FACTORS RELATED TO CONTINUANCE AND ATTRITION AMONG HEROIN ADDICTS IN RESIDENTIAL TREATMENT

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ABSTRACT

FACTORS RELATED TO CONTINUANCE AND
ATTRITION AMONG HEROIN ADDICTS
IN RESIDENTIAL TREATMENT

By

Frank H. Barron

Although heroin addiction has been a problem of major concern for many years, little research has been conducted which focuses upon the factors related to the termination of addiction. In addition, there has been little research which has specifically addressed itself to the related problem of client attrition from treatment for drug dependence despite the fact that this has been a major problem for most treatment programs. Due to the lack of such research, the present study has undertaken to examine the relationship of a number of selected variables to attrition from residential treatment. The variables included in the present study were selected on the basis of hypotheses derived from the Commitment to Deviance model. The central thesis of this model is that an individual's decision to terminate or continue his enactment of a deviant role is based upon the balance of social penalties that confront him. This balance consists of the continuation penalties, those aversive outcomes the individual incurrs through continuing in his deviant role, and the economic and interpersonal renunciation penalties which he confronts as a result of attempting to renounce his deviant role and establish a non-deviant identity.

According to this model, a change in role commitment will occur if the individual is motivated to abandon the deviant role due to the actual or potential operation of continuation penalities and the extent to which he is able to circumvent the renunciation penalities. Once the renunciation penalties are circumvented the individual is able to obtain access to reinforcement for the enactment of the non-deviant role.

In the context of the present study, the relationship of the continuation penalties (eg. legal pressure to terminate heroin use) and the individual's ability to circumvent the renunciation penalties (eg. success is securing employment and frequency of social contact with non-addicts) to length of stay in treatment was examined. In addition, a number of demographic (eg. education, employment history, and criminal record) and addiction history characteristics (eg. age at which heroin use was begun, length of addiction, and cost per day of the habit) were examined in terms of their relationship to the addict's ability to circumvent the renunciation penalties and his length of stay in treatment. These pre-treatment characteristics were studied to determine if they were potentially useful as predictors of attrition from treatment.

A sample of thirty-four heroin addicts, all of whom had been randomly assigned to treatment in a therapeutic community, were the subjects of the present study. Information concerning the demographic and addiction history characteristics of these individual's was obtained by means of a questionnaire administered during the intake procedure. The variables consisting of in-treatment behaviors such as success in securing employment; the use of drugs and length of stay in treatment

were obtained from the client records of the Multi-Lodge. In addition, data concerning the frequency of the subject's social contacts with non-addicts and the frequency of his employment-seeking behavior while in treatment were obtained through the utilization of staff ratings. A correlational analysis of legal pressure, success in securing employment and frequency of social contacts with non-addicts indicated that these three variables were significantly related to length of stay in treatment. These results provide support for the hypothesized relationship of continuation and renunciation penalties to attrition. However, when the relationship of these three variables to length of stay in treatment were considered jointly through multivariate analysis, it was found that the addict's success in securing employment accounted for almost all of the observed variation in length of stay in treatment. In addition, no significant relationships were found between any of the pre-treatment demographic and addiction history characteristics and either the addict's ability to circumvent the renunciation penalties or his length of stay in treatment. Further analysis indicated the existence of a significant relationship between the addict's frequency of job-seeking behavior in treatment and the frequency of his social contacts with non-addicts, success in securing employment, extent of drug use prior to termination and length of stay in treatment. The possibility that the relationship between the individual's frequency of job-seeking behavior and length of stay in treatment and other in-treatment behaviors reflects a relationship between treatment outcome and a more general activity-passivity dimension of the addict's

behavioral style was suggested. The parallels between this activity-passivity dimension of the addict's behavior in treatment and the concept of "learned helplessness" was discussed and some implications for future research were noted.

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By

Frank H. Barron

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To Lori, for all the help and hassles that have contributed to growth.

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CHAPTER I

INTRODUCTION

Since the late 1960's this country has witnessed an enormous growth in the number of facilities which direct their treatment efforts toward the problem of drug abuse and addiction. In 1968 the National Institute of Mental Health undertook a national survey to identify organizations which focused upon the treatment of drug addiction. The results of this survey indicated that there were 183 programs located in forty-one states and that more than three quarters of them had been operating less than five years (Glasscote, et. al., 1972).

One form of treatment for drug dependence which has displayed a correspondingly rapid growth is the residential therapeutic community. Basically there are two fairly distinct approaches to this kind of residential treatment which may be characterized as the transitional facility or half-way house and the more long term therapeutic community based upon the Synanon-Daytop model. While there are differences in the goals and program structure of these two types of programs; they share a common problem in terms of retention of their client population. Without exception, the residential facilities for drug dependent persons lose up to seventy-five percent of their residents, most of whom drop out within a month of entering the program (Glasscote, et al., 1972).

The reasons for such high client attrition rates are still largely a matter of conjecture. It is possible that the type of client

serviced by these programs have difficulty making the kind of commitment demanded of him in a therapeutic community. There is also some data which indicates that a large proportion of these terminations may be due to the client's renewed involvement in drug use which begins while he is a resident of the "community" (Geis, 1966a). However, whatever the reasons for this phenomenon, it is clear that the high rate of attrition is a major problem for these programs. One possible approach to coping with this problem is to select residents for the therapeutic community on the basis of characteristics which are predictive of length of stay and performance while in treatment. Unfortunately, little research effort has been expended in an attempt to identify client characteristics which might serve this predictive function.

A major reason for the limited amount of research in the area of client attrition and addiction outcomes in general may be linked to the fact that there has been relatively little theoretical interest in the question of why some addicts are able to terminate their use of heroin while others continue in a reoccurring cycle of abstinence and relapse into addiction. What appears necessary to advance the study of career outcomes of addicts is a theoretical model which addresses itself to the question of what factors determine the continuation or termination of heroin addiction.

The current research study has a two-pronged purpose, the first of which is that of evaluating the adequacy of one potentially viable model as a conceptual framework for understanding addiction outcomes. This model, which was developed by Stebbins (1971), focuses

upon the social penalties associated with both the continuation and termination of the deviant career as the major factor in determining the individual's commitment to his role. The second purpose of the current study is to investigate, within the framework of this model, model related demographic and drug use history characteristics of addicts entering treatment to attrition with the intent of developing predictors of attrition.

Literature Review

The review of the literature presented below is designed to focus on a number of topics which are relevant to the purpose of the proposed study. The first section will present a brief review of the history of the therapeutic community for the treatment of drug addiction and a description of the goals and treatment processes which are representative of this type of approach. Following this discussion will be a review of the information available concerning client attrition from these residential treatment programs and the attempts that some of these programs have made to cope with this problem.

The third section of the review of the literature focuses upon research which has attempted to relate demographic characteristics to addiction outcomes. This research has been conducted in the framework of follow-up studies of institutional treatment and is designed to examine the relationship between characteristics of the addict prior to his entrance into treatment and his addiction status at some specified time following his return to the community. The results of these studies are of some importance to the aims of the current research since

characteristics of the addict are isolated which bear a relationship to his role enactment within the community following an attempt to terminate heroin use. Following this review of the research literature a discussion of the commitment to deviance model will be presented.

Therapeutic Communities and the Treatment of Drug Dependence

The commonly accepted origins of the therapeutic community approach to the treatment of drug dependent people began in early 1958 with Charles Dederich and several members of Alcoholics Anonymous (Glasscote, et al., 1972). This early treatment took the form of discussion groups which emphasized confrontation and honesty. Under Dederich's leadership a club was formed and a store front building rented as a focus for the group's activities. In late 1958 the first contacts with heroin addicts began which ultimately led to a schism among the original members and the incorporation of Synanon. From this point the organization began to grow and with the acquisition of residential quarters the development of the Synanon social system as an approach to the treatment of addiction was established (Yablonsky, 1968). Since this time the Synanon foundation has been established in several other locations both within and outside of California.

The second such residential community, Daytop Village, was established in New York City in 1963 as a treatment center for male addicts on probation. Daytop was created in imitation of Synanon and drew much of its early leadership and direction from former members of Synanon's staff. Daytop was beset by internal difficulties until 1969

when the organization stabilized. Since that time Daytop has established several additional locations in the New York City area and in other states (Glasscote et al., 1972).

Both Synanon and Daytop regard drug abuse as a symptom of a character disorder and as a result define their treatment goal as the production of major changes in the addicts character structure in order to prevent his relapse into drug dependency. Both programs attempt the re-socialization of the addict through the social system of the therapeutic community (Casriel, 1971; Glasscote, et al., 1972; Yablonsky, 1968). In terms of the treatment structure of these programs, resocialization begins with the addicts entrance into the community when he is isolated from the outside world. He is deprived of all his usual activities and such privileges as receiving mail, using the telephone or leaving the residence are denied to him. All efforts are made to completely segregate him physically and interpersonally from his previous drug-taking environment. This isolation and deprivation is coupled with the assumption of a low status role in the community's social system. He is provided with maximum supervision and minimal responsibility during this period. He is expected to perform the simplest tasks with complete diligence and is afforded only the minimum in privileges and privacy.

An addict will continue in this low status within the community until such time as his behavior displays changes in what is defined as a positive direction by the program. As the individual's time in the program increases he achieves higher status and with it increased responsibilities and benefits which are conditional based

upon his continued good performance. Typically this rise in status involves the addict working his way up the established hierarchy of the program until he is a senior resident. At this point the individual is expected to function within the program as a role model for other residents who are new or have not progressed as far. After elevation to the status of senior resident, the individual may be expected to graduate from the program or to continue in it or a similar community as a staff member (Glasscote, et al., 1972).

A major part of the Synanon-Daytop type of therapeutic community is the group therapy program in which each resident is required to participate. This therapy program is considered by these programs to be a vital tool in the resocialization of the drug dependent individual. The initial goal of these groups and the key to this resocialization is the addict's denunciation of this previous behavior and life-style. With the aid of the more established members of the group, he is expected to realize that his behavior as an addict has not only been worthless but destructive to himself and others. Once this goal is reached then the group functions to assist the addict in the development of more mature ways of relating to others. These groups are frequently characterized by intense confrontation of any form of "junkie" behavior on the part of the individual such as "street talk", the shirking of personal responsibility or the violation of program rules (Casriel, 1971; Glasscote, et al., 1972; Shelly, 1966; Yablonsky, 1968).

Vocational training is often considered to be an integral part of the therapeutic community's over-all program. This training is provided by the community itself or in conjunction with a public

vocational rehabilitation program and is designed to equip the residents with job skills they can utilize to make a living after graduation. This job training is frequently utilized in such a way as to provide a source of labor for the business operation which provides financial support for the program. The extent to which these communities emphasize vocational training and the continuation of formal education varies between different programs. In this regard Synanon appears to place a relatively strong emphasis upon it while Daytop tends not to have its residents involved in such training beyond that required to perform tasks within the program (Glasscote, et al., 1972).

Most therapeutic communities which have adopted the model provided by Synanon and Daytop expect that residents will remain in their program for six months to two years. This expectancy often varies with the individual community and is tailored to the addict's progress in treatment (Glasscote, et al., 1972). However it would appear that these who do not drop out of these programs tend to remain considerably more than six months. In a sense this may be due to the major task that these communities have set for themselves in their goal of resocialization of the addict. An additional factor which contributes to the often extended length of treatment may reside in the attitude of therapeutic communities such as Synanon which often see continued residence in the community as being preferable to life in the larger society (Glasscote, et al., 1972; Yablonsky, 1968).

A second form of residential treatment that typically lasts six months or less is also available for the drug dependent person through transitional facilities or "half-way houses". The use of the

half-way house in the rehabilitation of the narcotics addict is based upon the observation that a high percentage of addicts have been found to return to drug use within six weeks to six months after their release from a treatment or correctional institution. This resumption of drug use appears to be prompted by the return of the newly released addict to his old environment where he is able to obtain drugs readily through his old acquaintances. This fact coupled with the observation that under intensive supervision a higher percentage of addicts do not return to drug use for an extended period of time following release has prompted the utilization of the half-way house in the treatment of drug dependency (Carrick, 1966).

Unlike the therapeutic communities of the Synanon or Daytop model, the half-way house does not address itself to the long term goal of character change in the addict. Its purpose lies mainly in the provision of living arrangements which are supportive of abstinence from drug use. This type of residence also decreases the probability of readdiction through the opportunity it affords for closer parole supervision and urine monitoring. This form of residential treatment also makes personal counseling, both individually and in a group setting, available to the addict in an attempt to ease the inevitable problems of readjustment to society following release from an institutional setting. In addition, these facilities have typically attempted to aid their residents in obtaining employment and vocational training as an integral part of their overall rehabilitation program (Carrick, 1966; Geis, 1966a).

Therapeutic Communities and Client Attrition

In spite of the fact that therapeutic communities and transitional facilities represent very different types of programs in terms of treatment goals and process; they share a common problem in terms of client attrition. The fact that clients frequently terminate treatment for drug abuse prematurely has long been recognized as a problem, however the magnitude of this problem has only recently been clarified by the publication of The Treatment of Drug Abuse. In this book Glasscote and his colleagues have compiled a great deal of information about the therapeutic communities and have documented the difficulties that these programs have with client retention. Unfortunately they were unable to obtain reliable statistics on Daytop Lodge in New York or the Synanon programs. However, in terms of Daytop Lodge, they described client retention as being its largest problem. This contention was supported by a review of Daytop's residential capacity, the number of graduates from it and the number of yearly screened admissions. This data indicates that the attrition rate is well over fifty percent.

Statistics are available for a number of therapeutic communities which are affiliated with or modeled after the Daytop program. In all cases these attrition rates are uniformly high. The Daytop lodge program of the Connecticut Mental Health Center in New Haven has an attrition rate of sixty percent with forty percent of all new residents leaving the program within the first two months of their residence. Dartec, another Connecticut program modeled after Daytop, has a seventy percent dropout rate, most of which occurs during the first three weeks

of residence. A similar situation is found in the Gateway Houses of the Illinois Drug Abuse Program. The Gateway Houses have an attrition rate of sixty-five percent prior to program completion (Glasscote, et al., 1972).

High attrition rates are not confined only to programs which support a strongly confrontational treatment model. A good example of this fact is Teen Challenge of San Francisco, a private residential treatment program begun by the Assemblies of God in 1967. This program disavows the confrontational approach to treatment and substitutes a spiritual emphasis which, while often strict, is also strongly supportive of the individual. In spite of this radical difference from those therapeutic communities of the Daytop-Synanon model, Teen Challenge's attrition rate prior to program completion is seventy-eight percent (Glasscote, et al., 1972).

The attrition rates cited above have been for programs which can be considered relatively long-term treatment facilities. However, very little difference can be found between the attrition rates of these programs and that of programs which provide relatively short-term treatment. One example of this is Archway House which is a component of the St. Louis Drug Dependency Treatment Program. The treatment program for residents at Archway House is designed to last a minimum of four months with the maximum treatment period being eight months. This is a fraction of the time of the therapeutic communities previously discussed and as such approaches the treatment time normally expected in a half-way house. In spite of this difference the attrition rate from Archway House is seventy-four percent (Glasscote et al,

1972). Another facility which emphasizes short-term treatment is the East Los Angeles Half-way House. In this program the attrition rate has been reported to be forty-six percent (Geis, 1966a). While this rate is considerably lower than that of programs previously noted, it is still quite high when one takes into consideration that most of its residents were parolees for whom failure would normally mean violation of parole and possible return to prison.

In order to cope with client retention problems many therapeutic communities have instituted various procedures designed to test the motivation of new applicants prior to entry into the program. One example of this process is the "motivational blockade" designed by Daytop Lodge to test the motivation of its applicants. When an addict wishes to enter Daytop, he is invited to attend an out-patient center on a daily basis where he participates in group discussions, seminars and undertakes work assignments at the center. He is expected to return every day for a period of time which might last from several days to several months based upon the staff's assessment of his motivation. If he maintains regular attendance he is scheduled for a "breaking down" interview which is designed to elicit a "cry for help" and strengthen his commitment. Following successful completion of this interview he is officially inducted into the Daytop program. This process may be of some use in serving as a rough gauge of the applicant's motivation since seventy percent of all applicants who come to these centers drop out prior to admission to Daytop. However, it is also clear that even with this procedure, Daytop still has a retention problem of significant magnitude (Glasscote, et al., 1972).

Another example of an attempt to select residents with maximum potential and motivation is the procedure utilized by The Family, a therapeutic community modeled after Synanon, which is affiliated with Mendocino State Hospital in California. In this case The Family selects its residents only from addicts who have graduated from or are currently members of a shorter-term therapeutic community called The Awakening. The Awakening is a four month long program similar to Synanon and has a seventy-three percent attrition rate. Its clients are selected to go on to The Family on the basis of their performance in The Awakening and the fact that they did not leave that program prematurely. However this method also provides only limited benefit since the attrition rate for The Family is fifty-one percent (Glasscote, et al., 1972).

