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EVALUATING PROGRAM AND CLIENT CHARACTERISTICS

ASSOCIATED WITH EARLY DROPOUT IN AN

OUTPATIENT DRUG AND ALCOHOL CLINIC: A RETROSPECTIVE STUDY

A Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Social Work

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by

Marlene Fern Clark

June 1998

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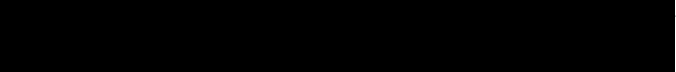California State University,

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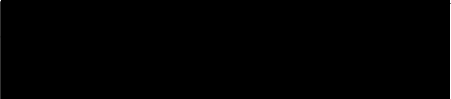
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by

Marlene Fern Clark

June 1998

Approved by:

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ABSTRACT

This study evaluated program and client characteristics associated with early dropout in an outpatient drug and alcohol clinic. Previous studies have not been able consistently to show program or patient characteristics that would predict patient dropout. Therefore, this postpositivist retrospective study was an attempt to illuminate the subject by adding an additional element, the implementation of the Addiction Severity Index (ASI) as an intake tool. One hundred client records were investigated to determine which characteristics are associated with early treatment dropout. Parametric and non-parametric statistics were used to analyze the data. It was found that those who dropped out of treatment were more likely to have an ASI as an intake tool than those who remained in treatment, and those who dropped out were more likely to have started using substances in their adolescent years as opposed to those who did not drop out. There was a positive correlation between age and number of years of substance use. Effects of historical events may contaminate the findings. Further research could include control groups to eliminate this possible effect.

ACKNOWLEDGMENTS

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INTRODUCTION

Dropout rates from alcohol and drug treatment range from 17% to 70% (Harris, Linn, Pratt, 1980 in Wickizer, Maynard, Atherly, Frederick, Koepsell, Krupski, & Start, 1994; Stark, 1988; Steer, 1983 in Wickizer, et. al., 1994; Brewer, Zawadski, Lincoln, 1990 in Wickizer, et al, 1994; Jones, 1985; Backeland & Lundwall, 1975; U. S. Department of Health, Education, and Welfare, 1980 in Sheppard, Smith & Rosenbaum, 1988). Studies have reported the dropout rate for inpatient drug treatment to range from 19% to 63% (Harris, Linn, Pratt, 1980 in Wickizer, et al, 1994) and outpatient rates are reported 70% as a norm (Stark, 1988; Steer, 1983 in Wickizer, et al, 1994). Studies reporting alcohol treatment dropout rates are similar; inpatient rates are between 17.4% (Brewer, Zawadski, Lincoln, 1990 in Wickizer, et al, 1994) to 74% (Jones, 1985), with outpatient exceeding a 70% dropout rate (Backeland & Lundwall, 1975; U. S. Department of Health, Education, and Welfare, 1980 in Sheppard, Smith, & Rosenbaum, 1988).

The vast range of rates is partially due to each study's definition of dropout. Some studies include as dropouts those who are expelled from a program (Simpson, 1981) while others consider dropouts as those who failed to appear for the intake and/or those who refuse to return (Baekland & Lundwall, 1994). Regardless of the definition of dropout, the rates indicate a large portion of the

treatment population is not receiving the benefits of treatment due to premature termination.

Bakeland and Lundwall (1975) found that those clients who drop out of treatment have worse outcomes than those who complete treatment. They also found that alcohol treatment dropouts who leave treatment prior to 6 months are unlikely to maintain sobriety. Length of time in treatment is associated with positive outcome for alcohol clients and especially for drug abusers (Gerstein, Johnson, Harwood, Fountain, Sutter, & Malloy, 1994; Stark, 1992). Although client benefits are of the utmost importance to social work values, costs to county, state, and federal sources also need to be considered.

In 1992, the annual State Resources and Services Related to Alcohol and Other Drug Problems, prepared by the Substance Abuse and Mental Health Services Administration of the U. S. Public Health Service, reported that 48 states, the District of Columbia, Guam, and Puerto Rico spent about $3.4 billion on drug and alcohol programs (Information Plus, 1995). In 1992, California treated approximately 150,000 people with alcohol and drug problems at a cost of approximately $209 million. Treatment admissions in the county in which this study was conducted for the period from July 1, 1994 through January 31, 1995 totaled 4,719 (California Alcohol and Drug Data System Statewide Report, 1995) which, when projected, would

indicate a yearly total of approximately 9,438 at a cost of approximately $13 million per year (Armand Freitas, Office of Alcohol and Drug Programs Staff Analyst II, personal communication, March 5, 1996).

