GENDER-RELATED DIFFERENCES IN HEROIN USE

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Although the incidence of heroin addiction among women may be rising, knowledge concerning the rates by which use is initiated and terminated remains sparse. In response to this gap, a secondary analysis has been conducted on a sample of Black methadone-maintained addicts. As the individuals included in this study are clearly self-selected, it is not possible to investigate the etiology of their addiction. Hirschi, Matza, Sutherland and Cloward provide the theoretical framework for a descriptive analysis of gender-related differentials.

Bivariate and multiple discriminant analyses show significant differences between male and female clients in ties to conventional society, associates cultivated and patterns of drug use. Women in this sample develop stronger ties to the family while men are more likely to participate in the labor force. Men have more extensive criminal histories and are involved in violent and property-related crimes at greater levels than women. However, women report more extensive exposure to heroin use within the family. As anticipated, women in this sample first tried heroin at an older age and have been addicted for a shorter period of time before attempting methadone maintenance.
A further series of regression and multiple discriminant analyses identifies several different patterns of experiences, centered around the client's current living arrangements and labor force participation. These patterns may be suggestive of what can be expected while a client is maintained on methadone.

The first pattern identified appears to fit into the framework provided by Hirschi. Men and women not living with family at entry to treatment, in the "fast life", have fewer ties to family and the labor force prior to addiction. They are more involved in crime. Although not indicated in the data, this pattern most likely preceeds an earlier age of addiction. Their socialization is truncated. Further ties to conventional society are not established or cultivated and criminal activity remains extensive. These clients appear to use treatment as a respite from the rigors of "hustling" and purchasing drugs. Once this life is viable again, they leave.

A second set of patterns may be closer to Matza's conceptualization of drift, characterized by relatively conventional behavior along with the intermittent commission of deviant acts. Men living with their family attempt to fulfill the traditional role assigned to males, despite the difficulties faced by minority group members living in the inner city. These men have the strongest employment histories and are relatively uninvolved with the criminal justice system, both before and during addiction. They are most successful in treatment. Women who head their households apparently establish a pattern of behavior reminiscent of traditional gender-role expectations. They typically
marry prior to addiction, drop out of the labor force and remain relatively removed from crime. These women appear to leave treatment only when another program offers a higher level of maintenance, perhaps due to their limited legal and illegal options.

Female clients living with their spouse at entry to treatment are not clearly distinguishable from those living with children, but evidence a few distinctive aspects worth exploring. With one exception, these women have not expanded their families to include children. Their employment history is more extensive, and their marriage more likely to be established after addiction. Their higher levels of heroin use while remaining in treatment may indicate ambivalence.

Several theoretical and programmatic implications can be drawn from the findings presented above.

- The distribution by sex of the lifestyles described suggests that the "fast life" might be less accessible to women. As hypothesized by Cloward and Piven, the manner in which an addiction career is carried out may be molded by widely held expectations associated with gender.

- While the findings indicate that female clients may have special needs, the similarities among males and females choosing a specific lifestyle could indicate specialized programs might not be the answer. Clearly, female clients in this sample have a greater need for assistance with children and may wish to train for different jobs compared with men. Yet, if program counselors are properly sensitive, these clients may be as well served within a heterosexual
environment. The needs of clients in this sample to create and strengthen ties to family and the labor force go beyond sex. Given current fiscal constraints, it might be prudent to strengthen existing programs, especially in the area of vocational training, rather than establish separate facilities.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>ACKNOWLEDGEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## CHAPTER

### I BACKGROUND AND PURPOSE OF THE STUDY

- The Nature of the Problem: 1
- Brief Presentation of the Conceptual Framework: 3
- Definition and Operationalization of Concepts: 6
- Statement of Hypotheses: 10

### II REVIEW OF RELEVANT THEORETICAL AND EMPIRICAL LITERATURE

- The Conceptual Framework: 16
- Some Demographic Variables: Age, Sex, Ethnicity and Social Class: 32
- Ties to Conventional Society: 34
- Associational Patterns: 38
- Patterns of Drug Use: 43
- Treatment: 45
- Predicting Patterns of Addictive Lifestyles: 49
- The Addiction Research and Treatment Corporation: 54
- Summary: 57

### III THE RESEARCH DESIGN

- The Sample: 61
- Data Collection and Measurement: 68
- The Design of the Study: 84
LIST OF CHARTS AND TABLES

