the ASI at admission and follow-up, along with the Social Adjustment Self-Report Scale, Beck Depression Inventory and Maudsley Personality Inventory. Based on the source of income 30 days prior to admission, the patients were classified into one of three groups: (1) employment, (2) public assistance, and (3) illegal activities. The division resulted in 48 employed, 46 public assistance, and 57 illegal activities.

The results from the ASI posttest indicated that substance abuse, family, legal and psychological problems significantly decreased for all three group. The public assistance group showed the greatest reductions in problem
severity for medical and family problems on the ASI. The public assistance group also showed the most improvement of the three groups on the SAS, Beck Depression Inventory, and Maudslay Personality Inventory. However, the public assistance group show relatively little change compared to the other two groups in employment and legal problems on the ASI. The criminal group show significantly more improvement in legal problems than did the other two groups. For the total sample, income from illegal activities was substantially reduced; however, income from other sources did not significantly change. Kosten et al. (1987) stated that the group with the most severe problem at intake showed significantly more improvement in that problem area.

Employment status at intake and follow-up was compared across four employment categories: (1) employed at intake and follow-up, (2) obtained job at follow-up, (3) lost job at follow-up, and (4) not employed at either assessment. Seventy-five percent of the employed group remained employed (category one). Forty-one percent of the public assistance group remained unemployed (category four), although 35% obtained a job at follow-up (category two). Thirty-five percent of the criminal group obtained a job (category two), and 30% remained unemployed (category 4). Overall, the authors concluded that pretreatment public assistance income seemed to be a limited predictor of outcome and was much
less significant as a global predictor than had been found by McLellan et al. They suggested that the two areas of employment and illegal activities be examined in more detail for specific effects for methadone maintenance treatment.

Furthermore, Kosten et al. (1987) note that in previous follow-up studies of methadone maintenance treatment the employed group was expected to have a good prognosis. The substantial improvements in most areas of this group were consistent with this expectation. The public assistance group which had previously been described in studies as having "characterlogical or institutional dependence" and little potential for improvement, were somewhat better than previous studies would suggest. Kosten et al. (1987) stated, "although public assistant patients showed the least improvement in employment and legal problems, they did not appear to have a globally poorer prognosis as noted in previous studies" (p.19). Also, the improvement by the criminal group further supports the positive impact that treatment can have on patients referred from the criminal justice system.

Finally, the authors concluded that treatment with methadone maintenance appeared to have little impact beyond detoxification in reducing unemployment and illegal income among addicts whose initial source of income was primarily public assistance.
McLellan et al. (1993) conducted a study comparing patient populations, treatment services provided, and six month outcomes of employed, insured patients referred by an EAP to four private treatment programs (two inpatient and two outpatient).

Subjects selected for this study consisted of 198 adults referred by the EAP for substance dependence treatment. The average patient was a middle class, employed, insured male. Patients were admitted following completion of detoxification or self-induced sobriety. All subjects were administered the ASI at admission to treatment and again at six-months post discharge. The Treatment Services Review (TSR), which measures both the services that are provided within the program as well as those that are offered through referral, was administered on a weekly basis during the course of treatment.

Results of this study indicated significant and pervasive improvements were shown in the total sample at follow-up. Fifty-nine percent were abstinent from alcohol and 84% were abstinent from all drugs at the follow-up interval. Additionally, 77% of patients were employed, only 11% received welfare, 12% required re-treatment for substance abuse, and 8% required re-treatment for medical or psychiatric disorders by the six-month follow-up (McLellan et al., 1993). There were also significant differences among
the programs in levels of improvement and six-month outcomes. The inpatient programs provided significantly more alcohol, drug, and medical services or sessions than the outpatient programs. The amount of treatment services provided in the employment, family, and psychiatric areas was much lower for all programs and not different between the inpatient and outpatient settings. McLellan et al. (1993) stated that the differences in efficacy were related to the differences in the nature and amount of treatment services provided.

Hoffman, Ninonuevo, Mozey and Luxenberg (1987) conducted a study comparing court-referred Driving While Intoxicated (DWI) offenders with other alcoholics in substance abuse treatment. The purpose of this study according to the authors, was to use multidimensional measures to describe the DWI population in treatment and to evaluate the impact of the intervention.

Data for this study were derived from CATOR (Chemical Abuse-Addiction Treatment Outcome Registry), a multi-facility patient registry system designed to monitor patient characteristics at intake and post treatment (Hoffman et al., 1987).

Subjects for this study consisted of 543 DWI offenders and 827 non-DWI offenders. All subjects received treatment in an outpatient setting based on the Minnesota Model. The
Minnesota Model consist of the first four to five steps of AA, individual, family and group counseling. The goal was total abstinence.

Results indicated that DWI clients were more likely to be single (41 versus 22%) and slightly younger (22% under 25 years) than non-DWI clients. DWI offenders were also more likely to be living with their parents rather than with a spouse or by themselves, and likely to be employed (80%), as compared to other outpatients (72%). In addition to alcohol consumption, marijuana, stimulants, and cocaine were the most frequently used substances for both patient groups.

Results also indicated that DWI patients completed treatment (90 versus 80%), and were less likely to leave against the advice of staff (4% versus 13%). During the first six months following treatment, the DWI group reported a total abstinence rate of 78% compared with 81% for the non-DWI group. In both groups 50% reported at least weekly attendance in AA, and 25% reported no attendance. In addition, the arrest rate for the non-DWI cases (3.4%) was slightly higher than for the DWI group (2.1%). Of the non-DWI patients who were arrested, four were arrested for a DWI offense post treatment, and five were arrested for misdemeanors not related to substance use. Hoffman et al. (1987) concluded that the majority of court-referred individuals are likely to complete outpatient treatment.
Lehman, Meyers, Corty and Thompson (1994) investigated the severity of comorbid psychoactive substance-use disorders among a group of clients with confirmed current independent axis I mental disorders, in comparison with the severity of substance-use disorders among two patient groups.

All participants were administered the Structured Clinical Interview Diagnostic (SCID) and the (ASI). The SCID is a diagnostic instrument that provides a variety of potential indicators for the severity of a substance-use disorder, including the total number of DSM-III-R criterion signs or symptoms of a substance-use disorder, the interviewer's rating of severity for the client's current substance-use disorder, and the proportion of time in the past five years during which substance use was a problem (Lehman et al., 1994). Based on the results of the SCID, clients were placed in one of three groups: 1) a current mental disorder plus current psychoactive substance-use disorder; 2) a current psychoactive substance-use disorder-induced organic mental syndrome plus a current psychoactive substance-use disorder and no history of a mental disorder; and 3) a current psychoactive substance-use disorder only, and no history of a mental disorder.

Group one clients had more psychiatric syndromes including schizophrenic disorders, bipolar disorders, major
depression, and anxiety disorders. Also the primary drug of choice for this group included alcohol (69.4%), followed by cannabis (27.0%) and cocaine (22.5%). Psychoactive syndromes found among group two included major depression and bipolar disorders. Alcohol was also the primary drug of choice (54.6%) for this group, followed by cocaine (50.7%) and opiates (37.0%). Group three had a lower rate of personality disorders. Alcohol was the primary drug of choice (55.0%) for this group, followed by opiates (42.5%) and cocaine (43.5%).

A total of 167 of the 223 clients in this study met the criteria for a lifetime DSM-III-R alcohol disorder, including 83% in group one, 67% in group two, and 68% in group three. Nearly all met the criteria for dependence rather than abuse. Among the participants meeting the criteria for an alcohol disorder, there were no significant differences across the three groups for nearly all indicators of severity of alcohol disorder. These indicators included ASI alcohol-severity ratings, ASI legal composite scores, prior history of delirium tremens, prior history of treatment for alcohol problems, amount of money spent during the preceding month on alcohol, and number of days on which alcohol was consumed during the past 30 days (Lehman et al. 1994).
Results indicated that group-one clients revealed less severity in the ASI drug-use indicators and had fewer DSM-III-R drug-use disorder signs or symptoms (based on the SCID), as compared to the patients in groups two and three. In other words, clients who were more likely to use "entry level" substances (Group one), alcohol and cannabis, rather than the more hard-core street drugs, had, by multiple indicators, less severe drug problems compared to the other two groups. However, they still suffered considerable substance-related morbidity, meeting criteria for DSM-II-R drug dependence. Results further indicated that the less severe substance disorders may be more responsive to treatment (Lehman et al., 1994).

In a study conducted by Rounsaville, Dolinsky, Babor and Meyer (1987) using the Diagnostic Interview Schedule (DIS) and the Minnesota Multiphasic Personality Inventory (MMPI) assessment instruments to investigate the psychopathology as a predictor of treatment outcome in alcoholics, results indicated that men with no additional DSM-III (now DSM-IV) diagnoses other than alcohol had better treatment outcomes than men with additional DSM-III diagnoses. Major depression and antisocial personality disorders were associated with poorer outcomes. For women, the best alcohol-related treatment outcome was found in the group with major depression. Women with no additional
DSM-III disorders had generally poorer alcohol-related outcomes according to the authors.

Stimmel (1991) stated that the time spent in treatment is significantly related to treatment outcomes. For instance, in the Treatment Outcome Prospective Study (TOPS) which followed 11,000 drug-dependent people in 41 programs in 10 cities who entered treatment during the years of 1979-1981, results indicated that treatment was effective for up to five years after a single treatment episode, regardless of the treatment program used. Subjects were followed one month after starting treatment and three months intervals during treatment. Stimmel (1991) concluded that the time spent in treatment was the single most important contributing factor to recovery.

Duckert (1993) compared data from two different studies of problem drinkers who had been in inpatient and outpatient treatment. The inpatient group was assessed as having more serious alcohol problems than the outpatient group. Because of the seriousness of their problems, it was assumed that abstinence would be chosen as the treatment goal for the inpatient group. It was also expected that they would be more successful in achieving abstinence rather than reduced consumption, whereas the outpatient group was assumed more often to choose and to achieve reduced consumption (Duckert, 1993). The outpatient group, however, was expected to have
better outcome in the long run than the inpatient group. (Duckert, 1993).

Methodological differences occurred between the projects, which made the follow-up procedures differ somewhat. For instance, the inpatient study was conducted during the years 1979-1984, and the outpatient study was done during the years 1983-1986 (Duckert, 1993). Because of these differences, the possibility of direct comparisons was restricted.

A total of 180 subjects was selected for this study, 88 persons from the inpatient program and 92 from the outpatient clinic. The length of stay at the inpatient program was 3 to 5 weeks, and the treatment modality used was based on the social learning theory. In the outpatient clinic, a comparison was made between two types of therapeutic intervention: short-term group therapy and individual counseling. Both were based on the social learning theory. All participants were allowed to make their own choices of treatment goals, whether it was abstinence or reduced consumption.

Both samples completed the Severity of Alcohol Dependency Questionnaire (SADQ). The outpatient sample also completed the Short Michigan Alcoholism Screening Test (SMAST). After completion of treatment, the inpatient sample was followed up by means of personal interviews every 12
months for a period of 3 1/2 years. The outpatient sample was followed by means of personal interviews every six months for a period of 21 months. Both samples were interviewed four times in all.

At admittance, 25% of the outpatient sample and 44% of the inpatient sample had stated a goal of abstinence at the beginning of treatment. During the various follow-up periods, the actual rate of abstinence varied between 6% and 16% in the outpatient group and between 6% and 12% in the inpatient. Very few reported to have been consistently abstinent throughout the whole observation period (Duckert, 1993). Thus, using abstinence as the only criterion for success would not be very useful. However, in both samples the majority significantly reduced their consumption. Duckert (1993) stated that certain changes in drinking behavior, namely reduction in heavy drinking combined with less frequent drinking, were the strongest predictive factors for both samples.

Alterman, Bedrick, Howden and Maany (1994) studied the attrition rates among patients seeking substance abuse treatment. These researchers implemented an "Orientation Group" which met one hour, three days a week. New patients were assigned to the group while they awaited entry into the day treatment program. It was hypothesized that such a group might reduce the rate of attrition and increase the
proportion of patients who entered and completed the day treatment program.

Subjects selected for this study were those patients who had their intakes in the six months prior to the institution of the orientation group (WL) and those who had their intakes in the six months following the introduction of the group (OG). There were 138 patients in the WL group and 128 in the OG. All but 10 were either primarily alcohol-or cocaine-dependent. All were male. The ASI was administered to all subjects as part of their comprehensive intake evaluation.

Results indicated that significantly more clients in the WL condition (79.7%) than in the OG condition (68.5%) entered the day treatment program. However, slightly fewer subjects in the WL condition (50.0%) completed the day treatment program than OG subjects (58.6%) who had completed orientation. Results also indicated that those treated under the OG condition had significantly higher interviewer severity ratings in the ASI drug and family and social problem scales than clients in the WL condition.

The severity of clients' addictions did not seem to have a significant effect on whether or not patients remained in treatment. Also, the replacement of the waiting list approach with a three day per week, one-hour-long orientation group did not appear to have improved the
retention of patients in treatment (Alterman et al., 1994). These authors stated, "in our population of patients, getting into treatment sooner does not affect attrition from treatment" (p.330).