In view of the statistics cited above, it is clear that the results of research which could relate a set of client characteristics to attrition would provide a useful tool in selecting potential residents for these programs. To date little research has been undertaken which attempts to isolate these characteristics despite the fact that such information might alleviate a major problem for the therapeutic communities. A review of the literature revealed only one study of client characteristics and attrition from a drug treatment program and this research was conducted with heroin addicts in a methadone detoxification program.

Chambers, Cuskey and Wieland (1970) studied a sample of eighty-six heroin addicts participating in an outpatient detoxification program. The authors defined attrition as the patient failing to come to the clinic to obtain his dose of methadone and failing to respond

to suggestions that he continue treatment. At the end of the study period, the authors reported that 68.6 percent of the patients terminated treatment prematurely. In relating client characteristics to attrition the authors found a significant relationship with only two demographic variables. It was found that significantly more patients with less than an eighth grade education terminated treatment prematurely than those with eighth grade education or more. Married clients also had a significantly higher attrition rate than unmarried clients. While not reaching the level of significance, several trends were also reported. It was found that addicts using another drug concurrently with heroin were more likely to remain in treatment. It was also reported that older clients, averaging 35 years of age, who had become addicted to heroin at a later age were also a lower risk in terms of attrition.

While the findings of the Chambers study may have some relevance for attrition from the therapeutic community; it should be remembered that detoxification programs are usually far less demanding of the addict. In view of this difference it seems likely that direct application of these findings to the therapeutic community may not be warranted.

Review of Addiction Treatment Follow-up Studies

In order to facilitate a review of the follow-up studies and a discussion of these findings, the following review will take the form of focusing in turn upon the major characteristics that have been investigated rather than presenting the total results of each research study individually.

One of the most frequently studied characteristics of the addict as it relates to his status at follow-up has been his record of arrests prior to treatment. Zahn and Ball (1972), in a study of 108 Puerto Rican addicts who had been treated at the Public Health Hospital at Lexington, found that those individuals who were considered abstinent three years after release from treatment had fewer previous arrests and fewer arrests for narcotics violations prior to treatment than those who were currently addicted. A similar result in terms of the number of previous arrests was obtained by DeFleur, Ball and Snarr (1969) who studied a sample of 53 Puerto Rican addicts discharged from Lexington between 1955 and 1962. In both these studies addiction status was determined through the use of urinalysis, a review of public records and interviews with the subjects' associates. Similar results were also obtained in a study of 1,843 male parolees with a history of narcotic addiction. These individuals were released from the California Department of Corrections in 1965 and were follow-up one year later to determine parole adjustment. From the results of this investigation, the authors concluded that a prior criminal record beyond the most recent offense was unfavorable in terms of the prognosis for successful adjustment (Inciardi and Babst, 1971).

It should be noted that the relationship between arrest record and addiction status at follow-up reported above is concerned with the adult criminal record. In terms of juvenile delinquency, no difference has been found between the chronic and ex-addict on this variable prior to the onset of addiction (Bess, Janus, and Rifkin, 1972; DeFleur, Ball, and Snarr, 1969; Vaillant, 1966). However, it

has been reported that ex-addicts were arrested at a significantly later age than those who were still using heroin at follow-up (DeFleur, Ball and Snarr, 1969).

The addict's employment record prior to treatment has been cited as a major factor in relation to addiction status at follow-up. Vaillant (1966), in a study of 100 New York City addicts who were followed-up twelve years after treatment at Lexington, found that employment history differentiated between a group of thirty ex-addicts and thirty individuals with the worst post-treatment records whom he labeled chronic addicts. In order to be classified as an ex-addict the individual had to be abstinent over a minimum period of three years prior to follow-up and have had no convictions for narcotic or property offenses. The results of this comparison indicated that the individuals in the ex-addict group had an average record of at least four years more consistent employment prior to admission to Lexington than did the chronic addicts. Vaillant's results received support from a study conducted by DeFleur, Ball and Snarr (1969) which also determined that ex-addicts had a better record of employment prior to treatment than did those individuals who were currently addicted at follow-up. Inciardi and Babst (1971) also obtained similar results in their study of California male parolees with a history of narcotic addiction. They report that those individuals who had been employed for six months or more with one employer prior to institutionalization had a greater degree of post-release success than those not as consistently employed.

Educational attainment has also been studied in relation to addiction status at follow-up. Geis (1966a), in a study of narcotic

addicts in residence at the East Los Angeles Half-way House and on regular parole, reported that individuals who were successful in terms of abstaining from narcotics were more likely to have completed seven or more years of education than were those who were unsuccessful. Vaillant (1966), found no difference between ex-addicts and chronic addicts in reaching the eleventh grade, however ex-addicts were more likely to have graduated from high school.

Vaillant's results received further support from a study which compared characteristics of addicts who successfully completed six months of aftercare following hospitalization at Lexington versus those who were unsuccessful (Bowden and Langenauer, 1972). For a sample of 63 addicts, success was defined as no opiod use based upon patient reports, counselor observations and the use of scheduled and random urine tests. The individuals labeled as unsuccessful evidenced opiod use for each of the six months in aftercare and required either detoxification or were recommended for return to Lexington during this period. The authors reported that the successful individuals were significantly more likely to have graduated from high school than those who were unsuccessful.

A study conducted by Stephens and Cottrell (1972) of 100 addicts six months after their release from the public health hospitals at Lexington or Fort Worth failed to find any difference in education below college level between individuals who were abstinent and those addicted at follow-up. While this finding is at variance with the studies cited above, the reason for this discrepancy may lie in the method of determining addiction status. In the study conducted by

Stephens and Cottrell addiction status was determined by the use of questionnaire only which probably is the least reliable method used by any of the follow-up studies. Their reliance exclusively upon the questionnaire rather than gaining supplemental information through public records and interviews in addition to the absence of urine testing may well have resulted in a large number of active addicts being classified within the ex-addict group.

The follow-up studies have also focused upon a number of variables which might be considered drug use history. Perhaps the most commonly agreed upon result to be obtained by these studies has been that individuals who were classified as ex-addicts at follow-up began to use heroin at a later age than those classified as currently addicted (Bowden and Langenauer, 1972; Zahn and Ball, 1972). Vaillant (1966) reported that the ex-addicts in his sample did not use opiates before the age of twenty-one while the chronic addicts began heroin use significantly earlier. Geis (1966a) reported almost twice the success rate for addicts who were twenty-one or older at the time of first use than for those who were twenty or younger. Similar results were obtained by Kaplan and Meyerowitz (1969) who studied a sample of 71 addicts released from the Fort Worth PHS Hospital or the Texas Department of Corrections. Through the use of a pre-release interview and a follow-up interview that took place nine to twenty-two months after release, the authors determined that the unsuccessful addicts reported that they were "hooked" at a significantly earlier age than those subjects who were abstinent at follow-up.

In addition to age at first use, other drug use variables have been found to be related to addiction status at follow-up. Kaplan and Meyerowitz (1969) also found that the unsuccessful addicts in their sample reported a significantly shorter time interval between their first use of heroin and the recognition that they were addicted. It has also been reported that addicts who were abstinent at follow-up also had a significantly lower daily cost of heroin prior to treatment than did those who had become re-addicted (DeFleur, Ball and Snarr, 1969).

In terms of length of heroin use, Geis (1966a) found that the longer an individual had used heroin the less likely he was to succeed in terms of abstinence and remaining out of serious difficulty with the police. Stephens and Cottrell (1972) failed to find any relationship between length of addiction and relapse. This latter finding, like the one previously reported concerning educational attainment, may also be the result of their method of determining addiction status at follow-up.

Several studies have investigated the addict's age as a variable that may be related to abstinence. This possibility was pointed out by Winick (1962) who, through a search of FBI records, concluded that the greatest concentration of addicts becoming inactive in terms of law enforcement contacts was within the age range of twenty-six to forty-three. On the basis of this data he presented the hypothesis that addicts may "mature out" of their addiction during this time in their life. Winick's point of view has received some support from a number of follow-up studies which have found that addicts under the

age of thirty become readdicted at higher rates after treatment than those over thirty (Duvall, Locke and Brill, 1963; Hunt and Odoroff, 1962; Stephens and Cottrell, 1972).

Ball and Snarr (1969), using a sample of 242 Puerto Rican addicts treated at Lexington between 1935 and 1962, further investigated Winick's maturation hypothesis. This study was far more extensive than the one conducted by Winick and used not only law enforcement records but also medical records, urine testing and interviews with the subjects, their family, and friends. The results obtained by Ball and Snarr failed to support Winick's maturation hypothesis. Instead of a general pattern of maturing-out of addiction, their data indicated the existence of two different career patterns for the addicts in their sample. The first of these patterns was one in which the addict becomes more deeply enmeshed in crime and heroin use as he gets older rather than maturing out of these activities. The second pattern, which is more like that described by Winick, is characterized by the addict giving up a drug centered life as he gets older and establishing a legitimate role in society. Based upon the data obtained in their study, Ball and Snarr conclude that about one third of the addicts "mature out" of their dependence upon heroin and their participation in the deviant career associated with that drug.

Differences have been observed in abstinence rates at follow-up between addicts who had volunteered for treatment and those treated involuntarily. Hunt and Odoroff (1962), in a follow-up study 1,912 addicts discharges from Lexington to the New York City area between 1952 and 1955, found that those addicts who had been committed

involuntarily displayed a generally lower readdiction rate than the voluntary admissions in their sample. It would appear that those addicts who were under greater legal pressure to terminate their heroin use were able to do so more successfully than those attempting it voluntarily. In this case the threat of further incarceration for failure to abstain appears to have had an effect upon the readdiction rate of these addicts. This interpretation is given further support in a more recent study conducted by Bowden and Langenauer (1972) which studied a sample of 63 patients who had completed six months in aftercare following hospitalization at Lexington. As a result of this research the authors concluded that addicts who had legal charges pending against them more often successfully completed the aftercare program in terms of abstaining from opiate use than did those that did not.

In addition to those variables discussed above, a large number of other client characteristics have been investigated in relation to addiction status at follow-up. For the most part these characteristics have failed to differentiate between those individuals addicted at follow-up and those that were found to be drug free. Of particular interest among these negative results are the findings that there were no significant differences in addiction status at follow-up between the sexes (Levy, 1972) or ethnic groups (Levy, 1972; Stephens and Cottrell, 1972). Investigation of early history variables such as the childhood home environment also failed to differentiate between the treatment outcomes (Bowden and Langenauer, 1972; Vaillant, 1966). The only characteristic relating to the addict's early years which distinguished between ex-addicts and those that had become readdicted

was the socioeconomic status of the home in which they grew up. In this instance it was found that addicts that were raised in homes close to the subsistence level were not as successful in abstaining following treatment (Kaplan and Meyerowitz, 1969).

Commitment to Deviance: A Theoretical Model for Deviant Career Outcomes

The Commitment to Deviance model, which focuses upon the later stages of the deviant career, was generated by Stebbins (1971) in the course of his study of recidivists in the Canadian prison system. The object of his research was to examine the career contingencies of the non-professional criminal in order to identify the factors that account for the continuation or termination of the individual's deviant career. In order to accomplish this purpose he conducted extensive interviews with prisoners who were identified as non-professional criminals on the basis of their short prison terms, low-level criminal skills and low ideological attachment to crime as a way of life.

As a result of his research, Stebbins concluded that whether or not an individual remains deviant in relation to the larger society depends upon the alternatives that are available to him. However the choice to be made between these alternatives is not a simple one since there are social penalties to which the individual becomes subject as a result of making this choice. These penalties are essentially inescapable for, although they take different forms, they are applied to both the choice of continuing in the deviant role or terminating it. Confronted by this inevitability, the choice that the individual makes is determined by the balance of these penalties. Therefore the

individual who is considered to be committed to deviance is one for whom the costs of renouncing his deviant role are higher than the personal costs of continuing in it. In this situation the individual is, in effect, trapped within his deviant role by the force of penalties which are applied against him when he attempts to establish himself in a non-deviant role.

The social penalties which the model focuses upon fall into two classes. The first of these, the renunciation penalties, are penalties which are applied against the individual when he attempts to abandon the identity to which he was previously committed. In a sense they act to discourage a change in commitment. The second class of penalties are of equal importance and have been designated as continuation penalties. These are the costs endured by the individual when he remains committed to his established role. Since the theoretical model under consideration is concerned with the individual's attempts to move from a deviant to a non-deviant social role; the discussion of social penalties is cast in such a form that continuation penalties are penalties applied as a result of continuing in a deviant role while renunciation penalties are those which apply when the individual attempts to establish himself in a non-deviant role.

Through interviews Stebbins distinguished two types of renunciation penalties; those that occur in the individual's material or economic life and those related to his interpersonal relationships. The material renunciation penalties that are confronted by the non-professional criminal with a prison record are reflected in his difficulty in obtaining a job which is within his personal range of

acceptable occupations. Frequently, when he does obtain employment it will be in a position which is of lower prestige than his non-criminal peers. Once this employment is located, the non-professional criminal finds that he has difficulty retaining employment due to his own poor work habits and generally undesirable nature of the work. In addition, such employment as the individual is likely to obtain is often low paying and provides a standard of living which is frequently below that which he has achieved through deviant activities. Within the framework of this model, all the above factors are considered to be aspects of the material renunciation penalties which operate against the individual rejecting his deviant role.

The renunciation penalties which operate within the individual's interpersonal life are principally those involved in the management of his identity. In regard to these penalties, Stebbins takes a position which is quite similar to that of Goffman (1963). This management involves the individual's choice to either "own" his past deviant identity which can then become the occasion for social embarrassment and rejection or attempt to "pass". Passing or playing straight involves not acknowledging one's past deviance but rather concealing it; often with a fictitious personal history in order to fill the gap accounted for by the individual's participation in his previous deviant role. Such attempts to "pass" have their own costs in the individual's anxiety that he may be discovered as a result of errors in the construction of his fictitious history or a chance encounter with someone who is aware of his previous identity. The discomfort associated with the adoption of either of these interpersonal

alternatives makes participation in social relationships with non-deviant others a difficult and often unrewarding experience. At the same time, the individual is hesitant to interact with his previous associates since contact with others who remain committed to a deviant role not only may constitute a violation of parole but also frequently confronts the individual with difficult decisions in light of his attempt to assume a non-deviant role. Stebbins regards the above as interpersonal renunciation penalties in contrast to the committed individual's status in the deviant sub-culture where his position is accepted as a matter of course without attendant personal and social embarrassment.

The renunciation penalties, both material and interpersonal, constitute one side of the balance of penalties that confront the individual. The other side of this balance consists of the continuation penalties. Stebbins was able to distinguish only one major continuation penalty for the non-professional criminal and this was the threat of future incarceration. Given the current legal status of his subjects, the threat of additional imprisonment in the future was sufficient continuation penalty to warrant some impetus toward an attempted change in commitment. Other penalties such as health concerns, age or pressure from family and spouse, while of considerable importance for some individuals, were not of sufficient generality to be adopted as a distinct type of continuation penalty. However, for the individuals who were subject to these latter penalties, they may be of sufficient strength to motivate a renunciation of the deviant role.

Taking the two classes of penalties into account, the model predicts that an individual will cease to remain committed to a deviant identity when the continuation prenalties become more costly to him than the renunciation penalties. According to the model this relationship will apply as long as the negative sanctions the individual wishes to avoid are currently in effect or have a high probability of occurring at some recognizable time in the future. However, it would be basically incorrect to assume that the individual is always able to completely perceive and evaluate the full extent of the penalties to which he is subject. In some cases the individual may only become aware of the full impact of the renunciation penalties that confront him after he has made a decision to renounce his deviant role. This situation may institute a new assessment of the relative costs incurred by his decision. In short, this points to the fact that the balance of penalties is not static and therefore an individual's commitment to either a deviant or non-deviant role is subject to change in response to new information and experiences that result in an alteration in the balance of penalties.

