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Reducing the dropout rate in a state alcohol rehabilitation facility.

Shirley Wood Snitzer
University of Massachusetts Amherst

REDUCING THE DROPOUT RATE
IN A STATE ALCOHOL REHABILITATION FACILITY

A Dissertation Presented

by

SHIRLEY WOOD SNITZER

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SHIRLEY WOOD SNITZER

Approved as to style and content by:

Sheryl Riechmann Hruska, Chairperson

Bailey W. Jackson, Member

Warren F. Schumacher, Member

George Urch, Acting Dean
School of Education

DEDICATION

To Every Alcohol Troubled Person

Who Seeks Help in Recovery

And to all the

Occupational Therapists Who Want to Help

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ABSTRACT

REDUCING THE DROPOUT RATE IN A STATE
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SHIRLEY WOOD SNITZER, B.A., UNIVERSITY OF CHICAGO
M.S., SARGENT COLLEGE, BOSTON UNIVERSITY
Ed.D., UNIVERSITY OF MASSACHUSETTS
Directed by: Professor Sheryl Riechmann Hruska

Alcoholism is a pervasive problem affecting one out of three American families. Of the approximately 300,000 alcoholics in the Commonwealth, less than 1 out of 10 will seek alcohol services in 1990. The problem has been both to get clients into treatment and to keep them there. Dropout rates may be 80% for outpatient treatment and more than 30% for inpatient programs.

The purpose of this study was to identify some of the sociodemographic and personality characteristics of dropouts and to assess whether an occupational therapy program would help keep more clients in treatment.

Eight facilities having 30 day intensive treatment programs were approached in the Spring of 1985 to research the use of occupational therapy in reducing the

attrition rate. One facility in southeastern Massachusetts was selected because the number of admissions was sufficient to provide an adequate sample over a six month period and space was available to accommodate the occupational therapy program.

Data were collected from clients before and after they entered the program from September 1985 to March 1986. The dropout rates, demographics and attitude scores were compared with clients who dropped out of treatment and clients who completed treatment.

The attrition rate during the six month period when occupational therapy was offered was significantly lower than either before or after it was given. The percent of dropouts in the twelve month period before occupational therapy was offered was 31.3% and it was 27.9% in the twelve month period after occupational therapy was discontinued. During the six month period when occupational therapy was held the dropout rate was 20.5%. Only one discharge occurred in the occupational therapy group.

The other data collected in this study suggested that (1) predictions of program completion could not be made accurately from the variables studied, and (2) those who completed the program showed a significant change in their perceived control over their drinking behaviors and a significant change toward having more purpose to their lives.

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INTRODUCTION

1.1 Statement of the Problem

A major problem confronting facilities for alcohol abuse is the high dropout rate. From 52% to 75% of the clients drop out before the fourth visit for outpatient treatment and more than 30% leave before completing inpatient treatment [Baekeland & Lundwall, 1975]. The consequences of dropping out of treatment appear to be higher rates of return to alcohol abuse within a shorter time period and 2 to 4 times higher mortality rates from the physiological damage of alcohol and from accidents [Kissin & Begleiter, 1977; Vaillant, 1983].

Attempts have been made to identify some of the characteristics of dropouts. In two studies, dropouts were found to be more aggressive and hostile, had less self-esteem, had less maturity and were less responsible [Miller, Pokorny & Hanson, 1968; Wilkinson, Prado, Williams & Schnadt, 1971]. The typical dropout from inpatient alcohol treatment was one of lower socioeconomic status, had a history of arrests, was

poorly motivated and was often not self-referred but coerced into treatment [Baekeland & Lundwall, 1975, p. 750].

State treatment facilities have not been very successful in helping alcoholics recover. Relapse rates during the year after completion of treatment may be more than 60% [Moos & Finney, 1983]. A 10% abstention rate 18 months after treatment in state or federal facilities was also reported [Armor, Polich & Stambul, 1978]. The Rand report, through four and a half years of evaluation, found only 7% of the 474 clients were abstinent following treatment [Polich, Armor, and Braiker, 1981]. These are grim figures and the approximately 60,000 Commonwealth of Massachusetts clients who seek service for alcohol treatment need more effective treatment [Massachusetts Department of Public Health, Divisions of Alcoholism and Drug Rehabilitation, 1987].

By contrast, private treatment centers have relatively high success rates of 32 to 68%. This may be due to the higher socioeconomic status of these clients, and family or work intervention. They have more to lose socially and financially if they continue to misuse alcohol [Baekeland & Lundwall, 1977]. On the other hand, many alcohol misusing persons of lower socioeconomic status cannot afford private treatment which is often $5,000 for a 21 day stay. State or federal programs are

based on financial need and most clients have no insurance and cannot pay.

A small but significant percentage of clients in state facilities do recover from alcohol abuse, but usually only if they remain in treatment. When clients drop out of treatment they often give as their reason for leaving that the program is boring and meaningless. The inner world of the alcoholic with feelings of emptiness, futility and meaninglessness were described as the "sine qua non" of the alcoholic [Wallace, 1982]. He notes that the most important feature in recovery for the client is to replace this emptiness with an enthusiasm and belief in himself or he will most likely return to drinking. In order to effect this attitude change, some time is necessary for recovery. It has been found that a 2 to 14 day detoxification and treatment regimen is not sufficient time and most often results in multiple admissions [NIAAA, 1981].

Those clients who do make an initial commitment to change may be at a point in their lives where the deficits of drinking alcoholically outweigh the instant gratification they have associated with alcohol for so long. Or they may be experiencing a self-initiated change or "spontaneous remission" and don't require treatment [Tuchfield, 1981]. This appears to occur more often with those having a serious alcohol related medical problem or with those who experience a spiritual

conversion [Ludwig, 1985]. For those persons who enter state alcohol treatment programs, it is certain that they need encouragment in maintaining their commitment to addressing their lifestyle problems.

We don't yet know, but the client may be more likely to remain in alcohol treatment if he voluntarily chooses an activity as part of his rehabilitation. Since the alcoholic is noted for having lost control over his drinking, it seems beneficial for him to gain control over some aspect of his life and to aid him in taking responsibility for his behaviors and attitudes [Rohsenow, 1983]. It was also found that when clients were given a choice of treatment the more socially and psychologically stable alcoholics were more likely to accept outpatient psychotherapy. The less affluent clients tended to accept an inpatient rehabilitation [Kissin, Platz & Su, 1971]. The former may not want to leave their place of employment, or even have their alcohol problem known at work. The unemployed or underemployed client may want a period of rest, physical recovery or safety [Mandell, 1981, p. 356].

In the alcohol rehabilitation program under study, the goal of treatment is to live free of alcohol. This goal of abstinence is integrated in the occupational therapy program for this study by engaging the client's creative abilities while inscribing a maxim for abstinence on a wall plaque as a way to identify his

goals in life. The finished wall plaque is an external reminder of his renewed purpose.

1.2 Purpose of the Study

The purpose of this study was to answer three questions aimed at reducing the dropout rate at a state alcohol rehabilitation facility:

1. Are there identifiable characteristics of persons who are more likely to drop out of treatment?

2. Can these characteristics be identified at the time of entry into a treatment program?

3. Does voluntary participation in an occupational therapy program keep more clients in treatment?

Answers to these questions should provide ways to identify the potential dropout and indicate treatment strategies to meet his special needs.

1.2.1 Hypotheses

Seven specific hypotheses were addressed in the research. Category 1 hypotheses assess the relationship between client demographics and personality variables with treatment dropout. Category 2 hypotheses evaluate the effectiveness of some aspects of the Intensive Treatment Program by changes in clients' scores on pre and posttests. When available, differences in scores between dropouts and completers on posttests were

evaluated. Category 3 hypotheses relate to participation in occupational therapy and program completion. The seven hypotheses are:

1.2.1.1 Category 1

1. Ho: There will be no significant difference in client demographics between those who drop out of treatment and those who complete treatment.

2. Ho: There will be no significant difference in clients' perception of control over their drinking between dropouts and completers.

3. Ho: There will be no significant difference in their sense of purpose to their lives between dropouts and completers.

1.2.1.2 Category 2

4. Ho: There will be no significant change in the clients' perceived control over their drinking between dropouts and completers.

5. Ho: There will be no significant difference in change toward a more purposeful sense to their lives between dropouts and completers.

1.2.1.3 Category 3

6. Ho: There will be no significant difference in the number of clients who leave against medical advice during the 12 months prior to the inclusion of occupational therapy compared with the 6 month period when it was offered.

7. Ho: There will be no significant difference in the number of clients who leave against medical advice during the 12 month period after occupational therapy was offered compared with the 6 month period when it was offered.

1.3 Limitations of the Study

This study consisted of data collection through client evaluations and an intensive three afternoons a week occupational therapy program. It was not possible to carry out a similar program at another facility during this same period of time. The facility was chosen since the clients had free afternoon time for an additional program, an interest was shown in having the program, and it was within a reasonable travel distance from Boston.

A number of factors limit the generalizability of the results. They are:

1. This study was limited to one state alcohol treatment facility in southeastern Massachusetts.

2. The theoretical orientation of this facility is based on the disease concept of alcoholism. The results may not apply in behavior modification facilities nor programs with other treatment models.

3. Clients in this facility come from low socioeconomic backgrounds and (for the most part) were unemployed at the time of admission. Generalization of the results from this study cannot be made to clients from other socioeconomic backgrounds.

4. Since random assignment to a group was not permitted at this facility, "volunteerism" was an uncontrolled and possibly confounding variable in this study.

On the other hand, data were available for 66 clients entering the treatment program in the six month period from September of 1985 to March of 1986. Also, the inability to randomly assign clients to groups may

have been an unexpected benefit because it identified those who were more likely to complete the program.

1.4 Some Basic Definitions

1.4.1 Alcoholism

For this study "alcoholism" refers to an amount and frequency of alcohol consumption sufficient to result in serious social, psychological, physiological, legal or economic problems for the individual [Khantzian, 1983].

Alcoholism is now considered by many alcohologists to be a multi-faceted disorder rather than one single disease. The disease model of alcoholism was postulated by Jellinek after receiving only 158 out of 1600 questionnaires sent to members of Alcoholics Anonymous through their newsletter, The Grapevine. This sampling and retrospective self-report from members of one organization and later critical research by others [Orford and Hawker, 1974; Park, 1973] may lead one to question the accepted common progressive course of deterioration suggested by Jellinek [1946]. Though the controversy on how to define an alcoholic goes on and may not be settled for some time, some treatment providers find that each client should be assessed individually and there should be a range of treatment alternatives to fit client needs.

It should be noted that Jellinek reserved the term "disease" only for the alcoholic who cannot abstain from drinking or one who cannot stop drinking once he starts.

This caution on his part for the use of the term "disease" for only these two categories of alcoholics has been lost to popular misconceptions [Jellinek, 1960, p. 40].

Alcohol treatment in the Commonwealth encompasses 18 service delivery area networks. In 1986, the divisions of alcohol and drug abuse services were merged to consolidate the personnel of the two services into one single substance abuse authority for the Commonwealth [Massachusetts Department of Public Health, Divisions of Alcohol and Drug Rehabilitation, 1987].

This reflects the fact of multi-drug use including alcohol among the clients served. These services include:

emergency treatment for alcohol and drug detoxification,
public inebriate programs for homeless alcoholics,
intensive short-term inpatient treatment,
methadone outpatient service,
AIDS community outreach,
pregnant addict program,
recovery homes,
residential youth homes,
14 day driving under the influence for second offenders,
specialized counseling for women, elderly and minorities,
criminal justice,
driver alcohol education and youth intervention programs.