<table>
<thead>
<tr>
<th>Chart/Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHART I-1</td>
<td>SUMMARY TABLE CONCEPTS AND INDICATORS.</td>
<td>7</td>
</tr>
<tr>
<td>TABLE III-1</td>
<td>COMPARISON OF ARTC POPULATION WITH ADDICTSknownto the NARCOTICS REGISTER.</td>
<td>63</td>
</tr>
<tr>
<td>TABLE III-2</td>
<td>SAMPLE COMPOSITION BY SEX.</td>
<td>65</td>
</tr>
<tr>
<td>TABLE III-3</td>
<td>COMPARISON ON SELECTED CHARACTERISTICS of sampled clients with those excluded because of incomplete data.</td>
<td>67</td>
</tr>
<tr>
<td>CHART III-1</td>
<td>DEVELOPMENT OF MEASURES OF ATTACHMENT to family.</td>
<td>70</td>
</tr>
<tr>
<td>TABLE III-4</td>
<td>ANALYSIS OF REASONS GIVEN FOR ENTERING TREATMENT.</td>
<td>71</td>
</tr>
<tr>
<td>CHART III-2</td>
<td>DEVELOPMENT OF MEASURES OF TIES TO SCHOOL AND LABOR FORCE.</td>
<td>73</td>
</tr>
<tr>
<td>TABLE III-5</td>
<td>ANALYSIS OF ITEMS TAPPING BELIEF IN THE CONVENTIONAL ORDER.</td>
<td>74</td>
</tr>
<tr>
<td>TABLE III-6</td>
<td>CONSTRUCT VALIDITY OF THE PROTESTANT ETHIC SCALE.</td>
<td>75</td>
</tr>
<tr>
<td>CHART III-3</td>
<td>DEVELOPMENT OF MEASURES OF CRIMINAL BEHAVIOR.</td>
<td>77</td>
</tr>
<tr>
<td>TABLE III-7</td>
<td>MEDIAN TEST FOR SIX COMPOSITE CHARGE INDICES BY AGE OF ADDICTION.</td>
<td>78</td>
</tr>
<tr>
<td>CHART III-4</td>
<td>DEVELOPMENT OF MEASURES OF ASSOCIATION WITH DRUG USERS.</td>
<td>80</td>
</tr>
<tr>
<td>CHART III-5</td>
<td>DEVELOPMENT OF MEASURES OF PATTERNS OF DRUG USE.</td>
<td>82</td>
</tr>
<tr>
<td>CHART III-6</td>
<td>DEVELOPMENT OF MEASURES OF BEHAVIOR WHILE IN TREATMENT.</td>
<td>83</td>
</tr>
</tbody>
</table>
TABLE IV-1 ATTACHMENT TO FAMILY. .......................... 90
TABLE IV-2 ANALYSIS OF REASONS GIVEN FOR ENTERING
TREATMENT BY SEX. ........................................ 92
TABLE IV-3 COMMITMENT TO AND INVOLVEMENT IN SCHOOL
AND THE LABOR FORCE. ................................. 96
TABLE IV-4 CRIMINAL ACTIVITY BEFORE ADDICTION. ......... 99
CHART IV-1 PROPORTION CHARGED WITH SIX COMPOSITE
CHARGE INDICES BY SEX. ............................... 100
TABLE IV-5 CRIMINAL ACTIVITY SPECIFIED .................... 102
CHART IV-2 MEDIANS FOR SIX COMPOSITE CHARGE INDICES
OVER TIME BY SEX. ........................................ 104
TABLE IV-6 ASSOCIATION WITH DRUG USERS .................. 108
TABLE IV-7 PATTERNS OF DRUG USE. ......................... 111
TABLE IV-8 GENDER-RELATED TIES TO CONVENTIONAL BEHAVIOR. 114
TABLE IV-9 GENDER-RELATED CRIMINAL ACTIVITY. .......... 116
TABLE IV-10 GENDER-RELATED CONTACT WITH DRUG
USERS AND PATTERNS OF DRUG USE ................. 117

APPENDIX TO
CHART IV-1 MEDIAN TESTS FOR SIX COMPOSITE CHARGE
INDICES BY SEX ........................................... 101

TABLE V-1 LIVING ARRANGEMENTS AT ENTRY BY SEX ........ 123
TABLE V-2 FOR MEN: IMPACT OF PRIOR ACCEPTANCE OF
CONVENTIONAL ROLES ON EMPLOYMENT THE
YEAR PRIOR TO ENTERING TREATMENT ............... 124
TABLE V-3 FOR MEN: IMPACT OF PRIOR ACCEPTANCE OF
CONVENTIONAL ROLES ON LIVING WITH
FAMILY AT ENTRY TO TREATMENT ................. 125
CHART V-1 INITIAL PATTERNING OF EXPERIENCES FOR MALE
CLIENTS OF ARTC. .................................... 127
TABLE V-4 FOR MEN: IMPACT OF SPECIFIC CRIMINAL
ACTIVITY ON LIVING WITH FAMILY AT
ENTRY TO TREATMENT ................................ 129
ACKNOWLEDGMENTS

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CHAPTER I
BACKGROUND AND PURPOSE OF THE STUDY

The Nature of the Problem

Approximately one-quarter of the known addict population is female, and their numbers may be increasing (Hunt, 1976; Newman, Cates, Tytun and Werbell, 1974). Interest in this subject has grown in the past few years, as evidenced by the publication of bibliographies in the area by the National Institute on Drug Abuse (Women and Drugs, 1975) and in Women's Studies Abstracts (Bowker, 1976). In both instances, note is made of the scarce resources and generally poor quality of what is found.

An extensive, but not exhaustive, review of the literature reveals several gaps in our understanding. While relatively little is known about experiences prior to and during addiction among male addicts, even less is known about their female counterparts. Studies addressing this problem present only limited bivariate comparisons of men and women. This author is unaware of any attempt to systematically describe gender-related differences or explore the patterning of experiences through multivariate analyses. A second gap is the almost complete neglect of women in evaluations of treatment programs, perhaps due to their relatively small representation in the samples studied. The theoretical frameworks developed are largely male-oriented, indicating yet another limitation in our understanding of addicted
women. Existing studies addressing the areas outlined above rarely concern themselves with the unique experiences of Black female addicts.