Whether statistics are viewed from a national, state or county level, many taxpayers' dollars fund programs concerned with alcohol and drug treatment. With as high a dropout rate as 70% as indicated above, taxpayers may not be getting what they think they are paying for. The cost to process one client into a treatment program is lost when that client fails to return to treatment. Therefore, it is important to determine which program characteristics and client characteristics contribute to early treatment dropout in an attempt, if possible, to avert dropout. Identifying patients who are at risk of early dropout at intake and intervening to engage those clients in treatment would also be valuable in improving client functioning as well as being fiscally prudent. Program characteristics which may be contributing to early termination need to be identified and rectified to strengthen the program and retain clients. Once problems are identified, changes can be made to hopefully better engage those clients in treatment (Baekeland & Lundwall, 1975).

LITERATURE REVIEW

Prior studies have attempted to determine characteristics of early termination from drug and alcohol programs; the results have been mixed and do not seem to generalize well to other settings (Craig, 1984). Factors affecting such disparate results are definitions of early termination, subject variations, program variations, and methods and measures of each study (Wickizer, et al, 1994).

Some studies have examined internal client characteristics through the use of standardized instruments such as the MMPI, a personality inventory. Sheppard, Smith and Rosenbaum (1988) studied 86 alcoholic men in a residential treatment facility through the MMPI which was administered 3 to 5 days after admit and again 14 to 16 days after admit. The MMPI characterized the dropouts with patterns such as poor impulse control, interpersonal difficulties, conflicts in relation to authority figures, and absence of personal distress. The demographic characteristics of the dropouts found the mean age was 32; 93% were white; 7% black; 11.1 mean years of education; 83% were single; 92% were unemployed; 27% were mandated by the legal system; and 43% reported current legal involvement. When asked why they entered treatment, 58% said they desired to stop drinking whereas 40% stated it was family

pressure which pushed them to treatment. Their average prior attempts at treatment for alcoholism were 2.7 attempts with a mean completion of 1.4.

The problem with Sheppard, Smith & Rosenbaum's study (1988) is the time frame in which the MMPI was administered. Although clients can be detoxed off of alcohol in 7 days, clients are usually still fairly shaky and in a fog. Administering the MMPI to someone newly sober would have questionable results.

Another study using the MMPI was conducted (Craig, 1984), in which 200 subjects were randomly chosen from a larger population of clients admitted into a treatment program. All subjects were opiate dependent; 90% were black; and all subjects were male and of lower socioeconomic status. The average age was 31.72. This study was unable to show significant differences on scores of the MMPI between completers and dropouts on 27 variables. Only one variable proved significant. Dropouts scored higher on the D (depression) scale of the MMPI. It was concluded that the MMPI indices could not assist in predicting treatment outcome.

Although the Craig study randomized the subjects who would participate, it failed to describe the validity rate of the MMPI for a population almost entirely African American. Since studies have shown IQ tests to not be culturally relevant to the African American population, it

seems reasonable that the MMPI may also be culturally
biased (Dana, 1995; Dana & Whatley, 1991).

Studies have been conducted to determine if patients'
psychiatric severity relates to early treatment dropout;
yet the studies have not been conclusive. Keegan and
Lachar, 1979 (in Stark, 1992) found that those who dropped
out of treatment were more severely impaired with regard to
psychological discomfort. Stark and Campbell (1988), on
the other hand, did not find a correlation of symptom
distress as measured by the SCL-90-R (Derogatis, 1977 in
Stark, 1992) relating to early dropout with the exception
of amphetamine abusers.

Other studies have investigated programmatic issues as
well as client characteristics in which patients are
matched to specific treatment programs. In Wickizer's, et
al (1994) retrospective study of 6,559 records of drug and
alcohol treatment facilities in the state of Washington, it
was found that completion rates were highest in intensive
alcohol inpatient treatment and the lowest rates were in
intensive outpatient drug programs. Other factors related
to completion included screening at a central referral
center, education, age, ethnicity, and a secondary drug
problem (Wickizer et al, 1994). Of note is the
substantially higher rate of completion of inpatient
treatment. The authors suggested it is much harder to
leave a place where you are living than it is to not show

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up for an appointment at an outpatient clinic. One requires confrontive action whereas the other can be done without effort.