1.4.2 Occupational Therapy

Occupational therapy is the application of goal-oriented, purposeful activity and work processes to assist in the improvement, development or maintenance of mental, social or physical abilities which have been impaired by disease or injury. In order to assess and treat individuals, occupational therapists must be licensed by the state and nationally registered with the American Occupational Therapy Association. They may be aided by Certified Occupational Therapy Assistants (COTA) who are also registered with AOTA, Inc. [AOTA, 1983].

1.5 Outline of the Study

The remainder of this study is organized into four chapters. Chapter 2 reviews the literature related to the severity of alcohol problems, evaluation studies of alcohol treatment, client demographics in some state facilities, dropping out of treatment studies, occupational therapy studies, and a summary of the literature review.

Chapter 3 describes the sample, instrumentation, design, procedure and timeframe. Results of this study are discussed in Chapter 4, and Chapter 5 is devoted to a consideration of conclusions and implications.

C H A P T E R 2

REVIEW OF THE LITERATURE

2.1 Introduction

The review of the literature is presented in seven sections. Chapter 1 presented the problem of client attrition. It also stated that the purpose of this study was to identify some of the characteristics of dropouts, and to determine whether an occupational therapy program would help keep more clients in treatment. This chapter reviews literature related to the scope, treatment and attrition problems encountered in state alcohol programs. Studies of possible ways to help clients complete treatment are presented, followed by some conclusions from this literature review.

The severity of alcohol problems is given in Section 2.2, followed by an evaluation of alcohol treatment in Section 2.3. Some demographic correlates of clients requiring improved social policy are considered in Section 2.4. Factors in client attrition and matching client with treatment studies are discussed in Section 2.5. A review of occupational therapy research with other ways to match clients with treatment is given in Section 2.6, and conclusions are offered in Section 2.7.

2.2 Severity of Alcohol Problems

Problems from excessive alcohol consumption cause 25,000 motor vehicular deaths annually [Arnold, 1984]. Highway accidents are the leading cause of death among young people ages 15 to 24 [Mayer, 1983]. Alcohol is responsible for 69% of drownings, 70% of fatal falls, 83% of fire fatalities, and 10 million industrial accidents [Luks, 1983]. Alcohol is present in 64% of those who attempt suicide and more than one-third of successful suicides. The National Institute of Alcoholism and Alcohol Abuse (NIAAA) reports that it is often a factor in other aggressive acts such as assault and battery, child or wife abuse, and rape [NIAAA, 1981].

Alcohol problems also result in high morbidity and mortality from physiological and neurological disorders. Death rates from cirrhosis of the liver increased 36.6% from 1960 to 1970, levelled off in the early 1970s, but it is still ranked as the sixth most common cause of death in the United States. It is estimated that premature alcohol related deaths may run as high as 205,000 per year. Studies consistently show that various types of alcohol problems in males are associated with mortality rates two to six times higher than rates in the general population [NIAAA, 1981].

NIAAA reports that apparent consumption in the United States now averages two drinks every day for each person 14 years of age and older. A "drink" is the

equivalent of one and a half ounces of 80-proof spirits or "hard" liquor, 6 ounces of wine, or one 12-ounce can of beer [Vaillant, 1983, p. 109]. Since a third of adults report they abstain from any alcoholic beverages the average consumption of those who do drink is three drinks per person per day [NIAAA, 1981].

The majority of adults drink much less than that but a significant proportion drink far more. Fifteen million adults consume half of all the alcohol sold in America and 15% of all men and 3% of women who drink average at least 4 drinks daily [Luks, 1983].

Problem drinking rates as high as 40% for males between 21 to 24 years of age were found in a national survey of household populations [Cahalan and Room, 1974]. Johnson et al. [1977] reported that 21% of the females surveyed reported potential problems and 6% considered themselves problem drinkers.

2.3 Evaluation of Alcohol Treatment

Fewer than forty years ago, the first state facility to treat alcoholism opened its doors to 30 clients in Hartford, Connecticut. In 1980 there were more than one million admissions to state or federal facilities and there were three-quarters of a million in private facilities [Vischi, Jones, Shank and Lima, 1980].

The state treatment facilities came into existence due mainly to the efforts of the World Health Organization (WHO). In 1951 WHO stated that some forms

of alcoholism were a disease process and needed to be treated medically. They were funded by federal and state governments and, since alcoholism was designated as a disease, treatment was provided by the medical professions as well as by special alcohol counselors. In the latter category, particularly effective use was made of recovering alcoholics. Since they had been through recovery themselves, they were able to empathize with the client and teach him ways to stop drinking.

Program evaluations have been hampered by problems in analyzing differences between the stated treatment programs and the programs as they were actually conducted [Moos & Finney, 1983]. Effective treatment requires that staff demonstrate and document some interim changes which may promote successful alcohol recovery [ibid.].

Sobell [1980] states that evaluation of alcoholism treatment has not progressed in the last 63 years and feels that sampling bias and methodological inadequacies greatly reduce the value of most studies of treatment effectiveness. Ten long-term follow-up studies after alcohol treatment found only 13% to 16% of the clients improved [Vaillant, 1983]. He contends this percentage is less than the one-third recovery found in natural remission and feels we need to explore those natural processes. One conclusion is that although clinics do not always cure, they do reduce suffering and mortality by keeping the client in treatment [Vaillant, 1983, p. 314].

The majority of public 30 day intensive treatment programs consist of similar daily activities but differ in the quantity and quality of their programs, the client population, and the therapeutic community milieu. Clients are accepted into intensive treatment programs after detoxification and a psychosocial interview by a counselor with an agreement by the client to commit himself to one month or more of daily treatment for his alcohol problems. The program goals are:

a. recognize that alcoholism is an illness with physical, psychological and spiritual components,
b. learn to use the help that is available to understand and overcome this addiction,
c. identify changes necessary in destructive habits, attitudes, behaviors and relationships,
d. learn to make a personal inventory and assessment of one's liabilities and assets which will aid in the recovery process.

These are accomplished by means of information and confrontation groups, individual counseling, lectures on the disease concept of alcoholism, responsibilities in the residency and sharing of experiences and aspirations with others in the program.

Another problem in evaluating alcohol treatment programs has been the variability of outcome criteria. Emrick and Hansen [1983, p. 1080] list various

definitions which have been used in evaluation studies to measure "Successful drinking outcome". It has been defined as (1) total abstinence measured 6 months after treatment, (2) not engaging in destructive drinking for 6 months in a 2 year period and (3) reports by the wife that the client had 5 or fewer weeks containing any episode of unacceptable drinking.

Moderate drinking has been defined as: (1) drinking less than 5 ounces of alcohol on a typical day, (2) averaging less than 1 ounce of alcohol per day over 30 days before follow-up, or (3) consumption of 6 ounces of liquor or its equivalent [Emrick & Hansen, 1983]. Another author defines a moderate drinker as one who averaged 1 to 13 drinks a week or one who consumed on the average of 2 to 3 drinks a day or up to 7 drinks at one sitting no more than once a week [Vaillant, 1983, p. 110].

Even with these problems in treatment evaluation, some factors were noted which reduced drinking 6 months after treatment. Better results were obtained for clients in a milieu-oriented program in which they participated in more therapy sessions, attended lectures on alcoholism and AA meetings during their stay than did clients who stayed 3 months in a half-way house and a Salvation Army program. These researchers felt that intensity of program and not length of stay provides better outcomes [Finney, Moos & Chan, 1981].

An examination of one year follow-up in 58 studies and two year follow-up in 23 studies found that programs with the best outcome also had an intensive milieu and 6 to 8 weeks length of stay. Many of these programs also included behavior therapy, the use of disulfiram (Antabuse), outpatient aftercare following discharge and active involvement of relatives and employers [Costello, 1975a, 1975b].

Another study was made of 464 men in a Veterans' Administration Alcohol Treatment Program to determine if it were possible by two scales to predict the probability at intake of the likelihood of recovery from alcohol abuse after one year. One scale measured abstention only and the other measured the ability to function in a variety of life areas [Schuckit, Schwei and Gold, 1986]. The conclusion was reached that it was difficult to predict abstention except for those clients with a diagnosis of Antisocial Personality Disorder (APD) for whom the prediction was a pessimistic expectation of a return to alcohol abuse.

In summary, in order to improve treatment and keep clients in treatment, evaluation studies need to assess what is provided and delineate how it will be applied to address each client's alcohol problems. The relevance of these findings of alcohol treatment evaluation to the present study is that it is difficult to predict outcome

at intake except in the negative direction for those with antisocial personality disorders. Since the intensity of treatment seems to be an important factor in successful outcome, these APD clients may also benefit by more concentrated efforts at rehabilitation. In the present study, additional attitude scales may reveal problem areas which the client should address in his treatment program. Also, the creative and more intense aspects of the occupational therapy program and the willingness of the clients to participate in it may be shown to be important factors in successful treatment.

2.4 Client Demographics in Some State Facilities

There has been a downward shift to a younger population in the state facilities. The largest number of admissions is now in the 21 to 29 age group [Massachusetts Department of Public Health, 1987]. This may be due to a lower age of first drinking. In his review on teenage drinking, Globetti [1982] cited a California finding that 52% of seventh grade boys drank alcohol in 1969 compared with 72% in 1973. In another study, over 20% of tenth to twelfth graders reported drinking once a week [NIAAA, 1981 p. 22]. The increase in younger admissions may be the result of shorter periods between starting to drink and severe drinking problems due to multi-drug use. The increase may also be a consequence of increased parental and public awareness,

self-awareness of problem drinking through prevention programs in schools or more arrests for drinking while driving.

A number of the young alcoholics this researcher worked with in three treatment facilities had similar work and drinking patterns in their youth. They often started to drink at 11 or 12 years of age, dropped out of school before the ninth grade, had sporadic work histories, got into trouble with the law, and chose treatment rather than prison. These histories showed deficits in the home, the schools and the culture, not just in the individual. From this researcher's experience at a hospital in Hartford, Connecticut, it was noted that if just the individual is treated and then sent back to the same problems in living, he often is back in treatment within the year. These observations are similar to some of the societal correlates noted by Wechsler and Thum [1973].

Many of the clients are court referred admissions. They are in the program because they chose alcohol treatment rather than incarceration. Some who consider the civil liberties issues of confinement under the guise of treatment feel this is really no choice at all [Kittrie, 1971; Kurtz & Regier, 1975]. However, the crucial difference is that the client can, and often does, terminate treatment while the incarcerated

person does not have that option. Although leaving a program against medical advice, the client is usually not sought by the police and returned for treatment.

Ward [1980, p. 292] warns that the moral and ethical issues of enforced treatment must always be of concern to those involved in alcohol treatment. Fagan and Fagan [1980, p. 304] feel that alcoholics come in contact with the legal system to such an extent that legal coercion is a significant variable in alcohol treatment.

On the other hand, others feel that mandatory treatment is necessary to get the alcoholic into treatment for his sake and for the safety of others. It is estimated that less than 10% of this country's 10 million alcoholics seek treatment on their own [Brandsma et al., 1980]. Recovery statistics could be greatly improved if mandatory treatment were required of the 700,000 persons convicted of driving while intoxicated each year [Miller, 1982, p. 9]. Treatment center directors and government officials from 36 nations answered a survey on coercive laws. Of those surveyed, 61% felt a person on welfare because of drinking should be cut off from this support unless he goes for treatment and 62% felt that an alcoholic who voluntarily goes for treatment but drops out prematurely should return to therapy or risk a penalty [Luks, 1983, Appendix A].