Indeed, in practice as well as in theory, women remain the forgotten minority (Eldred and Washington, 1975). Treatment efforts have largely been based upon what works for men. By the very fact that in any one program women are bound to be few in number, the structure of treatment is likely to be male oriented. One obvious example is the requirement methadone be picked up daily. While this may pose a problem for employed clients of both sexes, the difficulties encountered by a female client in arranging child care daily are overlooked. It appears that female addicts typically receive special attention only when pregnant, and then one wonders whether society's concern is child or mother. Most published studies stress the effects of heroin or methadone ingestion on the neonate, but speak little of the baby's impact on mother's future needs and functioning.

The problem, then, is the lack of knowledge about the routes into and out of addiction taken by women and the concurrent neglect of their special needs in male-oriented treatment programs. Even less is known about the Black female addict. This secondary analysis seeks to address the issues presented above by meeting these objectives:

1. Greater specification of gender-related differences in experiences prior to and during addiction; greater specification of gender-related differences while maintained on methadone. Addicts have been treated as an essentially homogeneous population with little or no attention paid to the Black female addict's unique experiences and needs.
2. Increased understanding of varying patterns of behavior prior to heroin use, and accompanying differentials in addiction careers. The reader is cautioned that, due to the nature of both the data and sample, causal relationships are beyond the scope of this study.

3. Increased understanding of the impact differing addiction careers have upon behavior while in treatment. Again, in both theory and practice, treatment has been considered a unitary phenomenon with little effort made to define the special needs of the addicted woman and modify treatment accordingly.

4. The formulation of recommendations for more efficient planning and direct delivery of service, based on knowledge accumulated from this analysis.

**Brief Presentation of the Conceptual Framework**

To begin with, the available data have been conceptualized as falling into several time periods: prior to addiction; during addiction (from point of addiction to one year before entry to treatment); at entry to treatment (the year before entry to treatment); while in treatment.

Within each time period, behavior and experiences are organized around the following concepts: ties to conventional society; associational patterns; and patterns of drug usage. Control theorists (Hirschi, 1969; Matza, 1964) posit that deviant activity is caused by the weakening of ties to the established order which exert control over our behavior. The Chicago school of deviance theorists, and in
particular Sutherland (Sutherland and Cressey, 1974), posits that deviant behavior is related to maintaining deviant associates. Through these individuals, a neophyte learns the techniques needed to commit crimes or use drugs. Patterns of drug use are included for obvious reasons. Although other theorists relate stress to deviant behavior, they are not included in this conceptual framework; the available data do not contain adequate measures. Based on the above, the time periods have now been conceptualized as consisting of:

<table>
<thead>
<tr>
<th>Prior to Addiction</th>
<th>During Addiction</th>
<th>At Entry</th>
<th>In Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ties to Conventional Society</td>
<td>Ties to Conventional Society</td>
<td>Ties to Conventional Society</td>
<td>Ties to Conventional Society</td>
</tr>
<tr>
<td>Associates</td>
<td>Associates</td>
<td>Associates</td>
<td>Associates</td>
</tr>
<tr>
<td>Drug use</td>
<td>Drug use</td>
<td>Drug use</td>
<td>Drug use</td>
</tr>
</tbody>
</table>

In addition to the theorists cited above, the work of Cloward and Piven (1977) has guided the questions addressed by this research. These theorists hypothesize that sex, age, socio-economic status and ethnicity delimit the choice of deviant behaviors available to an individual. Taking this logic one step further, it follows that an individual's location in the social structure should also affect the manner in which he/she pursues any deviant career, once chosen. Therefore, male and female addicts should differ in their experiences along generally held gender-role norms. Men and women should begin and cease the use of drugs in a sex-consistent manner, due to both internal and external constraints to act in gender-appropriate ways.
As the available data do not contain measures of perceived
gender role expectations, it is not possible to relate this concept
directly to patterns of behavior while addicted or behavior while in
treatment. Instead, the literature has been reviewed to cull a few
very general expectations and behavioral differences: men are expected
to be more powerful, competent and aggressive; women are expected to be
more compliant, empathic, nurturant and dependent. Although there
exist ethnic variations on this theme, differentials in patterns of
addiction and treatment may be interpreted with an eye toward this
concept as delineated, should the findings be consistent.

Based upon the framework developed above, the following
questions are raised:

- Are there gender-related differences in ties to
  conventional society, associational patterns, and drug use? Which
  of these differences are most salient?

- Are female addicts one monolithic group or can several
different patterns of behavior be identified; to what extent do these
patterns correspond to those identified among male addicts; does the
distribution of these patterns differ by sex?

- Are there gender-related differences in behavior while
  in treatment; are these differences related to previously established
  patterns of behavior?

- Are the differences found above consistent with generally
  held gender role norms?
Definition and Operationalization of Concepts

The research questions and the conceptual framework from which they flow raise a number of rather complex concepts. Each will be considered in turn, and a brief description offered of the operational indicators. A few major limitations in the available data are noted, but a more detailed discussion will be deferred until Chapter III.

Ties to Conventional Society
(see Chart I-1)

Ties to conventional society are based upon a model developed by Hirschi (1969). This theorist conceptualizes the bond as consisting of the following: attachment to parents; attachment to school; attachment to peers; commitment to conventional activities; involvement in conventional activities; and a belief in the moral validity of the legal system.