Statement of the Problem

The Commitment to Deviance model, while originally designed to address itself to the general criminal career, provides a potentially viable model for research on the outcomes of the deviant career associated with heroin addiction. While there are a number of theories which are relevant to the phenomenon of heroin addiction, this particular one has been chosen as the theoretical base of the current research

due to the congruence between its postulates and my own personal observations of addicts in treatment. In a very real sense it reflects what many addicts have had to say concerning the course and problems associated with their attempts to terminate heroin addiction. As such it is an appropriate theoretical context in which to begin the study of attrition from treatment and the more general problem of determining what factors are associated with successful termination of the deviant career of addiction. In addition it has received some indirect support from the follow-up studies of addiction status after treatment. These research studies, which focused upon the addiction status of individuals at follow-up after institutional treatment, tend to support the premise that addiction career outcomes are related to the amount of pressure on the addict to abandon his deviant role and his ability to circumvent the renunciation penalties he has become subject to as a result of his attempt to establish himself in a non-deviant role. Factors such as poor employment history, a record of previous arrests, and limited education were found to be regularly associated with higher rates of readdiction. These characteristics of the readdicted individuals are those that best reflect the probable operation of material renunciation penalties through decreased opportunities for the acquisition of employment and as such may create a situation in which renunciation of deviance becomes more costly to the individual than continuing in it. On the other hand, individuals with a better record of employment, limited arrest records and better education were more often found not to have become readdicted. The balance of penalties for these individuals may have remained in favor of the abandonment of the addict role since they

were able, in at least some degree, to circumvent the material renunciation penalties as a result of personal characteristics which tend to facilitate gaining employment.

In a similar fashion, drug use history variables which reflect the duration and extent of the individual's involvement in this deviant role have also served to differentiate ex-addicts from those who became readdicted following treatment. Those individuals with shorter and less extensive involvement in the role of an addict appear to be more successful in abstaining following treatment than those whose drug use history reflects a deep involvement in the addict role. These latter individuals may be more fully subject to the material and interpersonal renunciation penalties due to a loss or failure to develop the interpersonal and occupational skills necessary to achieve gratification from the enactment of a non-deviant role.

The currently proposed study seeks to assess the utility of the Commitment to Deviance model as a framework for understanding and predicting addiction outcomes through the study of model-related demographic and drug use history characteristics of addicts within the context of treatment in a therapeutic community. The use of a therapeutic community as the setting for such a study is particularly advantageous since entrance into such a treatment program represents a relatively clear occasion in which the individual has made a choice, however tentative, between the alternatives of remaining addicted or terminating his deviant role as addict. In comparison to institutional treatment, the therapeutic community permits greater freedom of movement both into and out of treatment and thus eliminates the problem

associated with studying a captive population in which the individual may be required to remain in treatment beyond the point at which he is no longer committed to terminating his use of heroin.

Within the context of the model under consideration, the addict seeks treatment at the point at which he finds himself subjected to penalties which make continuation of his addiction more costly than renouncing that role. As he enters treatment the balance of penalties is such that he seeks to establish himself in a non-deviant role. However, depending upon the characteristics of his past history and current interpersonal and occupational skills, he finds that he is confronted to some degree by material and interpersonal renunciation penalties. These renunciation penalties may shift the balance of penalties in such a way as to decrease the attractiveness of a change in commitment and the establishment of a non-deviant role. Thus, if the individual finds that society, in the form of employers and non-deviant others, is not receptive to his attempts to re-define his role; the stress generated by his unsuccessful attempts to acquire employment and social acceptance may lead to a re-assessment of the relative costs of the continuation and renunciation penalties to which he is subject.

The addict's re-assessment of his position vis-a-vis the larger society, especially when he has received little reinforcement for his attempt to terminate his deviant role, may be accompanied by the resumption of behaviors associated with his former role. This may be reflected in his drug taking behavior which is likely to increase not only as a response to stress but also as part of the movement toward a recommitment to his role as an addict. The renewed use of heroin is

particularly attractive at this time since detoxification prior to treatment has served to decrease his tolerance to the action of the drug. This period of reassessment may end with one of two possible outcomes. The individual may find that the continuation penalties are such that he will continue to attempt to renounce his role. In this case the episodic drug use will be terminated and the individual will continue in treatment until the next period of reassessment or until he has established himself in a non-deviant role through the circumvention of the renunciation penalities which have been operating against him. On the other hand, the individual may find that in renouncing his deviant role he has become subject to penalties which are greater than those he initially sought to avoid. In weighing the limited gratifications currently available to him in terms of employment and interpersonal relationships against the positive aspects of his former deviant role; he may continue in the use of heroin, become re-addicted and terminate treatment. In short, he fully resumes his role as addict.

It is the primary purpose of the current study to assess the efficacy of the Commitment to Deviance model as a framework for understanding addiction outcomes as reflected by attrition from residential treatment. If Commitment to Deviance is a useful explanatory model, then evidence of the differential operation of continuation and renunciation penalties should be related to length of stay in treatment. In addition, it is expected that the operation of these penalties and length of stay in treatment will also be related to a number of model-related demographic and addiction history characteristics of the addict. The second purpose of the current study is to attempt, on the basis of

these model-related characteristics, to develop predictors which might prove useful in the identification of individuals who represent high risk in terms of early attrition from residential treatment.

Hypotheses

Hypotheses 1--3 presented below represent an attempt to evaluate the adequacy of the Commitment to Deviance model as a framework for understanding addiction outcomes as reflected by attrition from treatment. It is expected that if the social penalties to which the addict is subject operate in the manner predicted by the model; then evidence of the operation of these continuation and renunciation penalties should be related to attrition from treatment.

1. Length of stay in treatment will be directly related to the extent to which the addict is subject to legal pressure to terminate heroin use.

Legal pressure represents the major continuation penalty which operates against the heroin addict. The first hypothesis focuses upon the relationship of this continuation penalty to the addict's length of stay in treatment. If continuation penalties are a major factor in motivating the addict to renounce his deviant role; then the operation of legal sanctions in the form of the possibility of incarceration will be related to addicts who are subject to such pressure remaining in treatment for a longer period of time than addicts who are not subject to legal pressure.

2a. Length of stay in treatment will be directly related to the addict's ability to secure employment while in treatment.

b. Length of stay in treatment will be directly related to the frequency of the addict's social contacts with non-deviant individuals while in treatment.

Hypotheses 2a and b focus upon the effect of the material and interpersonal renunciation penalties that confront the addict during his attempt to renounce his deviant role and establish a non-deviant identity. It is expected that addicts who are unable to circumvent these penalties and thus fail to obtain employment and some degree of acceptance among non-addicts will also fail to renounce their former role. If these renunciation penalties are inescapable then the individual will redefine the balance of penalties, terminate treatment and in the process renew his commitment to his deviant identity.

3. The extent of the addict's drug use prior to termination of treatment will be inversely related to length of stay in treatment.

Hypothesis 3 focuses upon the relationship of attrition to drug use from the perspective of attrition as an instance in the addict's career in which he has attempted and failed to renounce his deviant role. It is expected that if an addict's termination of treatment signifies a resumption of his former deviant role then it will be accompanied by the renewal of behavior patterns associated with this role. This should be particularly apparent in regard to the drug taking behavior of individuals who terminate treatment after a relatively brief period of time.

The hypotheses presented above are intended to examine the relationship of the continuation and renunciation penalties to the addict's termination of his treatment for his addiction. As such these hypotheses represent an assessment of the extent to which the Commitment to Deviance model accurately reflects the addict's attempt to renounce his deviant role and the factors that effect the outcome of

this renunciation. The hypotheses that follow represent an effort to assess the relationship of selected model-related demographic and drug use history characteristics of the addict to the operation of these social penalties and the outcome of the individual's attempted renunciation of his deviant role. These latter hypotheses are an extension of the theoretical model in that they represent an attempt to validate a complementary general hypothesis that life history and drug use characteristics associated with the addict's enactment of his deviant role are related to the extent to which he confronted by these social penalties and his ability to circumvent them. In addition, to the extent that these characteristics are related to the operation of the renunciation penalties they should also serve a predictive function in terms of the outcome of the addict's attempt to renounce his deviant role as reflected by attrition. Hypotheses 4a--5c focus upon the relationship of these demographic and drug use history characteristics to the operation of the renunciation penalties.

4a. The addict's ability to secure employment while in treatment will be directly related to the age at which heroin use was begun.

b. The addict's ability to secure employment while in treatment will be inversely related to the length of time addicted.

c. The addict's ability to secure employment while in treatment will be inversely related to the cost per day of his previous heroin habit.

Hypotheses 4a--c focus upon specific addiction history characteristics of the addict that are likely to operate against the individual's ability to secure employment. These characteristics are considered to be indicative of the extent to which the addict has been assimilated

into the heroin sub-culture and the corresponding loss of opportunity to develop and maintain socially approved behaviors and skills. It is expected that individuals who have become addicted at an earlier age or have been addicted for relatively long periods of time may be confronted by more severe material renunciation penalties due to a lack of opportunity to develop and maintain the occupational skills and work habits necessary to obtain employment and retain it for anything more than brief period of time. A similar situation may prevail in terms of the amount of money the addict must commit to the maintenance of his habit. The more the individual's habit costs per day, the more time he must spend engaged in pursuit of obtaining money and drugs to meet the demands of that habit. The result of this is a greater involvement in illegal activities and often a neglect of those skills and habits necessary to secure employment.

In addition to the addiction-specific characteristics of the individual discussed above, certain characteristics which are non-specific to addiction may also be relevant to the addict's employability. These characteristics, such as level of education, previous employment history, and criminal record have been noted to operate among the general population as factors that influence the individual's ability to secure employment. Since these characteristics are non-specific to addiction, they will not be formally presented as hypotheses but will be studied in order to ascertain their relationship to the addicts ability to obtain employment and thus their contribution to the operation of the material renunciation penalties.

5a. The frequency of the addict's social contacts with non-deviant others while in treatment will be directly related to the age at which heroin use was begun.

b. The frequency of the addict's social contacts with non-deviant others while in treatment will be inversely related to the length of time addicted.

c. The frequency of the addict's social contacts with non-deviant others while in treatment will be inversely related to the cost per day of his previous heroin habit.

Hypotheses 5a--c focus upon the relationship between those characteristics which are indicative of the extent to which the addict has been assimilated into the heroin sub-culture and the operation of interpersonal renunciation penalties. The more extensive the addict's assimilation into the heroin sub-culture the more his interpersonal contacts have become exclusively directed toward others engaged in similar pursuits. As a result his life space becomes increasingly confined to the sub-culture that surrounds the use of addictive drugs and he experiences decreasing contact with non-addicts. This isolation from participation in the interpersonal exchanges which characterize conventional society may result in the loss or failure to develop those social skills which are necessary to form and maintain interpersonal relationships with individuals outside of the heroin sub-culture. It is expected that, as a result of this social handicap, addicts who have become addicted at an early age, have been addicted for relatively long periods of time, or evidence a relatively costly heroin habit will be subject to more severe interpersonal renunciation penalties due to their failure to form interpersonal relationships with non-deviant others. The failure to form these relationships will be evidenced by the addict's limited social contact with non-deviant individuals.

6a. Length of stay in treatment will be directly related to the age at which heroin use was begun.

b. Length of stay in treatment will be inversely related to the addict's length of time addicted.

c. Length of stay in treatment will be inversely related to the cost per day of the addict's previous heroin habit.

Hypotheses 6a--c focus upon the relationship between the addiction history characteristics of the addict and termination of treatment. In so far as these characteristics are related to the operation of the renunciation penalties, they should also be related to the outcome of the renunciation attempt. The relationship of the addict's level of education, previous employment history, and criminal record to length of stay in treatment will also be examined in order to determine the contribution of these general demographic characteristics to attrition. It is expected that, on the basis of these demographic and addiction history characteristics, predictors can be developed which can be used to identify those individuals who represent a high risk in terms of early attrition from treatment.

7a. Length of stay in treatment will be inversely related to the number of previous attempts the addict has made to terminate his use of heroin.

b. Length of stay in treatment will be inversely related to the duration of the addict's longest prior attempt to terminate his use of heroin.

Hypotheses 7a and b focus upon the relationship between the addict's previous attempts to renounce his deviant role and the outcome of his most current attempt. These hypotheses represent an extension of the Commitment to Deviance model in that they focus upon the effects of the individual's previous history of role renunciation, a factor which

has not been explicitly considered within this model. It is expected that individuals who have made frequent attempts at renunciation or have initially succeeded in this attempt for a relatively long period of time but then returned to heroin use are more likely to become discouraged more quickly when confronted by renunciation penalties than addicts who have not had this previous experience. In a sense they may have a greater readiness to re-define the balance of penalties and to terminate treatment based upon a belief that they will ultimately be unsuccessful again.

CHAPTER II

METHOD

The subjects were 34 heroin addicts who had requested residential treatment for their addiction. The subjects ranged in age from 18 to 46 with 82 percent of the sample being male and 18 percent female. In terms of racial composition, 56 percent of the subjects were white and 44 percent black. The majority of these subjects had been referred to the Comprehensive Drug Treatment Program through other Community Mental Health agencies and through the court system. Following this referral but prior to assignment to a program, the subjects were interviewed by the Intake Coordinator of the drug treatment programs to obtain a social and drug use history. Following the interview the individuals were assigned according to a pre-determined random sequence to one of two residential treatment facilities associated with the Comprehensive Drug Treatment Program. Only those individuals who were assigned to the Multi-Lodge and accepted this assignment were included in the present study. See Table 1 for a summary table of means on all demographic variables for male and female subjects.

Treatment Setting

The Multi-Lodge program, with some modifications, was modeled after the lodge concept of residential treatment as developed by Fairweather and his associates (1969b). This concept of residential

Table 1. Summary table of means on all demographic variables for male and female subjects.

Variable	Males (N = 27)	Females (N = 7)
Age	25.41	24
Education	12.00	10.14
Employment history	.19	.04
Criminal record	2.48	3.29
Age first heroin use	20.33	18.29
Length of use	33.74	48.45
Cost per day	67.47	90.00
Number of "kicks"	2.70	2.86
Length of longest "kick"	9.26	1.86

treatment places emphasis upon the group responsibility of its members for the management of the living and working condition of the lodge. The basic thrust of this concept is that the lodge, as a social subsystem, provides its individual members with the support, opportunity for employment and achievable social status which enables them to continue to function within the community.

The lodge approach to residential treatment, which was designed to aid socially marginal individuals, has achieved considerable success in removing chronic mental patients from institutional care and maintaining them within the community (Fairweather et al., 1969a). This particular application of the lodge concept of treatment has been extensively studied and is now in operation in a number of states as an accepted method of returning the chronic mental patient to the community. The possibility of extending the lodge concept to the

treatment of addiction was suggested by Sanders (1966) who believed that addicts present problems of societal maginality similar to chronic mental patients. This basic concept of treatment was implemented through the Community Mental Health Board in the Lansing area and was established as the Multi-Lodge.

The Multi-Lodge, which serves as the context for the proposed study, can be conceived of as a mini-representation of the larger society. It is a social sub-system implanted within the larger society which reflects the norms and values of that society. The lodge program structure not only requires that the resident live within a social framework which is reflective of these norms but also encourages the development of a set of social skills which are reinforced through the operation of a system of achievable social status within the program. In short, in order for the individual to achieve within the lodge program, he must adopt behavior which is facilitative of the enactment of a non-deviant role. During this process the lodge seeks to provide an atmosphere which is supportive of the individual who is attempting to cope with the stresses generated by his attempts to establish a non-deviant role both within the social sub-system and the larger society. A description of the Multi-Lodge program and the manner in which it differs from the prototype lodge is presented in Appendix I. The program manual, which presents the operation of the lodge in greater detail, can be found in Appendix II.

Instruments

Three sources of data were utilized in the present study. The first of these is the intake questionnaire (Appendix III) which was administered to the subjects in the form of a structured interview as part of the intake procedure of the Comprehensive Drug Treatment Program. The second source of information consisted of the program records of the Multi-Lodge which provided data concerning the resident's legal status at entry, urine testing results, employment, and length of time in residence. The third source of data was provided by staff ratings of the frequency of the resident's social contacts with non-addicts.

Intake questionnaire.--The intake questionnaire (Appendix III) was designed to elicit information concerning a broad spectrum of demographic and drug use characteristics of individuals entering the drug treatment program. The questionnaire was administered in the form of a structured interview by the intake coordinator prior to the subject's entrance into treatment. The current study utilized data obtained from this questionnaire to determine the addict's education, employment history and arrest record as well as a number of drug use history characteristics.

Data concerning the addict's employment history was obtained through information provided by the questionnaire. A measure of the consistency of the individual's employment for the last five years was obtained by dividing the ratio of the number of months employed to the total number of months in this period by the number of jobs held. For subjects under the age of twenty-three, the denominator of the ratio

was determined by the total number of months employable since age eighteen. The ratio obtained through these calculations was then utilized to test the relationship of the addict's employment history to attrition and the ability to secure employment while in treatment.

A record of the subject's history of arrests was compiled through the use of the intake questionnaire in order to test the relationship of the addict's criminal record to attrition and the ability to secure employment while in treatment. In calculating the arrest record, arrests were linked to incarceration in order to eliminate recording those instances in which the individual was taken into custody for questioning but was not charged with the commission of a crime.