Some health professionals feel changes in public and legal policies are necessary to change drinking habits in

the United States [Beauchamp 1980; Luks, 1983]. They advocate government policies which would limit alcohol consumption and increase the taxes on alcoholic beverages by 100%. Furthermore, they suggest that the family and community should set healthy examples of either no drinking or moderate drinking. The example is given of moderate drinking during celebrations and occasionally with dinner as is the custom among many Italians, Orientals and Jews. Distilled spirits are also seldom used among these cultures. Drunkenness is frowned upon and is seldom seen in Israel. The statistics confirm this since the alcoholism rate in Israel is .2% of the population and, by contrast, the United States has an alcoholism rate of 5% or 25 times higher [Luks, 1983]. Beauchamp and Luks also suggest that drinking attitudes and habits will change as more people become concerned about health habits as they did with smoking.

In summary, many clients come into alcohol treatment in their mid-twenties by court mandate. Often one third of the clients will leave against medical advice without legal repercussions. Instead of legally detaining the client, we should first improve our treatment by careful assessment of client needs and implementation of programs which will motivate clients to complete their recovery from alcohol abuse.

2.5 Dropping Out of Treatment Studies

A review of client attrition summarized the dropout as one with use of alcohol at a younger age and now in a more advanced stage of alcoholism. The dropout often socially isolates himself, has difficulty forming close relationships and shows more marital instability [Baekeland & Lundwall, 1975].

A study of 1233 clients from state hospitals and mental health centers found a number of factors which correlated with premature termination. These variables were: involuntary admission, denial of problems, hostility and admission while intoxicated, younger age, unemployed and being married or living with another person [Altman, Evenson and Cho, 1978].

Contradictory findings of dropout variables were noted by others. As mentioned in Chapter 1, when given a choice, the less socially and economically stable clients were more likely to accept and had better outcomes one year after inpatient treatment [Kissin, Platz and Su, 1971]. We may, perhaps, assume that many of these clients felt they needed hospitalization to meet their economic, physical or survival needs. The authors felt that the success rate in alcohol treatment could be improved "by offering a variety of treatment programs and allowing the patient some choice" [ibid. p. 179].

The Kissin et al. proposal addresses the third question in the program under study "Does voluntary participation in an occupational therapy program keep more clients in treatment?" The element of choosing a therapeutic activity related to his treatment may increase his investment and involvement in the program.

Another study found that divorced or single clients were more likely to complete treatment. This was thought to be a result of the reciprocal roles enacted by the married alcoholic and the spouse. That is, the alcoholic remains in the deviant role he is used to at home and the spouse's "enabler" role allows him to do so [Hahn & King, 1982]. Some treatment centers now have specialized family social workers who meet with the spouse and help her to understand the enabler's role. AlAnon, a self-help group for relatives of alcoholics, has also been effective in this endeavor.

Correlations between the characteristics of some alcoholics and sociopathic personality disorders, or what the American Psychiatric Association (APA) now terms antisocial personality disorders, have been studied [Schuckit, Schwei & Gold, 1986]. The APA judged that therapists should assess whether poor occupational and social functioning on the part of the client is due to substance abuse or a pre-existing personality disorder in order to work more effectively with him [APA, 1980]. Of course, not all alcoholics are sociopaths; conversely,

not all sociopaths are alcoholics. It is important to find if these deviant characteristics existed before the onset of alcoholism [Schuckit, 1973]. This can be done by a careful case history carried out by the psychologist before the client enters the Intensive Treatment Program. Similar antisocial personality characteristics have been noticeable in those who drop out of treatment [Baekeland, Lundwall & Shannan, 1973; Caster & Parsons, 1977; Altman, Evenson & Cho, 1978; Mandell, 1981]. Since these characteristics may help identify the potential dropout, they will be considered in some detail [Goldstein & Linden, 1969].

The classic description of the sociopath is one with superficial charm, intelligent, unreliable, untruthful, insincere, lack of remorse or shame, antisocial behavior, poor judgment, failure to learn by experience, general poverty in major affective relationships, pathological egocentricity, incapacity for love, unresponsiveness in interpersonal relations, poor insight, annoying behavior when drinking, threats of suicide, impersonal sex life and failure to follow any life plan [Cleckley, 1976].

One study used four factors associated with sociopathy on the Minnestota Multiphasic Personality Inventory (MMPI). These factors identified 47% of 513 consecutive male admissions to a state hospital alcoholism unit as sociopaths [Goldstein & Linden, 1969].

These four factors associated with sociopathy were:

(1) Psychopathic Personality with an emotionally unstable personality, poorly controlled anger which often resulted in acting out behavior;

(2) Psychoneurotic Factor with severe chronic alcoholism, poor marital relationships, somatic complaints and suicidal ideation;

(3) Primary Alcoholism/Secondary Sociopathy with a long history of chronic alcoholism and many acute episodes, sporadic hospitalization with frequent administrative discharges (ADM) or dropping out against medical advice (AMA);

(4) Primary Alcoholism with Secondary Drug Addiction and Paranoia with a long history of alcohol abuse and the substitution of other drugs when alcohol was not available.

Some of these characteristics, such as poor impulse control, acting out behaviors and complaints of being ill as a way of being excused from group, occur fairly often, especially when the client is new to the facility. These appear to be used by the client to assess what is and is not permitted in the treatment program. Since these can be fairly disruptive and annoying behaviors, they are approached in the occupational therapy group by first reminding ourselves that this is how the client learns. He has probably dealt with authority figures as a teenager by this limit testing method. The therapist's reponse is, in turn, used to remind the client of the rules and regulations of participation in the group in a straightforward but caring manner.

A proneness to aborting treatment AMA and rule infractions are also often displayed by the client to

assess what is permitted. These are discussed with his assigned counselor and acted upon immediately when these more serious rule violations are observed.

In a 21 day residential treatment program, a study of dropouts used the Denial Scale, the Dependency Scale and Psychopathic Deviate Scale derived from the MMPI [Pekarik, Jones and Blodgett, 1986]. They found higher denial and psychopathy and lower dependency scores for dropouts compared with completers. Similar results were obtained by others [Mozdzierz et al., 1973; Huber & Danahy, 1975]. It could be concluded that clients who deny their alcohol problems may feel they don't need treatment and will leave AMA. The problem of denial, which is so prevalent among alcoholics, is applied in the present study by identification of alcohol problem areas at the initial evaluation with the client and having the client continually address them in the occupational therapy program [Weinberg, 1982, p. 296].

In a helpful study on matching clients to treatment, William Mandell [1981] suggests that there may be three subtypes of sociopaths, the primary, the hysteroid and the inadequate sociopath. They can be recognized by their different motivation for treatment.

The primary sociopath often comes into treatment to avoid threats to his physical safety in the community or among other "street people". If he is coming from prison, it is usually under supervised parole.

The hysteroid sociopath often has had a serious illness which affects his mental functioning, his physical abilities, or his work capacity. In the case of women, the female hysteroid sociopath may come for treatment because she is threatened with having her children taken away.

The inadequate sociopath may accept rehabilitation due to the loss of all resources and a constant fear of dying. These clients are limited in their intellectual, verbal, self-care and social abilities and are the most prone to leaving treatment prematurely.

Although each subtype can be helped by different treatment strategms, the basic strategies common to the three sociopathic subtypes are outlined here [Mandell, 1981, pp. 339-348]:

1. Establish a short range but firm contract with the client requiring active participation in the treatment.

2. Explore what control the client perceives he has over his drinking problems.

3. Use daily activities as "learning opportunities to expose the cues that provoke impulsive responses, label them, and practice substitute behaviors to these cues."

4. Require him to become involved in the groups rather than socially isolating himself.

5. Be alert to signs of panic and urges to leave AMA.

6. Teach other activities to deal with his anger and pent up energy, such as physical or leisure activity.

Some conclusions of this section are, firstly, the client labelled as having an antisocial personality disorder is one of the most difficult clients to keep in treatment.

This section relates to two of the questions under study:

1. Are there identifiable characteristics of persons who are more likely to drop out of treatment?

2. Can these characteristics be identified at the time of entry into the treatment program?

These clients require early identification and matching the treatment to fit his needs and previous learning traits. This may enable him to begin to believe that self-control and growth can better meet his goals than leaving AMA and returning to abusive drinking. A fairly structured program is required so that the client will actively participate, benefit from treatment and be more likely to stay in treatment. A variety of treatment modalities should be offered to meet the client's needs rather than what is "easiest or simply happens to be available [Mandell, 1981, p. 306].

Early attrition is considered a useful indicator of whether the program is matching the client's needs. If a client does leave, the treatment evaluation may be aided by examining the characteristics of dropouts and program completers.

2.6 Occupational Therapy

Occupational therapy has always been guided by the belief that there is a reservoir of sensitivity and skill in the use of our hands which can be tapped for our well being and increase our feelings of worth [Reilly, 1962]. It was founded on the principle of actively engaging the patient in purposeful activity rather than the more verbal therapies.

Occupational therapy's unique contribution is the development of an understanding of the nature of work, occupation, and purposeful activity. There are differing frames of reference among occupational therapists ranging from the more medically oriented to the occupational behavior tradition. The conceptual model on which this present study is based is the model of human occupation. The term model has been used to define this conceptual basis of occupational therapy since it is not yet a theory, but a changing paradigm.

The model of human occupation is based on a systems framework to understand how occupational behavior is motivated, organized and performed [Kielhofner, 1985]. This model conceptualizes an open, human system with three subsystems. These subsystems are volition, habituation and performance.

The volition subsystem is responsible for choosing and initiating occupational behavior. It is based on

our motivation to explore and master our environment. The components of the volition subsystem are personal causation, values and interests. Personal causation is based on our expectations and beliefs about our effectiveness in life. This includes the belief that outcomes in life are determined by our personal actions as opposed to the actions of others, fate or chance. This perception of internal or external control is the basis of the Drinking Related Locus of Control scale used in the present study and it will be discussed in Section 3.3.

The habituation subsystem organizes occupational behavior into routines, habits and roles. Roles change over the life cycle, such as from student, to worker to volunteer in later life. These role changes also inter-relate with our habits and routines. Optimal health integrates our habits and routines with our changing roles.

The performance subsystem produces occupational behavior through the organization of skills. Skills consist of motor, perceptual and cognitive components which interact to produce goal directed action.

These systems conceptualize a continuum from conscious choice and management of these choices to the performance of human occupation. These concepts and determinants of human occupation are shown in a systems hierarchy in Table 2.1.

Table 2.1 Determinants of Human Occupation

VOLITION

Personal Causation
Belief in skill, efficacy of skill, expectancy of success/failure, internal/external control

Valued Goals
Meaningfulness of activity, occupational goals, personal standards, organization and use of time

Interests
discrimination, pattern, potency and pleasure of occupation

HABITUATION

Roles
status, rights, obligations, balance, internalized expectations

Habits
organization, flexibility/rigidity, social appropriateness

PERFORMANCE

Skills
work capacity, problem solving, decision making, neurological, musculoskeletal, perceptual-motor, symbolic, process, interpersonal, leisure, daily living, self-care

ENVIRONMENT

Group
social, cultural, ethnic

Setting
work, home, hospital, nursing home, recreational

With some exceptions, such as a previously cited study [Mandell, 1981], the match of clients to treatment is often addressed by whether the client is in an inpatient or outpatient clinic, whether it is oriented around the disease model or the behavioral model of alcoholism or whether it engages the client in individual or group therapy [Kelner, 1981]. Occupational therapy is a different kind of matching. Based on the volitional subsystem shown above, the client is asked what he values, what his goals are, what he likes to do, what his hobbies are and what he does well. His previous or present interests and abilities are matched to his current physical or psychosocial needs [Burke, 1977].