The Wickizer, et al study was well designed. However, there were no control groups. Furthermore, only a single treatment episode was included in the study. If a client had multiple episodes, this was not factored in. Perhaps those who have multiple episodes fare better over single episode clients, or vice versa.

Variables associated with completion in the study included the fact that whites were more likely to complete outpatient treatment than other ethnic groups but less likely to complete inpatient treatment. Native Americans were less likely to complete inpatient alcohol than other ethnic groups, whereas African Americans were less likely to complete intensive outpatient drug treatment. The study suggests that these findings indicate that matching ethnic clients to type of treatment in which they seem to do better may be important to retain clients in treatment.

This same study found that, in general, older clients and clients with more education were more likely to complete treatment, but statistical significance was not always met. Although this study was investigating who completes treatment, perhaps the information learned can assist in determining ways to keep people engaged in treatment instead of dropping out prematurely.

The literature is interspersed with studies done not only to identify client characteristics and program characteristics, but to investigate external forces that place clients under some pressure, such as court-ordered participation.

Stark & Campbell (1988) found in 100 consecutive admits that 16 were opiate users, 16 amphetamine users, 34 cocaine users, and 29 marijuana users. Using the MCMI which corresponds to the DSM III manual and the SCL-90R (a self report inventory assessing symptomatology), there were no differences between dropouts versus remainers with regard to age, sex, employment status, marital status, years of education and number of arrests in the past two years. There were, however, differences when subjects were court mandated: they were more likely to return after initial visit. This effect disappeared after a two-month retention (Stark & Campbell, 1988). The study found significant differences between amphetamine abusers who were immediate dropouts compared to those who stayed in treatment. The immediate dropouts scored higher on scales measuring anxiety, interpersonal sensitivity, obsessive compulsion and somatization. This was true of only the amphetamine abusers. Other drug group comparisons showed no significant differences between dropouts and those who stayed in treatment for personality variables. It was also

found that those who stayed in treatment were less likely to be employed than dropouts (Stark & Campbell, 1988).

Problems with the Stark & Campbell study lie in the fact that there was no control group. Additionally, clients still using substances may not answer questionnaires as honestly as they may answer questions in an interview. An interviewer can probe to correct misrepresentations given by the client.

Eli Lavental (1996) investigated an element of coercion by studying a population of workers who were being coerced into treatment by their employers. Ninety-six workers were compared to 161 self-referred clients. Clients were rated on the Addiction Severity Index at intake and then again six months after treatment. Urine analyses were administered to determine if substances had been used. Characteristics differed between the groups. Those coerced had lower severity levels of problems in the past 30 days at admittance than the self-referred group. They had more days of employment, higher wages, and used fewer substances than those self-referred. Problems were rated slight to moderate for the coerced group while the self-referred clients rated problems moderate to considerable. The coerced clients completed an average of 22 days in inpatient treatment and 77% completed the treatment course, while the self-referred clients completed an average of 19 days in inpatient treatment but only 61%

completed the entire treatment regimen. For outpatient treatment, in the coerced clients group, 74% completed treatment while their counterpart had a 60% completion rate. This study had a weakness which interferes with generalizing to another population: subjects were not randomly assigned to the different treatment groups, and since the groups were not matched it would be difficult to ascertain treatment effectiveness.

There are many variables and few consistencies in findings to make a definitive statement about what a dropout client looks like. What one study gives as a statistically significant finding another study refutes. It is, therefore, important to continue to study the phenomena to ascertain what characteristics and elements correlate with dropout and to determine what social workers can do to prevent dropout. The current study investigated some of the previously studied variables and, in addition, studied the effects of the Addiction Severity Index (ASI) (McLellan, Luborsky, Cacciola, Griffith, Evans, Barr, & O'Brien, 1985) implementation as an intake assessment tool on the dropout rate. The ASI was developed by the above authors and has shown to have high reliability of an average concordance of .89 and validity (McLellan, Luborsky, Cacciola, Griffith Evans, Barr, & Obrien, 1985).