Data concerning the addiction history characteristics of the subjects was obtained from the questionnaire to provide a vehicle for the assessment of the extent of the individual's involvement in the addict role in order to test the relationship of this variable to attrition, frequency of social contacts with non-deviant others and the ability to secure employment while in treatment. The variables utilized for this purpose were the age at which the individual began to use heroin, the length of time addicted and the cost per day of his habit. In addition, the number of times he had attempted to "kick the habit" and the longest time he had abstained from the use of heroin since becoming addicted were utilized to provide information concerning the individual's previous attempts at renunciation of his deviant role in order to assess the relationship between these attempts and his most current attempt.

Program records.--The program records provide data concerning the length of residence and the urine testing records of the subjects while in residence. Length of stay for each subject was computed from the day in which he established residence by moving into the program until the day of termination. However, several subjects who have been included in the present study never actually established residence in the program. For the purposes of this study, these individuals have been considered residents with a length of stay of 0 days if they accepted assignment to the Multi-Lodge at Central Intake; made contact with the Multi-Lodge staff in preparation for entering the program but then failed to follow through by physically establishing residence.

The length of time the subjects were employed while in residence at the lodge was analyzed in order to test the relationship between the ability to secure employment and attrition. For the purposes of the present study, this employment data is presented in the form of a three point scale. The three points of the scale are no employment, employment obtained but retained for less than a month, and employment secured for one month or more. This data was also utilized to test hypothesis four which attempts to determine if selected addiction history characteristics are related to the addict's ability to secure employment.

The individual's use of drugs while a resident at the Multi-Lodge was monitored through the use of urinalysis. Each resident was required to provide a sample of his urine three times a week under observation of a staff member. After urine samples were obtained, they were sent air mail to United Medical Laboratories in Portland, Oregon.

Upon receipt the samples were subjected to tests utilizing thin layer chromatography to determine the presence of amphetamines, cocaine, barbiturates, methaqualone, quinine, methadone and morphine and its derivatives. In cases where a "positive" result was obtained on one of the drugs, the sample was subjected to confirmation by additional tests to determine the reliability of the initial finding. Only when the original positive finding was confirmed by the additional tests was that urine sample considered to be evidence of drug use. The data obtained through the use of urinalysis for the thirty day period prior to termination was analyzed to assess the relationship between attrition and the resumption of the addict role as reflected by the subject's drug taking behavior. (Further information concerning the urine testing procedures of the Multi-Lodge can be found in the program manual in Appendix II).

Staff ratings.--The third source of data used in the current study consists of a staff rating of the frequency of the subject's social contacts with non-addicts. This rating was adopted in order to assess the operation of the interpersonal renunciation penalties as reflected in the frequency of such contacts and its relationship to attrition. This rating of the frequency of social contacts with non-addicts was also used to assess the relationship between the frequency of these contacts and the degree to which the subject was previously involved in the addict role as reflected by the drug use history variables presented in hypothesis five. For the purpose of this study, these social contacts were defined as face to face contacts that the subjects had with non-addicts for the purpose of leisure activity.

Each subject was rated on a four point scale in terms of the frequency at which such contacts occurred and the ratings were made by the staff member who had the most contact with the subject to be rated. A subset of these subjects who were considered to be known equally well to both raters were selected and rated on this scale in order to assess inter-rater reliability. A correlation coefficient of .93 was obtained between the two sets of ratings. (See Appendix IV for a description of the scale used in rating the frequency of the subject's social contacts with non-addicts).

CHAPTER III

RESULTS AND DISCUSSION

Correlational analysis was utilized to test the hypotheses of the current study. After a matrix of Pearson product--moment correlations was obtained a multiple regression analysis using the method of least squares was utilized to determine the extent to which selected combinations of independent variables derived from the hypotheses jointly predicted the addict's frequency of social contacts, ability to obtain employment and length of stay in treatment. Since both the correlational and the multiple regression analysis are dependent upon the assumption of linearity being met, scatter plots were obtained between the dependent variables and all independent variables in order to check for the existence of any significant departure from linearity. Inspection of these scatter plots indicated that there were no significant departures from linearity.

Prior to a discussion of the results obtained from the analysis of data relating to the formal hypotheses of this study, some consideration of the correlation matrix obtained between the variables included in the current research seems appropriate. (See Table 2 for the intercorrelation matrix of independent and dependent variables. Table VI.I in Appendix VI contains a summary of the means and standard deviations for all variables.) An inspection of the correlation matrix

Table 2. Intercorrelation matrix of independent and dependent variables. (N = 24 34)*.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	131
1. Education	1.00														
2. Employment history	.45	1.00													
3. Criminal record	-.26	-.37	1.00												
4. Age first heroin use	.22	.29	-.04	1.00											
5. Length of use	.05	-.03	.39	-.03	1.00										
6. Cost per day	-.02	.07	.05	.02	.36	1.00									
7. Number of "kicks"	.07	.10	.12	.10	.20	-.09	1.00								
8. Length of longest "kick"	-.07	.15	.21	.01	.11	.61	-.25	1.00							
9. Legal pressure	-.01	-.36	.35	-.09	.01	-.02	.26	-.10	1.00						
10. Employ. in treatment (N = 24)	.32	-.07	-.15	.16	-.25	-.32	-.04	.03	.25	1.00					
11. Freq. of social contacts (N = 24)	.29	.01	-.21	.23	-.13	-.04	.11	.14	.18	.71	1.00				
12. Prop. dirty urines (N = 24)	-.23	-.08	.14	-.07	.18	.30	-.08	-.26	-.11	-.70	-.68	1.00			
13. Number of days in treat. (N = 34)	.17	-.15	-.16	.13	-.12	-.17	.12	-.20	.46	.67	.52	-.62	1.00		
14. Freq. of job-seeking (N = 22)	.11	.23	-.21	.48	-.20	-.29	-.10	.03	-.18	.77	.70	-.61	.68	1.00	
15. Age (N = 34)	.17	.22	.34	.70	.53	.19	.16	.22	-.07	.01	.10	-.01	.01	.24	1.00

*For variables 1 - 9 N = 34, the N of any given correlation between two variables is equal to that of the variable with the lower N.

indicates that there appears to be only one cluster which is formed among the variables. This cluster, which consists primarily of variables related to in-treatment behaviors, appears to be relatively independent of the variables that represent the pre-treatment demographic and addiction history characteristics of the subjects. In addition, the demographic and addiction history variables appear to be relatively independent of each other with few significant correlations occurring between them. The statistically significant correlations obtained between these characteristics represent relationships which are fairly well established in the literature. For example, the extent of the legal pressure to which an addict is subject was found to be negatively related to his previous employment history (-.36) and positively related to the extensiveness of his prior criminal record (.35). In other words, legal pressure was less intense for addicts with more consistent records of employment but more intense the more times the addict had previously been arrested. In a similar fashion, the extensiveness of the addict's criminal record was found to be positively related to the length of time addicted (.39) but negatively related to his employment history (-.37). In addition the cost per day of the addict's "habit" was found to be positively related to length of time addicted (.36) and his level of education was positively related to consistency with which he was employed (.45).

Before a discussion of the results obtained in relation to the major hypotheses of the current study can be undertaken, a problem pertaining to the data and its interpretation must be noted. An inspection of the correlation matrix will reveal that the number of

subjects vary in relation to the particular variable under consideration. For instance, those variables which pertain to the addict's general demographic and addiction history characteristics, as well as the number of days in treatment, are based on a pool of thirty-four subjects. However several other variables such as the frequency of the addict's social contacts with non-addicts and his success in securing employment in treatment are based upon twenty-four subjects. This creates a problem in regard to the analyses of multiple regression since the variables based upon twenty-four subjects are the criterion variables used in a number of these analyses. As a result ten subjects were eliminated from the computation of a number of the multiple regression analyses. The reason for the attrition was that those subjects eliminated were residents of the program for less than thirty days. It was felt that to rate those individuals, in terms of the frequency of social contacts or their ability to secure employment while in treatment for such a short period of time, would bias the results more than excluding them from the analyses. However such a large subject loss relative to the size of the total sample has had the following effects upon the data analysis:

a) It leaves unchanged all correlations involving relationships among demographic and addiction history variables since the original sample size could be used.

b) It effects some of the multiple regression analyses involving a combination of the above factors and those variables relating to behavior while in treatment since the reduced sample ($n = 24$) had to be used here. Some estimate of the effect of reduced sample size upon the simple and multiple correlations can be made in cases where the original correlation was computed on the basis of the full sample ($n = 34$). The specific pattern of alteration among the correlations due to reduced sample size and its probable effect upon the multivariate analyses will be discussed in conjunction with each set of results.

Hypothesis 1, which focused upon the relationship between the continuation penalty of incarceration and attrition, predicted that length of stay in treatment would be directly related to the extent to which the addict was subjected to legal pressure to terminate heroin use. The correlation coefficient obtained between the extent of legal pressure and number of days in treatment was .46 which was significant at the .01 level.

Hypothesis 2a and b were concerned with the relationship of the material and interpersonal renunciation penalties to attrition. Hypothesis 2a predicted that the addict's length of stay in treatment would be directly related to the ability to secure employment while in treatment. A correlation of .67, which is significant at the .001 level, was obtained between the number of days in treatment and success in securing employment while in treatment. In a similar fashion, hypothesis 2b predicted that the addict's length of stay in treatment would be directly related to the frequency of his social contacts with non-addicts during the course of treatment. A correlation of .52, which is significant at the .01 level, was obtained between the number of days in treatment and the staff rating of the addict's frequency of social contacts with non-deviant individuals during the course of treatment.

The Commitment to Deviance model states that success in the renunciation of the deviant role is the result of the balance of continuation penalties (eg. threat of incarceration), material renunciation penalties (eg. failure to secure employment) and interpersonal renunciation penalties (eg. limited social contacts with non-deviant

others) confronting the individual. In order to determine the extent to which legal pressure, success in securing employment and frequency of social contacts, taken together, account for the variance observed in the length of stay in treatment, an analysis of the overall regression of these three variables on the number of days in treatment was computed. As a result of this analysis a multiple regression coefficient of .69 ($p < .005$) was obtained which accounted for approximately 48 percent of the observed variation. (See Table 3 for a summary of the analysis of variance for the overall regression,) An examination of the beta weights associated with each of the predictor variables revealed that practically all the explained variation was accounted for by success in securing employment while in treatment. This variable accounted for 45 out of 48 percent of the observed variation explained by the predictor variables while legal pressure and the frequency of social contact with non-deviant others accounted for only an additional 3 percent. (See Table 4 for a summary of the beta weights, F statistics and significance levels of the variables in the analysis of regression.)

The failure of legal pressure to account for more of the observed variation in number of days in treatment is somewhat surprising in view of the statistical significance of the simple correlation between these two variables and the relatively low correlations obtained between legal pressure and the other two predictor variables which entered into the multiple regression. The fact that legal pressure contributed so little to the multiple regression may be attributable to the effect of subject loss which was discussed previously. This appears particularly likely since the majority of those subjects dropped

Table 3. Analysis of variance for the overall regression of legal pressure, success in obtaining employment and frequency of social contacts on length of stay in treatment. (N = 24)

Source	SS	df	MS	F
Regression	103013.22	3	34337.74	6.06*
Error	113386.61	20	5669.33	
Total	216399.83	23		

*$p < .005$, two-tailed test.

Table 4. Beta weights, F statistic and significance levels for legal pressure, success in obtaining employment and frequency of social contacts in estimation of length of stay in treatment. (N = 24)

Variable	Beta Weight	F	Significance level
Legal pressure	.15	.82	.38
Employment in treatment	.57	6.03	.02
Freq. of social contacts	.09	.16	.70

from the analysis due to their limited length of stay in treatment were not subject to any legal pressure to terminate their heroin use. As a result of this loss the simple correlation between legal pressure and number of days in treatment fell from .47 to .31 while its correlation with the other two predictor variables remained the same. This would tend to attenuate the effect of legal pressure in the multiple regression.

Hypothesis 3 predicted that the extent of the addict's drug use prior to termination of treatment will be inversely related to the length of stay in treatment. A Pearson correlation coefficient was computed between the proporation of dirty urines during the last thirty days of treatment and the number of days in treatment. A correlation coefficient of -.62 was obtained which is significant beyond the .01 level.

Hypotheses 4a, b and c were concerned with the relationship of selected addiction history characteristics and the operation of material renunciation penalties as reflected in the addict's ability to secure employment while in treatment. Hypothesis 4a predicted that the addict's ability to secure employment would be directly related to the age at which heroin use was begun. A correlation coefficient of .16 was obtained between the addict's success in securing employment and the age at which he first used heroin. While the obtained correlation was in the predicted direction, it failed to reach significance and therefore the hypothesis was not supported. Hypothesis 4b predicted that the addict's ability to secure employment would be inversely related to the length of time addicted. A non-significant correlation

of -.25 was obtained between measures of these two variables; thus the hypothesis was not supported. Hypothesis 4c predicted that the addict's ability to secure employment while in treatment would be inversely related to the cost per day of the addict's heroin habit prior to treatment. A correlation coefficient of -.32 was obtained which, while in the predicted direction, failed to reach significance.

Although none of the simple correlations reached the level of significance, an analysis of the overall regression of age at first use, length of addiction and cost per day on success in securing employment while in treatment was undertaken in order to determine the extent to which these variables are jointly predictive of the addict's ability to secure employment. This analysis yielded a multiple regression coefficient of .38 which was not statistically significant and accounted for only 15 percent of the observed variation of the dependent variable. (See Table VII.I in Appendix VII for a summary of the analysis of variance for the overall regression.) From the results of these analyses it must be concluded that these variables, whether considered separately or together, fail to predict the addict's ability to secure employment while in treatment. It should be noted that the multiple regression coefficient obtained in the analysis was, in all probability, effected by the subject loss. The reduction in the number of subjects available for this analysis resulted in an increase in the size of the intercorrelations between the independent variables while the size of their correlations with the criterion variable remained the same. The result of such an alteration in these intercorrelations would probably be to

deflate the size of the multiple regression coefficient presented here. However, due to the relatively low order simple correlations obtained between the independent variables and the criterion, it is unlikely that this analysis was effected to any appreciable extent.

Hypotheses 5a, b and c were concerned with the relationship between the selected addiction history characteristics and the frequency of the addict's social contacts with non-deviant others during treatment. Hypothesis 5a predicted that the frequency of these social contacts would be directly related to the age at which heroin use was begun. A correlation coefficient of .23 was obtained which, while in the predicted direction, failed to reach the level of significance. Hypothesis 5b predicted that the frequency of social contacts would be inversely related to the length of time addicted. A correlation coefficient of -.13 was obtained between measures of these variables. This result was not statistically significant. Hypothesis 5c predicted that the frequency of social contacts with non-deviant others during treatment would be inversely related to the cost per day of the addict's heroin habit prior to treatment. A correlation coefficient of -.04 was obtained which was not statistically significant. On the basis of these results neither hypotheses 5a, b or c were supported by the data.

Although the simple correlations obtained between these variables and the frequency of the addict's social contacts were of a low order, an analysis of the overall regression of age at first heroin use, length of addiction and cost per day of the heroin habit on the frequency of social contacts was computed since their combined relationship to the criterion variable was of interest. This analysis yielded

a multiple regression coefficient of .29 which was not statistically significant and accounted for only 8 percent of the observed variation in the dependent variable. The result obtained by this analysis of multiple regression indicates that these three variables in combination have little utility as predictors of the frequency of the addict's social contacts with non-deviant others while in treatment. It is expected that the multiple correlation coefficient obtained in the analysis under consideration has been effected by subject loss in the same way as the previous analysis. However the effect is believed to be slight due to the low order of simple correlations obtained between the independent variables and the criterion. (See Table VII.2 in Appendix VII for a summary of the analysis of variance for the overall regression.)

Hypotheses 6a, b and c focus on the relationship of the selected addiction history characteristics to length of stay in treatment. Hypothesis 6a predicted that length of stay in treatment would be directly related to the age at which heroin use was begun. A correlation coefficient of .13 was obtained between measures of these two variables. Hypothesis 6b predicted that length of stay in treatment would be inversely related to the length of time addicted. A correlation coefficient of -.12 was obtained between the number of days in treatment and length of time addicted. This correlation was not statistically significant. Similarly, hypothesis 6c predicted that length of stay in treatment would be inversely related to the cost per day of the addict's previous heroin habit. A correlation coefficient of -.17, which is not statistically significant, was obtained between measures

on these two variables. From these results it is apparent that hypotheses 6a, b and c were not supported by the data of this study.