The concept of purposeful activity has been a major theme from the beginning of occupational therapy to the present [Breines, 1984]. Controlled studies to measure its effectiveness have only appeared recently in the literature [Kircher, 1984; Steinbeck, 1986]. Purposeful activity was defined as "an activity, task, or process in which the individual actively focuses on the achievement of a goal inherent in the activity" and nonpurposeful activity was defined as "the absence of an inherent goal other than the specific muscle or extremity function" [Steinbeck, p. 530, 1986]. In this study, clients use a lower extremity pedal machine to operate a drill press. This is compared with operating a nonpurposeful pedal machine. The results showed a significantly greater

number of repetitions for the purposeful activity compared with the nonpurposeful activity. Purposeful hand activity engaged the client in rapid unilateral squeezing of a rubber bulb to produce a steady jet of air necessary to maintain a Ping-Pong ball at a certain level of suspension on an inclined track. The nonpurposeful activity was the same rubber bulb detached from the game. Purposeful hand activity repetitions were significantly greater than the nonpurposeful repetitions. This supported the hypothesis that persons will be motivated to perform longer when the activity is purposeful.

Purposeful activity relates to the present study by having the client symbolize the treatment program of abstinence onto a wood plaque in occupational therapy. The client is in treatment for the purpose of learning to abstain from drinking alcoholically and this reminder is displayed on the work he is creating. It addresses question 3 in this study by providing the opportunity for the client to actively participate in the program.

There have been few studies on occupational therapy in alcohol treatment. One article described the AMA's [1980] reclassification of alcoholism from a psychological disorder to a disease [Lindsay, 1983]. Occupational therapy was employed as part of the therapeutic milieu to engage the client in leisure activities not associated with alcohol but no hard data was obtained to determine its success.

Another study compared time spent in daily activities by alcoholics before they entered treatment with non-alcoholics in the community [Scaffa, 1982]. The hypotheses were that alcoholics would show significant differences in their previous interests, goals and use of their time compared with non-alcoholics. The methodological weaknesses of this study were that one of the instruments used did not have demonstrated reliability and validity, and the sample was one of convenience. This study is briefly described with this caution in mind.

The sample consisted of 25 volunteer subjects who were in alcohol treatment for two weeks or less at a state hospital. The 25 non-alcoholic volunteer subjects were students and local people in diverse work. A time log for each half-hour period of waking time was used to assess the amount of time spent in work, self maintenance and leisure [Riopel, 1981]. A statistically significant difference was found in the number of activities in which the alcoholic group (21) and the non-alcoholic group participated (39). It was also found that the alcoholics had more than one-and-a half fewer waking hours each day. Further, the non-alcoholics spent considerably more time at work (53%) compared with the alcoholics (28%). One other finding was that the alcoholics spent over 26% of their time in alcohol related activities compared to less than 1% for the non-alcoholics.

However, the amount of time spent at work for the non-alcoholics appears quite high since half their time was spent in work related activities, while the alcoholics reported they spent one-third of their time in work activities. It may be that the non-alcoholics spent more time at work because they derived a lot of satisfaction from it and were willing to spend additional time after the normal eight hours of work. Alcoholics, on the other hand, may not get that much gratification from work and simply work the required hours.

The results from this study may lead us to conclude that alcoholics spend more time sleeping and in alcohol related activities rather than work activities. As Scaffa points out, "This is not surprising in view of the fact that impairment in occupational functioning is part of the definition of alcoholism as stated in the Diagnostic and Statistical Manual of the American Psychiatric Association" [APA, 1980].

In spite of design problems, this study suggests some interesting avenues for occupational research with alcoholics. These findings of impaired use of time can be related to the use of time in the occupational therapy program under study. In the current study, it was anticipated that some clients would begin to use their free afternoon time in purposeful activity related to the treatment goal.

The process an alcoholic may take in making a commitment to sobriety is outlined in a study of the decisions and steps one goes through in "spontaneous" remission [Tuchfield, 1981]. Life histories of 35 men and 16 women who stopped misusing alcohol were obtained when they reponded to an advertisement in the local paper. Interviews revealed nine factors which were given in deciding to stop drinking abusively.

These factors were:

a. 17 subjects had a personal illness or an accident,

b. 6 were convinced by educational material about alcoholism,

c. 13 experienced a religious conversion or exerience,

d. 9 had family pressure to stop drinking,

e. friends intervened in 7 cases,

f. 11 felt their financial problems from drinking left them no choice,

g. 7 knew of an alcohol related illness or death of another person,

h. 4 had alcohol related legal problems,

i. 15 experienced an extraordinary event, such as, an attempted suicide, a personal identity crisis or personal humiliation [Tuchfield, p. 632].

Reviewing this list of the reasons these people stopped drinking indicates that there were "few, if any, cases in this study which could be characterized as

'spontaneous'" [ibid. p. 638]. The author suggests that the process leading to problem resolution in formal treatment should incorporate a comparative design and concludes that persons who change their alcohol-related leisure activities are more likely to be successful in maintaining a state of problem resolution. The first step in the process is to recognize that there is a problem with alcohol and it must be addressed. Step two is to disengage from the environmental antecedents which may lead to abusive drinking. This is accomplished by entering alcohol treatment. Step three requires changes in daily activity to purposeful and constructive activity rather than the self-destructive misuse of alcohol. The occupational therapy process helps in this by aiding the client in establishing new habits and using them creatively in the completion of realizable goals. This commitment to stay in treatment may also be aided by concentrating on an interesting project in occupational therapy and looking forward to its completion.

A sustained change in daily activities occurs when one applies the interest developed in occupational therapy to one's leisure time on leaving the treatment facility. Figure 2.1 illustrates the phases the client may experience in sustaining his commitment to resolve his alcohol problem.

This study was helpful by looking at the resolution process in "spontaneous remission" and applying it to

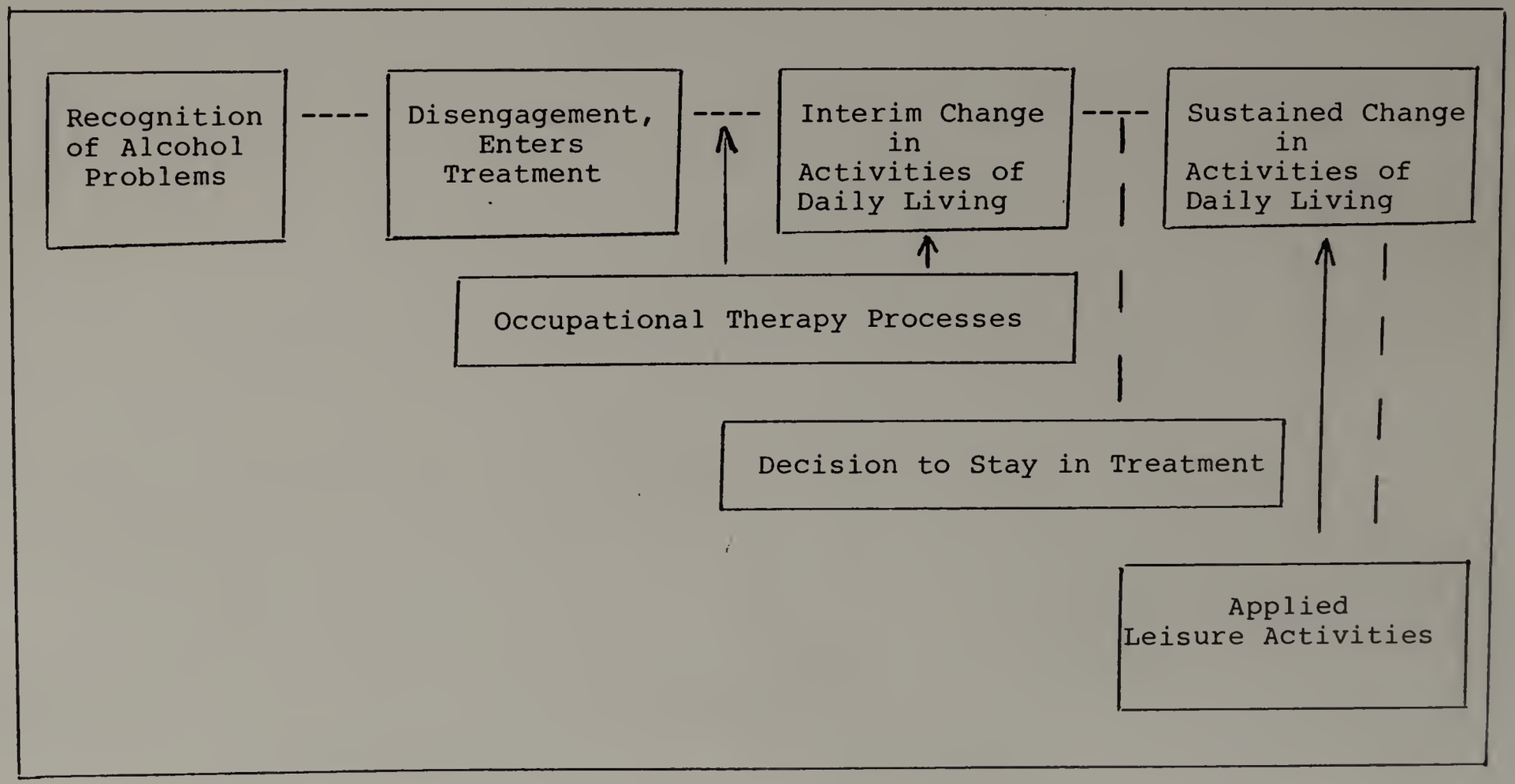

Figure 2.1 Conceptual Dimensions of the Resolution Process.

Resolution process modified from Tuchfeld, 1981. Broken lines indicate possible course of action; solid lines indicate lines of influence.

treatment in a state alcohol facility through the occupational therapy program. It addresses question three of this study by assessing the program ingredients which might be helpful in preventing early client attrition.

Many alcoholics who came to the treatment facility in the course of this study had seen the Alcoholics Anonymous sayings on the walls of their detoxification unit and said they remembered them as the first thing they noticed when they were recovering. This researcher had a book of these sayings and it was used by clients who wanted suggestions on which saying to apply to the craft project in the occupational therapy program [J.M., 1983]. Examples of some of the signs are "Easy Does It", "There's One Thing I Cannot Do", and "I'm sick and Tired of Being Sick and Tired".

A literature search on the therapeutic use of maxims or slogans yielded few articles. One paper discussed the effectiveness of symbols or sayings in adding to the cohesiveness of the group and defining the group's behavior code in the therapeutic community [Bassin, 1984]. The white life preserver with the words "Hang Tough" was suggested as the most popular maxim for drug addicts in the therapeutic community movement.

2.7 Summary

The literature review described the severity of alcohol problems in the United States and the

government's response to it by establishing treatment facilities for alcohol abuse. Evaluations of these treatment facilities have been impeded by sampling bias, methodological inadequacies, differing outcome criteria and, difficulty in differentiating the purported treatment with the treatment which was actually conducted. Many in the field assert that our treatment must be intensified and matched to meet the client's needs or he will more than likely leave treatment prematurely. This is especially true for the antisocial personality disorders.

The characteristics of the antisocial personality client have been detailed and possible interventions have been described to help keep him in treatment. The model of human occupation was presented as the paradigm used in this study to more fully understand the determinants of human occupation. These are applied in the occupational therapy program at the intake evaluation by assessing the client's goals and habits and adapting them in the project the client undertakes in the occupational therapy group.

The literature review indicates that premature termination from alcohol treatment in state facilities is a difficult problem in alcohol rehabilitation. The use of occupational therapy may help the client stay in treatment by accomplishing small, creative tasks while attaining his goal of abstinence "One Day At A Time".

CHAPTER 3

METHOD

3.1 Introduction

The purpose of this study was to assess three questions relevant to the dropout rate at a state alcohol rehabilitation facility:

1. Are there identifiable characteristics of persons who are more likely to drop out of treatment?

2. Can these characteristics be identified by attitude scales at the initial evaluation?

3. Does voluntary participation in an occupational therapy program keep some clients in treatment?

This chapter gives a description of the sample used in the study in Section 3.2, the instrumentation in Section 3.3, the design in Section 3.4, the procedures in Section 3.5, and the timeframe in Section 3.6.