To use this framework over the addict's adult years, the concept of attachment to parents has been broadened to attachment to family. Prior to addiction, this tie has been operationalized as the extent to which the parent or parent-surrogate is involved in the child's life. Although Hirschi (1969) describes this bond as a largely emotional one, the available data suggest a reconceptualization. Feelings toward parents are not measured, but measures of household composition and supervision by parent(s) are included in the data base. During addiction, attachment to the family has been operationalized by whether the respondent establishes a family of procreation before or after daily heroin use. At entry to treatment, marital status, number of children, living arrangements and family-related reasons for entering
<table>
<thead>
<tr>
<th>Concept</th>
<th>Indicator Before Addiction</th>
<th>Indicator During Addiction</th>
<th>Indicator at Entry</th>
<th>Indicator in Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ties to Conventional Society</td>
<td>Attachment to family: presence of parents in the home; supervision when young&lt;br&gt;Attachment to school: attitude to school; school attendance; last grade of school completed&lt;br&gt;Commitment: parental educational aspirations and expectations; respondent adolescent educational aspirations&lt;br&gt;Involvement in conventional activities: employment history before addicted</td>
<td>Attachment to family: point in addiction career where marriage occurs&lt;br&gt;Commitment: educational aspirations&lt;br&gt;Involvement in conventional activities: employment history during addiction</td>
<td>Attachment to family: family-related reasons for entering; living arrangements at entry; child-rearing responsibility; marital status at entry&lt;br&gt;Commitment: occupational aspirations&lt;br&gt;Involvement: in conventional activities: employment history year prior to entering treatment</td>
<td>Involvement in conventional activities: employment history while in treatment</td>
</tr>
<tr>
<td>Associational Patterns</td>
<td>Criminal activity: juvenile crime; criminal charges before addiction&lt;br&gt;Contact with drug users: perceived neighborhood heroin use&lt;br&gt;Initiation: individuals participating; reasons for first use; how drug procured; initiator of action</td>
<td>Criminal activity: criminal charges during addiction&lt;br&gt;Contact with drug users: familial heroin use; friend drug use at entry to treatment; association with abstinent addicts</td>
<td>Criminal activity: criminal charges during addiction&lt;br&gt;Contact with drug users: familial heroin use; friend drug use at entry to treatment; association with abstinent addicts</td>
<td>Criminal activity: criminal charges while in treatment</td>
</tr>
<tr>
<td>Patterns of Drug Use</td>
<td>Extent: age first use of heroin; age of addiction</td>
<td>Extent: length of time addicted at entry to treatment; recent psychoactive drug use&lt;br&gt;Attempts at abstinence; prior treatment; spontaneous abstinence; expectations of treatment</td>
<td>Extent: length of time addicted at entry to treatment; recent psychoactive drug use&lt;br&gt;Attempts at abstinence; prior treatment; spontaneous abstinence; expectations of treatment</td>
<td>Extent: Missed methadone dosages; evidence of drug use in urine&lt;br&gt;Attempts at abstinence: retention in treatment</td>
</tr>
</tbody>
</table>
are all considered indications of familial bonds.

Salient aspects of attachment to school which can be tapped are: the last year of school the respondent completed; school attendance; and attitudes toward school. This last concept is further specified as reasons given for skipping school.

Hirschi (1969) conceptualizes commitment to conventional activities as those stakes in conformity which are built up by pursuit of and a desire to achieve conventional goals. Measures of parental and self educational expectations and aspirations have been used to approach the wish to achieve prior to addiction. The respondent's occupational aspirations are considered indicators of commitment upon entering treatment.

Involvement in conventional activities is operationalized by Hirschi (1969) as time spent on school-related activities and "working class adult" activities such as talking to friends and riding around in a car. Although the data base does not contain similar information, respondents' employment history should be a suitable substitute. Labor force participation is grossly measured prior to and during addiction. Monthly measures are available for the year before entering treatment and during methadone maintenance.

A final aspect of this framework is a belief that the rules of society are binding on one's own conduct. Although this concept was originally operationalized through several indicators of respect for the law, similar measures are not available in these data. It is expected that a series of items tapping belief in the Protestant Ethic should indicate the extent to which the respondent appears to reject
such widely held norms as the importance of work, family responsibility, and self-made success. For similar reasons, a "militancy" scale has been included, tapping respondent belief that racial discrimination limits employment opportunities.

Associational Patterns (see Chart I-1)

The work of Sutherland (Sutherland and Cressey, 1974) clearly outlines this concept as the amount of contact the respondent has with others involved in deviant behavior. For this study, associational patterns are best indicated by involvement with drug-using and/or criminal friends. The respondent's own involvement in deviant activities other than drug use is also an aspect worth covering; many studies point to the relationship between delinquency and delinquent friends (see Chapter II for a more comprehensive discussion). Associational patterns are not to be confused with Hirschi's (1969) concept of attachment to peers, which is not included in this study for lack of measures.

There are clear gaps in the data available on respondents' associates. One limitation is that no information has been gathered on respondent friendships prior to addiction. Several indicators do exist at the point of initiation to heroin: respondent perception of neighborhood drug use as widespread; participation with friends in the initial heroin experience; and the extent to which the inducement of friends played a role in experimentation with drugs. At entry to treatment, familial heroin use, contact with drug-using friends and
contact with abstinent addicts have all been measured. But, similar information is not available for the sample during methadone maintenance. Of course, the fact that certain pieces of information are lacking has been taken into account when interpreting the findings.

Involvement in other deviant activity by the respondent has been operationalized as the amount and nature of criminal activity, indicated by criminal charges. Measures of criminal charges are available for the entire period covered by the study.