FOCUS OF STUDY

This postpositivist direct practice study evaluates
program and client characteristics in an attempt to
identify those characteristics that lead to early dropout
in an outpatient drug and alcohol treatment clinic. This
retrospective study gleaned information from 100 discharged
client records in the calendar year of 1996. This
particular year was chosen for the study because the
Addiction Severity Index (ASI) was implemented as an intake
instrument in the last six months of the year at the
clinic. Analysis will include comparing dropout rates
before implementation of the ASI and after its
implementation.

The research question addresses what variables
contribute to clients' early termination after intake into
an outpatient drug and alcohol treatment clinic. Early
termination for this study is defined as 3 or less
counseling visits after intake within a one-month period.

The external variable investigated included coerced
treatment, such as probation or child protective services
referral. Internal variables include ethnicity, age, sex,
drug of choice, prior treatment episodes, employment, and
dual diagnosis (mental illness and substance abuse). The
program variable is the implementation of the ASI and its
effects on patient dropout. It was expected that those
clients coerced into treatment will remain in treatment

longer than those self-referred and clients employed will have a higher drop out rate than those unemployed. The implementation of the ASI is expected to affect early drop-out.

Data was collected from client records at the Office of Alcohol and Drug Programs' Dual Diagnosis Clinic. The Clinic Supervisor and Program Manager II gave permission for this study to be conducted. Further approval was obtained from the Deputy Director, Director of Behavioral Health and the County Human Subject Committee prior to its implementation.

METHODS

This retrospective postpositivist study was designed
to explore patient and program characteristics which
affected early dropout from an outpatient alcohol and drug
treatment program. Previous research has been unable to
consistently describe patient or program characteristics
which lead to early treatment termination. Therefore, it
is necessary to continue to explore the phenomenon of
treatment dropout until a clearer picture is drawn in order
to predict and intercede to prevent early dropout.

When studies are designed to explore an area of
research where little is known, the postpositivist approach
allows for more exploration than the positivist approach.
In positivist research, the researcher attempts to verify a
theory. In postpositivist, the researcher is attempting to
discover instead of verify. In the present study, since
previous research has been unable to verify theory, the
postpositivist approach is more appropriate. Previous
research has found that program and patient characteristics
associated with early treatment dropout seem to be
localized and not generalizable to a broader population.
This is a characteristic of the postpositivists' approach
in general as suggested by Guba (in Morris, 1997) "Locality
and specificity are incommensurable with generalizability".

The basic tenet of positivism is that reality can be
determined through scientific inquiry. That reality is

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driven by "immutable natural laws" (Guba in Morris, 1997).

Postpositivists, on the other hand, believe that, although

reality exists, it is impossible to determine or perceive

it (Cook & Campbell, 1979 in Morris, 1997). With respect

to the current study, since there is a myriad of variables

that may be contributing to early treatment withdrawal, the

positivist approach would be like looking for a needle in a

haystack. With the postpositivists' approach, many

variables can be investigated at the same time, with care

being taken to not eliminate possibilities. This emphasis

is on "critical multiplism" (Cook, 1985 in Morris, 1997) or

what Denzin (1978 in Morris, 1997) called "elaborated

triangulation". Postpositivists believe there is not just

one reality, so findings need to include as much data from

as many sources as possible (Guba in Morris, 1997). In the

current study, investigating many variables which may or

may not lead to a clear picture of treatment dropout is

typical of a postpositivist approach.

Sample

Data for this study was collected at a county

outpatient alcohol and drug treatment clinic located in the

western United States. This clinic treats alcohol and drug

patients as well as those who are dually diagnosed (alcohol

or drug problem and mental illness). The alcohol and drug

program clinic provides treatment to patients ages 12 years

old and up. Patients are accepted into the program if they

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have no medical insurance coverage that would normally provide substance abuse treatment elsewhere. Some insurance company policies are accepted at the clinic as well as Medi-Cal coverage. Those patients with no insurance coverage receive treatment on a sliding fee scale. Patients can be dually diagnosed, those with alcohol and drug diagnosis as evidenced by the DSM III or DSM IV diagnosis criteria meeting alcohol or drug abuse or dependence and mental illness criteria. All patients who receive treatment at the facility either live in the county in which the treatment is provided or live out of the county and have Medi-Cal coverage.