Higgins et al. (1994) assessed whether incentives improved treatment outcome in ambulatory cocaine-dependent clients. The incentives included vouchers which were exchangeable for retail items. Forty subjects were recruited by advertisements in local newspapers, public service announcements on television and radio, notices mailed to professionals, and posters located throughout the local community. Individuals had to be 18 years of age or older, meet DSM-III-R diagnostic criteria for active cocaine dependence, and have used cocaine within the past 30 days for inclusion (Higgins et al., 1994). Subjects were randomly assigned to behavioral treatment with or without an added incentive program.

At intake all subjects were administered the ASI, the Psychoactive Substance Abuse Disorder (PSAD) sections of the DSM-II-R checklist, and questionnaires about demographics and history of drug use. Treatment duration for both groups was 24 weeks; the initial 12 weeks representing the primary treatment period, and the second 12 weeks an aftercare period.
Results were analyzed using either two-sample t tests or Wilcoxon Rank Sum tests for continuous variables, Chi Square tests for nominal variables and analysis of variance (ANOVA). Seventy-five percent of clients in the group with vouchers completed 24 weeks of treatment versus 40% in the group without vouchers. In regard to treatment retention, 90% in the voucher group versus 65% in the non-voucher group completed 12 weeks of treatment, and 75% in the voucher group versus 40% in the non-voucher group completed 24 weeks. Also, the two groups did not differ significantly on any of the ASI composite scores prior to treatment. At the end of treatment, significant decreases from pretreatment scores were observed in both treatment groups on the ASI Family and Social scale, Alcohol and drug scales. On the Psychiatric scale scores decreased significantly from pretreatment levels in the voucher group, but not in the non-voucher group.

Higgins et al. (1994) concluded that incentives delivered contingent on submitting cocaine-free urine specimens significantly improve treatment outcome in ambulatory cocaine-dependent clients. Moreover, these authors concluded that clients with poor and good prognoses, based on early in-treatment cocaine use, benefit from the systematic delivery of positive consequences for cocaine independence. Finally, although not confirmed, these authors
suggested that patients with poor prognosis may be especially helped by this voucher program.

Holder and Blose (1992) conducted a study examining the effects of alcoholism treatment services on health care utilization and costs for health insurance enrollees under the Federal Employees Health Benefit Program with Aetna Insurance Company. This study was the first to examine alcoholism treatment and health care costs in a large continuously enrolled treated population over a long period of time (Holder & Blose, 1992). It was also the first study to show the economic advantage of making treatment available in the early stages of alcoholism and, thus provides a rationale for identification and intervention programs to motivate alcoholics to be treated at a younger age and earlier in the course of their disease (Holder & Blose, 1992).

Claims filed by 1,697 treated alcoholics continuously enrolled with Aetna during the period from 1980 through 1983 were examined. Results indicated that in the years prior to alcoholism treatment, alcoholics incurred gradually increasing total health care costs on the average. These cost rose dramatically in the six months prior to treatment, began to decline after treatment initiation, and continued to fall during several follow-up years (Holder & Blose, 1992). Results also indicated that for alcoholics less than
45 years of age, costs eventually declined to a point comparable with the lowest pretreatment levels (Holder & Blose, 1992).

In another study involving cost-effectiveness, Hayashida et al. (1989) compared alcohol detoxification in inpatient and outpatient settings. Results indicated that there were no long-term differences in the effectiveness of inpatient and outpatient detoxification, but found that costs were approximately 10 times higher in the inpatient than in the outpatient setting. The authors concluded that outpatient detoxification may be a highly cost-effective alternative to traditional inpatient detoxification for clients who do not require immediate hospitalization.

Miller and Hester (1995) looked at 250 studies going back 10 years and found that the components of intervention used most commonly had little or no research-based validation (e.g., group therapy nor Twelve Step programs were supported by research). Also, the interventions having the most empirical support were brief intervention, social skills training, motivational enhancement and community reinforcement approaches. Miller and Hester (1995) stated, "these treatment components had the highest level of cumulative success" (p. 14). Most disconcerting was that treatment approaches that are supported by researchers are not used in typical treatment programs (Miller and
Hester, 1995).

DeJong, Willems, Schippers, and Hendriks (1995) examined the validity and reliability of the ASI in a Dutch alcoholic population. Specifically, this study was concerned with the dimensional structure, internal consistency, and distinctiveness of the subscales, as well as the concurrent validity of the Psychiatric Scale in an alcoholic inpatient population.

Subjects for this study consisted of 144 patients admitted to the diagnostic unit of the Institute for Addiction Treatment. All subjects met the DSM-III-R criteria for a diagnosis of alcohol dependence. The average age of onset of regular alcohol use was 23.8 years (SD = 8.0), and the average number of years of regular use was 12.2 (SD = 8.1). One hundred and one (70.1%) of the 144 subjects were male and 43 female (29.9%).

The ASI was administered to all of the subjects one to four weeks prior to admission. Additionally, the Symptom Checklist 90 (SCL-90), a multidimensional self-rating scale that measures the general level of psychological functioning was administered in the third week after admission.

Based on the findings of this study, the following conclusions were derived: (1) the internal consistency of the alcoholic subscale is low, (2) the internal consistency of the other subscales of the ASI in a Dutch alcoholic
inpatient population was reasonably good, (3) the validity of the ASI in this population is moderately good (the subscales can be considered as measuring independent problem areas, (4) the concurrent validity of the psychiatric problem scale is moderate, and (5) the composition of subscales derived by a bootstrapping procedure to produce acceptable internal consistencies differ significantly from those found in other populations (DeJong et al., 1995).

**Summary**

This chapter discussed the evolvement of alcohol and other drugs from the primitive years when alcohol and other drugs were used primarily for medical, spiritual and nutritional purposes to the present, where the use of alcohol and other drugs have escalated causing major problems for the American society. Also discussed were efforts to control the use of alcohol and other drugs such as, the implementation of laws, regulations and constitutional amendments, which unfortunately, have had little impact on the widespread use of alcohol and other drugs. Other efforts such as reducing the supply have also had little impact on the widespread use of alcohol and other drugs.

Additionally, the definitions of alcoholism and addiction were discussed followed by the causes of
addiction. The cause of alcoholism and addiction appears to be speculative with some researchers claiming that alcoholism and addiction is caused by genetic factors. Others claim it is caused by sociological or psychological factors. However, most agree that alcoholism and addiction is a biopsychosocial disease. In other words, biological, psychological and sociological factors contribute to the development and progression of alcoholism and addiction. Most also agree that because alcoholism and addiction is a disease, it is therefore progressive and potentially fatal, and characterized by tolerance and physical dependence.

Because alcoholism and addiction is classified as a disease, treatment is sometimes necessary to arrest or stop the progression of this disease. Treatment for alcoholics and addicts can take place in a variety of settings including: inpatient, outpatient and, more recently, day treatment, as mentioned. However, to enter a treatment program, one must be assessed to determine the appropriateness of treatment and the level of care. An assessment could range from a short screening assessment such as the CAGE, to a more extensive and comprehensive assessment such as the ASI.

In light of the array of treatment settings and the protocol for entering treatment, treatment programs are costly. In fact, millions of dollars are spent each year to
fund treatment programs for alcoholics and addicts. Because of the high cost and the need for accountability, researchers have spent the last decade investigating the effectiveness of treatment programs. Several studies were cited regarding treatment outcomes; however, none of the studies mentioned imply definitively that treatment for alcoholics and addicts is indeed effective.
CHAPTER THREE

METHODS

This chapter is divided into seven sections. The first section begins with a discussion on the design (pretest-posttest experimental design) of the study. The second section describes the selection of subjects for this study, and the third section provides a detailed description on the instruments used in this study, the ASI and the Biopsychosocial Assessment. The fourth section discusses the procedure (training of the researcher and staff members, the treatment process, interviews with the subjects and data collection) utilized in this study. The fifth section gives an overview on the time schedule, and the sixth section discusses the analysis of data. The seventh and final section provides a description on the SYMBAS TEAM Substance Abuse Treatment Program.

Design

An experimental design, the pretest-posttest control group design, was utilized in this study. This procedure involves the random assignment of subjects to two groups, the administration of a pretest and a posttest to both groups, and the treatment administered to only the experimental group (Creswell, 1994). Graphically presented, R indicates random assignment, O indicates the observation
or measure of the effects of the experimental variables on the groups, and X represents the exposure of a group to an experimental variable.

R - O - X - O
R - O ----- O

Participants who voluntarily agreed to participate in this study were randomly assigned to one of two groups, an experimental group or a control group. This assignment is symbolized by the letter "R" in the above graphic design. On the date of admission (the first Friday in each month), subjects in both groups were administered the biopsychosocial assessment instrument and, within ten days of admission, subjects in both groups were administered the ASI pre-test. This is symbolized by the letter "O" in the graphic design. Counselors assigned to subjects in the experimental group had access to both the ASI results and the intake information obtained through the use of the biopsychosocial assessment instrument to use for treatment planning. This is symbolized by the letter "X" in the graphic design. Counselors working with the subjects in the control group had access only to the biopsychosocial assessment instrument, (not the ASI) for treatment planning. At the end of treatment (90 days), both groups were re-assessed using the ASI posttest to determine what significant differences, if any, occurred between the two
sample groups. This process is symbolized by the letter "O" in the graphic design.

The combination of random assignment and the presence of a pretest and a control group serve to control for all major sources of internal validity.

Subjects

The subjects for this study were comprised of clients admitted to the Save Your Mind Body and Spirit, Takes Every Allowable Measure (SYMBAS TEAM) Substance Abuse Treatment Program, and who voluntarily agreed to participate in this study. The population was composed primarily of lower socio-economic African-American males who were medically uninsured and reside in the District of Columbia.

Individuals admitted to SYMBAS TEAM must meet the following criteria: (1) be at least 18-years-old and reside in the District of Columbia; (2) meet the DSM-IV criteria for chemical dependency; and (3) their addictions must be at a level of clinical severity that warrant outpatient services. Because the program is not equipped to disperse medication, clients with a primary diagnosis of opioid dependence are not admitted to the program. Also, clients with a severe psychiatric disorder are not admitted to the program.
Individuals may enter the program through voluntary admission, referred by the Department of Corrections or by the Central Intake Office. The criteria for admission into the program was the same criteria this researcher used to select participants for this study.

**Instruments**

The ASI is a comprehensive clinical and research instrument which consist of 140 questions. It was first developed in 1980 by Dr. A. Thomas McLellan and colleagues at the Philadelphia Veterans Administration Center, at the request of NIDA to meet the need for a multidimensional assessment instrument for substance abusers.

The ASI is easily administered by a trained staff member during a 50-minute face-to-face session. The assessment covers seven critical areas: (1) medical status, (2) employment and support status, (3) drug and alcohol use, (4) legal status, (5) family history, (6) social relations, and (7) psychiatric status.

The medical component consists of six questions relating to medical problems. The purpose of these questions is to identify the need for medical attention. Examples of questions included in this category are: (1) How many times in your life have you been hospitalized for medical problems? (2) Do you have any chronic medical problems which
continue to interfere with your life? (3) Do you receive a pension for a physical disability?

The employment and support component consists of 19 questions relating to years of education and training, sources of income, number of dependents, and work history. Examples of these questions are: (1) How many years of school or education did you complete? (2) Do you have a profession, trade or skill? (3) How long was your longest full-time job? (4) How many days were you paid for working in the past 30? These questions identify the client’s resources for developing a drug-free life and deficiencies (such as a lack of marketable skills) that could contribute to relapse.

The drug and alcohol use component consists of 22 questions covering a range of substances. Examples of these questions are: (1) How many times have you used the following drugs: heroin, cocaine, alcohol, marijuana, and other drugs in the past 30 days? (2) How many years in your lifetime have you used these drugs? (3) What substance is the major problem? (4) How many times in your life have you been treated for alcohol abuse? drug abuse? (5) How much money would you say you spent during the past 30 days on alcohol? drugs?

The legal component consists of 25 questions regarding arrests, charges, and convictions for a variety of offenses
ranging from shoplifting to homicide. Examples of these questions include: (1) Are you on probation or parole? (2) How many times in your life have you been arrested and charged with the following crimes? (3) How many of these charges resulted in convictions? (4) How many times were you incarcerated in your life? (5) Are you presently awaiting charges, trial or sentence?

The family and social relations component consists of 19 questions regarding the use of alcohol and drugs among family members, close relatives, or siblings. Examples of these questions are: (1) Do you live with anyone who has a current alcohol or drug problem? (2) How many close friends do you have? (3) Have you had significant periods in which you have experienced serious problems getting along with your parents, siblings, close friends, neighbors, or co-workers? (4) How many days in the past 30 have you had serious conflicts with your family/with other people?

The psychiatric component consists of 13 questions regarding inpatient and outpatient treatment for psychological and emotional problems. Examples of these questions are: (1) How many times have you been treated for any psychological or emotional problems? (2) Do you receive a pension for a psychiatric disability? (3) Have you had a significant period in which you have experienced serious depression? anxiety or tension? hallucinations?
trouble controlling violent behavior? attempted suicide?