3.2 Sample

Facilities for the treatment of alcohol abuse within a 50 mile radius of Boston were sent a proposal to research the efficacy of occupational therapy in their alcohol treatment program. Site visits were made to those showing an interest. Final selection of the facility was determined mainly by two factors. They were the number of admissions to provide an adequate sample

over a six month time period and the availability of space for the implementation of an occupational therapy program.

The North Cottage Program was originally at Boston State Hospital and is now located in a rustic setting thirty miles south of Boston. The site was formerly a private school and has a number of elegant buildings and the remnants of a tennis court. Two houses contain the alcohol rehabilitation services. The smaller house is used for clients in the Intensive Treatment Program (ITP). The large residency is used for administrative and counseling offices, the kitchen and dining areas and a work-residency program for clients who have completed the Intensive Treatment Program.

The sample of participants was those entering the male Intensive Treatment Program in Norton, Massachusetts from September 15, 1985 to March 14, 1986. Of the total of 78 clients in the six month space of time, 66 were evaluated. Four clients were not evaluated in September due to scheduling problems, three were lost during the Christmas break, and five chose not to be evaluated in March since the occupational therapy program was to end March 14, 1986.

Clients were from a low socio-economic status, with an average yearly income of $6,000. More than half the sample did not complete the 10th grade in school, were not working at the time of admission and 60% had not held

the same job for more than one year. Their ages were from 19 to 51 with a mean age of 29.5 years. The majority were single and all except three of the clients were white.

3.3 Instrumentation

Three instruments were used in this study. They were an interview guide (Table 3.1) to assess the demographic and personality characteristics of the participants, the Drinking Related Locus of Control Scale (DRIE) and the Purpose in Life Test (PIL). The interview questions were used to encourage the client to assess his alcohol problem and begin to talk about it in relation to his goals in treatment and future work.

After the completion of the demographics interview, the Drinking Related Locus of Control Scale (DRIE) and the Purpose in Life Test (PIL) were given. The DRIE related to one's perception about drinking attitudes and behaviors. The PIL assessed the meaning and purpose one holds in life.

Locus of control research with alcoholics has been reviewed by Rohsenow and O'Leary [1978, I and II] and provided a helpful starting point for analyzing the more specific Drinking Related Locus of Control (DRIE) scale. The DRIE was originally constructed by Keyson and Janda [1972], and was expanded by Oziel and Obitz [1975]. It is a 25-item forced-choice scale to measure perceived locus of control over drinking behaviors. The format and

Table 3.1 List of the Interview Questions

Questions
1. What brought you to the Intensive Treatment Program and what do you hope to gain from it?
2. Have you been in treatment before?
3. What was the age you started to drink?
4. When do you feel it became a problem?
5. Do any other members of your family have a drinking problem?
6. Are you an only child, the oldest, the middle or the last born? How many brothers and sisters?
7. How much school have you completed?
8. What kind of employment have you had?
9. What is the longest time you ever spent on a job?
10. Why did you leave your last job?
11. What work would you like to do in the future?
12. What are your leisure interests or hobbies?
13. Are you or have you been married?
14. Do you have any children and, if so, how many?
15. Is there anything else you'd like to tell me about yourself?

assessment of the DRIE is similar to Rotter's Internal-External (I-E) Locus of Control Scale [1966]. It was developed to provide more specific expectancies in the physical environment and psychological situations where drinking might occur. In each item an internally oriented response alternative is paired with an external alternative, each focusing on the same drinking-related topic. The client chooses the response which more closely approximates his belief or behavior. Higher scores reflect more externality, or less perceived control over one's drinking.

Donovan and O'Leary [1978] measured reliability, factor structure and validity of the DRIE. Construct validity was found by comparing alcoholics and non-alcoholics on the I-E, the DRIE and the Alcohol Use Inventory. They found significant differences between alcoholics and non-alcoholics on the DRIE but not on the I-E. Significant correlations between the DRIE and I-E scores ranged from .16 to .29. Abbott's (1984) study found that the DRIE was more successful in predicting treatment outcome rather than the I-E. Walker, Nast, Chaney and O'Leary [1979] found that alcoholic patients' scores shifted to a more internal control over the duration of treatment.

One additional study was interesting since it studied an aspect of volunteering for treatment [Langrod, Des Jarlais, Alksne and Lowinson, 1983].

Their first hypothesis was that methadone maintenance patients with an internal locus of control would more likely indicate a willingness to begin detoxification. Their second hypothesis was that of those patients indicating a willingness to begin, those with an internal locus of control would be more likely to actually begin. A non-significant trend was found in support of the first hypothesis. The second hypothesis, however, was reversed at a statistically significant level ($r= -.30$), ($p=.012$). Those with an external locus of control were actually more likely to begin. They found correlates as high as one would expect between a general personality trait and a specific behavior but in the opposite direction from which they predicted.

The Purpose in Life Test (PIL) was developed by Crumbaugh and Maholick [1964]. The theoretical basis of this scale is the concept of "existential vacuum" described by Frankl [1976] as a failure to find meaning and purpose to life manifested chiefly by boredom. Part A of the PIL is a 20 item 7 point rating scale to measure the degree to which an individual experiences goals and meaning in his daily life. The items used position 4 as neutral and descriptive terms for points 1 and 7 as in:

Life to me seems:

7	6	5	4	3	2	1
always exciting			neutral			completely routine

Part B of the PIL consists of 13 sentence completion items, and Part C requires the writing of a paragraph on one's aims, ambitions and goals in life.

Reliability of the PIL, as reported in Buros [1972], is in the low .90's. Extensive validity data based on 1,151 cases is reported by the authors. Ministers' ratings of parishioners had a correlation of .47 with the MMPI Depression scale. One study found that high school students who abuse drugs were shown to have low PIL scores [Padelford, 1974]. Another study found that hospitalized alcoholics had lower PIL scores than neurotic outpatients [Crumbaugh, 1968].

More than 50 Ph.D. dissertations have used the PIL as a major instrument. It has been criticized, however, for assuming the values derived from the Protestant work ethic and may also have ambiguous wording [Yalom, 1980]. Others noted that psychology students associated "exciting" with being agitated or nervous rather than interesting or stimulating [Batista & Almond, 1973]. However, it is Yalom's opinion [1980, p. 457], that even with these reservations, it is the only instrument that studies meaninglessness in a systematic way.

3.4 Design

The design was a non-equivalent control group design described as design 10 by Campbell and Cook [1979]. It incorporates pre and posttests of clients in the Intensive Treatment Program.

This study compared the number of clients who dropped out of treatment with those who completed treatment. This study also compared the number of those who dropped out of treatment in the 12 months prior to and the 12 months after occupational therapy was discontinued with the number of clients who dropped out during the six months when occupational therapy was offered.

3.5 Procedure

Clients who volunteered to be interviewed were evaluated by the occupational therapist during the first week on entering the Intensive Treatment Program. After introductions, the importance of the protection of the client's confidentiality was stressed. As used in the facility, no names are identified. All client records use a coding system such as, for example, the first and third initials of first name, middle initial and the first and third initials of the last name.

The client was informed that some questions would be asked which probably had been discussed with other staff but that he and the research might see them in a different light. These questions were related to his drinking, his family, his educational and occupational history and his hobbies (See Table 3.1, p. 44.).

After the completion of the demographics interview the two evaluations were administered. One was related

to his perception of control over his drinking and the other assessed his attitudes about life.

The Drinking Related Locus of Control (DRIE) scale was then given orally with a "yes" or "no" answer elicited. It was given orally rather than in the usual written form since some clients at the facility were functionally illiterate and a number of others could not understand the questionnaire.

The Purpose in Life test was given to each participant with the directions to circle the attitude which most nearly fitted him. He was asked to not use the neutral score unless he was really undecided.

After completing this scale, it was briefly discussed with the client to ascertain his present mood and outlook and to give him feed-back on his present goals and future plans.

Further action was taken if he circled 1 or 2 on the question:

With regard to suicide -

1	2	3	4	5	6	7
I have thought of it seriously as a way out.					I have never given it a second thought.	

The time, circumstances and reasons for contemplating suicide were discussed with him. After the interview, his counselor was notified of this discussion for precautionary measures.

The client was told that research on occupational therapy was being carried out to determine its usefulness in the treatment of alcohol abuse. It was a voluntary program which was held during the clients free afternoon time. The projects made during occupational therapy were sayings inscribed on wood depicting the advantages of living alcohol free. The wall plaques were his to take with him when he left the program as an external reminder of his intention to change his drinking habits. Each client was told that although this was a voluntary program, once he signed up for the program, he was required to stay in it until the completion of intensive treatment.

Clients who decided to volunteer for occupational therapy were asked to think of a proverb or saying which applied to his problem areas when he might be tempted to drink. Many of the clients had seen sayings at AA meetings and often had a favorite. A few of the most popular are listed in Figure 3.1. A book of sayings was also available for those who had not chosen a saying [M.J., 1983]. The client was asked to choose a saying to work on at the next occupational therapy group. At the conclusion of the evaluation, the client was informed that during his last week in the program he would again be asked to complete two evaluations to see how he then felt and to discuss his progress in the program.

Sayings
LIVE AND LET LIVE
EASY DOES IT, (BUT DO IT)
IF I WASN'T DRINKING, I WAS THINKING ABOUT DRINKING
ONE DRINK IS TOO MANY - A THOUSAND IS NEVER ENOUGH
IT'S THE FIRST DRINK THAT GETS YOU DRUNK
MY WORST DAY SOBER IS BETTER THAN MY BEST DAY DRUNK
REMEMBER TO REMEMBER
THE PAST IS HISTORY - THE FUTURE IS A MYSTERY
WHEREVER YOU GO THERE YOU ARE
NO PAIN - NO GAIN
GROW OR GO
PROGRESS NOT PERFECTION
SICK AND TIRED OF BEING SICK AND TIRED
YOU NEVER HAVE TO BE ALONE AGAIN
LIVE ONE DAY AT A TIME AND MAKE IT A MASTERPIECE
THE JOY IS IN THE JOURNEY

Figure 3.1 Examples of Popular Sayings
Source: M. J. [1983].

Occupational therapy was held Monday, Wednesday and Friday afternoons from 1 to 3 PM. Volunteers from the patient officers were asked to set up the work tables in the patient lounge before lunch. Supplies and equipment were kept in the office and brought out 15 minutes before the occupational therapy program began. The attendance was taken at the start of each session with a copy given to the Intensive Treatment Program director.

The occupational therapist began each Monday session with a reminder of the objectives of the program, the rules, regulations and safety precautions required in woodworking. Clients were urged to discuss what they were planning to work on or what they were now working on. They were given demonstrations in the use of the lettering guides and woodburning pens each Monday as new clients entered the program.

Sessions consisted of clients lettering their chosen saying first on paper using a lettering guide or free style and then tracing it on to the wood using carbon paper.

On the average, clients were able to meet a goal of completing one project each week. The first project was a simple plaque just to get to know the media. The second was a calendar with a saying on it. The third project was a wooden and leather letter holder. The sessions concluded with a group discussion of what each client felt he had accomplished and problems he had

encountered. Clean-up and storage of materials was the responsibility of all clients monitored by the patient officers.

As clients became familiar with the materials and working with others in the group, improvement in work habits were noted. There was less waste of the wood and shellac available, brushes were cleaned before putting them away, and clients took more time in planning their projects on paper before carboning them on wood. Some clients who were skilled in carpentry and painting were at first critical of the lack of table and skill saws. They generally accepted the hand tools with less complaints after a few weeks.