Although none of the simple correlations reached the level of significance, an analysis of the overall regression of age at first use, length of addiction and cost per day on number of days in treatment was computed since their combined relationship to the criterion variable was of interest. This analysis yielded a multiple regression coefficient of .22 which accounts for 5 percent of the observed variation in the dependent variable. This multiple regression coefficient failed to reach the level of statistical significance. (See Table VII.3 in Appendix VII for a summary of the analysis of variance for the overall regression.) From the results of this analysis, it is concluded that the age of first heroin use, length of addiction and cost per day of the heroin habit prior to treatment, when taken together, have little utility as predictors of length of stay in treatment. Since this multiple regression analysis was able to utilize the full sample of subjects, its interpretation is uneffected by the consideration of subject loss.

Hypothesis 7a and 7b are concerned with the relationship between the addict's previous attempts to terminate his addiction to heroin and his length of stay in treatment during his most recent attempt. Hypothesis 7a predicted that length of stay in treatment would be inversely related to the number of previous attempts to terminate heroin use. A correlation coefficient of .12 was obtained between number of days in treatment and the number of previous attempts to terminate heroin use. This result was not statistically significant and failed to support hypothesis 7a. Hypothesis 7b, which predicted that length of stay

in treatment would be inversely related to the duration of the addict's longest prior attempt to terminate heroin use, was also not supported by the data of the current study. A correlation coefficient of -.20 was obtained between measures of these two variables which was not statistically significant.

In addition to the variables tested within the context of the formal hypotheses presented above, the relationship of three general demographic characteristics of the addicts to their ability to secure employment and length of stay in treatment was examined. Pearson correlations were computed between the addict's educational level, previous employment history, and criminal record and his success in securing employment while in treatment and length of stay in treatment. In no instance were any of the correlations obtained statistically significant. (See Table 5 for a summary table of the correlations obtained between these demographic characteristics and length of stay in treatment and success in securing employment. For the intercorrelations among these demographic variables and between them and all other variables in the study see Table 2.)

Table 5. Summary table of correlations obtained between three general demographic characteristics of addicts and success in securing employment and length of stay in treatment.

Variable	Education	Employ. Hist.	Criminal Rec.
Employment in treat. (N = 24)	.32	-.07	-.15
Length of stay (N = 34)	.17	-.15	-.16

Although the simple correlations obtained between the addict's level of education, employment history and criminal record and both success in securing employment in treatment and length of stay in treatment failed to reach the level of statistical significance, analyses of the overall regression of these three variables on each of the criterion variables was computed since their combined relationship to these criterion variables was of interest. The analysis of regression for these three independent variables on success in obtaining employment yielded a multiple regression coefficient of .38 which accounted for 15 percent of the variance. This multiple regression coefficient failed to reach the level of statistical significance. It should be noted that, once again, the multiple regression coefficient obtained in the analysis was, in all probability, effected by the subject loss. The reduction in the number of subjects available for this analysis resulted in a decrease in the size of the intercorrelations between the independent variables while the size of their correlations with the criterion variable remained the same. The result of such an alteration in these intercorrelations would probably be to inflate the size of the multiple regression coefficient obtained in the analysis. However, due to the relatively low simple correlations obtained between the independent variables and the criterion, it is unlikely that this analysis was effected to any appreciable extent. (See Table VII.4 in Appendix VII for a summary of the analysis of variance for the overall regression.) The analysis of regression on length of stay in treatment yielded a nonsignificant multiple regression coefficient of .36 which accounted for 13 percent of the observed variation in the number of days in treatment. Since

this multiple regression analysis was able to utilize the full sample of subjects, its interpretation is uneffected by the consideration of subject loss. (See Table VII.5 in Appendix VII for a summary of the analysis of variance for the overall regression.) From the results of these analyses it can be concluded that educational level, employment history and criminal record have little utility as joint predictors of whether or not the addict will succeed in securing employment while in treatment or the length of stay in treatment.

The data of the present study was analyzed without a distinction being made between the race or sex of the subjects. This was done on the basis of results obtained by the studies of addiction status at follow-up which failed to find any significant difference in rates of readdiction in regard to race or sex. As a check on the importance of these variables in regard to the present sample, "t-tests" were computed for race and sex on length of stay in treatment. The difference between white and black subjects in length of stay in treatment was found to be statistically non-significant. Likewise, the difference between male and female subjects on length of stay in treatment was also found to be statistically non-significant. See Table 6 for the means and computed t statistic for these variables.

Table 6. Means and computed t for race and sex on length of stay in treatment. (N = 34)

Variable	Mean	t
Race		.29
black	72.00	
white	62.79	
Sex		.62
male	71.82	
female	47.71	

CHAPTER IV

GENERAL DISCUSSION

Commitment to Deviance: the Relationship of Continuation and Renunciation Penalties to Attrition

The central thesis of the Commitment to Deviance model is that the individual's decision to terminate or continue his enactment of a deviant role is based upon the balance of social penalties that confront him. This balance is struck between the continuation penalties, those aversive outcomes the individual incurrs by continuing in his deviant role, and the economic and interpersonal renunciation penalties which the individual confronts as a result of attempting to renounce his deviant role and establish a non-deviant identity. According to this model there will be no sustained movement toward a change in commitment unless the individual perceives some probability of the application of aversive consequences for continued enactment of the deviant role. Likewise, the individual will fail to maintain his change in commitment once it is made unless he is able to circumvent the renunciation penalties that confront him and obtain some reinforcement for the enactment of a non-deviant role.

The results of the present study indicate that the hypotheses derived from the Commitment to Deviance model concerning the relationship of the social penalties to a resumption of the deviant role as

reflected in attrition from treatment have received considerable support. Hypothesis 1 which was concerned with the relationship between the continuation penalty represented by the amount of legal pressure upon the addict to discontinue his heroin use and length of stay in treatment was supported by the results of this study. A correlation of .47 ($p < .01$) was obtained between the extent of the legal pressure and the number of days the addict remained in treatment. As was predicted, longer stays in treatment were associated with addicts who were facing an upcoming trial for a heroin related offense or were currently on probation or parole than with those addicts who were not subject to the threat of impending incarceration if they failed to terminate their heroin use. This result is congruent with the position of the Commitment to Deviance model which attributes to the continuation penalties a position of central importance as providing the impetus for the redefinition of an individual's commitment to his social role.

The hypothesized relationship between the material and interpersonal renunciation penalties and the individual's commitment to his role was also supported by the results of this study. The issue which is most central to the material renunciation penalty hypothesis is whether or not the individual can secure employment. Hypothesis 2a represents an attempt to assess the importance of this type of penalty through the prediction that the addict's length of stay in treatment would be directly related to his ability to secure employment while in treatment. A correlation of .67 ($p < .001$) was obtained between the addict's success in securing employment and the number of days in treatment which provides support for the expectation derived from the

Commitment to Deviance model; the addict who is able to successfully circumvent the material renunciation penalties will maintain his commitment to the establishment of a non-deviant role as reflected by his continuation in treatment.

In a similar fashion hypothesis 2b focused upon the relationship of the interpersonal renunciation penalties to the addict's maintenance of his commitment to the establishment of a non-deviant role. The intent of this hypothesis was to assess the relationship of social acceptance by non-addicts to the maintenance of a non-deviant role through the prediction that length of stay in treatment would be related to the frequency of the addict's social contacts with non-deviant others while in treatment. A correlation of .52 ($p < .01$) was obtained between the number of days in treatment and a staff rating of the subject's frequency of social contacts with non-addicts.

The support given to hypotheses 1, 2a and 2b indicates that the addict's continued commitment to the establishment of a non-deviant role, as reflected in continued participation in treatment, is strongly related to the operation of the continuation penalties on one hand and his ability to circumvent the operation of renunciation penalties on the other. This line of reasoning assumes that attrition from treatment represents the resumption of the deviant role of the addict. Some of the data support this position. For example, a strong negative association was obtained between the number of days in treatment and the proportion of "dirty" urines which were detected during the individual's last 30 days in treatment. Shorter stays in treatment were associated with a more extensive use of drugs prior to termination of

treatment. These data lend some credence to the assumption that attrition from treatment represents an instance in which the individual has failed to renounce his deviant role as an addict.

The role that the addict's failure to circumvent the renunciation penalties plays in the resumption of deviance is given further support on the basis of the finding that both success in securing employment and the frequency of social contacts with non-deviant others are correlated -.70 and -.68 respectively with the proportion of dirty urines in the last thirty days of treatment. Thus both shorter length of stay in treatment and more extensive drug use prior to termination are strongly associated with the addict's failure to secure employment and limited social contacts with non-deviant others.

The fact that the Commitment to Deviance model conceptualizes the outcome of the renunciation attempt as the result of the balance struck between the continuation and renunciation penalties makes an examination of the joint effects of these penalties of considerable importance. An analysis of multiple regression of the variables associated with these penalties on length of stay in treatment was computed to assess their joint effect upon this criterion variable. As noted in Chapter III, the results of this analysis indicated that almost all of the observed variance in the number of days in treatment could be attributed to the individual's ability to circumvent the material renunciation penalties as reflected in his success in securing employment. The contribution of the continuation penalty of legal pressure and the interpersonal renunciation penalty of limited social contacts with non-deviant others was relatively slight. As was previously

discussed, the reason for the relatively minor role that legal pressure played in the joint prediction of length of stay appears to be related to the effect of subject loss involved in the computation of the multiple regression analysis. The fact that the extent of legal pressure on the addict was significantly correlated with length of stay in treatment and had relatively low order correlations with the other two predictor variables indicates that it probably plays a stronger role in predicting length of stay in treatment in conjunction with the addict's success in securing employment than is indicated by the multiple regression analysis. Inspection of the data also tends to support the importance of legal pressure as a predictor of length of stay as can be seen by the fact that 64 percent of those addicts entering treatment with no legal pressure stayed less than thirty days while only 15 percent of the addicts subject to any form of legal pressure terminated treatment during the first thirty days.

While the limited contribution of legal pressure to the explanation of observed variation in the number of days in treatment may be artifactual, this does not appear to be the case in regard to the interpersonal renunciation penalty of limited social contacts. An examination of the correlation matrix reveals that a correlation of .71 exists between success in securing employment and the frequency of social contacts with non-deviant others. This indicates that it may not be correct to think of the existence of two separate types of renunciation penalties as such but rather two aspects of a generalized renunciation penalty which are not independent of each other but tend to covary. The data obtained in the current study seems to indicate

that individuals who fail to circumvent the material renunciation penalties associated with the inability to secure employment also fail to obtain interpersonal rewards by circumventing the interpersonal renunciation penalties. In short, if the addict "loses" he tends to "lose big" which includes not only unemployment but also exclusion from social interaction with those individuals with whom he is attempting to identify. The effect of such exclusion and the disappointment of the addict's expectations upon his newly formed identity as an abstainer and his tendency toward relapse has been well documented by Ray (1961).

Addict Characteristics, Renunciation Penalties and Attrition from Treatment

In the past twelve years a number of research studies have been published which focus on the addiction status of individuals following their release from treatment. The majority of these follow-up studies have utilized samples of addicts drawn from patients who have been treated at the United States Public Health Service hospitals at Lexington and Fort Worth. These studies, which have been discussed at some length in the literature review, have isolated a number of addict characteristics which have been associated with differential outcomes in terms of re-addiction. Many of these variables, most of which were demographic or addiction history characteristics of the addicts, have been identified by a number of different studies as major correlates of addiction status at follow-up.

In accordance with the Commitment to Deviance model we would expect that individuals who were released from institutional treatment

for addiction would be confronted with the task of circumventing the renunciation penalties in order to establish themselves in a non-deviant role. The addict's failure to accomplish this task would be expected to result in a re-commitment to his former deviant role and re-addiction. Since the results of these follow-up studies indicated that a number of demographic and addiction history characteristics of the addict were related to his addiction status at follow-up, it seemed entirely possible that these same characteristics were related to differential success in circumventing the renunciation penalties. Based on this line of reasoning hypotheses 4a--c and 5a--c were developed to examine the relationship between selected addiction history characteristics and the addict's ability to circumvent the material and interpersonal renunciation penalties which confront him in the context of residential treatment. Hypothesis 4a--c focused upon the relationship of the age at which heroin use was begun, the length of use, and the cost per day of the addict's habit to the extent to which he was able to circumvent the material renunciation penalties as reflected by success in securing employment while in treatment. Hypotheses 5a--c examined the relationship of the same characteristics to the addict's ability to circumvent the interpersonal renunciation penalties as reflected by the frequency of his social contacts with non-deviant individuals. In addition to these formal hypotheses, the relationship of three general demographic characteristics consisting of education, employment history and criminal record to success in securing employment while in treatment was also examined.

In no instance were any of these hypotheses supported by the results obtained in the current study. No significant correlations were found between age of first heroin use, length of use, or cost per day of the habit and either success in securing employment or the addict's frequency of social contacts with non-deviant others. In addition, no significant correlations were obtained between the addict's level of education, employment history or criminal record and success in securing employment.

The results of these same studies which indicated that these demographic and addiction history characteristics were related to addiction status at follow-up also prompted the development of hypotheses 6a--c which predicted that age of first use of heroin, length of use and cost per day would be related to attrition from treatment. These hypotheses were predicated on the assumption that both resumption of drug use following institutional treatment and attrition from treatment were instances of the same phenomenon of failure to renounce the addict role. However, unlike addiction status at follow-up, no significant correlations were obtained between these characteristics and length of stay in treatment. In addition, the addict's educational level, previous employment history and criminal record were also found to be unrelated to the length of stay in treatment despite the relatively strong relationship found between these characteristics and addiction status at follow-up by these earlier studies.

From the results obtained in relation to hypotheses 4a--6c, it must be concluded, that these addiction history and demographic characteristics are not related in any significant way to either the

operation of the material and interpersonal renunciation penalties or the addict's length of stay in treatment. In view of these results, the question becomes: how does one explain the lack of relationship between these characteristics and attrition when these same characteristics have been demonstrated to be clearly related to addiction status at follow-up? One possible interpretation is that the resumption of drug use that coincides with attrition from treatment represents a different phenomenon than re-addiction following release from institutional treatment for drug addiction. If this were the case then those characteristics that were found to be related to addiction status at follow-up may have no relevance to either the operation of the renunciation penalties or length of stay in residential treatment. However, since both phenomena basically represent a resumption of drug-taking behavior which was previously associated with the enactment of the addict role it is difficult to conceive of them as anything but equivalent instances of a recommitment to the former deviant role.

An alternative interpretation and one that appears to be more plausible is based upon the observation that the follow-up studies utilized samples in which the subjects were drawn primarily from individuals who were in treatment between 1935 and the mid 1960's with the majority of them having been in treatment during the 1950's. The United States has undergone massive social change since that time and there have been noticeable shifts in attitudes toward addiction, addicts, and the programs and services provided for their rehabilitation. Up until the late 1960's, an addict released from treatment for addiction would have had to depend almost entirely upon his own resources when

he returned to the community. In such an atmosphere it is entirely conceivable that whether he could achieve some degree of assimilation into conventional society and renounce his deviant identity would be dependent upon his personal characteristics. His ability to obtain employment might be dependent upon his level of education and previous employment history as well as the extent of his criminal record. Similarly, the extent to which he had previously been assimilated into the heroin sub-culture in terms of the age at which he began to use heroin and the length of time addicted may also be important. An addict with a long history of addiction would be left with a repertoire of interpersonal and occupational skills which were so impoverished that he would be unable to gain access to any reinforcement for the enactment of a non-deviant role. Thus, for the addict in the 1950's and early 1960's, such demographic and addiction history characteristics might prove to be important predictors of whether or not he would ultimately become re-addicted following treatment.

In contrast to the situation described above, the addict in treatment now has a much broader range of services available to him. Since 1968 a large amount of public funds have been committed to the drug abuse problem and programs designed to rehabilitate the drug dependent individual. Unlike the fictional addict described above, the residents of the Multi-Lodge had available to them the services of the Department of Vocational Rehabilitation, the Michigan Employment Security Commission, and the Department of Social Services, in addition to a number of job training and placement services associated with local correctional institutions, community mental health, and the Youth

Development Corporation. While these services weren't being pushed at the addict, they were available to those who were willing to seek them out and follow through. The emphasis upon the importance of employment for addicts as an integral part of their rehabilitation may well have made those characteristics of the addict such as educational level and previous employment history far less important in terms of obtaining employment than they were previously.

Some Speculations Concerning Job-Seeking Behavior, Helplessness, and Success in Treatment

The failure to find any significant relationship between addict characteristics, the operation of renunciation penalties and attrition from treatment leaves the question of what determines the individual's ability to circumvent these penalties unanswered. However, it is clear that the addicts in this sample differed from each other in terms of their success in securing employment and the frequency of their social contacts with non-deviant individuals as well as the length of time they remained in treatment. Some insight into the possible source of these differential outcomes may be obtained through the consideration of an additional variable which was not part of the formal hypotheses of the current study. This variable, the frequency of job-seeking behavior while in treatment, was based upon staff ratings of the frequency with which the individual actively participated in attempts to obtain employment through job interviews and contacts with vocational rehabilitation agencies for the purpose of obtaining direct and indirect assistance in locating employment. (See Appendix V for a

description of the scale utilized in rating the frequency of job-seeking behavior and information on inter-rater reliability.)