The remaining 36 questions on the subscales estimate the number, extent, and duration of problem symptoms in each of the seven areas during a 30-day period preceding assessment and during a lifetime period. Clients are asked to use the rating scale from 0 to 4 (0 meaning the client is "not at all" troubled or bothered by the problem and 4 meaning the client is "extremely" troubled or bothered by the problem). The interviewer makes an independent assessment of the severity of each problem using a 10-point scale and calculates a severity rating. The scale range from 0 to 9 (0 meaning no problem exists and treatment is probably not necessary and 9 meaning an extreme problem exists and treatment is absolutely necessary). Any severity rating of six or more indicates unequivocally that treatment is needed for the problem (NIDA, 1993).

Specific questions in each of the problem areas are highlighted as critical objective items. Responses to these questions help determine the 3-point range the counselor believes to be appropriate for the client. Taking into account the client’s own rating of the severity of his or her problem, a single number from the 3-point range is selected as the level of severity. A high client rating score (3 or 4) will guide the interviewer to select the high score on the 3-point range. An intermediate score (2) will
guide the interviewer to select the intermediate value on the 3-point range, and a low score will guide the interviewer to select the lower score on the 3-point range.

The Composite Scores of the ASI. The composite scores of the ASI are derived from 140 items of the ASI. They are mathematically obtained by adding sets of interrelated items within each of the seven problem areas. For example, the composite score of the medical status is obtained by adding and dividing three ASI questions.

A. How many days have you experienced medical problems in the last 30?; Maximum value = 30; (Answer 15).

B. How troubled or bothered have you been by your medical problem in the past 30 days?; Maximum = 4 (Rating); (Answer = 3).

C. How important to you now is treatment for these medical problems?; Maximum value = 4 (Rating); (Answer = 4).

Each question according to McLellan et al. (1988), is divided by its maximum answer value and by the total number of questions in the composite. The medical composite score is calculated:

\[
\begin{align*}
(A) \quad & \frac{15}{30} + \frac{3}{4} + \frac{4}{4} = .5 + .75 = 1.0 = .750 \\
& \frac{30}{3} + \frac{4}{3} + \frac{4}{3} = .750 \\
& .750 \\
\end{align*}
\]

Reliability and Validity. The ASI was initially standardized on a group of male alcoholic veterans at a Veterans Administration Hospital in Coatesville,
Pennsylvania. It was subsequently used with a total of 181 alcoholics and addicts at three different treatment centers. Results of concurrent reliability among trained technicians averaged .89 and test-retest reliability showed that the information obtained from the ASI was consistent (.92) over a three-day interval (McLellan et al., 1985, 1992). Also, on all three occasions the ASI was found to repeatedly measure what it purported to measure: severity, intensity and duration of alcohol and drug and psycho-social problems (McLellan et al., 1985, 1992).

Stoffelmayer, Marvis and Kasim (1994) conducted a study on the longitudinal stability of the ASI and found estimates of inter-rater agreement for interviewer-derived severity scores ranging from $r = 0.74$ to $r = 0.99$. Estimates of test-retest reliability over a three-day test interval ranged from $r = 0.84$ to $r = 0.95$.

Since 1980, the ASI has been the most widely used assessment tool in the field, with high acceptance throughout the United States and 15 other countries. The instrument has been translated into nine languages.

The Biopsychosocial Assessment Instrument was developed by the District of Columbia Department of Human Services and is used as a standard instrument in all substance abuse treatment programs, funded by the District of Columbia Department of Human Services. Similar to the ASI, the
biopsychosocial assessment instrument is a structured interviewer-administered instrument which elicits data across multiple domains: demographics, socio-cultural history, alcohol and drug history, medical history, mental health history, housing needs, education history, financial history, legal history, marital status, family history, and clinical summary. It is also used for intake assessment, treatment planning and referral decisions. Unlike the ASI, the biopsychosocial assessment is not a standardized instrument and cannot be used for measuring treatment outcome. The biopsychosocial assessment takes approximately 90 minutes to complete.

**Limitations of the ASI.** The ASI is not designed to provide a diagnostic assessment of an individual. It is meant for use by trained research technicians rather than psychologists (NIDA, 1993).

**Limitations of the Biopsychosocial.** The Biopsychosocial is not a standardized assessment instrument and has not been tested for reliability and validity.

**Procedure**

After submitting a letter to the Program Director and being granted permission to conduct the proposed study, the researcher met with the counselors, social workers and program manager as a group and discussed the purpose
of the proposed study, and solicited their assistance.

Specifically, counselors, social workers and program manager were informed that a study involving the utility of the ASI in treatment planning and treatment outcome would be conducted to determine its effectiveness.

**Training the Interviewers.** The researcher attended a two-day training session (a total of 12 hours) on the utilization of the ASI. Prior to the training, the researcher viewed videotapes on the use of the ASI as recommended by its authors. The counselors who assisted this researcher on this project were also trained on the utility of the ASI.

**Treatment Process.** Participants referred to the treatment facility were screened by the Central Intake Office. If appropriate, the participants were given a letter highlighting the date and time to appear at the treatment facility for orientation. The orientation process occurred on the first Friday of each month at three different times: 8:30 a.m., 2:00 p.m., and 7:00 p.m.

Participants were instructed to arrive 30 minutes prior to their scheduled orientation time and show an identification card that consisted of their picture, social security number and date of birth. Once attendance was confirmed, participants were divided into four equal groups and seated in one of four group rooms. Four of the six
counselors were assigned to one of the four groups where the orientation process took place. The contract social workers along with other staff members of the SYMBAS TEAM assisted each of the four counselors during the orientation process. The researcher was also present during the orientations, and discussed the purpose of the proposed study. Volunteers were solicited during the orientation process. Approximately 50 percent of the individuals who attended the orientations agreed to participate in this study.

The orientation process involved a brief history on the program; how it was developed and funded, the rules and regulations of the program, the roles and expectations of the staff, and the expectations of the participants. The process also involved the completion of paperwork (e.g., release forms, consent forms, and other pertinent documents required by the referring agency). At the end of the orientation process, participants met with either a counselor or a social worker individually in a private room at the facility to complete the biopsychosocial assessment. Participants were then assigned a primary counselor who began the treatment process.

The treatment process consisted of didactic and process groups along with individual and family therapy. All participants were required to complete the didactic and process groups and meet with their primary counselor at
least once per week. Participants were also required to
attend AA support groups four times per week. Other services
such as wholistic medicine and acupuncture were optional.

The Interviews and Data Collection. Within ten days of
the treatment process, the researcher contacted the
participants (by letter, telephone, or personal contact) who
voluntarily agreed to participate in the study, and
scheduled a time to meet with them individually in a private
room at the treatment facility. At the time of the scheduled
meeting, the researcher discussed again the purpose of the
study and addressed any questions or concerns participants
might have had. The researcher also read out loud and
discussed with each participant the Inform Consent Form.
After giving each participant an opportunity to read the
informed consent form, the participants and the researcher
signed the form. Each participant was informed by the
researcher that at any time during the interview he or she
changed his or her mind, or felt uncomfortable and wished to
terminate the interview, he or she was free to withdraw the
consent.

Participants were administered the ASI by the
researcher and assigned randomly to one of two groups, an
experimental group or a control group. The ASI composite
scores taken at this point served as the pretest condition
observation. This was the baseline data to which later
comparisons were made.

Using a weekly calendar and the program's attendance roster, the researcher monitored the participant's attendance in the program. Ten days prior to completion of the program, participants were contacted by telephone, letter or physical contact, and scheduled an appointment to meet with the researcher to complete the ASI posttest. The scores on the ASI pre- and posttests were analyzed using descriptive statistics and the Student t test. Additionally, the researcher met with each of the counselors individually who participated in the study to gather information on their perceptions on the use of the ASI.

**Time Schedule**

October 1996 - The ASI pretest was administered to 25 subjects.

November 1996 - The ASI pretest was administered to 25 subjects.

December 1996 - The ASI pretest was administered to 20 subjects.

January 1997 - The ASI posttest was administered to 20 subjects.

February 1997 - The ASI posttest was administered to 20 subjects.
March, 1997 - The ASI posttest was administered to 16 subjects.

March 1997 - April 1997 - Data was analyze and summarized.

**Data Analysis**

Data was analyzed using the software package: Statistical Package for Social Sciences (SPSS) and a number of statistical procedures such as, descriptive statistics and the Student t test statistic.

Descriptive statistics such as measures of central tendency (mean, median and mode) and measures of variability (e.g., range and standard deviation) were used to describe or summarize the data.

The Student t test, a parametric statistic was used to determine whether or not two means were significantly different at a selected probability level.

Additionally, a four-item questionnaire and individual interviews with each of the six counselors were implemented to gather information on their perceptions on the use of the ASI.

**DESCRIPTION OF THE SYMBAS TEAM**

**SUBSTANCE ABUSE TREATMENT PROGRAM**

... Save Your Mind, Body and Spirit - Takes Every Allowable Measure (SYMBAS TEAM) is a 90-day substance abuse outpatient
treatment program located in Ward Eight of the District of Columbia. SYMBAS TEAM opened in October 1995, after receiving a five-year grant from the Addiction Prevention and Recovery Administration (APRA), a non-profit agency governed by the District of Columbia Department of Human Services.

The program is designed to assist addicts and alcoholics achieve a drug free lifestyle and develop personal, family, and community resources to maintain that lifestyle. This process occurs in three phases: (1) assessment and diagnosis, (2) basic and reinforcement treatment, and (3) pre-aftercare.

Phase I: assessment and diagnostic procedures focus on gathering the following information: (1) alcohol and drug history, (2) physical history, (3) psychological history, and (4) social history.

Phase II: basic and reinforcement treatment focus on the following objectives: (1) to develop and begin to implement with the client an individual treatment plan (ITP) with weekly treatment objectives and measures, (2) to begin establishing a therapeutic relationship with the client, and providing at least one hour of individual counseling per week to each client, (3) to increase the client's awareness of the deleterious effects of substance abuse by providing at least two hours per week of drug health education group
therapy to each client, (4) to introduce each client to the Twelve Step philosophy of recovery from addiction, and (5) provide periodic urine screenings.

During this phase of treatment, clients are placed on a contingency contract agreeing to attend and participate in the various activities (e.g., individual counseling, educational groups, group therapy, family counseling, random urine screens and motivational activities). Clients also agree to attend and document attendance at AA/NA meetings or other equivalent programs.

Phase III: pre-aftercare - clients develop an aftercare plan which is reviewed by the primary therapist and shared verbally with peers. If the plan is realistic and manageable, a referral is made to the Assumption Aftercare Facility located in Washington D.C., where the client continues to receive treatment services for his or her addiction. If the plan is not realistic and manageable, clients remain in the program until an acceptable plan is developed.

All clients must meet the criteria of each phase in order to move through the program. Each criteria or activity is supported by credits. Credits have been pre-assigned to be earned for completion of each treatment activity. A total of 270 credits must be earned to complete the program.
The treatment facility operates six days a week, 12 hours a day. Activities are conducted between 10:00 a.m., and 10:00 p.m., Monday through Friday. The activities on Saturdays are geared to families and/or significant others.

SYMBAS TEAM is comprised of 16 staff members: a program director, a program manager, an administrative assistant, a wholistic physician, a clinical psychologist, a licensed acupuncturist, a quality control officer, six counselors and three contract social workers. Four of the six counselors are college graduates with an average of eight years experience in the field of substance abuse, and two counselors are high school graduates with an average of seven years experience in both mental health and substance abuse treatment. Two of the six counselors are certified as addictions counselors by the District of Columbia Board for Professional Alcohol and Drug Counselors, and the other four counselors are currently working towards certification. The contract social workers are all licensed (LCSW) by the District of Columbia.
CHAPTER FOUR
RESULTS

Introduction

This chapter presents the analyses of data gathered with the use of the ASI to assess the effectiveness of treatment outcomes with 56 addicts and alcoholics in the District of Columbia. Initially, this study began with 70 subjects who voluntarily agreed to participate; however, four of the subjects relapsed and were extended in treatment beyond the 90-days, eight chose to discontinue their treatment by failing to appear for individual and group sessions, and two were re-arrested on drug related charges. The information is presented in four parts.

The first section describes the characteristics (e.g., referral source, race, gender, marital status, years of education, employment status, age, medical status, primary and secondary drug usage and psychological issues) of the subjects in the experimental and control groups. Data was analyzed using descriptive statistics.

The second section pertains to the first research question discussed in Chapter One regarding the use of the ASI in conjunction with the biopsychosocial assessment instrument. The Student t test was used to compare the differences between the mean scores on the ASI pre- and
posttests with the subjects in the experimental and control groups.

The third section pertains to the second research question of this study, and examines differences between the pre- and posttests mean scores of the seven variables measured by the ASI. A paired t test statistic was used to compare the differences between the mean scores of the seven variables of the two sample groups.

The fourth section pertains to the third research question, which examines the counselors' perceptions of the ASI. A questionnaire followed by an interview was utilized to address this question.