Patterns of Drug Usage (see Chart I-1)

Prior to entering treatment, several aspects of drug-usage patterns have been tapped. Extensiveness of heroin use is indicated by age of first use, age of addiction and length of addiction. Polydrug use is measured by recent ingestion of psychoactive drugs, other than heroin. Current experiences and perceptions of life without heroin are tapped through measures of attempts at abstinence, both within and outside of treatment, and expectations of methadone.

After methadone maintenance has begun, regularity of clinic attendance for methadone, urine monitoring for drugs, and retention in treatment, are all indicators of drug-usage patterns.

Statement of Hypotheses

Chapter IV addresses the question of gender-related differences in ties to conventional society, choice of associates and drug use. On the basis of the theoretical framework developed above, and previously published literature which indicates female addicts appear to follow many of the prescriptions attached to their gender-role, it is hypothe-
sized that the Black male and female respondents included in this sample will evidence differing experiences. These experiences are expected to differ in a manner consistent with gender-role norms.

1. Female respondents will evidence stronger ties to the family compared to their male counterparts. Female respondents will experience a more disrupted childhood but will be supervised more closely. They will establish families more often and at an earlier point in time. Child-care responsibility will be largely female and it will be family and children who bring these clients to treatment.

2. Male respondents will establish stronger ties to the labor force compared to their female counterparts. Parental and self educational aspirations and expectations will be higher for male respondents compared to female respondents; male respondents will also report greater involvement in and commitment to the labor force at all points during their addiction career.

3. It is hypothesized that at all time periods, male respondents will consistently be charged at higher rates and will be involved in more aggressive types of crime than their female counterparts.

4. Female respondents will evidence greater exposure to familial heroin use, a more dependent role in the initiation process, and more extensive contact with drug users on entering treatment when compared to males.

5. Available information from previous studies and the theoretical perspective taken indicate that female respondents
will become addicted at a later age, but evidence more extensive use of other psychoactive substances. There is not enough basis on which to hypothesize patterns of abstinence and treatment.

6. Of the anticipated differentials in ties to conventional society, supervision, marriage prior to addiction and work history will best distinguish male from female respondents.

7. Of the anticipated differentials in criminal activity, arrest prior to addiction, charges for violent crimes and charges for victimless crimes will best distinguish male from female respondents.

8. Of the anticipated differentials in association with drug users and patterns of drug use, differences in contact with familial heroin use, and the initiation experience will best distinguish male from female respondents.

Chapter V explores the question of whether Black male and female respondents are indeed two monolithic groups and whether the distribution of such patterns, if they exist, differs by sex. More specific hypotheses are contained within the chapter, but in general it is expected that:

9. Male and female respondents are not two monolithic groups. Different patterns of past experiences, based upon work history and living situation at entry to treatment, should be distinguishable for both sexes.

Furthermore, it is expected that the distribution of these varying patterns will differ by sex.
10. Male respondents will be more likely to follow a career characterized by a relatively continuous, progressive set of behaviors, rejecting conventional society and truncating socialization by early drug use. Female respondents will be more likely to follow careers characterized by Matza's (1964) conception of "drift", transiently existing in limbo between convention and crime.

Chapter VI considers behavior while in treatment. Past evaluations of methadone maintenance treatment have typically not shown dramatic changes in behavior. Indeed, an evaluation of the program studied here found that the most successful clients were successful from the time treatment began (Kleinman and Lukoff, 1975). Therefore,

11. Previously established behavior will largely continue unchanged while in treatment. Female respondents will evidence lower rates of employment and criminal activity; their rate of other psychoactive drug use will be higher than that of their male counterparts. No speculations concerning differences in retention can be set forth due to the mixed nature of past findings and gaps in present knowledge.

Although differences in length of stay are not hypothesized, predictors of retention in treatment should differ by sex. This expectation is based on reports from other largely male programs, and the gender-related differences hypothesized in Chapter IV.

12. Male and female respondents will evidence distinct predictors of retention. The pattern for male respondents should
be clearer than that for female respondents; criminal activity, employment and drug use should be more directly related to length of stay for male respondents.

If differing patterns of behavior exist as predicted in Hypotheses 9 and 10, they should be related to the manner in which treatment is used.

13. Male and female respondents who evidence a pattern of truncated socialization will use treatment as a period of respite. Those respondents characterized by "drift" will stay in treatment longer, use drugs less, obtain employment more often and have fewer encounters with law enforcement officials. They enter the program at a point where an important tie to society is threatened and maintenance is seen as a way to maintain this bond.

Hypotheses concerning behavior while in treatment are specified in more detail within Chapter VI.
CHAPTER II
REVIEW OF RELEVANT THEORETICAL AND EMPIRICAL LITERATURE

The purpose of this review is two-fold. A first task is the development of a conceptual framework for the organization and analysis of the data, drawing upon theorists in the areas of deviance and addiction.

A second task is, given the proposed research questions and hypotheses, a review of the relevant empirical literature. To begin, a few demographic variables, not included in the analyses, will be discussed briefly to place the findings and population from which the sample is drawn in proper context. Findings concerning the nature of heroin users' ties to family and the labor force are then reviewed. Associational patterns and patterns of drug use are each considered in turn. Gender-related differences are highlighted. In reviewing treatment outcomes, only studies of methadone maintenance programs in the United States are considered. Literature based on some Canadian programs has been included in support of the findings from American facilities. Some of the classic studies of treatment at the Public Health Service facility in Lexington, Kentucky have been cited for similar reasons. The patterning of addiction experiences and treatment outcome is then reviewed. All publications based upon the methadone maintenance program under consideration are discussed separately at the end of this chapter.
The Conceptual Framework

A central purpose of this work is to further our understanding of gender-related differentials in experiences prior to and while addicted, and their relationship to behavior while in treatment. Therefore, a first step is to construct a model of addiction as a means of organizing these experiences and an aid in prediction. Several authors have posited theories based upon the euphoregenic (Ausubel cited by Platt and Labate, 1976) and addictive (Lindesmith, 1947) properties of opiates. Many others have posited theories based upon the psychological characteristics of users (Final Report, 1973). The nature of the available measures is such that these models are not useful, so that others, although not as directly related to drug use, were sought.