A strong relationship was found between the frequency of job-seeking behavior and the addict's ability to circumvent the material renunciation penalties as reflected by his success in securing employment while in treatment. The fact that a correlation of .77 ($p < .001$) was found between these two variables is not particularly surprising since it is virtually a tautology to say that the more often an individual seeks employment the better his chances of success in obtaining a job. However job-seeking was also found to be correlated .70 ($p < .001$) with the frequency of the addict's social contacts with non-deviant others which seems to indicate that this behavior may have wider implications. In addition the frequency of job-seeking behavior was found to be positively correlated with length of stay in treatment ($r = .68$, $p < .001$) and negatively correlated with the extent of drug use during the last thirty days prior to termination of treatment ($r = -.61$, $p < .01$). These results indicate that addicts who actively seek employment while in treatment tend to remain in treatment longer and when terminating treatment are less likely to be doing so in conjunction with a resumption of drug-taking behavior.

The pattern of results obtained above suggests that the frequency of job-seeking may be a reflection of a more general aspect of the addict's behavior while in treatment which may represent an activity-passivity dimension. Thus, instead of the application of renunciation penalties and their effect upon the addict's commitment to renounce his deviant role being related to the pre-treatment characteristics of the

addict, it would appear that it is the extent to which the addict takes an active role in attempting to circumvent these penalties that determines his success. This finding appears to have some parallels to Seligman's (1969; 1973) speculations concerning passivity and learned helplessness which may be relevant to understanding the addict's performance in treatment and its outcome.

Seligman, in a series of research studies with dogs which investigated the relationship of previous experience with inescapable shock to later ability to learn an escape-avoidance response, found that those animals who had first been exposed to shock over which they had no control later failed to learn escape responses to shock in an entirely dissimilar learning situation (Overmier and Seligman, 1967; Seligman and Maier, 1967; Seligman, Maier and Geer, 1968). Unlike shock naive dogs or dogs that had been previously exposed to controllable shock, these animals failed to learn the response of jumping over the barrier in a shuttle-box upon the occurrence of shock or a discriminative stimulus signalling the onset of shock. In contrast to "normal" dogs, these animals made no attempt to get over the barrier to the "safe compartment" and after an initial period of normal reactivity to the shocks would later settle down and passively accept them. When, on rare occasions, an escape or avoidance response did occur it failed to reliably predict future escape behavior as it does in normal animals. Seligman believes that this passivity, which he has called "learned helplessness", and the interference with subsequent escape-avoidance learning was the result of the animal learning that its responses were uncorrelated with shock and that there was no response it could make which would make a difference (Seligman and Maier, 1967).

The fact that at least an experimental analogue of learned helplessness can occur in human beings has been demonstrated in a number of research studies. Thornton and Jacobs (1971), in a test of the learned helplessness hypothesis, exposed two groups of human subjects to either escapable or inescapable shock during the performance of one task and then measured their performance in learning an avoidance response to a discriminative stimulus signaling onset of shock during participation on a different task. The group which had been previously exposed to inescapable shock performed significantly fewer avoidance responses and 65 percent of these subjects failed to make even one escape response. When interviewed following completion of the experiment, 60 percent of those subjects who had previously been exposed to inescapable shock and failed to make a response during the second task stated that they made no escape responses because they felt they had no control over the occurrence of shock. Instead they spent the majority of the time between the onset of the discriminative stimulus and shock in preparation for receiving the shock.

Hiroto (cited in Seligman, 1973) conducted a similar experiment with college students using loud noise as an aversive stimulus. The subjects were divided into two groups for the initial phase of the experiment in which one group was able to terminate exposure to loud noise while the other group could not. In the second part of the study a finger shuttle-box was utilized to provide a test of whether there was any differential learning of escape responses to loud noise between the two groups. The results of this study indicated that those subjects who had previous experience with escapable noise performed

significantly more escape responses than those who had previously experienced inescapable noise. Equally significant as these inter-group differences was Hiroto's finding that those subjects who were classified as "externals", i.e., who scored high on the external end of Rotter's locus of control scale (Rotter, 1966), were significantly more susceptible to learned helplessness.

Seligman (1969; 1973) has taken the results obtained from these laboratory studies of animal and human escape-avoidance learning and generalized them to the phenomenon of passivity, helplessness and reactive depression as it occurs in the general and particularly in psychiatric populations. In humans he sees the source of the helplessness syndrome, which is expressed as a generalized passivity, as occurring as a result of a life time of experience in attempting to control the interpersonal environment during which the individual has learned that nothing he can do makes a difference in terms of producing reinforcing consequences or terminating aversive stimulation. In its most extreme form, which occurs in the clinically depressed patient, not only does the individual make fewer responses than the average person but also appears to have a stronger set toward interpreting his own responses as failures or as being ultimately doomed to failure. When these individuals encounter any difficulty they tend to define their response as a failure and abandon any further attempts at problem solving. For them an obstacle becomes defined as an impossible barrier and even when this individual makes a successful response he finds it difficult to perceive his own success.

In less extreme form, this generalized passivity takes the form of a behavioral style which matches the description of the individual who scores high on external locus of control and maintains the attitude that access to reinforcement is controlled by forces outside of his own behavior. As Lefcourt (1966) points out, these individuals may, in certain situations, exhibit no goal directed behavior because they anticipate no contingency between any effort on their part and the end result of obtaining reinforcement. This can be true despite the fact that the individual values the available goal if he believes that he lacks the behavior in his repertoire that would be successful in securing that goal. In contrast, the individual who tends to score high in terms of internal locus of control is characterized by a belief that his own actions control access to reinforcement. His approach to attaining a valued goal is to utilize his full repertoire of problem-solving behaviors and to make adjustments in these behaviors in response to the lack of reinforcing consequences.

Much of what Seligman has to say about passivity and learned helplessness appears to be applicable to those residents who displayed relatively infrequent job-seeking behavior. These individuals, who comprised the majority of the residents, gave the impression of being passive in their approach to life and the course of their rehabilitation. In a sense they seemed to be waiting for something to happen and were relatively inactive in terms of self-initiated participation in activities within the Multi-Lodge or engaging in social activity and entertainment in the community. Their interpersonal contacts were primarily restricted to individuals who were living within the lodge program.

These individuals also tended to be troubled by periods of deep depression and feelings of hopelessness in which they felt overwhelmed by the difficulties they encountered in attempting "to get straight". They rarely engaged in employment-seeking which was self-initiated and those individuals who obtained employment did so only with a great deal of assistance from the staff and public agencies. They tended to retain this employment for only a relatively short period of time. The events that followed the loss of employment, which generally included a sharp rise in drug use and, in a number of cases, the termination of treatment shortly afterwards are congruent with Seligman's emphasis upon the importance of success and the negative consequences of failure for the treatment of learned helplessness (Seligman, 1973).

The behavior described above is in contrast to that of those individuals who displayed a relatively high frequency of job-seeking behavior. For these residents job-seeking appeared to be one aspect of a generally higher level of goal directed activity. These individuals took greater personal responsibility for initiating contact with community resources in order to obtain health care and other social services and in a number of ways seemed to be more directly involved and in the course of their own rehabilitation. At the same time they tended to live a more active social life both within and outside of the lodge program and appeared to be relatively successful in initiating and maintaining social contacts. They also seemed to be less subject to bouts of depression than the other residents and were somewhat more resilient in times of personal crisis. In situations in which they

had disregarded program regulations or had used drugs, they tended to own this behavior more readily and accept personal responsibility for it.

The description of the difference in behavioral style between those individuals who displayed a high frequency of job-seeking behavior and those who were relatively inactive in seeking employment is suggestive of the existence of differences between these individuals along a much broader dimension of activity-passivity. If this passivity is, as Seligman suggests, associated with the individual's belief that he is unable to effect his environment in such a way as to gain access to reinforcement through his own behavior; then it is likely to have important implications in terms of attrition from treatment and resumption of the deviant role. For these individuals the potential reinforcement associated with the establishment of a non-deviant role must appear to be, at best, a distant possibility and one they may consider to be beyond their ability to effect by their own behavior. In comparison to the powerful immediate reinforcing effects of heroin, this future reinforcement in return for abstinence must appear weak indeed.

When the addict first enters treatment the use of heroin has generally become associated primarily with the relief of an aversive physiological state. Due to the effects of tolerance the addict is no longer able to shoot to get high. However, as part of the initial process of treatment, the addict participates in a detoxification regimen which is intended to relieve withdrawal distress but also serves to reduce his tolerance to heroin. Thus detoxification has the effect of restoring heroin to the position where it is once again capable of

serving as one of the most powerful potential reinforcers available to the individual. For the addict who feels powerless to effect his environment in such a way as to gain access to even limited reinforcement, the option of returning to the use of heroin, which is relatively cheap and readily available, can be quite attractive. Since it is the nature of this drug to build in tolerance relatively quickly, initially limited use soon requires increasingly greater and more frequent use in order to obtain the same effect. Once this process of escalation in use has begun the resumption of addiction and the behavior associated with it is relatively assured.

It must be noted that much of what has been discussed in regard to the concepts of passivity and learned helplessness and their relationship to readdiction and attrition from treatment is, at best, extremely speculative. The description of characteristics associated with addicts who display differential rates of job-seeking behavior is based upon the most subjective of impressions and is subject to all the errors and pitfalls inherent in this type of analysis. However these speculations and subjective impressions do serve a heuristic purpose in that they indicate some potential directions for further research into the factors associated with success and failure in the treatment of heroin addiction.

The results of the current study failed to demonstrate the existence of any significant relationship between pre-treatment demographic or addiction history characteristics of addicts and attrition from treatment. However the results obtained in terms of frequency of job-seeking behavior and its relationship to positive outcome in

treatment suggests that an investigation of psychological factors related to the activity dimension of the addict's behavioral style and success in treatment might prove useful. An examination of the relationship of the addict's self-concept, generalized expectancies of reinforcement, and the extent to which he perceives himself as successfully completing treatment to attrition from treatment and the resumption of addiction may yield a reliable set of predictors of success in treatment.

In closing a word of caution concerning the generality of the results obtained in the current research is in order. The results obtained and the conclusions that have been drawn from them are applicable, in the strictest sense, only to the addict sample and the treatment setting utilized in this study. A cross-validation study with a larger sample conducted within the context of another therapeutic community would be desirable before an attempt is made to generalize these findings to addict populations in other therapeutic communities. In addition, it should be noted that the relationship of these variables to attrition may hold only for addicts who undertake treatment in a residential setting and may not be applicable to other treatment modalities such as methadone maintenance or detoxification

CHAPTER V

SUMMARY

Although heroin addiction has been a problem of major concern for many years, little research has been conducted which focuses upon the factors related to the termination of addiction. In addition, there has been little research which has specifically addressed itself to the related problem of client attrition from treatment for drug dependence despite the fact that this has been a major problem for most treatment programs. Due to the lack of such research, the present study has undertaken to examine the relationship of a number of selected variables to attrition from residential treatment. The variables included in the present study were selected on the basis of hypotheses derived from the Commitment to Deviance model. The central thesis of this model is that an individual's decision to terminate or continue his enactment of a deviant role is based upon the balance of social penalties that confront him. This balance consists of the continuation penalties, those aversive outcomes the individual incurrs through continuing in his deviant role, and the economic and interpersonal renunciation penalties which he confronts as a result of attempting to renounce his deviant role and establish a non-deviant identity. According to this model, a change in role commitment will occur if the individual is motivated to abandon the deviant role due to the actual or potential

operation of continuation penalties and the extent to which he is able to circumvent the renunciation penalties. Once the renunciation penalties are circumvented the individual is able to obtain access to reinforcement for the enactment of the non-deviant role.

In the context of the present study, the relationship of the continuation penalties (eg. legal pressure to terminate heroin use) and the individual's ability to circumvent the renunciation penalties (eg. success is securing employment and frequency of social contacts with non-addicts) to length of stay in treatment was examined. In addition, a number of demographic (eg. education, employment history, and criminal record) and addiction history characteristics (eg. age at which heroin use was begun, length of addiction, and cost per day of the habit) were examined in terms of their relationship to the addict's ability to circumvent the renunciation penalties and his length of stay in treatment. These pre-treatment characteristics were studied to determine if they were potentially useful as predictors of attrition from treatment.

A sample of thirty-four heroin addicts, all of whom had been randomly assigned to treatment in a therapeutic community, were the subjects of the present study. Information concerning the demographic and addiction history characteristics of these individual's was obtained by means of a questionnaire administered during the intake procedure. The variables consisting of in-treatment behaviors such as success in securing employment; the use of drugs and length of stay in treatment were obtained from the client records of the Multi-Lodge. In addition, data concerning the frequency of the subject's social

contacts with non-addicts and the frequency of his employment-seeking behavior while in treatment were obtained through the utilization of staff ratings. A correlational analysis of legal pressure, success in securing employment and frequency of social contacts with non-addicts indicated that these three variables were significantly related to length of stay in treatment. These results provide support for the hypothesized relationship of continuation and renunciation penalties to attrition. However, when the relationship of these three variables to length of stay in treatment were considered jointly through multivariate analysis, it was found that the addict's success in securing employment accounted for almost all of the observed variation in length of stay in treatment. The fact that legal pressure contributed little to accounting for the observed variation in length of stay in treatment was attributed to the possible effects of subject loss for this analysis. However the relatively strong relationship obtained between success in securing employment and the frequency of social contacts with non-addicts suggests that the material and interpersonal renunciation penalties may not be separate penalties but two aspects of a general renunciation penalty which tend to covary.

No significant relationships were found between any of the pre-treatment demographic and addiction history characteristics and either the addict's ability to circumvent the renunciation penalties or his length of stay in treatment. The failure to find any relationship between these variables, in contrast to the positive results of the earlier addiction treatment follow-up studies, may be attributable to

the current emphasis upon employment and the provision of vocational rehabilitation services for addicts. The greater availability of such service may have had the effect of making the securing of employment, which is a major task in the establishment of a non-deviant role, less dependent upon the addict's characteristics than was previously the case. Due to the failure of the pre-treatment characteristics to distinguish between differential outcomes in terms of the addict's ability to circumvent the renunciation penalties and his length of stay in treatment; the addict's behavior in treatment received additional attention. Further analyses indicated the existence of a pattern of significant relationships between the addict's frequency of job-seeking behavior in treatment and the frequency of social contacts with non-addicts, success in securing employment, extent of drug use prior to termination and length of stay in treatment. The pattern of these correlations suggested the possibility that frequency of job-seeking behavior was an aspect of a more general activity-passivity dimension of the addict's behavior while in treatment which may be related to the extent to which he believes he can have an impact on his environment and gain access to reinforcement through the enactment of a non-deviant role. A parallel was drawn between this activity-passivity dimension and Seligman's (1969; 1973) concept of "learned helplessness" which suggests that a study of psychological factors related to this dimension of the addict's behavior and treatment outcome might prove useful. More specifically, an examination of the relationship of the addict's self concept, generalized expectancies of reinforcement, and his own predictions concerning his success in treatment to attrition and readdiction may yield a reliable set of predictors of treatment outcomes.

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APPENDICES

APPENDIX I

DESCRIPTION OF THE MULTI-LODGE PROGRAM AND MODIFICATIONS FROM PROTOTYPE LODGE

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The Multi-Lodge was designed in accordance with the traditional lodge concept and as such bases its program upon group process and decision making. The daily management of the house in terms of maintenance, menu planning, cooking and determination of equipment and supply needs are placed in the hands of the residents. Problems that arise in the functioning of the residence are presented to the residents at daily house meetings for consideration and feedback is provided as to the success or failure of their solutions. The residents are also encouraged to extend their responsibility beyond the consideration of the immediate needs of the program and involve themselves in long range planning. This is particularly evident in the selection, planning and implementation of a lodge business which is designed to not only provide financial assistance for the program itself but also to employ a proportion of the residents in the management and operation of the business and to develop skills and habits associated with these activities. This emphasis upon performing as a group with the ultimate supervision and leadership eventually emerging from that group is one of the distinguishing characteristics of the lodge system of residential treatment.