In order for the patient to receive treatment, he/she must first fill out a screening form which collects name, age, ethnicity, history of substance abuse, and general information regarding the patient. After the form is completed, the patient is required to attend a screening session where the program is described, and the patient is interviewed by a counselor to determine whether the patient is appropriate for the program. In the event the patient is not appropriate, the patient is referred to a more appropriate program. When appropriate, the patient is assigned to a new clients' group which meets two times a week and is considered a "holding group" until an intake appointment can be made. Patients are in the holding group for up to six sessions. At the intake appointment, an

assessment of the patient's problems, the ASI, and treatment plan are completed. It is at this point that the patient enters treatment.

Patients attending the screening process or in the new clients' group (holding group) were not a part of this study. Only those accepted into the program, with completed intake assessments, were included.

A retrospective study gathering data from records of patients who sought treatment, either voluntarily or coerced, for their alcohol or drug problem and possibly mental illness was conducted. Records with discharge dates from January 1996 through December 1996 were chosen randomly.

The operational definition of "dropout" for the purpose of this study was as patient who was accepted into the program, completed the intake assessment and dropped out of treatment either voluntarily or involuntarily by the third treatment session within one month after admit date. Voluntary discharge is defined as the patient's decision to end treatment by either not returning or by communicating that he/she would not be returning to treatment. Involuntary discharge is defined as the program discharging the patient because of rule violations such as bringing drugs onto the premises, exhibiting/making threatening comments or behavior, or behaving inappropriately while at the facility.

Depending upon the individual treatment plan, a patient would normally be seen at least 8 times and sometimes 12 times within one month after intake if he/she was attending all required treatment sessions.

The treatment program consists of group intensive treatment with individual counseling sessions as deemed necessary for the patient's mental and emotional health. Additionally, a patient is required to obtain a physical from the program physician within 30 days of admit and visit the physician, who directs the patient's treatment, every week thereafter.

This facility was selected as a site for this study because dropout is high. Additionally, the researcher is employed at this clinic, facilitating access to patient records whereas the general public has no such access.

Data Collection and Instruments

Information was gathered on the Data Collection Form (Appendix A) developed for this study which includes demographic detail as well as mental health diagnosis and severity of substance abuse. Self-reported information gathered by the structured interview conducted by clinicians upon assessment is the information which was transferred to the Data Collection Form. The assessment for the first half of 1996 was completed by the clinicians on an assessment form developed by the program. In the second half of 1996, the Addiction Severity Index with a

portion of the previous assessment interview tool attached was used as the assessment tool upon admit. Both assessment tools were designed to collect information in many areas of the patients' lives such as psychiatric and medical conditions, support, employment, legal status, family history, and substance abuse.

Because the data for the first part of the year were collected on a program-developed structured interview form and the data from the last half of the year were collected on the ASI which has been shown to be reliable and valid instrument, information may not be as synonymous as one would hope. However, since clinicians administered both of the structured interview forms, the information gathered will more than likely be comparable.

The Data Collection Form created for this study was developed using selected sections of the ASI and sections of the program interview form which coincided with sections on the ASI. In this way, items collected were in the form in which they were originally collected, removing interpretation as much as possible.

Since the study was a retrospective study, the richness of the data may have been lost. When one interviews a participant, misinterpretation is more than likely avoided, since one can reflect back to the participant to insure correct recording of responses. In retrospective studies, the participant is not present so

questionable data cannot be clarified which could lead to skewed results.

Procedures

Records of patients admitted in 1996 were randomly selected from a drug and alcohol treatment clinic. The records were gleaned for information and transferred to the Data Collection Form created for this study.

Protection of Human Subjects

This study investigated records of those patients who sought treatment in the afore mentioned clinic. Confidentiality of individual patients was assured by the researcher signing a confidentiality statement vowing that no information identifying any patient would be used in the study or for any use outside the study. Information regarding patients was reported in the study in summary form in which patients or individual patient characteristics cannot be identified. The forms were numbered from 1 to 100. Once the data was collected and statistical analyses were conducted, the Data Collection Forms were stored in a locked file cabinet at the facility in which the data was collected where they will remain for five years. The final study and all of its findings were provided to California State University, San Bernardino, Department of Social Work, the County Department of

Behavioral Health, and the clinic and administrative office in which the study was conducted.