Some of the most frequently mentioned models are based upon the notion of anomie as a causative factor. If true, addiction would be most prevalent among those of lower socioeconomic status. This appears to be the case. But it has been noted that drug users do not come from the most disadvantaged segments of the ghetto population from which they are drawn, as would be expected theoretically (Lukoff, 1972). This theory is also unable to explain the radical shift in the demographic distribution of opiate users over the past century. From before the Civil War until immediately following World War I, female addicts outnumbered male addicts two to one. The large portion of these middle class housewives began their use of opiates to relieve pain, based upon medical advice or the pervasiveness of patent medicine advertisements (Cuskey, Premkumar and Sigel, 1972). Due to the reasons cited above, and the lack of measures through which "anomie" or "stress" could be operationalized, this theoretical model was not used.
After much reading, it appears that those theorists considered "control" theorists, especially Hirschi (1969) and Matza (1964), provide a useful framework when coupled with Sutherland's concept of "differential association" (Sutherland and Cressey, 1974). Addiction therefore is posited to relate to the weakening of ties to the social order, and the acquisition of associates who can teach the techniques of usage and provide access to the drug. Each of these schools of thought will be considered in turn.

Control Theory

Several theorists in the area of drug addiction have expressed positions which could be interpreted as relating the weakening of ties to the social order with the use of drugs. Both Alksne, Lieberman and Brill (1967) and Scher (1967) in theoretical pieces on the stages of addiction, place emphasis on the extent to which conventional attitudes are internalized. Finestone (1964) posits that addiction is related to the inability of family and school to exert influence and acceptance of a subcultural set of values diametrically opposed to that of the larger society.

Attempting to explain delinquent behavior, Matza (1964) posits that such acts are preceded by a break in the bond with moral order. Various techniques of neutralization, including negation of the offense and a sense of injustice, result in freedom from moral constraints. The system of normative control temporarily loses its hold on the youth.

Once this rift with the social order has occurred, drift becomes possible. The delinquent transiently exists in limbo between convention and crime, responding in turn to the demands of each, flirting with one, now with the other. Drift is characterized by casual, intermittent immersion in a pattern of illegal behavior, along with much participation in conventional activities.
However, the periodic breaking of this moral bind arising from neutralization and resulting in drift does not assure the commission of a delinquent act. The impetus to such behavior is hypothesized by Matza (1964) as the will which is activated by preparation and desperation. Preparation is learning through experience an infraction may be committed and consists largely of acquiring the techniques needed for the commission of a crime. Desperation is a mood of fatalism, culminating in a need to regain a sense of active mastery over life.

Hirschi (1969), on the other hand, posits that broken social bonds will automatically result in delinquency, eliminating Matza's (1964) condition of the will. His study of Contra Costa County youth entering junior and senior high school in 1964 delineates the following four elements as binding the individual to society: attachment to others; commitment or investment in conventional behavior; involvement or time spent pursuing conventional activities; and a belief in the moral validity of the rules established by society.

Attachment to others is conceptualized as the essence of the internalization of conventional norms; the conscience or superego lies in the attachment to others. These "others" are first conceptualized as parents. Hirschi (1969) finds the more strongly the adolescent is attached to his/her parents, the more strongly he/she is bound by their expectations, and conformity results. The relationship is not quite as neat when unconventional parents are considered. Attachment to school is also related to the commission of delinquent acts in Hirschi's (1969) sample. The more academically competent the youth sees himself/herself to be, the less likely he/she is to commit delinquent acts. Academic competence, in turn, is related to liking school, and the relationship between delinquency
and liking school is strong. Finally, Hirschi (1969) considers attachment to peers. He reports that boys who wish to be "the kind of person their friend is" are closer to their parents and less involved in delinquency.

Such a finding is surprising, as one of the best documented findings is that most delinquent acts are committed with companions and that most delinquents have delinquent friends -- to be discussed in greater detail at a later point. Hirschi (1969) believes that this relationship is due to the youth's weak attachment to conventional society and not the impact of friends. However, regardless of attachment to parents, school or peers, delinquency of companions remains strongly related to self reported delinquency in Hirschi's (1969) sample.

Commitment to conventional activities is the second element believed to bind the individual to conventional norms. The theorist hypothesizes and finds that the higher the expectations and aspirations, the less likelihood of deviance, contrary to other "strain theorists" who propose it is the discrepancy between aspirations and expectations which is predictive of delinquency (Cloward and Ohlin, 1960; Cohen, 1955; Merton, 1968). But, as predicted by Cloward and Ohlin (1960), the explanation advanced for occupational mobility is crucial; if social mobility is perceived to hinge on social forces beyond his/her control, the youth does become alienated and rejects conventional norms.

The third element in Hirschi's (1969) framework is involvement in conventional activities. As anticipated, the more time spent on homework and the less time spent dating, drinking and driving, the less the likelihood of delinquency.