3.6 Timeframe

Two meetings were held in the summer of 1985 with the Executive Director of the North Cottage Program and the Program Director of the Intensive Treatment Program. Both had received the occupational therapy treatment facility research proposal (See Appendix A). They were interested in the project but felt it would have to be conducted on a voluntary basis and only if clients wanted to participate. After this was agreed to, the safety considerations for using the woodburning equipment and worktable space were reviewed and found satisfactory.

The occupational therapist discussed the research project with the clients at an evening meeting in early September. Two clients raised the question of their

reading ability and asked if they would be helped when it came to choosing a saying. These questions were discussed and agreed upon, and the evaluations were begun in September. The first occupational therapy group was held the second week in September.

Since the average length of stay was six weeks rather than the 28 days as anticipated, a number of the clients finished their three plaques and wanted to do other projects with the wood and leather supplies. These materials were donated by local merchants and the supply was limited. The more advanced clients were asked to make plaque samples to place in the offices and other tasks for the program.

Toward the end of the six month period when occupational therapy would be discontinued, new admissions were informed of this. Five clients chose not to be evaluated for the occupational therapy program.

C H A P T E R 4

RESULTS AND DISCUSSION

4.1 Introduction

The purpose of this study was to answer three questions related to reducing the dropout rate at a state alcohol rehabilitation facility:

1. Are there identifiable characteristics of persons who are more likely to drop out of treatment?
2. Can these characteristics be identified at the time of entry into a treatment program?
3. Does voluntary participation in an occupational therapy program keep more clients in treatment?

Chapter 3 described the method of evaluating 66 clients who entered the Intensive Treatment Program in the six month period. Of these clients, 34 participated in the occupational therapy program and 32 chose not to participate. There was one client who left against medical advice (AMA) from the occupational therapy group and 11 who dropped out AMA or were administratively discharged (ADM) who did not take occupational therapy. One other client was transferred to a hospital for medical reasons.

Data will be presented in Section 4.2 on the seven hypotheses related to the three primary research questions. These findings are discussed in Section 4.3. A case example of a completer and a dropout are presented in Section 4.4. A summary of the main findings is given in Section 4.5.

4.2 Investigation of the Hypotheses

4.2.1 Hypothesis 1

There will be no significant difference in client demographics between those who drop out of treatment and those who complete treatment.

The demographic variables did not yield significant differences between the dropouts and the completers (See Table 4.1). The mean age of dropouts was 26 years. Four of the dropouts were the fifth child and two were the sixth child in the family. One-half of the dropouts did not complete the ninth grade in school. One-third of the dropouts started drinking before the age of 14 and 75% started drinking before the age of 16. 42% had been drinking for 5 to 10 years and half the dropouts felt their drinking became a problem before age 18. One-half of the dropouts had two or more other members of the immediate family who had an alcohol problem.

Of the 12 dropouts, one was in the occupational therapy program. He was 20 years old and was the oldest of three boys. All immediate family except the mother drank to excess. The client started drinking alcohol

Table 4.1 Client Demographics

Group	Number of Clients	$\bar{X}$	SD	df	t-Value	Probability
AGE						
AMA	12	26.00	5.6			
				63	-1.80	.076
NoAMA	53	30.40	8.0			
BIRTH ORDER						
AMA	12	3.0	1.3			
				63	-0.18	.860
NoAMA	53	3.13	2.5			
NUMBER OF CHILDREN IN FAMILY						
AMA	12	4.17	1.45			
				63	-0.47	.643
NoAMA	53	4.6	3.02			
SCHOOL GRADE COMPLETED						
AMA	12	10.08	1.7			
				63	-0.73	.466
NoAMA	53	10.64	2.5			

Continued on next page

Table 4.1 --- Continued

Group	Number of clients	$\bar{X}$	SD	df	t-Value	Probability
AGE OF FIRST DRINK						
AMA	12	14.17	2.04			
				63	-0.30	.764
NoAMA	53	14.4	2.44			
YEARS DRINKING						
AMA	12	12.42	5.49			
				63	-1.76	.084
NoAMA	53	16.26	7.10			
PROBLEM DRINKING						
AMA	12	19.08	4.56			
				63	-1.31	.196
NoAMA	53	21.17	5.1			
DAYS IN TREATMENT						
AMA	12	17.66	10.79			
				63	-5.34	.000*
NoAMA	53	45.39	17.18			

*$p<.05$
Otherwise not significant

while also taking valium, marijuana and cocaine at age 13 and felt drinking was a serious problem at age 15. He dropped out of school after completing the eighth grade. His work history included grooming horses and auto body maintenance. Although he had been in the Intensive Treatment Program for 38 days, his counselor felt he needed more time in the program. He left the program against medical advice one week before Christmas.

The 53 clients who completed the program tended to be older with a mean age of 30 years and the mean age of dropouts was 26. The mean number of school grades completed was 10.6. Mean age of first drink was 14 years. Drinking became a problem at age 21.

4.2.2 Hypothesis 2

There will be no significant difference in clients' perception of control over their drinking between dropouts and completers.

The 12 clients who dropped out of treatment had a mean score of 11.75 at the initial evaluation using the Drinking Related Locus of Control (DRIE) Scale (See Table 4.2). That is, out of a possible 25, they scored about in the middle between an internal direction and an external direction. By comparison, those who completed treatment had an initial mean score of 12.42. The completers appeared at the outset of the study to be slightly more externally controlled, though the difference was not statistically significant.

Table 4.2 Pretest and Posttest Scores

Group	Number of Clients	$\bar{X}$	SD	df	t-Value	Probability
PREDRIE						
AMA[1]	12	11.75	4.99			
				62	-0.36	.721
NoAMA	52	12.42	4.49			
				59	-0.52	.607
AMA[2]	9	11.55	5.48			
POSTDRIE						
AMA[2]	9	10.88	5.81			
				59	3.14	.003*
NoAMA	52	6.34	3.64			
PREPIL						
AMA[1]	12	76.58	17.41			
				62	1.68	.098
NoAMA	52	87.67	19.23			
				59	1.24	.218
AMA[2]	9	78.78	19.80			
POSTPIL						
AMA[2]	9	79.44	17.81			
				59	-3.27	.002*
NoAMA	52	103.23	20.51			

* $p<.05$
1 Total pretest group
2 Pretest group for whom posttest scores were available.

4.2.3 Hypothesis 3

There will be no significant difference in their sense of purpose to their lives between dropouts and completers.

This hypothesis was investigated by the Purpose in Life test. It was determined from a review of the manual that a score which was below 92 portrayed a person who felt little purpose to his or her life. Scores between 92 and 112 were in the "indecisive range" [Crumbaugh & Maholick, 1968].

Hypothesis 3 stated that dropouts and completers would not differ significantly on their sense of purpose and meaning to their lives and they did not. The mean score for the dropouts on the initial Purpose in Life test was 76.58. PIL scores for completers at the initial evaluation showed a mean score of 87.67. Both dropouts and completers appeared to feel little sense of purpose to their lives, with dropouts showing substantially more severe deficiency.

The statistical tests used were t-tests for nonindependent samples to determine whether the means were significantly different. If the actual differences were to be obtained with larger samples of participants, the differences may have been both statistically as well as practically significant and the PIL scores would have been a predictor of dropouts.

One question in the PIL exemplifies this sense of despondency and hopelessness well. It is: With regard to suicide, I have:

1	2	3	4	5	6	7
thought of it seriously as a way out						never given it a second thought

Five of the dropouts and fourteen of the completers circled "1" on this question (See Table 4.3). Two dropouts and one completer circled "2" on this statement. Of those, one dropout and three completers stated they had attempted suicide in the past. The manner and date of their suicide attempt were discussed with them, and their counselors were informed of this. Each client was seen in additional individual therapy and no suicide gestures were made during the course of this study.

A chi-square analysis of these figures did not show a significant difference in suicide ideation between dropouts and completers. However, seven dropouts did consider suicide seriously on the occasion of the prePIL and five of these dropouts were concerned about suicide at the time of the administration postPIL test. It was unfortunate that postPIL scores on three clients who had circled "1" were not obtainable due to early discharge. Again, had there been a larger sample, there may have been a correlation between high suicidal ideation and dropping out of treatment.

Table 4.3 Client Scores with High Suicide Ideation

Age	S.I.	PrePIL Score	S.I.	PostPIL Score	PreDRIE Score	PostDRIE Score	AMA
26	1	68	3	58	16	5	
48	1	121	7	130	7	3	
33	1	29	7	105	6	0	
23	1	83	5	116	12	8	
23	1	85	7	101	9	7	
33	1	81	7	113	17	3	
24	2	84	2	80	23	22	ADM
29	1	88	1	83	8	5	AMA
19	1	80	*	87	8	*	AMA
24	1	70	*	80	16	*	**
20	2	80	3	70	7	6	
24	2	60	*	80	13	*	ADM
21	1	46	1	39	19	15	
26	1	60	2	61	15	17	AMA
39	1	63	1	63	7	14	AMA
26	1	67	1	61	6	7	AMA**
38	1	67	3	90	14	6	**
29	1	59	3	90	10	7	
21	1	72	1	78	16	11	*

S.I. Suicide Ideation
** Previous Suicide Attempt
* Missing Score

Since the initial evaluation was done shortly after clients came from detoxification, the depressant effects of alcohol were still in the body and the client's mood might have lifted as their body cleared of alcohol. Of the 19 clients who circled "1" on suicidal thinking, 9 clients, who were all completers, circled more in the neutral direction on the postPIL and, of those, three clients circled "I have never given it a second thought." These data only partially support the finding by Schuckit [1986] that depressive symptoms usually remit shortly after drinking cessation. It appears that nine clients had reduced suicide ideation, but ten of the clients still seriously considered suicide as a way out. Further research is needed to determine whether depressed and non-depressed clients in an alcohol treatment facility would benefit from different programs and whether those with high suicide ideation can be motivated to remain in treatment. These points will be discussed further in Chapter 5 under the topic of implications for future research.

4.2.4 Hypothesis 4

There will be no significant change in the clients' perceived control over their drinking between dropouts and completers.

After being in the program for three or more weeks, the DRIE was administered again. As mentioned, three of the dropouts had aborted treatment without informing the

staff so postDRIE scores could not be obtained from them. Scores of the nine remaining dropouts shifted slightly toward an internal direction with a mean score of 10.88. On the other hand, the mean score obtained on the completers showed a highly significant drop to 6.34. There was a significant difference (at the .01 level) on the DRIE between the completers and the dropouts following treatment. This result suggested that the program was having a positive effect.

4.2.5 Hypothesis 5

There will be no significant difference in change toward a more purposeful sense to their lives between dropouts and completers.

The mean post PIL score of the nine clients who dropped out of treatment was 79.44. The post PIL scores of the completers increased from 87.67 to 103.23 over the course of the treatment. The difference between dropouts and completers on the posttest measure was significant ($p=.002$). According to this finding, the group remaining in treatment benefitted considerably in terms of the dimensions measured by the PIL test.

4.2.6 Hypotheses 6

There will be no significant difference in the number of clients who leave against medical advice or are administratively discharged during the 12 months prior to the inclusion of occupational therapy compared to the six month period when it is offered.

In the 12 month period before occupational therapy was offered, there were 41 clients who dropped out against medical advice and 21 administrative discharges out of a total of 198 clients or 31.3%. During the six month period when occupational therapy was offered, there were nine AMA discharges and seven administrative discharges from a total of 78 clients or 20.51%. This was a significant and encouraging 10% reduction of client attrition.

4.2.7 Hypothesis 7

There will be no significant difference in the number of clients who leave against medical advice or are administratively discharged during the 12 month period after occupational therapy is offered compared with the six month period when it is offered.

In the 12 months after occupational therapy was discontinued, there were 15 AMA and 28 ADM discharges from a total of 154 clients or 27.9%. This was an increase in the dropout rate of 7% over the dropout rate when occupational therapy was available.