From the time an individual enters the lodge he is given a voice in the operation of the program. He is expected to participate and function as a member of the group but is initially given only minimal responsibility and functions at a lower level of autonomy in comparison to residents of longer standing. Through the operation of a vertical organizational structure the new resident is able to achieve upward mobility within the lodge community based upon his performance, ability and aspiration. Such increases in status are accompanied by increased rewards and responsibilities which culminates in the assumption of a role within the program which is equivalent of a staff position. At this point the resident may elect to remain in the program as a resident-staff member or leave the program and enter the community. However, there is no predetermined length of treatment and any resident may elect to remain at the lodge indefinitely.

While the Multi-Lodge adheres to the basic program structure of earlier lodges, there were several modifications due to the status of the program as a Community Mental Health agency and the differences in the service population being treated. Those differences necessitated by the position of the lodge as a CMH agency involve the pattern of professional staffing which was required by CMH procedures concerning program administration and fiscal responsibility. As a result the staff assumed primary responsibility for all liaison with the parent agency and in the financial administration of the program. Despite the inevitable role conflict this situation created, the major program emphasis remained upon the residents making decisions as a group with the staff functioning in an advisory capacity. Group decisions were

subject to staff veto only when it was clear that the decision would adversely effect either the operation of the program, individuals within the program or were in violation of Community Mental Health regulations or procedures. Ultimately this resulted in greater staff activity and responsibility than would normally be the case in the original lodge programs.

Some modifications have also been made in the basic lodge concept due to what the staff perceived as special needs of individuals in treatment for addiction. Principally these modifications consisted of the provision of group therapy sessions and the availability of individual counseling upon request. The group therapy program was developed to provide an opportunity for more systematic feedback on how the individuals were relating to each other. It was also considered to be of importance as a forum where interpersonal difficulties which arose between the residents could be discussed in an atmosphere that encouraged constructive resolution of the problem. It was believed that this type of approach would tend to decrease the tension between the residents and thus decrease the probability of violent confrontations which are a potential problem with this particular client population.

The availability of individual counseling was considered to be a necessary part of the program due to the massive social, legal and interpersonal problems that these individuals typically presented during the course of residence. Much of this counseling was conducted in such a way as to assist the individuals in coping with these problems and the anxiety generated by them. Particular attention was

directed toward how the anxiety generated by these problems have effected the individual's drug taking behavior and his ability to make progress in treatment. Relatively minor emphasis was placed upon in-depth psychotherapy unless it was clear that the individual wished to pursue this. The combination group and individual counseling in conjunction with peer-oriented management of the program places the Multi-Lodge as somewhat of a compromise between the typical residential treatment program for addicts and the prototype lodge.

APPENDIX II

MULTI-LODGE PROGRAM MANUAL

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MULTI-LODGE PROGRAM MANUAL

Welcome to the Multi-Lodge. This is the Multi-Lodge Manual which is designed to tell you about the program and its regulations. It is also a contract. Read it carefully and if you understand it and are willing to accept its terms then sign your name in the space provided at the end of the manual.

Probably you are wondering what the Multi-Lodge is all about. Well, on paper it looks something like this:

The Multi-Lodge program is a residential community which at capacity will be able to house 24 clients. It is open to both males and females.

While the live-in capacity is 24, other people may be involved in the program in other ways. Basically there are four ways that a person may be a member of the Multi-Lodge.

1. He may live in the lodge and work in the Multi-Lodge business.

2. He may live in the lodge and work in a job outside of the lodge. (In which case he would be expected to provide a portion of his wages for the support of the lodge.)

3. He may live outside of the lodge but work in the business and take part in the Multi-Lodge government and recreation.

4. He may live outside of the lodge and work outside of the lodge business. In this case he would take part in the lodge program at night or on weekends.

A member may switch from one type of living-working arrangement to another if he desires and that is acceptable to the lodge peer government. In the beginning of the Multi-Lodge program, its members will be encouraged to both live and work within the lodge. However, other arrangements can be worked out if necessary.

THE LODGE BUSINESS

A substantial portion of the program will be concerned with the development and operation of the lodge business. The members, with the assistance of the staff, will choose a business to develop which

will be able to generate enough profit to provide a source of income for the members of the lodge. As the business grows, it is expected that the money it provides will be sufficient to support the existence of the lodge after the withdrawal of government funds. It should also provide salaries for those members that participate in the business or the management of the lodge. Initially, however, the income from the business will probably only be large enough to provide for some living expenses for the members.

LODGE GOVERNMENT

The lodge will be governed by the lodge members with the aid of the paid staff serving as advisors. It is expected that most of the rules and day to day decisions will be made by the Multi-Lodge governing body. The staff will be available to assist them but will overrule a decision made by the lodge members only when it is clear that the decision would be harmful to the lodge members themselves or would result in the destruction of the Multi-Lodge program.

COUNSELING

Currently the counseling program consists of two different parts. The first is a group for all residents which currently meets once a week. Individual counseling is also available if you desire it. The lodge staff will be available at all times to provide individual counseling to any lodge member if that is his wish. This type of counseling can be set up on a weekly basis or a stop in and talk basis when you feel like you need it.

It is also possible to get referred to a therapist at St. Lawrence or Ingham Community Mental Health Centers if you want that type of help.

The basic philosophy of the Multi-Lodge is that the person who abuses drugs, whether it's heroin or alcohol, does so for many different reasons. But once he begins to abuse these drugs he gets put in a place by both himself and society which is difficult to escape from. He is labeled an "alkie", "junkie", a "speed freak", and only the worst is expected from him. He is expected to fail and this failure is assured by a society which never gives him a chance to experience success.

It is the purpose of the Multi-Lodge to provide its members with an opportunity to experience success and to learn the skills not only to make it in the lodge but in society itself. It is the task of the lodge to help the members develop both living and business skills. However, its most important purpose is to help its members discover

that they have abilities and skills which society has been telling them they do not have. The aim of the program is for the members to stop looking at themselves as "junkies" and start seeing themselves as persons. The extent to which the Multi-Lodge succeeds as a program will depend upon the extent to which the Multi-Lodge members recognize that they are men and women. If it fails, it will fail because its members have lacked the determination and committment to be a person.

All this sounds fairly serious and it is. You are going to be facing many struggles trying to stay clean and getting yourself together. But living as a group can also be fun. Hopefully the growth we can all experience working together will be both enjoyable and rewarding.

Since you are a newcomer to the program you will be at level 1 for at least the first two weeks if you stay at the lodge. At this level you will have the heaviest restrictions on your freedom. You will also experience the most supervision at this level and be given the least amount of responsibility in the lodge. If you stay with us, this will change as you work your way up through the levels. With each increase in status comes more freedom but also more responsibility. Hopefully, you will come to enjoy both.

Basically, the four different levels and what is expected of the residents at each level appears below. These guidelines are for those residents who live in the lodge but do not have outside employment.

LEVEL 1--All new residents start here.

1. You are responsible to keep your room clean. This will be checked several times a week.

2. You are responsible to attend all house meetings.

3. You are responsible to attend all group sessions.

4. You are responsible to drop three urine samples a week on the days requested by the staff.

5. You are responsible to attend dinner every night.

6. You must be awake and out of your room by 9 A.M. every weekday.

7. You are responsible to be in the house at all times except from 6 P.M. to 9 P.M. during the weekdays. On weekends (Friday night, Saturday and Sunday till 9 P.M.) your time is yours to do as you wish.

8. You are responsible to complete and get approval of your daily task assignment. This assignment will be given to you by a staff member or a level 3 resident.

Your progress and promotion to a level 2 will be dependent upon your performance of your responsibilities. Failure to comply with these responsibilities will result in your termination from the program.

LEVEL 2

To be eligible for this level you must have had clean urines for 15 consecutive days and performed your responsibilities at level 1 satisfactory.

1. You are responsible for items 1-5 under level 1.

2. You are responsible to be up by 9:30 A.M. every weekday.

3. You are responsible to take attendance at dinner every evening and report it.

4. You are responsible to complete and get approval of your daily tasks. These tasks must be completed during the hours of 9 A.M. to 5 P.M. In most cases you will be paid for this work.

5. You are expected to be in the house at all times with the exception of 6 P.M. to 12 P.M., unless you have special permission from the staff.

Your progress and promotion to level 3 will be dependent upon your performance of your responsibilities.

LEVEL 3

To be eligible for this level you must have had clean urines for 45 consecutive days and have performed your responsibilities at level 2 satisfactory.

1. You are responsible for items 1-4 under level 1.

2. You are responsible to be awake and in the house from 10 A.M. to 5 P.M. every weekday.

3. You are responsible to plan daily task assignments.

4. You are responsible to supervise and report on all assigned tasks.

5. You are responsible for supervising and reporting on the completion of the responsibilities of all level 1 residents.

6. You are responsible for orienting all new residents.

7. You are eligible for supervisory positions in the business.

8. You are expected to participate in Night Supervisor responsibilities.

Your progress and promotion to level 4 will be dependent upon the performance of your responsibilities.

LEVEL 4

To be eligible for this level you must have had clean urines for 90 consecutive days.

1. You are responsible for items 1-4 under level 1.

2. You share the responsibility of the administration of the house with the staff.

   A. Wake-up level 1 residents.
   B. Collect urine samples.
   C. Prepare agendas for house meetings.
   D. Lead house meetings.
   E. Collect and review resident's work reports.
   F. Prepare and review house budgets and expenditures.
   G. Co-lead group sessions with staff.
   H. Function as problem-solvers for the residents' individual problems.
   I. Work to assure normal functioning of the house

The four levels above apply to those residents who are not employed outside of the lodge. For those residents who are employed at the time they first enter the lodge or become employed while living in the lodge, the following guidelines are in effect.

LIVE-IN, WORK-OUT GUIDELINES

These guidelines apply only for full-time employment. What is expected of residents with part-time employment will be settled individually between that resident and the staff.

LEVEL 1 (Employed)

1. You are responsible to drop three urine samples a week on days requested by the staff.

2. You are responsible to keep your room clean.

3. You are responsible to attend:

   A. House meetings.
   B. Group sessions.
   C. Dinner

   (If they do not conflict with your hours of employment.)

4. You are required to arrange and attend an individual session with a staff member or level 4 resident to discuss your progress in the house.

5. You are given three hours free-time per day. This time is to be arranged with the staff or a level 4 resident and remain the same while you are at level 1. Outside of these hours you are expected to be either in the house or at work.

6. You are expected to complete and get approval of all assigned tasks. The amount of work required of you and the type will be determined by a level 3 resident or staff.

LEVEL 2

To be eligible for this level you must have had clean urines for 15 consecutive days.

1. You are responsible for items 1-4 of level 1 (employed).

2. You are responsible for completion and approval of all assigned tasks.

3. The amount of your free-time will be based upon your work schedule and negotiated with a staff member. All other times you will be expected to be at work or available at the lodge.

4. You are expected to participate in Night Supervisor responsibilities unless it conflicts with your work schedule.

LEVEL 3

To be eligible for this level you must have had clean urines for 45 consecutive days.

1. You are responsible for items 1-4 of level 1 (employed).

2. You will be expected to fulfill responsibilities which contribute to the lodge. The exact nature of these responsibilities will be determined by the Judicial Review Board.

3. You are expected to participate in Night Supervisor responsibilities unless it conflicts with your work schedule.

LEVEL 4

To be eligible for this level you must have had 90 consecutive days of clean urines.

1. You are responsible for items 1-4 of level 1 (employed).

2. You will participate as a member of the Judicial Review Board.

3. You are expected to participate in Night Supervisor responsibilities unless it conflicts with your work schedule.

GENERAL CONDITIONS AND REQUIREMENTS FOR EMPLOYMENT

1. If you enter the lodge without employment, you must first get permission from the Judicial Review Board before you begin to look for a job. This permission will be granted if the Board believes it is in your best interest to have a job. It will probably not be granted if you are having difficulty staying "clean" or are not fulfilling your responsibilities to the house.

2. If you enter the lodge with a job, you will be permitted to keep it as long as you stay clean and fulfill your responsibilities to the house. If you fail to live up to your obligations the board may direct you to end your employment as a condition to remaining in the program.

3. To be eligible for employment status you must provide the Judicial Review Board with the name and location of employment and the name of your supervisor.

4. The employed resident must offer proof of employment on a regular basis. This proof must be in the form of uncashed paychecks at the end of each pay period.

5. The employed resident must contribute a portion of his paycheck for room and board. The exact amount will be determined by the staff on the basis of his ability to pay. In no case will his room and board exceed the current Department of Social Services rate.

The following sections deal with various policies and procedures of the lodge. Please read them carefully. If you do not understand them, feel free to ask.

HOUSE MEETINGS

House meetings are held in the morning on weekdays and attendance is required of all residents. The purpose of these meetings is to bring the residents and staff together to provide an opportunity to:

1. Make announcements.
2. Plan activities for the day.
3. Discuss problems that have arisen between individual residents.
4. Discuss problems that have occurred in the relation to the functioning of the house.
5. Make decisions as a group concerning the lodge program.

These meetings are only open to the residents and staff and all discussion and decisions made in the meetings are to be kept confidential.

GROUP SESSIONS

Group sessions are required of all residents. Basically, they are an opportunity for you to get some help with problems you may be having. It is also an opportunity for you to help other residents with their problems. This is the time for you to talk about your concerns without punishment for what you say. Nothing that you reveal about your self or others in the group will be used against you in any way.

JUDICIAL REVIEW BOARD

The Judicial Review Board will be comprised of the staff and all residents who have reached level 4 status.

This board has the following responsibilities:

1. To decide the promotion or demotion of residents from one level to another based upon their review of that resident's performance.

2. To determine the eligibility of a resident for outside employment based upon his performance in the program.

3. To hear and resolve any disputes between residents or between residents and staff which are referred to them from a housemeeting. In these cases the decision of the board will be final.

GENERAL URINE TESTING POLICY

You are required to provide three urine samples a week on the days requested by the staff. The days you are required to drop a urine are determined every week on a random basis. Each Monday the staff draw a card for each resident. Those cards have the days of the week on them in which you will be required to provide the urine sample. Since the exact days you must drop are selected by chance, you may be asked to drop urines on different days each week.

The urine samples will be collected daily between the hours of 9 A.M. and 4:30 P.M. You are expected to inquire daily to find out if you have to drop a urine that day. If for any reason you fail to produce a urine sample on the day it is requested, you have collected a "missed urine". You will be permitted only 3 "missed urines" over a 6 month period. On the occurrence of the fourth miss you will be terminated from the program.

DIRTY URINE POLICY

A. What is a dirty urine?

   1. The presence of a drug in the urine for which you do not have a prescription.

   2. You are also considered to be "dirty" if you are "high" in the house to the point that your own behavior is impaired or you are interfering with the functioning of the house. This judgement will be made by the staff.

B. What happens if you come up with a dirty urine?

   1. You will be notified by the staff that you are "dirty".

   2. You will be required to complete a task in the house which will be assigned by the staff.

   3. You will be expected to discuss the circumstances of this "dirty" in the next group meeting.

4. The presence of a dirty urine results in your demotion to the next lower level. If you are dirty a second time within 30 days you are demoted to level 1 no matter what level you are currently at.

C. Continuous dirty urines will result in your termination from the program. Here is how it works.

On your first dirty urine you begin a 30 day probation period. If in this period of time you have a second dirty urine, then the 30 day probation period begins again. If during this new period you have your third dirty urine you are in real trouble. This is true because your fourth dirty urine within 30 days results in your termination from the program.

The purpose of this 30 day probation period is to give you a chance to remove a dirty urine from your record. If you remain clean for 30 days after a dirty urine then if you are dirty again, it only counts as the first towards termination. If you don't make it through the probation periods, your dirty urines will pile up until you reach your fourth. When you accumulate four you will be terminated. There are no exceptions.

TERMINATION

The following are the ways you can get yourself terminated from the lodge automatically.

1. Any physical violence will result in automatic termination.

2. Any use of illegal drugs in the house will result in automatic termination.

3. Possession of any weapons in the house will result in automatic termination.

Of course you can also get yourself terminated for:

1. Dirty urines.

2. Missed urines.

3. Non-compliance with lodge rules.

4. Non-compliance with the decisions of the Judicial Review Board.

What termination means:

FOR THE REST OF THE DRUG PROGRAMS:

You will not be provided with services by any of the other drug programs, except crisis centers, for the period of 90 days following termination. This 90 day period can only be shortened or eliminated by the lodge staff. This is a policy of the Comprehensive Drug Treatment Program.

FOR THE LODGE ITSELF:

If you are terminated for the first time, this period lasts 30 days. During that time you are not permitted to have contact with the lodge program.

At the end of three weeks you may apply for readmission to the lodge. If your readmission to the lodge is acceptable to the Multi-Lodge staff and residents, then you begin a week long trial status in which you are required to drop urines and be at the Lodge from 9 A.M. to 5 P.M. each day. During this time you are required to perform non-paid tasks assigned by the staff and/or level 4 residents. If you complete this trial week to the satisfaction of the Judicial Review Board, you will be admitted to the program and allowed to move in.