**Profile of the Sample**

Table 1 provides detailed information on the demographic characteristics of the subjects in the experimental and control groups. Prior to treatment, subjects in the experimental group were, in many aspects, similar to the subjects in the control group. For instance, the majority of the subjects in the experimental and control groups were referred by the Department of Corrections. The majority of the subjects in both groups were also African American. Most of the subjects in both groups were not married, had graduated from high school, and were unemployed.
Table 1
Demographic Characteristics of Subjects in the Experimental Group and Control Group

<table>
<thead>
<tr>
<th></th>
<th>Exp. Group (n=26)</th>
<th>Control Group (n=30)</th>
<th>Total (n=56)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Referral Source</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dept. of Corrections</td>
<td>21</td>
<td>81</td>
<td>23</td>
</tr>
<tr>
<td>self</td>
<td>4</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Central Intake Office</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afro-Amer.</td>
<td>24</td>
<td>92</td>
<td>28</td>
</tr>
<tr>
<td>Caucasian</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Native Amer.</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Alaskan Native</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>62*</td>
<td>26</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>36*</td>
<td>4</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never Married</td>
<td>10</td>
<td>39*</td>
<td>17</td>
</tr>
<tr>
<td>Separated</td>
<td>6</td>
<td>23*</td>
<td>5</td>
</tr>
<tr>
<td>Married</td>
<td>3</td>
<td>12*</td>
<td>4</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
<td>15*</td>
<td>3</td>
</tr>
<tr>
<td>Widowed</td>
<td>3</td>
<td>12*</td>
<td>1</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Graduate</td>
<td>13</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td>High School Dropout</td>
<td>11</td>
<td>42</td>
<td>10</td>
</tr>
<tr>
<td>&lt; 2-years of Coll.</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B.A./B.S. Degree</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>11</td>
<td>42</td>
<td>15</td>
</tr>
<tr>
<td>Employed</td>
<td>10</td>
<td>39</td>
<td>12</td>
</tr>
<tr>
<td>Public Assist./Social</td>
<td>5</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td>Age (means)</td>
<td>37</td>
<td></td>
<td>37</td>
</tr>
</tbody>
</table>

* Totals may not equal 100 due to rounding off
The differences between the two groups occurred in the gender category. Although subjects were randomly assigned to both groups, the number of females in the experimental group was more than double the number of females in the control group. Finally, the mean age was the same for the subjects in the experimental and control groups.

This clinical sample is similar to the demographic similarities noted in previous studies on substance abuse. For instance, Brown, Alterman, Rutherford, Cacciola and Zaballero (1993) and Nelson-Zlupko, Kauffman and Dore (1995) found that males were more likely to engage in criminal activity than females, thus more likely to be involved with the Department of Corrections. Also, males typically represent a much higher proportion of the substance abuse treatment clientele (Nelson-Zlupko, Kauffman and Dore, 1995).

According to the National Household Survey on Drug Abuse (1991), African Americans exhibit a higher prevalence of drug use compared to other racial or ethnic groups (U.S. Dept. of HHS, 1993). The survey also noted that a high prevalence of drug use was highly associated with lower educational skills and unemployment. Those completing college and those who were employed had the lowest prevalence of drug use (U.S. Dept. of HHS, 1993).
The researcher concludes that the typical profile of the subjects who participated in this study appears to be one who is an African American male and not married, has lower educational skills (generally a high school graduate), is unemployed, and involved in the criminal justice system.

Table 2 provides additional information on the characteristics of the subjects in the experimental and control group, as gathered from the ASI. Based on the findings of the present study, both groups were again quite similar. For instance, the majority of the subjects in the experimental and control groups had no current medical or psychological problem. Also, most of the subjects in both groups were users of cocaine, followed by alcohol, and had had previous treatment for alcohol and other drug abuse.

This clinical sample is also similar to the profiles of subjects from previous studies. Brown, Alterman, Rutherford, Cacciola and Zaballero (1993) found that African Americans and men had significantly more years of regular heroin, cocaine and marijuana use, and more past and recent involvement with alcohol, compared to other racial or ethnic groups and women. The 1991 National Household Survey reported that African Americans use cocaine/crack more frequently than Hispanics and Whites (U.S. Dept. of HHS, 1993).
Table 2

Characteristics of the Subjects in the Experimental and Control Group Within the Seven Variables

<table>
<thead>
<tr>
<th></th>
<th>Exp. Group (n=26)</th>
<th>Control Group (n=30)</th>
<th>Total (N=56)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Current Medical Problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>69</td>
<td>21</td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>31</td>
<td>9</td>
</tr>
<tr>
<td>Psychological Problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>25</td>
<td>96*</td>
<td>28</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>3*</td>
<td>2</td>
</tr>
<tr>
<td>Currently Taking Medications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>23</td>
<td>88</td>
<td>25</td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Primary Drug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td>11</td>
<td>42</td>
<td>18</td>
</tr>
<tr>
<td>Alcohol</td>
<td>8</td>
<td>31</td>
<td>10</td>
</tr>
<tr>
<td>Marijuana</td>
<td>4</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Other (PCP)</td>
<td>3</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Secondary Drug:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>8</td>
<td>31*</td>
<td>11</td>
</tr>
<tr>
<td>Heroin</td>
<td>6</td>
<td>23*</td>
<td>5</td>
</tr>
<tr>
<td>Marijuana</td>
<td>5</td>
<td>20*</td>
<td>3</td>
</tr>
<tr>
<td>Cocaine</td>
<td>0</td>
<td>0*</td>
<td>2</td>
</tr>
<tr>
<td>Other (PCP)</td>
<td>0</td>
<td>0*</td>
<td>4</td>
</tr>
<tr>
<td>None</td>
<td>7</td>
<td>27*</td>
<td>5</td>
</tr>
<tr>
<td>Previous Treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>16</td>
<td>62</td>
<td>19</td>
</tr>
<tr>
<td>No</td>
<td>10</td>
<td>38</td>
<td>11</td>
</tr>
</tbody>
</table>

*Totals may not equal 100 due to rounding off
Although medical and psychological problems are likely to be prevalent among most drug users, this was not the case in the present study. The subjects in the experimental and control groups both had a relatively low severity ratings for the medical and psychological variables.

**Comparison of the Pre- and Posttests Mean Scores Between the Two Sample Groups**

Tables 3 (Pretest) and 4 (Posttest) provide information about the differences between the mean scores on the pre- and posttests of the subjects in the two sample groups, using the Student t test. The results suggest that the pre-and posttests mean scores between the subjects in the experimental and control groups were not statistically significantly different at the .05 confidence level. The differences between the pre-and posttests mean scores of the subjects in both sample groups may be attributed to the treatment modality, the counselors' clinical skills, or both.
<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medical Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>1.58</td>
<td>2.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>1.67</td>
<td>2.85</td>
<td>-.12</td>
<td>.901</td>
</tr>
<tr>
<td><strong>Employment Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>4.08</td>
<td>3.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>4.50</td>
<td>3.50</td>
<td>-.44</td>
<td>.660</td>
</tr>
<tr>
<td><strong>Alcohol Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>2.38</td>
<td>3.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>3.30</td>
<td>3.22</td>
<td>-.108</td>
<td>.283</td>
</tr>
<tr>
<td><strong>Drug Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>5.73</td>
<td>2.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>5.37</td>
<td>2.65</td>
<td>.49</td>
<td>.623</td>
</tr>
<tr>
<td><strong>Legal Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>3.08</td>
<td>3.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>2.47</td>
<td>2.96</td>
<td>.72</td>
<td>.475</td>
</tr>
<tr>
<td><strong>Family/Social Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>1.81</td>
<td>2.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>2.13</td>
<td>2.66</td>
<td>-.47</td>
<td>.641</td>
</tr>
<tr>
<td><strong>Psychiatric Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>1.08</td>
<td>1.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>.77</td>
<td>1.61</td>
<td>.67</td>
<td>.506</td>
</tr>
<tr>
<td>Variable</td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>t-Value</td>
<td>P</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>---------</td>
<td>-----</td>
</tr>
<tr>
<td>Medical Problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>.96</td>
<td>1.87</td>
<td>-.61</td>
<td>.546</td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>1.30</td>
<td>2.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment Problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>2.15</td>
<td>2.60</td>
<td>.28</td>
<td>.783</td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>1.97</td>
<td>2.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol Problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>.46</td>
<td>.86</td>
<td>-.68</td>
<td>.500</td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>.70</td>
<td>1.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug Problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>.88</td>
<td>1.68</td>
<td>.26</td>
<td>.794</td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>.77</td>
<td>1.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal Problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>1.50</td>
<td>1.86</td>
<td>1.49</td>
<td>.142</td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>.87</td>
<td>1.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family/Social Problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>.81</td>
<td>1.33</td>
<td>.82</td>
<td>.414</td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>.53</td>
<td>1.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatric Problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>26</td>
<td>.50</td>
<td>1.39</td>
<td>-.83</td>
<td>.413</td>
</tr>
<tr>
<td>Control Group</td>
<td>30</td>
<td>.83</td>
<td>1.60</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Differences Between the Pre- and Posttest Mean Scores of the Seven Variables in the Experimental and Control Group

Tables 5 (Experimental Group) and 6 (Control Group) provide information on the differences between the pre- and posttests mean scores of the seven variables measured by the ASI. A paired t test statistic was used to compare the mean score differences between the pre- and posttests on each of the seven variables of both sample groups.

Results indicated that although there were no significant differences between the two sample groups, there were significant reductions between the pre- and posttests mean scores among several of the variables measured by the ASI. In the experimental group, significant reductions between the pre- and posttests mean scores were present among six of the seven variables. The drug variable showed the greatest reduction between the pre- and posttests, followed by the alcohol, employment, legal, family and social relations, and the psychiatric variables. In the control group significant reductions were present among five of the seven variables. Similar to the experimental group, the drug variable showed the greatest reduction between the pre- and posttests mean scores, followed by the alcohol, employment, family and social relations and legal variables.

Based on these findings, the answer to the second research question suggests that the drug variable, followed
Table 5

**Mean Differences Between the Pre- and Posttest Scores of the Seven Variables in the Experimental Group**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t-value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Medical</td>
<td>26</td>
<td>.62</td>
<td>2.21</td>
<td>1.42</td>
<td>.168</td>
</tr>
<tr>
<td>Post-Medical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Employment</td>
<td>26</td>
<td>1.92</td>
<td>3.16</td>
<td>3.10*</td>
<td>.005</td>
</tr>
<tr>
<td>Post-employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Alcohol</td>
<td>26</td>
<td>1.92</td>
<td>3.09</td>
<td>3.17*</td>
<td>.004</td>
</tr>
<tr>
<td>Post-Alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Drug</td>
<td>26</td>
<td>4.85</td>
<td>2.87</td>
<td>8.62*</td>
<td>.000</td>
</tr>
<tr>
<td>Post-Drug</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Legal</td>
<td>26</td>
<td>1.58</td>
<td>2.70</td>
<td>2.98</td>
<td>.006</td>
</tr>
<tr>
<td>Post-Legal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Family/Soc.</td>
<td>26</td>
<td>1.04</td>
<td>1.84</td>
<td>2.87*</td>
<td>.008</td>
</tr>
<tr>
<td>Post-Family/Soc</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Psych.</td>
<td>26</td>
<td>.58</td>
<td>1.03</td>
<td>2.87*</td>
<td>.008</td>
</tr>
<tr>
<td>Post-Psych.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at p < .05, two-tailed.
Table 6

**Mean Differences Between the Pre- and Posttest Scores of the Seven Variables in the Control Group**

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t-Value</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Medical</td>
<td>30</td>
<td>.37</td>
<td>1.47</td>
<td>1.36</td>
<td>.183</td>
</tr>
<tr>
<td>Post-Medical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Employment</td>
<td>30</td>
<td>2.53</td>
<td>3.28</td>
<td>4.23*</td>
<td>.000</td>
</tr>
<tr>
<td>Post-Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Alcohol</td>
<td>30</td>
<td>2.60</td>
<td>2.87</td>
<td>4.96*</td>
<td>.000</td>
</tr>
<tr>
<td>Post-Alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Drug</td>
<td>30</td>
<td>4.60</td>
<td>2.84</td>
<td>8.88*</td>
<td>.000</td>
</tr>
<tr>
<td>Post-Drug</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Legal</td>
<td>30</td>
<td>1.60</td>
<td>2.81</td>
<td>3.12*</td>
<td>.004</td>
</tr>
<tr>
<td>Post-Legal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Family/Soc.</td>
<td>30</td>
<td>1.60</td>
<td>2.46</td>
<td>3.57*</td>
<td>.001</td>
</tr>
<tr>
<td>Post-Family/Soc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Psych</td>
<td>30</td>
<td>-.07</td>
<td>1.89</td>
<td>-.19</td>
<td>.848</td>
</tr>
<tr>
<td>Post-Psych</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at p < .05, two-tailed.
by the alcohol variable, revealed the most significant difference between the two sample groups. The medical and psychiatric variables revealed the least significant difference among the subjects in the experimental and control groups. Thus, the treatment program appears to be effective in reducing the drug and alcohol problems, employment problems, legal problems, and family and social relations problems for these addicts and alcoholics.