<u>Analysis</u>

Demographic characteristics gathered for analysis were age, gender, ethnicity, level of education attained, marital status, employment status, and referral source such as Child Protective Services or Probation/Parole. Information regarding previous treatment episodes, whether the patient's intake included the ASI or not, admission date, date of discharge, discharge status, reason for discharge, age of first alcohol/drug use, frequency of use, and type of drugs used were also collected. Data with regard to the patient's psychiatric condition, the DSM IV codes, as well as the type of psychiatric symptoms, and whether patient has previously been hospitalized or not for psychiatric problems, were collected. To assist in determining the severity of the patient's psychiatric condition, the Global Assessment of Functioning (GAF) Scale (American Psychiatric Association, 1994) score was collected. The lower the GAF score the lower the patients' functioning.

To measure the associations between early dropout and patient characteristics, several statistical analyses were conducted using the SPSS (SPSS, Inc., 1993) computer program to analyze the data. For those variables which are ordinal or nominal and may not meet the normal curve

criteria for a parametric test, a non-parametric test, chi-square analysis, was conducted. Additionally, to determine the independent contribution to dropout of each interval or ratio variable, a stepwise regression analysis was conducted. As a post hoc test, a correlation was run on interval or ratio data.

It was expected that those who were employed would drop out of treatment more often than those who were unemployed. It was hypothesized that those patients who had busy lives would have a difficult time adding appointments for counseling into their schedules. Patients who were coerced into treatment by either Child Protective Services or Probation/Parole would not drop out of treatment as readily as those who were self-referred. Being monitored by an outside source would seem to motivate some people who are addicted to alcohol and drugs. It was expected that those patients who were dually diagnosed, with both mental illness and addiction, were more likely to drop out of treatment sooner than those without a mental illness diagnosis. This population tends to be transient and is considered high-risk for missing appointments for one reason or another. It was expected that female patients would drop out less frequently than male patients. This expectation came from the concept that women find it easier to talk about their feelings than men, and society's general insistence on the male being strong and able to

handle his life. It was expected then, that, the profile

of a dropout from treatment prior to three visits to the

clinic would be a male, who was employed, and was not

coerced by any outside agency. Additionally, those who are

unemployed and are dually diagnosed would drop out more

than those who were not dually diagnosed.

RESULTS

In analyzing the data, it was discovered that out of 100 records, one contained erroneous information and was dropped from the study. Using descriptive analysis, the remaining 99 records showed that the mean age of the study population was 37; 38% of the population was female and 62% male; 26% were married and 73% were unmarried. These categories were collapsed from married and remarried into "married" and widowed, separated, divorced and never married into the "unmarried" category. A majority of these subjects were unemployed with only 9 out of 99 being employed and 90 being unemployed (either unemployed, on public assistance, receiving a pension, a student or incarcerated). (This category was collapsed [CC] from full time, part time, part time irregular hours as employed and student, retired/disabled, unemployed, and in a controlled environment as unemployed.) The ethnic make-up was white 46%; African American 23%; Hispanic 28%; and American Indian 3%. The ethnic make-up of the population was not surprising since the clinic in which the data was collected was in a "barrio" with a high population of Hispanics and African Americans. The mean number of years of education completed was 11.43.

Thirty eight percent of the population indicated alcohol as their first choice of substance and 61% indicated other drugs as their first substance choice.

Methamphetamine was overall the drug of choice, with a total of 42 out of 99 reporting it as their drug of choice. The next largest was alcohol, with 39 out of 99 records indicating alcohol as the drug of choice. The mean age of first use of drugs or alcohol was 14.58, with a standard deviation of 4.62 and the range from 4 to 35. Twenty-nine percent of the patients reported the first use of drugs or alcohol as a child (ages 1-12), 54% as an adolescent (ages 13-18) and 16% as an adult (ages 19 and above). The frequency of drug or alcohol use was: daily 70%; weekly 22%; monthly 3%, occasionally 3% and no use prior month 2%.

Those patients who reported that they had experienced physical abuse in their lifetimes was 39% as opposed to 61% who had not. Those patients who had reported sexual abuse in their lifetimes was 29% while 71% reported no abuse. (Five cases failed to report on this variable).

Psychiatric symptoms were reported in 74% of the patients while 26% reported no symptoms. The mean GAF score was 54.13, with a standard deviation of 10.67 which indicates

> "Moderate symptoms (e.g., flat affect and
> circumstantial speech, occasional panic
> attacks **OR moderate difficulty in social,
> occupational, or school functioning**
> (e.g., few friends, conflicts with peers
> or co-workers)" (American Psychiatric
> Association, 1994).