4.3 Case Examples

Two case examples illustrate the dropout and the completer in this study. One of the dropouts was "John" (not his real name). He was 30 years old and was the fourth sibling with four brothers and two sisters. He started drinking at the age of 13, but was able to

graduate from high school. He had been a landscaper, a construction worker and a machinist. He stated he had a seizure disorder which was the result of an auto accident four years earlier. Before he was admitted to a detoxification unit at a nearby hospital, he had been drinking one-half a gallon of whiskey a day. John was administratively discharged for drinking at the facility and was not available for a post treatment interview.

John had a score of 9 on the DRIE and a score of 71 on the PIL. On the prePIL sentence completion, John wrote "I have achieved...only a reputation of fear" and "The thought of suicide...has crossed my mind, but only under the influence of alcohol." Part C of the PIL asked the client to write a paragraph describing his aims, ambitions and goals in life. John wrote:

> I have achieved many good things but alcohol has always been there, dormant.
>
> My aims are to have a job, a wife and kids in that order.
>
> I have had it explained to me that my childhood experiences are the reason for my violent personality when drinking - but I don't like scapegoats - I believe every man in every situation has his own choice, and this summons his own evil.
>
> My drinking has progressed to the insanity stage - I'm thinking masochism. I need to put an end to this to start living.

Another client, "Steve", was one of the 34 who completed the occupational therapy program. He was 29 years of age and had one older and two younger sisters.

He started drinking at age 15 and left school in the eleventh grade. His work included selling cars and tending bar. His preDRIE score was 17 and his postDRIE score was 3. His prePIL score was 83 and his postPIL score was 113. On the PIL sentence completion he wrote: "The most hopeless thing...is picking up a drink" and "My goal is...to stay sober." The maxim he chose for his first wall plaque was: "I SURRENDER". On his second plaque, he inscribed the words: "DON'T TALK IT, WALK IT."

A comparison of these two evaluations is revealing. The PIL goals of John were more global, more distant, and did not include resolving his alcohol problems. By contrast, Steve had just one goal, "to stay sober". John had a 12 point lower PIL score than Steve indicating that John appeared to have less meaning to his life. Although John had a DRIE score of 9, indicating more internal control than Steve who had a score of 17, it may imply a sense of control over his drinking when, in reality, he no longer could control his drinking. By contrast, Steve's DRIE was a high 17 and indicated feeling controlled by others, fate or the environment. This recognition of no longer being in control of his drinking was perhaps exemplified by Steve's choice of the saying: "I SURRENDER."

4.4 Discussion of Findings

The hypothesis that dropouts and completers would be similar on pre-test measures of their demographic

characteristics was rejected in this study. Clients tended to be under 30 years of age; they were often the third born in a large family and had not completed high school. The majority started drinking at 14 years of age and had been drinking for more than 10 years. Clients felt drinking became a problem for them in their late teen or early twenties.

It was not surprising that 66.7% of the clients had not completed high school. The Massachusetts Department of Public Health Divisions of Alcoholism and Drug Rehabilitation figures for 1986 reported that only 41.5% of clients in residential alcohol treatment facilities had completed high school [MDPH, 1987]. Abuse of alcohol during the high school years was noted in Chapter 2. This indicates a need for early prevention during the school years.

Hypothesis 2 stated that there would be no significant difference in pre-test scores between dropouts and completers on the Drinking Related Locus of Control score. Completers showed less internal control than dropouts but the difference was not significant. This trend, however, confirms a previous study that those clients who feel they no longer have control over events because of their drinking problems and feel more externally controlled would seek help from others and adhere to the treatment program [Stafford, 1980].

Hypothesis 3 stated that dropouts and completers would not differ on their sense of purpose and meaning to their lives. There was a difference of eleven points on the prePIL test, but this was not statistically significant. However, the difference was large enough that further research would seem to be useful. PIL scores could be a predictor of dropouts. Dropouts did show more suicidal ideation on this test which is a concern of those trying to reduce client attrition.

Hypothesis 4 stated that there would be no change in the clients' perceived control over their drinking between dropouts and completers. In fact, completers changed significantly by indicating they had more internal control ($p<.05$). This supports the belief underlying the study that clients would feel more control over their feelings and attitudes after being in treatment for some time [Walker, Nast, Chaney and O'Leary, 1979]. It also might suggest that completers may have more ability to resist social pressures to drink after they leave treatment [ibid., p. 290].

Hypothesis 5 was also rejected. Completers showed a significant change toward having a more purposeful sense to their lives. It should be noted, though, that feeling that their lives were purposeful and meaningful was still difficult for the completers even at the end of their

treatment stay. This increase in PIL scores is similar to a study of hospitalized alcoholics [Jacobson & Ritter, 1977].

Hypotheses 6 and 7 stated there would be no significant difference in the number of clients who dropped out of treatment in the 12 month periods before and after occupational therapy was offered compared with the six month period when it was offered. More than 31% dropped out of treatment in the 12 month period before occupational therapy was offered compared with a dropout rate of 20.5% when it was offered. The figure of a 31% dropout rate is the average rate for state alcohol treatment facilities. In the year after occupational therapy was offered, the dropout rate increased from 20.5% to 27.9%.

Comparison of the dropout rate for one year before and one year after the occupational therapy program was made because seasonal changes of dropout rates sometimes vary. For instance, there may be more dropouts around holidays and in the summer months. The full year dropout statistics included the fall and winter months covered in the study.

Eleven of those who did not participate in occupational therapy dropped out of treatment. Since this was a voluntary program, it is not known whether being active in the program kept the clients from

dropping out or whether the program attracted those clients who would tend to complete treatment. The antisocial personality (ASP) client is one who tends to isolate himself, has trouble participating in a group and tends to impulsively leave treatment AMA, as described by Mandell [1981]. This ASP client also had higher denial and psychopathy and lower dependency scores as measured on the MMPI by Mozdzierz et al. [1973] and Huber and Danahy [1975]. It appears that some clients with this antisocial personality would tend not to volunteer for extra group therapy.

Five of the twelve clients who dropped out of treatment had some features of the ASP client. Impulsive behavior was demonstrated by John, the client who drank at the facility and by the client in occupational therapy who left AMA shortly before Christmas. Another dropout had been in jail on an assault and battery charge. He stated that while serving out this two-and-a-half year sentence in 1979, he tried to kill himself by hanging and was saved only by the alertness of a guard. These self-destructive behaviors may be indicative of the ASP client.

Two dropouts so isolated themselves, or were so isolated by the other clients, its difficult to remember them well. Both had poor self-care and social abilities. At lunch time, they sat at individual tables away from

the general noise and bluster in the dining hall. Both clients needed help on writing their evaluations since they were functionally illiterate. These characteristics may be similar to those features of the inadequate sociopath as described in the literature review.

Had the treatment staff been more aware of the special needs of the depressed client and the antisocial personality client, perhaps these two categories of potential dropouts could have been avoided by the matching of programs to fit their special needs. This point will be expanded upon in Chapter 5 under the topic of suggestions for future research.

4.5 Summary

This chapter presented findings on the seven hypotheses of this study. It appears that initial evaluations employing demographic information did not predict program completion. However, the Purpose in Life scale appears to have some potential as a predictor of program completion, but more research with a larger sample is needed.

Change toward a more perceived internal control over one's drinking problems was significant in those who completed treatment. Change also was significant in completers' sense of purpose to their lives which may indicate their resolve to stay in treatment. The dropout rate was significantly reduced when an occupational

therapy program related to the goal of abstinence was added to the Intensive Treatment Program. Those who chose occupational therapy had a better probability of completing treatment over those who chose not to take occupational therapy. These techniques could be replicated in other treatment programs to possibly increase the number of clients who complete treatment and are rehabilitated to society.

Alcoholism usually results in severe and debilitating problems for both the alcoholic and the family. Alcohol treatment program planners have been concerned with finding ways to get the alcoholic in treatment and keep him or her there. This study provides some strategies for keeping the client in treatment and alerting staff to those who may drop out of treatment.

C H A P T E R 5

CONCLUSIONS AND IMPLICATIONS

5.1 Introduction

Alcoholism is a devastating problem for the alcoholic, the family and society. Treatment of alcohol abuse may not always lead to recovery, but it does reduce mortality rates when clients stay in treatment. Previous research has suggested that the dropout often carries the diagnosis of an antisocial personality disorder with features of poor impulse control and acting out behaviors which may lead to leaving treatment against medical advice (AMA) or being administratively discharged (ADM) [Goldstein and Linden, 1969]. The purpose of this study was to identify some of the characteristics of dropouts and to determine whether an occupational therapy program would help keep some clients in treatment for alcohol abuse.

Conclusions from this study are offered in Section 5.2 and implications from this study are offered in Section 5.3. Suggestions for future research are noted in Section 5.4.

5.2 Conclusions

Two of the primary questions researched in this study were:

1. Are there identifiable characteristics of persons who are more likely to drop out of treatment?

2. Can these characteristics be identified at the time of entry into a treatment program?

It appears that one cannot predict whether a client will stay in treatment by the demographic variables researched in this study. Birth order, number of children in family, school grade completed and age of first drink were not significantly different for dropouts and completers. The completers tended to be older and, therefore, had been drinking longer, but they did not feel their drinking became a problem as early as the dropouts.

The average number of children in the family of origin for both dropouts and completers was four. Also, the client in this treatment program was more often the third child in his family. Since all except three of the clients were White, this corresponds to a finding that Whites were over-represented among middle or last children in substance abuse programs whereas Blacks were more likely to be first or only children [Stagner, 1986].

The sense of meaningfulness and purpose to their lives was lower, but not significantly, for the dropouts

compared with the completers as measured by the initial Purpose in Life test. However, more than half of those who dropped out of treatment had regarded suicide as something they had thought of seriously whereas suicide ideation was not present in the majority of completers. This would suggest that there may be a correlation between high suicide ideation and proneness to dropping out of treatment. It may also suggest that those clients with high suicide ideation may have difficulty volunteering for additional therapy.

Five of the other dropouts appeared to have personality characteristics of the antisocial personality (ASP) disorder. These characteristics were demonstrated by behaviors of isolation, impulsive and/or acting out behaviors, or self-care, social and intellectual deficits. The voluntary occupational therapy program did not meet the needs of these ASP dropouts, perhaps because it was a voluntary and not a required program. Two of the basic methods suggested by Mandell (1981) for ASP clients were, firstly, to require active participation in the treatment program and, secondly, require the client to become involved in the groups rather than socially isolating himself. This, of course, can not be done when the group is on a voluntary basis. This would suggest that for the client with features of the antisocial personality disorder, therapies may need to be required rather than introduced on a voluntary basis.

The third major question researched in this study was:

3. Does voluntary participation in an occupational therapy program keep more clients in treatment?

From this study, it appears that dropout rates can be reduced in an alcohol treatment facility by the voluntary participation of some clients in an occupational therapy program. These clients gained an increased sense of purpose to their lives as measured by the PIL compared with those clients who chose not to take occupational therapy and dropped out of treatment. These clients who stayed in treatment described more positive feelings about daily tasks on the postPIL with a decrease noted in their previous suicidal thinking.

The results of this study suggest that participation in an abstinence oriented occupational therapy program during six weeks of alcohol rehabilitation can reduce client attrition. If further research supports this finding, the introduction of occupational therapy would seem to be an advisable component to add to alcohol treatment.

5.3 Implications of This Study

The implications for the field of alcohol treatment are to institute programs which provide outlets for the client's energy and creativity in an Intensive Treatment Program. All of the programs could be so structured to emphasize the treatment goal of abstinence and healthy

living. Occupational therapy is recommended as the treatment of choice since occupational therapists are trained and licensed in the analysis and treatment of occupational disorders through goal directed activities. The use of maxims for living as the format for a required group could be individualized to meet the usually slower pace of the depressed client and the more intense involvement required for the ASP client.