**Counselors' Perceptions of the ASI**

The thoughts and feelings of the counselors were explored to determine whether or not the ASI was useful in treatment planning. Using a short self-developed, four-item questionnaire along with one-on-one interviews with each of the counselors who participated in this study, the following questions were addressed:

1. What are your thoughts and feelings regarding the use of the ASI for treatment planning and treatment outcome? The responses to this question were quite positive with all of the six counselors stating that the ASI was much better to used as a guideline for treatment planning than the biopsychosocial assessment instrument. One of the counselors stated, “Seeing the problems identified by the client graphically displayed on the ASI without having to flip through pages of data on the biopsychosocial assessment was
not only helpful for developing treatment plans, but also less time consuming.” Another counselor stated that the ASI did not appear to be as “threatening” to the client as the biopsychosocial assessment. The biopsychosocial assessment is quite extensive, consisting of a number of questions that are very personal; and, asking a client too many personal questions at the beginning of treatment could have a negative impact the client-counselor relationship, or the ability to establish rapport with the client.

Another counselor stated, “On one hand the ASI was for the most part pretty helpful in identifying the client’s problems. On the other hand, the ASI seemed to have identified a number of problems of significant severity that required more than 90-days of treatment.”

2. What did you like the most about the ASI?

The responses to this question were favorable with all of the six counselors stating that the ASI required less time to administer and interpret, than the biopsychosocial assessment. One counselor stated that she is a “visual learner” and, therefore, seeing the graphs and knowing which of the problems were of greater severity than others was extremely helpful. Another counselor stated that the ASI was quite helpful in comparing the client’s responses with the biopsychosocial assessment for consistency.

3. What did you like the least about the ASI?
Two of the six counselors responded to this question by stating that the ASI did not capture more detailed or specific questions than the biopsychosocial assessment. For instance, the ASI does not ask whether or not the client is currently employed. Instead, the ASI is concerned only with whether or not the client is having problems with employment. One counselor stated, "Clients could be employed and still have problems with the work environment or co-workers. Asking the client whether or not he or she had problems in the last 30 days or in his or her lifetime with employment, is too broad." The other four counselors had no comment on what they liked least about the ASI.

4. If you had to choose between the ASI and biopsychosocial assessment instruments, which one of the two instruments would be your primary choice?

All of the counselors implied that the ASI would be preferred over the biopsychosocial because of the format (writing a number or a letter in the box on the ASI as opposed to writing detailed answers on the biopsychosocial, and seeing the results graphically displayed), and the amount of time required to administer and score the assessment.
CHAPTER FIVE
DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Discussion

The efficacy of substance abuse treatment has been an issue of concern among the American society for many years. Researchers have conducted numerous studies to help alleviate the uncertainty of treatment efficacy; however, the findings of these studies vary. This variation appears to be attributed to the type of studies conducted. Many of the studies on treatment efficacy have focused on single variables as opposed to multidimensional factors that are likely to influence relapse or recovery. Moreover, many of the studies conducted have not included the use of a standardized assessment instrument to validate the findings.

In this experimental design study the ASI, a multidimensional standardized assessment instrument, was used to address three research questions regarding: (1) the use of the ASI in conjunction with the biopsychosocial assessment; (2) significant differences between the mean scores of the pre- and posttests of the seven variables measured by the ASI; and (3) the perceptions of the counselors who used the ASI.

A total of 70 subjects from a treatment facility in Washington, D.C. were involved in this study during the
initial stages. However, only 56 of the 70 subjects completed the 90-day treatment program. The remaining 14 subjects were lost due to noncompliance and re-incarceration.

Data was analyzed using descriptive statistics and the Student t test statistic. The results of the study revealed that both sample groups were demographically similar prior to treatment, which is consistent with the findings from previous studies regarding referral source, racial or ethnic differences, marital status, years of education, employment status, preferred drug of choice, and medical and psychological issues.

More males than females participated in the present study. Goodwin (1982) and Kosten, Gawin, Kosten and Rounsaville (1993) noted that the prevalence of substance abuse in treatment programs and in the community is higher in men than in women. Although men typically represent a much higher proportion of the clientele, Nelson-Zlupko, Kauffman and Dore (1993) found that women tend to abuse licit drugs, such as alcohol and prescription medication more frequently than men. Women also tend to be “closet drinkers” or drink within the confines of their homes. Men, on the other hand, prefer illicit substances such as cocaine, marijuana, and heroin. They also prefer to drink and drug at bars and other public places.
Because of the public visibility, men are more likely than women to engage in behaviors that warrant criminal charges. These charges could range from being drunk in public to driving while intoxicated to assault and battery. Depending on the nature of the charges, the completion of a substance abuse treatment program is imposed as an alternative to incarceration, in some cases.

In the present study, majority of the subjects had been referred for alcohol and drug treatment by the Department of Corrections, thus supporting the research of Nelson-Zlupko, Kauffman and Dore (1995) who found that men, in general, tend to engage in acts of criminal behavior compared to women.

The results also revealed that the counselors who had access to the results of the ASI and the biopsychosocial assessment for treatment planning did not differ significantly from the counselors who has access only to the results of the biopsychosocial assessment. It is possible that the lack of significant differences could have been attributed to the similarities between the two instruments. Both the ASI and the biopsychosocial assessment are comprehensive instruments which measures multiple domains. The differences between the two instruments are: (1) psychometric properties, (2) structure, and (3) the amount of time required to administer the instrument. It is also
possible that the counselors did not use the ASI for treatment planning.

Although the ASI did not appear to improve treatment outcomes between two sample groups, clients appeared to have improved in both groups. The drug variable revealed the greatest reduction in both sample groups. These findings were consistent with the results from studies conducted by Higgins et al. (1994); Kosten, Rounsaville and Kleber (1987); and McLellan et al. (1993), which were cited previously.

The differences between the present study and previous studies occurred with the alcohol variable. In the present study, the alcohol variable ranked second to the drug variable as having the most significant reduction between the pre- and posttest mean scores. Kosten, Rounsaville, and Kleber (1987) found the alcohol variable as having the least significant reduction.

The medical and psychiatric variables revealed the least significant difference. It is possible that because the treatment facility is located in the same building as medical services for the residents in the District of Columbia, that clients had access to services that were geographically convenient and affordable. It is also possible that the low severity ratings on the psychiatric variable could be attributed to the careful screening of the
clients seeking admission into the program. As mentioned, clients with a severe psychiatric rating are not allowed into the program.

The improvement in both groups could be attributed to several factors: (1) Many of the subjects had had previous treatment for alcohol and other drugs and were aware of the treatment process, and what they needed to do to abstain from the use of alcohol and other drugs; (2) The majority of the subjects had a low severity rating on the psychiatric variable. As noted earlier, Gottheil, McLellan and Druley (1992) found that clients with less severe impairment showed greater improvement than those with moderate to severe impairment; and (3) The treatment program may have been effective in meeting the needs of the alcoholics and addicts through education, process groups, individual and family therapy, acupuncture and wholistic medicine.

Finally, in light of the outcomes, all of the counselors who participated in this study preferred the ASI over the biopsychosocial assessment for treatment planning because of its structure, and the amount of time required to administer and score the instrument.

**Conclusion**

Numerous studies have been conducted on treatment efficacy; however, the findings of these studies have not
suggested definitively that substance abuse treatment is indeed effective for alcoholics and addicts. Unfortunately, the results of the present study shed no new light on the efficacy of treatment. However, the findings were consistent with previous studies on treatment efficacy. More importantly, the findings supported what research has repeatedly shown: Treatment for alcohol and other drugs is better than no treatment at all.

**Implications and Recommendations**
1. Since this researcher was not actively involved in the treatment planning process with the client and the primary counselor, it is not certain whether or not the primary counselor actually used the ASI or the biopsychosocial assessment for treatment planning. Some counselors tend to have their own agenda regarding the client's plan for treatment, as opposed to the client's agenda. Because of the uncertainty regarding the use of the ASI and biopsychosocial assessment, this researcher suggest that future studies include a more active role of the researcher to insure that the instruments are actually being used.
2. Although there were no significant differences between the two sample groups, it is possible that the ASI and biopsychosocial assessment are more similar than different from each other. The researcher suggest that future studies
consider administering the biopsychosocial assessment independently followed by the ASI (by the same investigator) to determine if the two instruments are measuring the same thing.

3. Since the clients appeared to have improved in both groups, the researcher suggest that a follow-up study be conducted to determine if the improvement is attributed to the program or other variables.

4. Since only half of the participants admitted to the treatment program volunteered to participate in this study, it is important to assess the other clients who did not volunteer to participate to determine if they were representative of the population.

5. The program offered additional services such as acupuncture and wholistic medicine which are optional to the clients. The researcher did not monitor the clients who participated in either the acupuncture treatment or the wholistic medicine modality. It may be worth noting whether or not these treatment modalities had an impact on treatment outcomes.

6. Since the duration of this study was relatively short (90-days), replication of this study with a similar population and a longer treatment period is recommended.

7. Since the major focus of this study was to determine whether or not the ASI improved treatment outcomes,
replicating the study with three groups of subjects: (1) subjects who receive the ASI and biopsychosocial assessment, (2) subjects who receive only the biopsychosocial, and (3) subjects who receive neither the ASI nor the biopsychosocial is also recommended.

8. The responses to the ASI and biopsychosocial were based on the subject's self report. Although it is difficult to determine the validity and reliability of self reports, it may be important to verify the subject's responses through the use of clinical laboratory reports and the collaboration with referral sources, to obtain a more accurate or honest response.

9. Research shows that there is little collaboration between researchers who are concern only with data and computers and not with clients, and counselors who are concern only with clients (Woody, McLellan, Alterman & O'Brien, 1991). Further studies on treatment outcomes might influence treatment practice while encouraging collaboration between researchers and counselors.
REFERENCES


in alcoholism treatment research. *Journal of Studies on Alcohol.* (12), 119-123.


APPENDIX A

INFORMED CONSENT FORM
INFORMED CONSENT FORM

1. I __________________ understand that I have the right to revoke this authorization and stop the assessment interview at any time.

2. I understand that the information discussed in this interview is strictly confidential. Confidentiality will be established and maintained because your name will never be connected with the responses by anyone other than the researcher. As soon as these data are analyzed the list of names of all respondents will be destroyed.

3. I understand that the research will involve two assessment interviews which will take place here at SYMBAS TEAM. The first interview will take place within ten days of my admission into the program and the second interview will take place 90 days following my admission date. During the interviews each participant will be administered the Addiction Severity Index (ASI) which consists of 140 questions. These questions cover seven major areas of life functioning (medical, employment, alcohol, drug, legal, family/social and psychiatric) that are likely to influence relapse and recovery. The interview takes approximately 50 minutes to complete.

4. I understand that the information obtained from the interview is for the sole purpose of research and evaluation of the program.

5. I hereby grant the researcher permission to contact me by telephone or confidential letter any time during this research project (not to extend beyond May, 1997).

I HEREBY VOLUNTEER TO PARTICIPATE IN THE RESEARCH PROJECT CONDUCTED BY OCTAVIA MADISON, VIRGINIA TECH GRADUATE STUDENT, IN COLLABORATION WITH SYMBAS TEAM.

CLIENT SIGNATURE ___________________ DATE ________

INTERVIEWER’S SIGNATURE _______________ DATE ________
APPENDIX B

ADDICTION SEVERITY INDEX
### MEDICAL STATUS

1. How many times in your life have you been hospitalized for medical problems? (Include o.d.'s, d.t.'s, exclude detox.)

2. How long ago was your last hospitalization for a physical problem? YRS. MOS.

3. Do you have any chronic medical problems which continue to interfere with your life?
   - 0 - No
   - 1 - Yes
   Specify

4. Are you taking any prescribed medication on a regular basis for a physical problem?
   - 0 - No
   - 1 - Yes

5. Do you receive a pension for a physical disability? (Exclude psychiatric disability.)
   - 0 - No
   - 1 - Yes

6. How many days have you experienced medical problems in the past 30?

7. How troubled or bothered have you been by these medical problems in the past 30 days?

8. How important is treatment for these medical problems to you now?

### INTERVIEWER SEVERITY RATING

9. How would you rate the patient's need for medical treatment?

### CONFIDENCE RATINGS

10. Patient's misrepresentation?
    - 0 - No
    - 1 - Yes

11. Patient's inability to understand?
    - 0 - No
    - 1 - Yes

### EMPLOYMENT/SUPPORT STATUS

1. Education completed (GED = 12 years)
   - YRS. MOS.

2. Training or technical education completed
   - MOS.

3. Do you have a profession, trade or skill?
   - 0 - No
   - 1 - Yes
   Specify

4. Do you have a valid driver's license?
   - 0 - No
   - 1 - Yes

5. Do you have an automobile available for use? (Answer No if no valid driver's license.)
   - 0 - No
   - 1 - Yes

6. How long was your longest full-time job? YRS. MOS.

7. Usual (or last) occupation.
   (Specify in detail)

8. Does someone contribute to your support in any way?
   - 0 - No
   - 1 - Yes

9. ONLY IF ITEM 8 IS YES: Does this constitute the majority of your support?
   - 0 - No
   - 1 - Yes

10. Usual employment pattern, past 3 years
    - 1 - full time (40 hrs/wk)
    - 2 - part time (reg. hrs)
    - 3 - part time (irreg., day work)
    - 4 - student
    - 5 - service
    - 6 - retired/disability
    - 7 - unemployed
    - 8 - in controlled environment

11. How many days were you paid for working in the past 30?
    (Include "under the table" work.)

12. Employment (net income)

13. Unemployment compensation

14. DPA

15. Pension, benefits or social security

16. Mzia, family or friends (Money for personal expenses).

17. Illegal

18. How many people depend on you for the majority of their food, shelter, etc.?

19. How many days have you experienced employment problems in the past 30?

20. How troubled or bothered have you been by these employment problems in the past 30 days?

21. How important is the patient's need for employment counseling?

22. How would you rate the patient's need for employment counseling?

### INTERVIEWER SEVERITY RATING

23. Patient's misrepresentation?
    - 0 - No
    - 1 - Yes

24. Patient's inability to understand?
    - 0 - No
    - 1 - Yes

Confidence Ratings

Is the above information significantly distorted by:

- Patient's misrepresentation?
  - 0 - No
  - 1 - Yes

- Patient's inability to understand?
  - 0 - No
  - 1 - Yes
### Drug/Alcohol Use

<table>
<thead>
<tr>
<th>Substance</th>
<th>Days</th>
<th>Yrs.</th>
<th>Rt of adm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol - Any use at all</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol - To Intoxication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methadone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other opiates/analgesics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barbiturates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other sed/hyp/tranq.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphetamines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannabis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hallucinogens</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalants</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** See manual for representative examples for each drug class

*Route of Administration:* 1 = Oral, 2 = Nasal, 3 = Smoking, 4 = Non IV inj., 5 = IV inj.