Similar provisions are made for subsequent terminations should they occur. However, the second termination results in an out of the program period of 60 days. The third termination results in a period of 90 days.

THE ON-CALL SYSTEM AND NIGHT SUPERVISORS

Since the staff are at the Lodge only during weekday working hours; an on-call system has been developed. If a personal or house problem arises which a resident feels needs immediate staff attention he may call the emergency phone number located by each phone. After he dials the number he will have approximately 30 seconds to state his message. A staff member will then immediately return his call to find out the details of the problem. If this staff member feels it is necessary he will come to the Lodge and assist in correcting the problem. This system is in operation from 5 P.M. to 8 A.M. on weekdays and on a 24 hour basis on the weekends.

Each evening there will also be a Night Supervisor on duty at the Lodge. These supervisors will be level 2 or above residents. It will be the supervisor's responsibility to be aware of what is happening within the house and he should be prepared to call the staff if

he feels it is necessary. In order to enforce the curfew rules for level 1 and 2 residents, the staff will periodically call in to determine if those residents have returned to the house on time. It is the responsibility of the Night Supervisor to answer the phone at the curfew time and be able to report whether or not a resident is in the house.

VACATION POLICY

Residents are eligible to take a vacation after they have reached level 3 status. At this point they are eligible for two weeks of vacation in a calendar year. This vacation may be taken in a two week block or in two separate 1 week vacations.

The staff must be notified of your intention to take a vacation at least one week prior to the date you wish it to start.

All vacations must be taken away from the house.

VISITOR POLICY

Visitors are not permitted in the house during the working hours of 9 A.M. to 5 P.M. Monday through Friday.

The residents are permitted to have visitors in the house in the evenings and on weekends. However these visitors must be accompanied by a resident who will take responsibility for their behavior.

While in the house, visitors are restricted to the downstairs recreation area, living room, dining room and TV room. They are not permitted upstairs in the residents' living area unless they are with a resident at all times.

All visitors are to be out of the house by 2 A.M.

Ex-Residents as Visitors:

A special set of rules have been established for those visitors who were residents of the Lodge but were terminated for dirty urines or non-compliance with Lodge rules.

These ex-residents are not permitted in the house except to visit the staff. These visits must be made by appointment.

If an ex-resident wishes to visit a lodge resident he may meet that resident at the house but both of them must leave the house immediately. They may not remain in the house for this visit.

An ex-resident may not wait in the house if the person he wishes to visit is not in the house at the time.

APPENDIX III

INTAKE QUESTIONNAIRE

APPENDIX III

INTAKE RECORD

Patient's Name _____

Address _____

_____

Tel. Number _____

Social Security Number _____

Admission Date _____

Termination Date _____

Name of parent or next of kin to be contacted in case of emergency:

Name _____ Relationship _____

Address _____

Tel. Number _____

How often do you see this person? _____

When was the last time you say this person? _____

Program Assignment: Multi-Lodge _____ Half-way House _____

Outpatient aftercare (specify facility) _____

IF NON-VOLUNTEER: Specify program recommendation _____

_____

Who referred you to us?

DEC	Mason CMH
North Side Crisis	Lansing CMH
West Side Crisis	Charlotte CMH
Listening Ear	St. John's CMH
Ingham County Jail Program	Sparrow Hospital
Kalamazoo State Hospital	Ingham Medical
Methadone Program	Other (specify):

2

Patient's program number _____

1. Date of admission _____/_____/_____
   day month year

2. Date of birth _____/_____/_____
   day month year

3. Age at admission _____

4. Sex: 1. M 2. F

5. Race: 1. B 2. W 3. Mex-Am 4. Other _____

6. Marital Status:

   1. Single (never married) 3. Separated 5. Widow or Widower
   2. Married 4. Divorced 6. Remarried

7. IF MARRIED: Does your spouse work? _____ If so, what does he or she do? _____

8. What was the highest grade in school completed by your spouse?

   _____

9. What is the highest grade you completed? _____

OMIT THE NEXT QUESTION AT CENTRAL INTAKE

10. Why did you leave school. Was it for:

    1. Voluntary reasons 2. Involuntary reasons

11. How many children do you have? _____

12. What are their ages and where are they living?

3.

13. With whom are you living now?

    1. Parents only or parents and other family
    2. Spouse
    3. Other family
    4. Friends
    5. Alone

14. How many times have you changed residence in the last year? _____

OMIT THE NEXT THREE QUESTIONS AT CENTRAL INTAKE

15. What is the name of the last school you attended? _____

    _____

    Address _____

16. Would you be interested in completing high school?

    1. Yes 2. No

17. What subjects did you like best in school?

    _____

    _____

    _____

18. What is your present religion?

    1. None
    2. Protestant
    3. Catholic
    4. Jewish
    5. Muslim
    6. Other

FAMILY BACKGROUND

1. Where were you born? City _____ State _____

   Country _____

4.

2. Where did you grow up? _____

3. When you were growing up, who were the adults you were living with? I would like to know their ages and marital status also:

(IN ANSWERING THE FOLLOWING QUESTIONS, IF IDENTITY OF MOTHER AND FATHER ARE UNKNOWN, USE THE OCCUPATIONS OF THE ADULTS IN QUESTION #3)

4. While you were growing up, what was the highest grade completed by your: 1. Father _____ 2. Mother _____

5. While you were growing up, what were the occupations of your:

   1. Father _____

   2. Mother _____

6. While you were growing up, what language was spoken at home?

   _____

7. What language do you prefer to speak? _____

8. How many brothers and sisters do you have? _____ For each, what is their sex, age, marital status, and number of children?

OMIT THE NEXT FOUR QUESTIONS AT CENTRAL INTAKE

9. What is your feeling towards your family at present?

   1. Distant
   2. Warm
   3. Close
   4. Family deceased

5.

10. IF MARRIED: What is your feeling towards your spouse and children (if any)?

    1. Distant 2. Warm 3. Close

11. Do you have any close friends now? 1. Yes 2. No

    IF YES: How many? _____

12. What was the economic status of your household while you were growing up?

    1. Mostly on welfare
    2. Poor
    3. Average
    4. Above average

EMPLOYMENT BACKGROUND

1. Are you presently employed? 1. Yes 2. No

2. IF YES:

   Who is your employer? _____

   What do you do there? _____

   How long have you been employed there? _____

   What is your gross income? _____

3. IF NO: What is your source of income?

   1. Welfare
   2. ADC
   3. Veterans'
   4. Other _____

4. FOR THOSE WORKING: Do you receive any income other than from your job? 1. Yes 2. No

   If so, what type? (use categories from question #3) _____

5. Do you support anyone else? 1. Yes 2. No If so, how many (include yourself)? _____

6.

6. How many jobs have you held in the past 5 years? _____

For each job, I want you to tell me the nature of the job, how long you worked there, and the reason for leaving (were you fired, laid off, or did you just change jobs:):

TYPE OF JOB	DURATION OF EMPLOYMENT	FIRED	LAID OFF	QUIT

7.

OMIT THE NEXT QUESTION AT CENTRAL INTAKE

7. What kind of work would you like to do?

MILITARY HISTORY

1. Have you ever served in the armed forces? 1. Yes 2. No
2. IF YES: How long? _____
3. Rank _____
4. Date and type of discharge _____
5. Any specialized training? 1. Yes 2. No
6. IF YES: What type? _____

ARREST RECORD (USE TABLE ON NEXT PAGE)

1. Have you ever been arrested? 1. Yes 2. No

IF YES:

2. How many times were you in jail before you started using drugs, and afterwards? BEFORE _____ AFTER _____
3. How much time did you spend in jail before you started using drugs, and afterwards? BEFORE _____ AFTER _____
4. How many arrests and convictions have you had for each of the crimes listed below before you started using drugs? After? (See table on next page.)

8.

CRIME	ARRESTS		CONVICTIONS	
	BEFORE	AFTER	BEFORE	AFTER
WILLFUL HOMICIDE				
FORCIBLE RAPE				
ROBBERY				
AGGRAVATED ASSAULT				
BURGLARY				
LARCENY ($50 AND OVER)				
MOTOR VEHICLE THEFT				

9.

1. Did you ever use: (check if yes)	2. Are you currently using		3. IF NO: When did you stop? (months)	4. How often do (did) you use the drug?		5. If 1/mo, how often did you use it? (per mo.)	6. How long have you been using it? (months)	7. How many people do (did) you do it with?
	Yes	No		<1/mo	>1/mo			
Wine, beer, whiskey[1]								
Amphetamines								
Barbiturates								
Minor Tranquilizers								
Marihuana								
Hashish								
Heroin[2]								
Opium[2]								
Morphine[2]								
Demerol[2]								

9. cont'd.

1. Did you ever use: (check if yes)	2. Are you currently using		3. IF NO: When did you stop? (months)	4. How often do (did) you use the drug?		5. If 1/mo, how often did you use it? (per mo.)	6. How long have you been using it? (months)	7. How many people do (did) you do it with?
	Yes	No		<1/mo	>1/mo			
Methadone[2]								
Codeine								
LSD								
Mescaline								
Psilocybin								
Cocaine								
Glue								
Major Tranquilizers								
Other								

1. If yes go to question #8.

2. If yes go to question #9.

10.

8. IF PATIENT HAS USED ALCOHOL:

   1. How many times a week do you drink? _____

   2. How many glasses of beer or wine, or shots of whiskey do you usually drink at one sitting? _____

   3. What is the maximum you drink at any one sitting? _____

9. IF PATIENT HAS USED AN OPIATE:

   1. Do you use it currently?

      Her 1. Yes 2. No

      Op 1. Yes 2. No

      Morph 1. Yes 2. No

      Dem 1. Yes 2. No

      Meth 1. Yes 2. No

   2. IF NO: When was the last time you used?

      Her _____

      Op _____

      Morph _____

      Dem _____

      Meth _____

   3. When you last used, was it to get straight or high?

      Her 1. S 2. H

      Op 1. S 2. H

      Morph 1. S 2. H

      Dem 1. S 2. H

      Meth 1. S 2. H

   4. Who first introduced you to the drug?

      Her _____

      Op _____

      Morph _____

      Dem _____

      Meth _____

   5. How old were you when you first tried it?

      Her _____

      Op _____

      Morph _____

      Dem _____

      Meth _____

   6. How did you first do it up?

      Her snort pop shoot smoke other

      Op snort pop shoot smoke other

      Morph snort pop shoot smoke other

      Dem snort pop shoot smoke other

      Meth snort pop shoot smoke other

11.

7. How long did you spend skin-popping, snorting, and mainlining each drug?

Her pop _____ snort _____ shoot_____

Op pop _____ snort _____ shoot _____

Morph pop _____ snort _____ shoot _____

Dem pop _____ snort _____ shoot _____

Meth pop _____ snort _____ shoot _____

8. Do you mainline?

Her _____

Op _____

Morph _____

Dem _____

Meth _____

9. IF YES: how long?

Her _____

Op _____

Morph _____

Dem _____

Meth _____

10. Ever use any other route?

Her 1. yes 2. no

Op 1. yes 2. no

Morph 1. yes 2. no

Dem 1. yes 2. no

Meth 1. yes 2. no

11. How long have you been addicted? _____

12. How much per day do you use:

Her _____

Op _____

Morph _____

Dem _____

Meth _____

Cost: in dollars per day

Her _____

Op _____

Morph _____

Dem _____

Meth _____

13. How do you support your habit?

12.

14. Have you ever tried to kick the habit on your own?

    1. Yes 2. No

15. IF YES: How many times? _____

    How? _____

16. What was the longest time you stayed clean?

    _____

17. What was the shortest time you stayed clean?

    _____

10. What was the first drug you used? _____

11. How old were you when you first used it? _____

12. Has anyone in your immediate family, or with whom you are living, ever used any of the drugs listed in question #1?

    1. Yes 2. No

13. IF YES:

1. Person	2. Drugs
_____	_____
_____	_____
_____	_____

13.

1. Have you ever been treated for personal problems or drug use?

   1. Yes 2. No

2. IF YES:

REASON FOR SEEKING TREATMENT	TYPE*	AGE AT TREAT-MENT	LENGTH	REASON FOR TERMINATION (voluntary or involuntary) VOL	INVOL

*TYPES: Hospital

Out-Patient

Transitional

APPENDIX IV

SOCIAL CONTACTS RATING SCALE

APPENDIX IV

SOCIAL CONTACTS RATING SCALE

The following is the scale which was utilized to rate the subject's frequency of social contact with non-addicts while in residence. This rating was made only for those subjects who were in residence for a period of one month or more. The ratings are based on an estimate of the average number of times per week the subject engaged in leisure activity of any kind with individuals with no known history of addiction.

Rating	Criterion
0	Subject had no social contact with non-addicts.
1	Subject had infrequent social contacts with non-addicts which occurred at a rate of less than once per week.
2	Subject had occasional social contacts with non-addicts which occurred at a rate of no more than twice a week.
3	Subject had regular social contacts with non-addicts which occurred at a rate of three or more times a week.

APPENDIX V

JOB-SEEKING BEHAVIOR RATING SCALE

APPENDIX V

JOB-SEEKING BEHAVIOR RATING SCALE

The following is the scale which was utilized to rate the subject's frequency of job-seeking behavior while in treatment. The ratings are based on an estimate of the average number of times per week the subject engaged in seeking employment as defined by contacts with employers or with social service agencies for the purpose of eliciting direct or indirect assistance in obtaining employment. Only those subjects who were in residence for a period of one month or more were rated.

Rating	Criterion
0	Subject did not actively seek employment while in treatment.
1	Infrequent job-seeking behavior at a rate of less than once per week
2	Occasional job-seeking behavior at a rate of at least once a week but less than three times a week.
3	Frequent job-seeking behavior at a rate of at least three times a week.

The rating for each subject was done by the staff member who was considered to have the most contact with that individual. Inter-rater reliability was assessed through the computation of a Pearson product-moment correlation which yielded a correlation coefficient of .79.

APPENDIX VI

TABLE OF MEANS AND STANDARD DEVIATIONS FOR ALL INDEPENDENT AND DEPENDENT VARIABLES

APPENDIX VI

Table VI.1 Table of means and standard deviations for all independent and dependent variables.

Variable	N	Mean	Std. Dev.
Education	34	11.62	1.95
Employment history	34	.22	.30
Criminal record	34	2.65	2.26
Age first heroin use	34	19.91	3.77
Length of use	34	38.62	37.17
Cost per day	34	85.41	89.09
Number of "kicks"	34	2.65	1.61
Length of longest "kick"	34	9.94	18.27
Legal pressure	34	.97	.92
Employ. in treatment	24	.67	.82
Freq. of social contacts	24	.79	.93
Prop. dirty urines	24	.34	.22
Number of days in treat.	34	66.85	90.96
Freq. of job-seeking	22	1.14	1.13

APPENDIX VII

SUMMARY TABLES FOR ANALYSES OF MULTIPLE REGRESSION

APPENDIX VII

SUMMARY TABLES FOR ANALYSIS OF MULTIPLE REGRESSION

Table VII.1 Analysis of variance for the overall regression of age of first heroin use, length of addiction and cost per day of the heroin habit prior to treatment on success in securing employment while in treatment. (N = 24)

Source	SS	df	MS	F
Regression	2.26	3	.75	1.15
Error	13.08	20	.65	
Total	15.33	23		

Table VII.2 Analysis of variance for the overall regression of age of first heroin use, length of addiction and cost per day of the heroin habit prior to treatment on the frequency of the addict's social contacts with non-deviant individuals while in treatment. (N = 24)

Source	SS	df	MS	F
Regression	1.66	3	.55	.60
Error	18.30	20	.92	
Total	19.96	23		

Table VII.3 Analysis of variance for the overall regression of age of first heroin use, length of addiction and cost per day of the heroin habit prior to treatment on length of stay in treatment. (N = 34)

Source	SS	df	MS	F
Regression	13183.36	3	4394.45	.68
Error	259848.91	30	8661.63	
Total	273032.27	33		

Table VII.4 Analysis of variance for the overall regression of education, employment history and criminal record on success in securing employment while in treatment. (N = 24)

Source	SS	df	MS	F
Regression	2.24	3	.75	1.14
Error	13.09	20	.66	
Total	15.33	23		

Table VII.5 Analysis of variance for the overall regression of education, employment history, and criminal record on length of stay in treatment. (N = 34)

Source	SS	df	MS	F
Regression	35493.28	3	11831.10	1.49
Error	237538.98	30	7917.97	
Total	273032.27	33		

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Professional Thesis Preparation
Cliff and Paula Haughey
144 Maplewood Drive
East Lansing, Michigan 48823
Telephone (517) 337-1527