Beliefs, the last element, are conceptualized as the belief that the rules of society are binding on one's conduct. Items measuring respect
for the law show it to be strongly related to the commission of delinquent acts, regardless of respect for its agents and regardless of ties to conventional adults.

Hirschi (1969) indeed does find, then, that ties to conventional society are related to juvenile delinquency. A lack of attachment to parents and school, minimal involvement in and commitment to conventional activities and little belief in the validity of society's rules are related to the commission of delinquent acts.

Based upon the above, one aspect of male and female addicts' experiences that must be considered is the type and extent of bonds to society existing at each time period considered. However, as reported above, delinquency of one's friends is closely related to one's own criminal activity despite attachment to parents or school. Indeed, the parallel finding in the area of drug use -- friends' use is highly predictive of self use -- is one of the most consistent and outstanding features of the literature. It appears, then, that along with ties to conventional society the nature of one's associates is a second aspect to be considered.

The Chicago School of Deviance Theorists

Several theorists in the area of drug abuse have addressed the importance of friends and their place in the addiction process, while a school of theorists in the area of crime and delinquency considers the types of associates an individual has crucial to his/her behavior.

Becker (1953) suggests that drug-using friends play two roles in the addiction process. First, the neophyte will learn techniques needed to use the drug as well as how to perceive and enjoy the drug's effects from friends. Second is, through friends an individual gains access to drug
distribution sources which become available only after participation in and involvement with a group of users. Such involvement may provide an infrequent supply for the occasional user, or introductions to dealers for those who wish a more regular supply.

Lindesmith and Gagnon (1964) assert that a lack of associations and access accounts for the shift in the demographic distribution of opiate users. The passage of the Harrison Act in 1914 and subsequent legal decisions made possession, sale and use of heroin illegal. As a result, an illicit distribution system arose to which the poor, young, urban, minority group male had greatest access. Hence, the demographic shift occurred. Where opiate use remains legal, these authors note addicts remain older, law-abiding women.

Among theorists addressing themselves to broader forms of deviance, Thrasher (1927) was perhaps one of the first to note that delinquent activity is learned through associates. This author perceives the social disorganization engendered by societal transformations as weakening the ability of conventional institutions within the community to act as social controls. This absence of social controls sets youth adrift and, based upon a rather Hobbseian perception of human nature, the unsupervised play groups of the child become the delinquent gangs of the adolescent. The gang, then, provides the learning environment, the older members serving as tutors to the younger.

Shaw and McKay (1942) elaborate, theorizing that in disorganized areas of the city a criminal tradition develops a coherent system of values supporting delinquent acts. Criminal forms of organization will then arise and serve as transmitters of delinquency from one generation to another, socially, like any other social and cultural pattern.

Sutherland (Sutherland and Cressey, 1974) has codified the theories
presented above into a series of propositions. Criminal behavior is learned, that is, it is not inherited or due to psychopathology. Criminal behavior is learned in interaction with other persons in a process of communication. The learning of criminal behavior occurs principally in intimate, personal groups; the curriculum consists of specific techniques of committing crimes and a specified direction of drives, motivations, rationalizations and attitudes. This process of learning criminal behavior involves all the mechanisms that are involved in any other learning (Sutherland and Cressey; 1974, pp. 75-76). Differential association with conventional and criminal friends will determine one's pattern of behavior.

It appears, then, that both associational patterns and attachment to conventional society are important aspects of the addicts' experiences, worthy of description and amenable to further propositions. Measures of ties to the social order and associational patterns have been constructed for each time period under consideration based on the two theoretical schools presented above (See Chapter III).

Expectations and Behavior Associated with Gender Roles

Given this framework for experiences related to addiction, how may they be expected to differ for men and women? As is fairly clear, the theorists cited above typically address themselves to the explanation of male drug use or criminal behavior. Cloward and Piven's (1977, 1979) work on the social structuring of deviance offers a useful reference point from which an understanding of gender-related differences might be initiated.

These authors propose that the same factors which mold conventional behavior also mold deviant behavior. Both reflect expectations
tied to various statuses or locations in the social structure such as age, class, ethnicity and sex.

Possible behavior is delimited by both internal acceptance and external imposition of these norms. Through socialization, status-associated norms are internalized, entirely precluding some activities and modifying others. Therefore, when opiates were prescribed by doctors or placed in patent medicine, women found it quite acceptable to admit illness and medicate themselves. External pressure to engage in status-appropriate activities also delimits both conventional and deviant behavior. When a particular activity depends on social resources, those who control these resources deny access to them by individuals with inappropriate characteristics. When narcotics were declared illicit substances, women no longer had access through legal or quasi-legal channels and were not allowed into the illicit distribution system.

The end result of these two processes is that: Certain forms of deviant activities may be entirely proscribed; and, once chosen, any deviant activity will be conducted in a norm-consistent manner. Two propositions concerning female heroin addiction might be derived. (1) Heroin use is a predominantly male activity, based on current knowledge. Therefore, female addicts have either internalized a less conventional set of gender role norms and circumvented efforts to limit access, or the use of heroin has been redefined as sex-consistent. (2) The experiences of female addicts differ from those of their male counterparts and are shaped by generally held gender role norms. This study focuses on the latter proposition. For further hypotheses to be formulated, a next step is the delineation of these norms, if only in a very general manner.
Sometime late in the second year of life, children learn their own gender label. This judgment, once made, is relatively irreversible and during the years two to seven, crystallizes into a more generalized conception of gender and associated norms (Kohlberg, 1966). Among American children, these universals are found relatively early. By age five or six, fathers are described as powerful, punitive, aggressive, fearless and instrumentally competent. Child care, a third major dimension, is recognized as a feminine function along with a more general differentiation of maternal activities performed in the home from paternal functions performed outside the home (Kohlberg, 1966).