**For questions 23 & 24 please ask patient to use the patient's rating scale.**

14. Which substance is the major problem? Please code as above or 00. No problem, 15. Alcohol & Drug (Ours include MA, AA). How many days have you been treated in an outpatient setting for alcohol or drugs in the past 30 days?

15. How long was your last period of voluntary abstinence from this major substance? (00 = never abstained)

16. How many months ago did this abstinence end? (00 = still abstinent)

17. How many times have you:

- Had alcohol d.t.'s
- Overdosed on drugs

18. How many times in your life have you been treated for:

- Alcohol Abuse
- Drug Abuse

19. How many of these were detox only?

- Alcohol
- Drug

20. How much would you say you spent during the past 30 days on:

- Alcohol
- Drugs

**Confidence Ratings**

Is the above information significantly distorted by:

26. Patient's misrepresentation?

27. Patient's inability to understand?

155
**LEGAL STATUS**

1. Was this admission prompted or suggested by the criminal justice system (judge, probation/pardon officer, etc.)?
   - 0: No  1: Yes

2. Are you on probation or parole?
   - 0: No  1: Yes

3. How many times in your life have you been treated and charged with the following:
   - a) shoplifting/vandalism
   - b) murder/probation violations
   - c) arson
   - d) rape
   - e) other

4. How many of these charges resulted in convictions?

5. How many times in your life have you been charged with the following:
   - a) Disorderly conduct, vagrancy, public intoxication
   - b) Driving while intoxicated
   - c) Major driving violations (reckless driving, speeding, no license, etc.)
   - d) How many months were you incarcerated in your life?
   - e) How long was your last incarceration?
   - f) What was it for? (Use code 1-14, 16-18. If multiple charges, code most severe)
   - g) Are you presently awaiting charges, trial or sentence?
   - h) What for? (If multiple charges, use most severe)
   - i) How many days in the past 30 were you detained or incarcerated?

   **Comments**

**FAMILY HISTORY**

Have any of your relatives had what you would call a significant drinking, drug use or psych problem, one that did or should have led to treatment?

<table>
<thead>
<tr>
<th>Mother's Side</th>
<th>Father's Side</th>
<th>Siblings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grandmother</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grandfather</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aunt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncle</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Directions:** Place "0" in relative category where the answer is clearly no for all relatives in that category. "1" where the answer is clearly yes for all relatives within the category. "X" where the answer is uncertain or "I don't know," and "N" where there never was a relative from that category. Code most problematic relative in cases of multiple members per category.
**FAMILY SOCIAL RELATIONSHIPS**

Direction for 9A-18: Place "0" in relative category where the answer is clearly no for all relatives or the category: "1" where the answer is clearly yes for any relative within the category: "X" where the answer is uncertain or "I don't know" and "N" where there never was a relative from that category.

9A. Would you say you have had close, long lasting, personal relationships with any of the following people in your life:

- Mother
- Father
- Brothers/Sisters
- Sexual Partner/Spouse
- Children
- Friends

Have you had significant periods in which you have experienced serious problems getting along with:

- Mother
- Father
- Brothers/Sisters
- Sexual Partner/Spouse
- Children
- Other significant family
- Close friends
- Neighbors
- Co-Workers

18A. Emotionally (make you feel bad through harsh words)?
18B. Physically (cause you physical harm)?
18C. Sexually (force sexual advances or sexual acts)?

19. How many days in the past 30 have you had serious conflicts:
   - A with your family?
   - B with other people (excluding family)

FOR QUESTIONS 20-23 PLEASE ASK PATIENT TO USE THE PATIENT'S RATING SCALE

How troubled or bothered have you been in the past 30 days by these:

- 20 Family problems
- 21 Social problems

How important to you now is treatment or counseling for these:

- 22 Family problems
- 23 Social problems

INTERVIEWER SEVERITY RATING

How would you rate the patient's need for family and/or social counseling?

CONFIDENCE RATINGS

Is the above information significantly distorted by:

- 24 Patient's misrepresentation?
- 25 Patient's inability to understand?

Comments
PSYCHIATRIC STATUS

1. How many times have you been treated for any psychological or emotional problems?
   In a hospital
   As an Out. or Priv. patient

2. Do you receive any form of psychiatric disability?
   0: No 1: Yes

Have you had a significant period, that was not a direct result of drug/alcohol use, in which you have:
   0: No 1: Yes

PAST 30 IN DAYS YOUR LIFE

1. Experienced serious depression
2. Experienced serious anxiety or tension
3. Experienced hallucinations
4. Experienced trouble understanding, concentrating or remembering
5. Experienced trouble controlling violent behavior
6. Experienced serious thoughts of suicide
7. Attempted suicide
8. Been prescribed medication for any psychological/emotional problem

INTERVIEWER SEVERITY RATING

4. How would you rate the patient's need for psychiatric/psychological treatment?

CONFIDENCE RATINGS

Is the above information significantly distorted by:

5. Patient's misrepresentation?
   0: No 1: Yes
6. Patient's inability to understand?
   0: No 1: Yes

THE FOLLOWING ITEMS ARE TO BE COMPLETED BY THE INTERVIEWER

At the time of the interview, is patient:

0: No 1: Yes

1. Obviously depressed/withdrawn
2. Obviously hostile
3. Obviously anxious/nervous
4. Having trouble with reality testing, thought disorders, paranoid thinking
5. Having trouble comprehending, concentrating, remembering
6. Having suicidal thoughts

Comments
APPENDIX C

BIOPSYCHOSOCIAL ASSESSMENT INSTRUMENT
BIO-PSYCHOSOCIAL ASSESSMENT

DATE(S) ______________________ INTERVIEWER ______________________
NAME ______________________ ID# ______________________ SEX _________
SOCIAL SECURITY NUMBER ____________________________________________
ADDRESS __________________________________________________________
PHONE NUMBER (H) ______________________ (W) ______________________
RESIDES WITH (NAME) ______________________ RELATIONSHIP _________
EMERGENCY CONTACT PERSON ______________________ ______________________
RELATIONSHIP __________________________________ PHONE NUMBER ______

DATE OF ADMISSION ___ ADMISSION TYPE ___ NEW ___ READMISSION ___
TRANSFER, SOURCE ____________________________________________________

DO YOU HAVE OR NEED ANY OF THE FOLLOWING: _ BIRTH CERTIFICATE ___
SOCIAL SECURITY CARD ___ DRIVER'S LICENSE ___ NON-DRIVER ID ___
FOOD STAMPS ID ___ LIBRARY CARD ___ OTHER, SPECIFY ___

WHY DID YOU COME HERE? ____________________________________________

HOW DO YOU FEEL ABOUT BEING HERE? ________________________________

WHAT DO YOU EXPECT FROM THIS TREATMENT EXPERIENCE? ____________
______________________________________________________________

I. SOCIO-CULTURAL HISTORY
1. DATE OF BIRTH ________________________________________________
2. PLACE OF BIRTH ______________________________________________
3. ETHNICITY _____________________________________________________
4. IMMIGRATION STATUS __________________________________________
5. RELIGIOUS AFFILIATION ________________________________________
6. CHURCH/TEMPLE ATTENDANCE ___________________________________
7. ARE YOU CURRENTLY INVOLVED IN ANY RECREATION COMMUNITY ACTIVITY? ___YES ___NO: IF YES, SPECIFY TYPE/FREQUENCY ________________________________
8. DO THESE ACTIVITIES INVOLVE ALCOHOL/DRUG USE? ___YES ___NO

II. ALCOHOL/DRUG HISTORY
DRUG OF AGE LAST QUANTITY HOW FREQ. SOURCE WHERE CHOICE STARTED USE DY/WK/MO WHOM

HEROIN ________________________________ ____________________________

ALCOHOL __________________________________________________________

MARIJUANA _________________________________________________________

COCAINE __________________________________________________________
CRACK
PCP
TOBACCO
BARBITURATES
AMPHETAMINES
OTHERS, SPECIFY

2. AGE AT THE TIME OF FIRST ALCOHOL/DRUG EXPERIENCE:_
   DESCRIBE CIRCUMSTANCES ____________________________
   ____________________________

3. HAVE YOU EVER BEEN IN TREATMENT FOR AN ALCOHOL/DRUG
   PROBLEM? YES   NO; IF SO, INDICATE:
   PROGRAM NAME DATES OVERVIEW/PROGRESS TYPE
   ____________________________
   ____________________________
   ____________________________

4. EFFECTS OF ALCOHOL/DRUG USE:
   PHYSICAL/MEDICAL, DESCRIBE _______________________________________
   EATING HABITS/NUTRITIONAL: _______________________________________
   BEHAVIOR CHANGES: ________________________________________________
   MENTAL/EMOTIONAL: ________________________________________________
   RELATIONSHIP CHANGES (FAMILY/FRIENDS): __________________________
   SPIRITUAL: ________________________________________________________
   EDUCATIONAL: _____________________________________________________
   EMPLOYMENT: _____________________________________________________
   HOUSING: _________________________________________________________
5. NUMBER OF RELAPSES WITHIN THE PAST 12 MONTHS: ___
   EXPLAIN CIRCUMSTANCES:

6. LENGTH OF ABSTINENCE:

7. HAVE YOU BEEN INVOLVED IN 12-STEP MEETINGS? ___YES
   ___NO: IF YES, INDICATE: TYPE: ______________________
   WHEN: ______________________

8. DO YOU HAVE A SPONSOR? ___YES ___NO; IF NOT, WOULD
   YOU BE INTERESTED IN HAVING ONE? ___YES ___NO

III. MEDICAL HISTORY

1. HAVE YOU EXPERIENCED ANY RECENT OR CHRONIC MEDICAL
   PROBLEMS? ___YES ___NO; IF YES, DESCRIBE PROBLEM AND
   TREATMENT RECEIVED: ______________________

2. ARE YOU CURRENTLY RECEIVING MEDICAL TREATMENT?
   ___YES ___NO; IF YES, INDICATE REASON, DATE, PLACE OF NEXT
   MEDICAL APPOINTMENT: ______________________

3. ARE YOU CURRENTLY TAKING MEDICATION? ___YES ___NO;
   IF YES, INDICATE NAME, CONDITION AND DOSAGE:

4. IF APPLICABLE, NAME AND TELEPHONE NUMBER OF
   PHYSICIAN: ______________________

5. WHAT IF ANY HAS BEEN YOUR USE OF BIRTH CONTROL?

6. DO YOU REGULARLY PRACTICE "SAFE SEX?" ___YES ___NO
7. HAVE YOU BEEN TESTED FOR HIV OR OTHER SEXUALLY TRANSMITTED DISEASES? ___YES ___NO; IF YES, INDICATE DATE(S) ___________________ RESULTS(S) ___________________

8. HAVE YOU BEEN TESTED FOR TUBERCULOSIS? ___YES ___NO IF YES; INDICATE: DATE ______________ RESULTS ______________

9. HAVE YOU BEEN HOSPITALIZED? ___YES ___NO; IF YES, EXPLAIN: ______________________________________________________

10. WOULD YOU AUTHORIZE US TO COMMUNICATE WITH YOUR PHYSICIAN TO DISCUSS YOUR CURRENT TREATMENT? ___YES ___NO

III (B) FOR WOMEN ONLY

1. ARE YOU PREGNANT? ___YES ___NO; IF YES, ARE YOU RECEIVING PRENATAL CARE? ___YES ___NO; IF SO, INDICATE: WHERE: _______________ NEXT PRENATAL APPOINTMENT _____________
   EXPECTED DATE OF DELIVERY: ________________________________

2. TOTAL NUMBER OF: PREGNANCIES ___ MISCELLANEOUS ___
   ABORTIONS ___ SPONTANEOUS DELIVERIES ___ INDUCED ___
   STILLBIRTHS ___ LIVE-BIRTHS ___ PREMATURE BIRTHS ___
   INFANT DEATHS: ______________