Those patients who reported that they had been in a psychiatric hospital for treatment, either voluntarily or involuntarily, was 46%.

The majority of the population (54%) were coerced into treatment. A coerced patient is defined as one who would receive outside sanctions from governmental agencies if he/she did not attend a treatment program (e.g., lose SSI benefits, not regain custody of their children, or return to being incarcerated).

Many patients had received treatment for their substance abuse problems previous to this treatment episode, although 48% had no prior treatment, 29% had one previous attempt at treatment, 15% had two treatment episodes, 4% had three previous episodes, 1% had 4 treatment episodes, and 2% listed 60 previous attempts at treatment.

Those who dropped out of treatment, according to this study's definition of dropout, was 20.2%. The reasons for discharge from the treatment program were as follows: completed program and treatment goals 14%; non-attendance 65%; work or school conflict 4%; incarcerated 2%; moved 4%; died 1%; attending another program 6%; and other 4%. The completed treatment goals and non-attendance categories reported were not an accurate picture of patients' termination. Regardless of the patients progress in the program, a patient could be discharged for non-attendance even if the he/she was in the program for a year and

attended every session until he/she stopped coming. Many

clients would come to the end of the process and disappear

before graduation from the program occurred. Probably a

better indicator of clients' progress in recovery was the

discharge status category in which 14% completed treatment

goals; 14% had satisfactory progress but left before

completion of program; 63% had unsatisfactory progress and

left before completion; and 9% were referred.

Chi squares were run to compare dropouts and those who

did not drop out on demographics, drug use variables, and

implementation of the ASI as an intake instrument as a

variable. It was found that a significant difference

existed between those who had an ASI as an intake tool and

those who did not with regard to dropout. Those who dropped

out were more likely to have been given the ASI as an intake

instrument than those who did not drop out (Fisher's Exact

Test P = < .000 on the two sided test.) A chi square was

run comparing the ages of first use, which was collapsed

into ranges of age (e.g., child, ages 1 to 12 years;

adolescents, ages 13 to 18 years old; and adult, 19 years

old and above) and drop out. A 2-sided Pearson test showed

a significant difference at p = .018 at a likelihood Ratio

at .007. There were 99 records investigated. Of these, 20

dropped out and 79 remained in treatment. Among those who

dropped out of treatment, all but four used drugs or alcohol

for the first time in their adolescent years. For those who

did not drop out, 28 were children when they first used, 38 were adolescents at first use, and 13 were adults at first use.

All other variables tested with a chi square analysis did not reach statistical significance. Those variables were gender, marital status, education, usual employment pattern [CC], ethnicity, drug of choice, frequency of drug use, age of first use in the un-collapsed category, years of drug/alcohol use, number of previous treatment episodes, referral source, coerced treatment, GAF score, sexual abuse, physical abuse, psychiatric status, and psychiatric hospitalizations.

Correlations were run on interval data: age, education, GAF score, number of treatment episodes, number of visits, and number of years of substance use. The results are shown in Appendix B. The only variables significantly correlated with each other were age and number of years used ($p =$ .000). This correlation is understandable, as age goes up the longer period of time substances can be used.

A stepwise regression was run on all variables. The ASI was associated with dropout to a statistically significant level ($R = .396$, and reached the .000 level of significance). All other variables did not reach significance.

DISCUSSION

The expectation that the implementation of the ASI as an intake tool would effect dropout was shown to be statistically significant. However, this finding needs to be studied further as historical interference could be the reason people dropped out more readily when the ASI was implemented. Perhaps an exceptional counselor left the department's employ and clients left treatment when the counselor left. Since this was a retrospective study, there were no controls to avoid historical contamination. Additionally, there was no control group which limits this studies generalizability.

The hypothesis that those who are employed would drop out of treatment more often than those who are unemployed was not supported; neither was the hypothesis that patients who were coerced into treatment by either Child Protective Services or Probation/Parole would not drop out of treatment as readily as those who were self-referred. Neither being monitored by an outside source nor being dually diagnosed with a mental disorder and substance abuse was associated with or predicted drop out. In addition, gender was shown to have no affect on drop out.