Other effective therapies for the depressed alcoholic would be similar to those therapies used with depressed clients in mental health facilities. These are individual counseling along with a moderate physical exercise group, such as yoga, a music group, a horticultural or gardening group, a cooking group, a psychodrama group, and an assertiveness training group. The physical and mental requirements of these groups can be structured for just enough to involve the client but not too much to be overwhelming to him. An activity analysis would be made to assess the amount of involvement required and have it geared to the depressed clients' needs and interests [Kielhofner, 1983].

Groups for ASP clients would be more physically and mentally active and might even be similar to the above groups, but with an increased intensity. A work related skills group might also be effective with this population. An activity analysis should always be done

to delineate what the goals, skill requirements, etc. are of the potential group and its members.

5.4 Implications for Future Research

It would be beneficial to evaluate the clients who participated in this study, find out their present work and social situation and learn how they are doing in their recovery from alcohol abuse. This study would aim at contacting the 34 clients who were in the occupational therapy program, the 32 clients who chose not to take occupational therapy, and the 12 who were not evaluated. There are a number of unanswered questions which may relate to the element of choice the client had in selecting some aspect of his Intensive Treatment Program. The number of dropouts of those who did not take occupational therapy was 11 out of 32, or about 30%. Studies might be done to determine if fewer clients would leave the treatment prematurely if clients are required to participate in the occupational therapy group.

The locus of control research in alcohol treatment could be expanded to find if internals and externals respond to different types of treatment. Those who participated in occupational therapy reported themselves to be slightly more externally controlled than the non-participants. This may indicate a desire for a more active day with less free time. The 60% of those clients who chose not to take occupational therapy and did not drop out of treatment apparently did well without other

activities. Was this because they were more internally controlled and could beneficially structure their own free time?

A purpose in life scale to measure not only one's long range goals but one's daily and weekly objectives should be developed. This is especially needed in alcohol abuse treatment. It would help the therapist assess the client's purpose in seeking treatment. This scale could also be improved by not having the title of the scale inform the client of the objective of the scale. It might simply be titled an attitude scale.

There has been only one known study on the effect of occupational therapy with addictive populations [Scaffa, 1982]. The design problems from this study made it difficult to formulate any conclusions. Occupational therapy offers a great potential for research since the therapist is able to observe and record actual behaviors. Rohsenow [1983] reminded us that "paper-and-pencil measures correlate better with other paper-and-pencil measures than they do with actual behavior." The research oriented occupational therapist could combine both paper-and-pencil measures and observed behaviors of alcoholics in treatment which would provide some exciting possibilities for future study.

Behavioral research on the resolution process involved in recovery from alcohol abuse is needed. The

cognitive processes involved in the resolve to change one's drinking habits have been difficult to ascertain. It appears to be an internal, psychological commitment which is difficult to describe, let alone measure. Some persons who have experienced a "spontaneous remission" from alcohol abuse stated their resolve to stop abusive drinking required significant changes in their use of leisure time [Tuchfield, 1981]. Occupational therapists might carry out an initial survey on which leisure activities would be appealing to recovering alcoholics and then implement them in alcohol treatment programs. Further research by occupational therapists could be pursued to develop evaluation and intervention tools appropriate to alcohol abuse treatment. A quantitative and qualitative scale of leisure needs would assist in the evaluation. Activity analyses of occupational therapy programs in psychosocial and physical disabilities needs to be researched to adapt these programs to alcohol abuse treatment.

Another area of research would be the matching of treatment to client's needs based on the severity of alcohol dependency and his or her previous interests. Those clients with cognitive loss may need a highly structured and easily gratified accomplishment in a short-term task. Clients with shorter abusive drinking histories may require more challenging activities.

A final area of research would be the human occupation model applied to alcohol treatment. This was done in a study comparing the use of time by alcoholics and non-alcoholics [Scaffa, 1982]. Other areas in the human occupation model to be investigated could be personal causation, roles, habits and skills.

While some occupational therapists have worked in alcohol abuse treatment, there have been few outcome studies. This is a relatively new field for occupational therapy, but it shows promise in helping to keep clients in treatment. Further research and education related to alcohol abuse should be included in occupational therapy schools to prepare and train students for work in this rewarding field.

APPENDIX A

TREATMENT FACILITY PROPOSAL

PROPOSAL FOR AN OCCUPATIONAL THERAPY PROGRAM IN THE TREATMENT OF ALCOHOL ABUSE

Shirley Wood Snitzer, MS, OTR/L
56 Ivy Road, Wellesley MA 02181

GOAL AND OBJECTIVE

The goal of this proposal is to demonstrate the effectiveness of structured occupational therapy for the treatment of alcohol abuse. This will be measured by attitudinal changes shown on the Purpose in Life Test (PIL) and the Drinking Related Locus of Control Scale (DRIE).

The objective of the occupational therapy program is to help the client internalize the treatment goals of living alcohol free by his creating a symbol or saying of abstinence which has meaning for him and then inscribing it on wood.

This process of working on a saying helps the client become committed and invested in his goal of abstinence. The process also helps the client develop craft skills which may provide leisure time outlets for creative expression of feelings, positive attitudes toward self, and self-control through working within the constraints of the craft itself.

METHOD

Each client in the Intensive Treatment Program will be interviewed and asked to complete two attitude scales. The interviewer will record his family structure, birth order, schooling, work history, leisure interests, work experience, drinking history and previous treatment for alcohol problems. The Purpose in Life Test measures the client's positive or negative feelings about daily tasks and the degree of meaning he perceives his life to have. The Drinking Related Locus of Control Scale measures the perception of control he feels he has over his drinking behavior and attitudes.

Clients in the occupational therapy program will be given demonstrations in woodburning in the first session. This media will be used to inscribe a proverb or picture toward the goal of abstinence. The finished wall plaque, for instance, may have the phrase "Live One Day at a Time" or, "Each Day a New Beginning" on it.

The groups will be held three afternoons a week during the client's free time. Sessions will consist of clients lettering their chosen saying first on paper using letter guides and then tracing it on to the wood using carbon paper. A book of sayings and a portfolio of sample wall plaques will be available as examples.

Client progress and/or problems will be discussed with the program director or other designated staff weekly. The rules and regulations of the facility, safety standards in the work area and client confidentiality will be strictly maintained.

On the average, clients will be able to meet a goal of completing one project each week. These finished projects are the clients' to keep as reminder of their commitment to abstinence.

Toward the conclusion of the 12 sessions in 4 weeks the client will be re-evaluated using the same scales. These findings will be discussed with the client so that he may become aware of his progress in the Intensive Treatment Program regarding attitude changes toward his purpose in life and his perceived internal or external control over drinking.

SUMMARY

Attitudes and/or behavior change from self-destructive to constructive habits can be facilitated by achieving rewarding short-term goals and gaining satisfaction in creative accomplishments.

Occupation as therapy is the philosophical basis of occupational therapy which has a long history of success with physical disabilities and psychiatric disabilities. Its use with addictions has shown some promise but, clearly research is needed. This present applied research may provide some further understanding on the use of occupational therapy in the treatment of alcohol abuse.

APPENDIX B

DRINKING RELATED LOCUS OF CONTROL SCALE

Instructions for the Drinking Related Locus of Control

This is a questionnaire to find out the way in which certain important events in our society affect the drinking of different people. Each item consists of a pair of alternatives, letter a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you are concerned. Be sure to select the one you actually believe to be more true rather than the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

Please answer these items carefully, but do not spend too much time on any one item. Be sure to find an answer for every choice. Find the number of the item on the answer sheet and circle either letter a or b, whichever one you choose to be the one more true.

In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case, as far as you are concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices. Please begin.

Scoring of the DRIE

External Options
are Underlined

1.	a	b	13.	a	b
2.	a	b	14.	a	b
3.	a	b	15.	a	b
4.	a	b	16.	a	b
5.	a	b	17.	a	b
6.	a	b	18.	a	b
7.	a	b	19.	a	b
8.	a	b	20.	a	b
9.	a	b	21.	a	b
10.	a	b	22.	a	b
11.	a	b	23.	a	b
12.	a	b	24.	a	b

25. a b

The DRIE is scored in the external direction by summing the number of external response options endorsed.

Total Score
Sum of external items endorsed across the entire scale.

Factor 1
Intrapersonal Factor
Sum of external endorsements on items
9, 11, 13, 14, 16, 17, 25.

Factor 2
Interpersonal Factor
Sum of external endorsements on items
3, 4, 6, 7, 10, 22, 23.

Factor 3
General Control Factor
Sum of external endorsements on items
5, 8, 20.

DRINKING RELATED LOCUS OF CONTROL SCALE

1. a. One of the major reasons why people drink is because they cannot handle their problems.
   b. People drink because circumstances force them to.

2. a. The idea that men or women are driven to drink by their spouses is nonsense.
   b. Most people do not realize that drinking problems are influenced by accidental happenings.

3. a. I feel so helpless in some situations that I need a drink.
   b. Abstinence is just a matter of deciding that I no longer want to drink.

4. a. I have the strength to withstand pressures at work.
   b. Trouble at work or home drives me to drink.

5. a. Without the right breaks one cannot stay sober.
   b. Alcoholics who are not successful in curbing their drinking often have not taken advantage of help that is available.

6. a. There is no such thing as an irresistable temptation to drink.
   b. Many times there are circumstances that force you to drink.

7. a. I get so upset over small arguments that they cause me to drink.
   b. I can usually handle arguments without taking a drink.

8. a. Successfully licking alcoholism is a matter of hard work, luck has little to do with it.
   b. Staying sober depends mainly on things going right for you.

9. a. When I see a bottle, I cannot resist taking a drink.
   b. It is no more difficult for me to resist drinking when I am near a bottle than when I am not.

10. a. The average person has an influence on whether he drinks or not.
    b. Oftentimes, other people drive one to drink.

11. a. When I am at a party where others are drinking, I can avoid taking a drink.
    b. It is impossible for me to resist drinking if I am at a party where others are drinking.

12. a. Those who are successful in quitting drinking are the ones who are just lucky.
    b. Quitting drinking depends upon lots of effort and hard work; luck has little or nothing to do with it.

13. a. I feel powerless to prevent myself from drinking when I am anxious or unhappy.
    b. If I really wanted to, I could stop drinking.

14. a. It is easy for me to have a good time when I am sober.
    b. I cannot feel good unless I am drinking.

15. a. As far as drinking is concerned, most of us are victims of forces we can neither understand or control.
    b. By taking an active part in our treatment programs, we can control our drinking.

16. a. I have control over my drinking behavior.
    b. I feel completely helpless when it comes to resisting a drink.

17. a. If people want to badly enough, they can choose their drinking behavior.
    b. It is impossible for some people to ever stop drinking.

18. a. With enough effort, we can lick our drinking.
    b. It is difficult for alcoholics to have much control over their drinking.

19. a. If someone offers me a drink, I cannot refuse him.
    b. I have the strength to refuse a drink.

20. a. Sometimes I cannot understand how people can control their drinking.
    b. There is a direct connection between how hard people try and how successful they are in stopping their drinking.

21. a. I can overcome my urge to drink.
    b. Once I start to drink, I can't stop.

22. a. Drink isn't necessary in order to solve my problems.
    b. I just cannot handle my problems unless I take a drink first.

23. a. Most of the time I cannot understand why I continue drinking.
    b. In the long run, I am responsible for my drinking problems.

24. a. If I make up my mind, I can stop drinking.
    b. I have no will power when it comes to drinking.

25. a. Drinking is my favorite form of entertainment.
    b. It wouldn't bother me if I could never have another drink.

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