3. DO YOU PLAN TO KEEP YOUR BABY? ___YES ___NO; IF NOT, DESCRIBE YOUR PLANS FOR THE CHILD: ____________________________
   _________________________________________________________

4. DO YOU HAVE AN ONGOING RELATIONSHIP WITH THE FATHER OF YOUR CHILD(REN)? ___YES ___NO; IF YES, DESCRIBE: _______
   __________________________________________________________________
   __________________________________________________________________

5. IF POST-PARTUM, INDICATE YOUR YOUNGEST CHILD’S DATE OF BIRTH ___________ BIRTH WEIGHT _______ SEX __
   DISPOSITION AT BIRTH _______________________________________
   LENGTH OF HOSPITAL STAY _________________________________
   CHILD’S CURRENT HEALTH STATUS ___________________________
6. IF YOUR CHILD IS CURRENTLY RECEIVING MEDICAL TREATMENT, INDICATE CONDITION, TREATMENT, PHYSICIAN/PROVIDER'S NAME AND PHONE NUMBER: ____________________________

IV. MENTAL HEALTH HISTORY

1. HAVE YOU EVER BEEN HOSPITALIZED OR RECEIVED TREATMENT FOR A MENTAL OR EMOTIONAL CONDITION? YES NO; IF YES, EXPLAIN: ____________________________

2. HAVE YOU EVER EXPERIENCED: MILD MOD. SEVERE

___ DEPRESSION
___ CRYING SPELLS
___ HOPELESSNESS
___ HELPLESSNESS
___ EASILY STARTLED
___ TENSION/NERVOUSNESS
___ TROUBLE FALLING ASLEEP
___ TROUBLE STAYING ASLEEP
___ BINGING WITH FOOD
___ WEIGHT LOSS/GAIN
___ CHANGE IN APPETITE
___ ANGER/IRRITABLE FEELING
___ VIOLENT THOUGHTS/FEELINGS
___ HOMICIDAL THOUGHTS
___ ELATION
___ DIFFICULTY CONCENTRATING
___ PANIC ATTACKS
___ NIGHTMARES

COMMENTS: ____________________________________________________________

______________________________________________________________
3. DO YOU SEE OR HEAR THINGS THAT ARE NOT THERE?  
     _____YES _____NO; IF SO, INDICATE WHAT, WHO, WHEN, HOW OFTEN:  
     ___________________________________________________________  
     ___________________________________________________________  
     ___________________________________________________________

4. HAVE YOU EVER ATTEMPTED TO KILL/HURT YOURSELF OR OTHERS?  _____YES _____NO; IF SO, WHEN, WHY:  
     ___________________________________________________________  
     ___________________________________________________________  
     ___________________________________________________________

5. DO YOU FEEL OR THINK THAT PEOPLE ARE AGAINST YOU OR "OUT TO GET YOU?"  _____YES _____NO; IF SO, EXPLAIN:  
     ___________________________________________________________  
     ___________________________________________________________  
     ___________________________________________________________

6. DO YOU/HAVE YOU EXPERIENCED ANY FEARS?  _____YES _____NO; IF SO, DESCRIBE TO WHAT, WHEN DID THEY START, SEVERITY AND IF ALCOHOL/DRUG ABUSE RELATED:  
     ___________________________________________________________  
     ___________________________________________________________  
     ___________________________________________________________

7. HOW DO YOU CONSIDER YOUR LONG TERM MEMORY (6 MONTHS OR >):  _____VERY GOOD _____GOOD _____FAIR _____POOR

8. HOW DO YOU CONSIDER YOUR SHORT TERM MEMORY (< 6 MONTHS):  _____VERY GOOD _____GOOD _____FAIR _____POOR

V. HOUSING

1. IS YOUR CURRENT HOUSING/LIVING SITUATION STABLE?  
     _____YES _____NO; IF NOT, EXPLAIN:  
     ___________________________________________________________  
     ___________________________________________________________  
     ___________________________________________________________

2. TYPE OF HOME:  _____HOMELESS _____ROOMING HOUSING/HOTEL  
     _____PRIVATE _____RENT _____PRIVATE HOUSING  
     _____SECTION 8 _____SUBSIDIZED HOUSING  
     _____SHELTER _____TRANSITIONAL/TEMPORARY HOUSING TREATMENT

3. HAVE YOU EVER BEEN EVICTED?  _____YES _____NO; IF YES,
DESCRIBE CIRCUMSTANCES: ___________________________________________
__________________________________________

4. DETAIL HOUSING HISTORY (STARTING WITH CURRENT SITUATION)
   WITH WHOM     WHEN     WHY DID YOU MOVE
   ____________________________________________
   ____________________________________________
   ____________________________________________

VI. EDUCATIONAL HISTORY
1. LAST GRADE COMPLETED:
   ___ NO SCHOOL     ___ GRADE SCHOOL     ___ SOME HIGH SCHOOL
   ___ HIGH SCHOOL GRADUATE     ___ GED     ___ SOME COLLEGE
   ___ ASSOCIATE DEGREE     ___ BACHELOR'S DEGREE
   ___ MASTER'S DEGREE     ___ DOCTORATE DEGREE
   OTHER VOCATIONAL TRAINING
   COMMENTS: ____________________________________________
   ____________________________________________

2. WHAT WAS YOUR GRADE AVERAGE IN SCHOOL? __________
   ____________________________________________

3. WERE YOU INVOLVED IN ANY SPECIAL/AFTER SCHOOL ACTIVITIES? ___ YES ___ NO; IF YES, DESCRIBE: __________
   ____________________________________________

4. DID YOU EXPERIENCE ANY LEARNING DIFFICULTIES WHILE IN SCHOOL? ___ YES ___ NO; IF YES, SPECIFY TYPE OF DIFFICULTY AND TREATMENT: ____________________________________________
   ____________________________________________

5. DID YOU HAVE ANY OTHER SCHOOL PROBLEMS (BEHAVIOR PROBLEMS, SUSPENSIONS, EXPULSIONS, ETC.)? ___ YES ___ NO; IF YES, EXPLAIN: ____________________________________________
   ____________________________________________

6. DID YOU DROP OUT OF SCHOOL? ___ YES ___ NO; IF SO, INDICATE GRADE AND CIRCUMSTANCES: ____________________________
   ____________________________________________
7. DID YOU USE DRUGS IN SCHOOL?   ___YES ___ NO; IF YES, INDICATE DRUGS USED ________________________________
QUANTITY AND FREQUENCY OF USE ________________________________
AND SOURCE ________________________________

8. ARE YOU CURRENTLY EXPERIENCING DIFFICULTIES IN READING OR WRITING?   ___YES ___ NO; IF YES, WOULD YOU CONSIDER OBTAINING A TUTOR?   ___YES ___ NO

9. ARE YOU CURRENTLY IN SCHOOL OR TRAINING?   ___YES ___ NO; IF YES, SPECIFY: ________________________________

10. TYPE OF CAREER/WORK/TRAINING YOU WOULD LIKE TO HAVE:

VII. FINANCIAL HISTORY

1. SOURCE/AMOUNT/FREQUENCY OF INCOME: ________________________________

2. DO YOU HAVE OR NEED ANY OF THE FOLLOWING?
   GENERAL PUBLIC ASSISTANCE   ___ FOOD STAMPS   ___ ADFC MEDICAID   ___ HOUSING/RENT ASSISTANCE
   ___ EMERGENCY ASSISTANCE   ___ SUPPLEMENTAL SECURITY INCOME
   ___ UNEMPLOYMENT   ___ CHILD SUPPORT
   OTHER SPECIFY: ________________________________

3. DO YOU OWE MONEY?   ___YES ___ NO; IF YES, EXPLAIN ________________________________

4. BILLS: RENT/MORTGAGE   ___ FOOD   ___ CHILD CARE
   UTILITIES: GAS   ___ ELECTRIC   ___ WATER   ___

VIII. EMPLOYMENT HISTORY

1. ARE YOU CURRENTLY EMPLOYED?   ___YES ___ NO; IF YES, INDICATE TYPE OF WORK, WHERE, SALARY AND FOR HOW LONG: ________________________________

2. HOW DO YOU FEEL ABOUT YOUR CURRENT JOB?   __________
3. ARE YOU HAVING PROBLEMS AT WORK?  ____YES  ____NO; IF YES, EXPLAIN: ____________________________________________________________  

4. PREVIOUS EMPLOYERS  POSITION   HOW LONG  REASON FOR  
   EMPLOYED   LEAVING  
   ___________________________  ___________________________  ___________________________  ___________________________  

5. HOW HAVE YOU SUPPORTED YOURSELF WHEN NOT WORKING?  
   ____________________________________________________________  

6. ARE YOU CURRENTLY SEARCHING FOR A JOB THROUGH AN  
   EMPLOYMENT OFFICE OR OTHER JOB POOL RESOURCE?  ____YES  ____NO  

7. DO YOU HAVE OR NEED A CURRENT RESUME OR 171  
   GOVERNMENT APPLICATION FORM?  ____YES  ____NO  

IX. LEGAL HISTORY  

1. HAVE YOU BEEN ARRESTED?  ____YES  ____NO  
   CHARGE   YEAR   DISPOSITION  
   ____________________________________________________________  

2. HAVE YOU BEEN INCARCERATED?  ____YES  ____NO; IF SO,  
   CHARGE   YEAR   DISPOSITION  
   ____________________________________________________________  

3. DO YOU HAVE ANY PENDING CHARGES?  ____YES  ____NO;  
   CHARGE   JURISDICTION   COURT DATE  
   ____________________________________________________________
4. WERE YOU COURT MANDATED TO DRUG/ALCOHOL TREATMENT? 
   YES    NO; IF YES, GIVE DETAILS: 

5. ARE YOU PRESENTLY UNDER PROBATION?  YES  NO
   INDICATE PROBATION/PAROLE OFFICER'S NAME 
   PHONE NUMBER 
   FREQUENCY OF CONTACT 
   CONDITIONS (URINALYSIS, JOB PLACEMENT, ETC.)

6. ARE YOU UNDER HOUSE ARREST OR WEARING A MONITOR? 
   YES  NO  EXPLAIN: 

X. MARITAL STATUS

1. MARITAL STATUS (CIRCLE ONE)
   SINGLE  ENGAGED  MARRIED  SEPARATED  DIVORCED  WIDOWED

2. NUMBER OF MARRIAGES/LIVE IN ARRANGEMENTS 

3. HOW OLD WERE YOU WHEN YOU FIRST MARRIED OR STARTED
   YOUR FIRST LIVE-IN RELATIONSHIP? 

4. IF STILL MARRIED/LIVE-IN RELATIONSHIP, HOW OLD IS
   YOUR SPOUSE/PARTNER? 

5. NUMBER OF SEPARATIONS/DIVORCES 

6. MARRIAGE/LIVE IN RELATIONSHIP OVERVIEW:
   DURATION  OVERVIEW  REASON FOR ENDING RELATIONSHIP 

7. DESCRIBE YOUR RELATIONSHIP WITH YOUR CURRENT
   SPOUSE/PARTNER? 

169
8. ARE YOU SATISFIED WITH RELATIONSHIP WITH YOUR SPOUSE/PARTNER? YES NO; IF NO, EXPLAIN: ___________________________

9. HAVE YOU EVER BEEN PHYSICALLY OR EMOTIONALLY ABUSED OR NEGLECTED IN A MARITAL/LIVE-IN RELATIONSHIP? YES NO IF YES, EXPLAIN: __________________________

10. DID YOU RECEIVE ASSISTANCE OR SUPPORT SERVICES? YES NO IF YES, DESCRIBE SERVICES RECEIVED: __________________________

11. IS YOUR SPOUSE/PARTNER CURRENTLY EMPLOYED? YES NO IF YES, TYPE OF JOB AND INCOME: __________________________

12. HAVE ANY OF YOUR SPOUSES/PARTNERS USED DRUGS/ALCOHOL? YES NO; IF YES, INDICATE SUBSTANCE(S) USED, FREQUENCY AND ATTEMPTS TO ENTER TREATMENT __________________________

13. IF APPLICABLE, HOW DID/DO YOU FEEL ABOUT SPOUSE/PARTNER ALCOHOL/DRUG PROBLEM? __________________________

14. HAVE/DO YOU USE DRUGS WITH ANY OF YOUR SPOUSES/PARTNERS? YES NO; IF YES, SPECIFY DRUGS USED: __________________________

15. DOES YOUR SPOUSE/PARTNER SUPPORT YOUR CURRENT PARTICIPATION IN TREATMENT? YES NO

✓ Executor FAMILY HISTORY (NUCLEAR)

1. DO YOU HAVE CHILDREN? YES NO

2. DID YOU USE DRUGS OR ALCOHOL DURING PREGNANCIES? YES NO; IF YES, INDICATE PREGNANCY NUMBER AND SUBSTANCES (S) USED: __________________________
3. WERE ANY OF YOUR CHILDREN BORN LOW-BIRTHWEIGHT?
   ___ YES  ___ NO