Future studies need to be conducted to determine if, in fact, the ASI as an intake tool really does impact dropout. Most importantly, what specifically about the ASI would predict and be associated with dropout. Control groups,

matching clients on numerous variables with the exception of the ASI as an intake tool, would be a possible approach for future research to eliminate contaminating forces.

APPENDIX A

Data Collection Instrument

Case Number:_____

Date of Admission   _____/_____/_____

ASI   1 Yes   2 No

Date of Discharge   _____/_____/_____

Drop-out   1 Yes   2No

# of Visits   _____

Referral Source   (Circle one)

     1 SSI   2 CPS

     3 Probation/Parole

     4 Family   5 Self   6 Employer 7. Other

Coerced Treatment   1 Yes   2 No

AGE_____   Sex   1 Female   2   Male

Ethnicity   (Circle one)

    1   White

    2   African America

    3   Hispanic

    4   Asian Pacific Isle.

    5   American Indian

    6   Other

Education Status   Years_____

    GED=12 years

Usual employment pattern past 3 years   (Circle one)

    1   full time (40 hrs/wk)

    2   part time

    3   part time irregular hours

    4   student

    5   service

    6   retired/disabled

    7   unemployed

    8   in controlled environment

DSM Diagnosis Code

    1 Alcohol Dependent   2 Alcohol Abuse

    3 Drug Dependent   4 Drug Abuse

Drug of Choice   (Circle one)

        1   Alcohol

        3   Heroin

        4   Methadone

        5   Other Opiates/Analgesics

        6   Barbiturates

        8   Cocaine

        9   Amphetamines

       10   Cannabis

       11   Hallucinogens

       12   Inhalants

       13   More than one substance per day

       15   Alcohol and Drug

       16   Polydrug

GAF Score   _____

Previous treatment episodes   1   Yes   2   No

Number of treatment episodes   _____

Number of years used   _____

Age of First use   _____

Frequency of Use: 1   Daily   4   occasional

                    2   ____ Times per week   5 Binge/Periodic

                    3   ____ Times per month

32

Marital status   (Circle one)

    1   Married   4 Separated

    2   Remarried   5 Divorced

    3   Widowed   6 Never Married

Sexually abused   1 Yes   2 No

Physically abused   1 Yes   2 No

Psychiatric Status   (Circle one)

    Diagnosis DSM IV Code _____

    3 Depressed

    4 Anxiety

    5 Hallucinations

    6 Trouble understanding, concentrating, remembering

    7 Trouble controlling violent behavior

    8 Serious thoughts of suicide

    9 Attempted suicide

  10 Been prescribed medication for psychological

      problems?

Ward B/Psychiatric Hospitalizations 1 Yes   2   No

Discharge Status   (Circle one)

    1 Completed treatment and treatment goals

    2 Left before completion with satisfactory progress

    3 left before completion with unsatisfactory progress

    4 Referred

Reason for Discharge   (Circle one)

1   Completed treatment

2   Non attendance

3   Work/School conflict

4   Health

5   Incarcerated

6   Moved

7   Died

8   Attend another program

9   Other _____

- - Correlation Coefficients - -

	AGE	EDUC	GAFSCORE	NUMTXE	NUMVISIT	YEARSUSE
AGE	1.0000 (99) P= .	.1079 (99) P= .288	.0113 (96) P= .913	.0739 (99) P= .467	-.0058 (99) P= .954	.8285 (99) P= .000
EDUC	.1079 (99) P= .288	1.0000 (99) P= .	-.1081 (96) P= .294	.0050 (99) P= .961	-.0730 (99) P= .473	-.0425 (99) P= .676
GAFSCORE	.0113 (96) P= .913	-.1081 (96) P= .294	1.0000 (96) P= .	-.1554 (96) P= .131	-.1789 (96) P= .081	.0201 (96) P= .846
NUMTXE	.0739 (99) P= .467	.0050 (99) P= .961	-.1554 (96) P= .131	1.0000 (99) P= .	.0166 (99) P= .870	.1128 (99) P= .266
NUMVISIT	-.0058 (99) P= .954	-.0730 (99) P= .473	-.1789 (96) P= .081	.0166 (99) P= .870	1.0000 (99) P= .	.1118 (99) P= .271
YEARSUSE	.8285 (99) P= .000	-.0425 (99) P= .676	.0201 (96) P= .846	.1128 (99) P= .266	.1118 (99) P= .271	1.0000 (99) P= .

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

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