4. CHILD'S NAME  DOB  SSN  GRADE  QUALITY OF
   RELATIONSHIP
   GOOD  FAIR  POOR

   1. ___________________________ ___________________________
   2. ___________________________ ___________________________
   3. ___________________________ ___________________________
   4. ___________________________ ___________________________
   5. ___________________________ ___________________________
   6. ___________________________ ___________________________
   7. ___________________________ ___________________________
   8. ___________________________ ___________________________
   9. ___________________________ ___________________________
  10. ___________________________ ___________________________

5. GENOGRAM:
   CHILDREN  FATHER'S NAME  DRUG/ALCOHOL  FREQ.  QUAL.
   USE (Y/N TYPE) OF CONTACT

   1. ___________________________ ___________________________
   2. ___________________________ ___________________________
   3. ___________________________ ___________________________
   4. ___________________________ ___________________________
   5. ___________________________ ___________________________
   6. ___________________________ ___________________________
   7. ___________________________ ___________________________
   8. ___________________________ ___________________________
   9. ___________________________ ___________________________
  10. ___________________________ ___________________________

6. DO ANY OF YOUR CHILDREN HAVE MEDICAL OR BEHAVIOR
   PROBLEMS?  ___ YES  ___ NO; IF YES, DESCRIBE PROBLEM(S) AND
   ACTIONS TAKEN:
   _______________________________________________________
   _______________________________________________________

7. ARE YOUR CHILDREN LIVING WITH YOU?  ___ YES  ___ NO;
   IF NOT, WHO HAS THE CHILDREN? ________________________ SINCE___
   _______________________________________________________
   _______________________________________________________
   _______________________________________________________

171
8. IF CHILDREN ARE NOT LIVING WITH YOU, HOW OFTEN DO YOU VISIT OR CONTACT THEM? ______________________

9. DO YOU EXPECT TO REUNITE WITH YOUR CHILDREN? YES NO; IF SO, WHEN: ______________________

10. HOW DO YOUR CHILDREN FEEL ABOUT YOUR DRUG/ALCOHOL PROBLEM? ______________________

11. HAVE YOU BEEN OR ARE YOU INVOLVED IN A CHILD PROTECTIVE SERVICES CASE? YES NO; IF YES, EXPLAIN: ______________________

12. IS THE CPS CASE COURT INVOLVED? YES NO N/A NEXT COURT DATE: ______________________

13. IS DRUG TREATMENT PART OF THE REUNIFICATION PLAN? YES NO N/A

14. WHAT OTHERS STIPULATIONS FOR REUNIFICATION HAVE BEEN ESTABLISHED IN YOUR CASE? ______________________

15. IF APPLICABLE, INDICATE CPS WORKER'S NAME AND PHONE NUMBER: ______________________

XII. FAMILY HISTORY (ORIGIN/EXTENDED)

1. MOTHER'S NAME AGE ED/OCCUP. DRUG/ALCOHOL PROB. ______________________

2. DESCRIBE YOUR MOTHER: ______________________

172
3. DESCRIBE YOUR RELATIONSHIP WITH YOUR MOTHER: ______

4. IS YOUR MOTHER SUPPORTIVE OF YOUR CURRENT DRUG TREATMENT EFFORT? YES NO; IF NOT, EXPLAIN: ______

5. FATHER'S NAME AGE ED/OCCUP. DRUG/ALCOHOL PROB. ______

6. DESCRIBE YOUR FATHER: ______

7. DESCRIBE YOUR RELATIONSHIP WITH YOUR FATHER: ______

8. IS YOUR FATHER SUPPORTIVE OF YOUR CURRENT DRUG TREATMENT EFFORT? YES NO; IF NOT, EXPLAIN: ______

9. ARE YOUR PARENTS STILL LIVING TOGETHER? YES NO ______

10. DESCRIBE THE RELATIONSHIP BETWEEN YOUR PARENTS: ______

11. IF APPLICABLE, HOW OLD WERE YOU WHEN YOUR PARENTS SEPARATED OR DIVORCED? ______

12. IF APPLICABLE, EXPLAIN HOW YOU FEEL ABOUT YOUR PARENTS SEPARATION/DIVORCE: ______

13. IF APPLICABLE, WITH WHOM DID YOU LIVE FOLLOWING YOUR PARENTS SEPARATION/DIVORCE? MOTHER FATHER RELATIVE OTHER SPECIFY: ______

14. AT PRESENT TIME, WHICH PARENT ARE YOU CLOSEST TO? EXPLAIN: ______

15. NUMBER OF SIBLINGS: NONE BROTHERS SISTERS STEP-BROTHERS STEP-SISTERS ______
16. WHERE WERE YOU IN THE ORDER OF BIRTH? __________

17. DESCRIBE YOUR RELATIONSHIP WITH YOUR SIBLINGS:

__________________________________________________________

18. ARE YOUR BROTHERS AND SISTERS SUPPORTIVE OF YOUR CURRENT TREATMENT EFFORT? ____YES ____NO; IF NOT, EXPLAIN:

__________________________________________________________

19. FAMILY MEMBER WHO WAS A ROLE MODEL FOR YOU AS A CHILD: __________ EXPLAIN: _____________________________________________

20. DURING YOUR CHILDHOOD, WHO MADE THE DECISIONS IN YOUR FAMILY? EXPLAIN: _____________________________________________

21. DESCRIBE HOW YOU FELT GROWING UP IN YOUR FAMILY:

__________________________________________________________

22. WERE YOU PHYSICALLY, SEXUALLY OR EMOTIONALLY ABUSED AS A CHILD? ____YES ____NO; IF YES, DESCRIBE EXPERIENCE:

__________________________________________________________

23. WERE YOU PHYSICALLY OR EMOTIONALLY NEGLECTED AS A CHILD? ____YES ____NO; IF YES, DESCRIBE YOUR EXPERIENCE:

__________________________________________________________

24. DID YOU RECEIVE ASSISTANCE OR SUPPORT SERVICES TO HELP YOU DEAL WITH THIS EXPERIENCE? ____YES ____NO; IF YES, DESCRIBE SERVICES RECEIVED:

__________________________________________________________

25. DID YOU TELL ANYONE ABOUT YOUR EXPERIENCE? ____YES ____NO; IF NOT, EXPLAIN:

__________________________________________________________

26. DO YOU FEEL THAT THESE EXPERIENCE(S) CONTINUES TO AFFECT YOU? ____YES ____NO; IF YES, DESCRIBE HOW:

__________________________________________________________
27. WHAT SOCIAL SERVICES DID YOUR FAMILY USE?
___PUBLIC ASSISTANCE (GPA, FOOD STAMPS, ADFC) ___MEDICAID
___SOCIAL SECURITY INCOME ___ HOUSING ASSISTANCE
___UNEMPLOYMENT ___ WIC ___ MEDICARE ___ HOMEMAKER
SERVICES ___ VISITING NURSES ___ HEALTHY START SERVICES
OTHER, SPECIFY: __________________________________________
__________________________________________________________

28. DID/DOES ANYONE IN YOUR FAMILY EXPERIENCE:

WHO                      WHEN
___SUICIDE
___UNUSUAL/VIOLENT DEATH
___SERIOUS PHYSICAL ILLNESS
___MENTAL ILLNESS
___ALCOHOL ABUSE
___DRUG ABUSE
___REFORM SCHOOL
___INCARCERATION
___CHILD ABUSE/NEGLECT
___SEXUAL ABUSE
___RAPE
___DOMESTIC VIOLENCE
___VIOLENT CRIME
___UNEMPLOYMENT
___FOSTER CARE PLACEMENT
___DISCRIMINATION

29. IF APPLICABLE, DESCRIBE FAMILY HISTORY OF
ALCOHOL/DRUG ABUSE: _______________________________________
_________________________________________________________

30. DO YOU HAVE FRIENDS? __YES ___NO; IF YES, DESCRIBE
(DRUG ACTIVE/DRUG FREE): _________________________________
_________________________________________________________

31. ARE YOUR FRIENDS/AQUAINTANCES SUPPORTIVE OF YOUR
CURRENT DRUG TREATMENT EFFORT? __YES ___NO
XIII. CLINICAL SUMMARY

1. PROBLEM AREAS IDENTIFIED BY CLIENT (IN PRIORITY)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. PROBLEM AREAS IDENTIFIED BY INTERVIEWER:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. CLIENT'S STRENGTHS IDENTIFIED DURING ASSESSMENT PROCESS:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. INTERVIEWER'S IMPRESSIONS OF:

AFFECT: ____________________________

HYGIENE: __________________________

DRESS: ____________________________

EYE CONTACT: ______________________

POSTURE: __________________________

DID CLIENT APPEAR: _____ HOSTILE _____ DEPRESSED _____ ENGAGED

_____ HAVING DIFFICULTY COMPREHENDING _____ ANXIOUS

_____ FOCUSED _____ COOPERATIVE _____ EVASIVE _____ OTHER

5. DOES THIS PERSON APPEAR TO REQUIRE A PSYCHOLOGICAL, PSYCHIATRIC, NEUROPSYCHOLOGICAL EVALUATION? _____ YES _____ NO
IF SO, ON WHAT DO YOU BASE THIS IMPRESSION? _______________________

176
6. IMPRESSION REGARDING PATIENT'S APPROPRIATENESS TO FUNCTION IN THIS PROGRAM/FACILITY, INTEREST IN CURRENT TREATMENT, OBSERVATIONS OF PATIENT'S SPECIFIC BEHAVIORS AND REACTIONS DURING THE INTERVIEW PROCESS:


APPENDIX D

QUESTIONNAIRE: COUNSELORS' PERCEPTIONS OF THE ASI
QUESTIONNAIRE

COUNSELORS' PERCEPTIONS OF THE ASI

1. What are your thoughts and feelings regarding the use of the ASI?

2. What did you like the most about the ASI?

3. What did you like the least about the ASI?

4. If you had to choose between the ASI and the biopsychosocial assessment instruments, which one of the two instruments would be your primary choice? Why?
VITA
OCTAVIA D. MADISON
3890 LYNDHURST DRIVE #303
FAIRFAX, VIRGINIA 22031
TELEPHONE (703) 425-0620

EDUCATION

Ed.D Virginia Polytechnic Institute & State University 1994-97
Northern Virginia Graduate Center
Major: Counselor Education & Student Personnel Services

CAGS Virginia Polytechnic Institute & State University 1994-96
Northern Virginia Graduate Center
Major: Counselor Education & Student Personnel Services

George Mason University 1989-92
Post Graduate Studies (24 credit hours)
Major: Agency Counseling

M.Ed. Lynchburg College 1982-83
Major: Agency Counseling

B.A. Hampton University 1979-82
Major: Psychology

PROFESSIONAL EXPERIENCE

1994 - Virginia Tech, Doctorate Student and Graduate Assistant, Counselor Education, Northern Virginia Graduate Center. Duties include: Assisting professors with clinical supervision of Master’s students in Field Practicum and Counseling Techniques courses. Developing curriculum and materials for substance abuse course and field practicum course, monitoring Master’s students and co-directing mentorship program, 1994-Present.

Additionally,
1995 - Instructor for course, Counseling Substance Abusers.

1994 - Co-teaching Field Practicum course with Professor.

1991 Co-taught Advanced Counseling Techniques with Dr. Cheryl Bartholomew, George Mason University.

1989 Co-taught Career Development with Dr. Kenneth Kelly, George Mason University.

1994 - Arlington County Department of Human Services, Mental Health Therapist II/Substance Abuse Bureau (part-time). Duties include assessing and evaluating potential clients for substance abuse and mental health services, providing individual, family and group therapy, developing treatment plans and monitoring progress, consulting with contract providers and community agencies, attending clinical and peer supervision, attending in-service and professional development seminars.

1992 - Carolyn Jackson-Sahni & Associates, (Private Practice, part time), Consultant/Therapist. Duties include assessing and evaluating potential clients for services, providing individual, family and group counseling, consulting with referral sources and insurance providers, and supervising counselors seeking certification and licensure.

1990-93 Women's Center of Northern Virginia, Therapist. Duties included assessing and evaluating clients for services, providing individual and family therapy, facilitating group for sexually abused women, attending clinical supervision, and making professional and educational presentations.

1988-94 Fairfax/Falls Church Community Services Board -Alcohol and Drug services, Substance Abuse Counselor II. Duties included developing a comprehensive program for court mandated
clients, assessing and evaluating clients for substance abuse treatment, providing individual, group and family therapy, developing treatment plans and monitoring progress, providing case management services, supervising practicum students, interviewing applicants for employment, and serving on the multidisciplinary team.

1985-88 Central Va. Community Services, Women's Program, Therapist/Case Manager. Duties included developing a comprehensive substance abuse program for chemically dependent women, assessing and evaluating clients for services, providing individual, group and family therapy, providing case management duties, supervising residential assistants, interns and volunteers, attending clinical and peer supervision.

CONFERENCE PRESENTATION


PROFESSIONAL LICENSES/CERTIFICATIONS

Licensed Professional Counselor, Virginia
Certified Professional Counselor, Maryland
Certified Addictions Counselor, Washington, D.C.
National Board Certified Counselor
Certified HIV/AIDS Instructor

PROFESSIONAL MEMBERSHIPS

American Counseling Association
Virginia Counseling Association
Approved Supervisor by the Board of Professional Counselors

Octavius A. Madison