Adults may elaborate upon these expectations but do not appear to change them extensively. McKee and Sherrifs (1959) found, when asked to describe an ideal self, women accepted men's pre-emption of attributes related to strength and personal force. Broverman, Vogel, Broverman, Clarkson and Rosenkrantz (1972) report a strong consensus on norms associated with sex. Male adjectives appear to reflect a competency cluster: independent, objective, active, competent, logical, worldly, adventurous, able to make decisions easily, self confident. Adjectives associated with females were best conceptualized as a warmth-expressiveness dimension composed of such attributes as gentility, sensitivity to others' feelings, tactfulness, religiosity, and neatness. Furthermore, Elman, Press and Rozenkrantz (1970) found when respondents described the "ideal" man and woman, the adjectives paralleled these stereotypes. Finally, it is clear that male attributes are considered to be more favorable compared to female attributes (Broverman, Broverman, Clarkson, Rosenkrantz and Vogel, 1970; McKee and Sheriffs, 1959).
The debate concerning the development of these norms and their translation into behavior is beyond the scope of this review. It will merely be noted that there appears to be a great deal of uniformity in the socialization of the two sexes. Differences are apparent for only a few narrowly defined sex-typed behaviors (Maccoby and Jacklin, 1974). Yet, there do appear to be salient differences in the behavior of males and females.

Men do tend to be more aggressive than women based upon a large number of studies conducted on subjects aged two through 20. The measures utilized have ranged from observation of wrestling and hitting, choice of aggressive toys, delivery of shocks, the construction of sentences utilizing hostile verbs, to the intensity and frequency of aggressive episodes in dreams. In 71 studies of this kind, boys/men were found to be more aggressive in 38, no difference was found in 29, and girls/women were found the more aggressive in only four (Maccoby and Jacklin, 1974).

Women appear to be more compliant. Among children under the age of five, girls are systematically found to be more likely than boys to comply with adults' directions, although there does not appear to be a sex differential in compliance with peers. Studies of adult response to persuasive communications did not find women to be more easily persuaded; in a series of experiments involving group pressure, however, women were somewhat more compliant (Maccoby and Jacklin, 1974).

Studies of dependency have rendered mixed results. Maccoby and Jacklin have categorized studies according to the manner in which dependency was operationalized: (a) remaining near, touching or clinging to another person; (b) seeking help, consolation, reassurance or protection; (c) calling attention to oneself. Studies of children
three months to ten years old found girls were not more likely than boys to remain near, touch or cling to another person. Women were not found to exhibit more positive behavior toward non-family individuals nor more sociability with peers. There were no sex differences in instances of self disclosure and trust in others, nor sensitivity to social cues. However, those studies dealing most directly with the dependency hypothesis did not include teenagers or adults. Mischel (1966) states that earlier studies of women at older ages do find consistent sex differences on dependency measures.

Finally, one of the most salient behavioral differences between men and women has been their relationship to the economy. In recent years, there has been a large increase in women entering the labor market with most newcomers aged 25 to 44, women who in the past tended to stay home (Barrett, 1976). Yet, dramatic though this change may be, women are still much less likely to be employed compared to men. In 1977 while 78.5 percent of white and 71.0 percent of black men were employed, only 50.9 percent of white and 48.1 percent of black women were employed (U.S. Bureau of the Census, 1980). When women do find employment, they are most likely to find it in the clerical or service areas. Within each area, they are predominantly at the lower level jobs (Schrank and Riley, 1976), and the wages received by women are lower than those of their male counterparts (Polachek, 1975; Stevenson, 1975).

The most typical pattern of work appears to be that of full time employment, interruption to raise children, and return to the labor force after the children have entered school (Polacheck, 1975; Tamber and Sweet, 1976). When a mother does return to the labor force, she tends to add these responsibilities to her household obligations. Moore
and Sawhill (1976) note that although husbands of working wives engage in slightly more child care and housework, the primary responsibility remains that of the wife. Kreps and Leaper (1976) also note a similar pattern stating that child care responsibilities remain a dominant influence in women's work roles and the performance of job and home responsibilities requires careful allocation of time with the resources needed for occupational duties taken from leisure.

Based on the above, the female gender role may be very generally characterized by expectations of warmth, expressiveness and nurturance paralleled by the expectations of competence, power and prestige attached to the male. Some of these expectations are translated into behavioral differences, males being more aggressive, females more compliant and empathic and less likely to enter the labor force while retaining child rearing and household responsibilities. The expressive/instrumental distinction made by Parsons and Bales (1955) clearly encompasses these norms but is unable to capture some of the complexities associated with sex as a structural variable.

Given that the sample considered in this study is Black, to what extent can these generally held norms be used in the construction of hypotheses? The majority of research on gender role stereotypes has focused on standards seemingly ascribed to and shared by white men and women. Relatively little is known about the norms associated with gender within the Black community. It does appear, based on the material presented below, that the Black female is exposed to a highly valued model of femininity that may incorporate some characteristically "masculine" stereotypic traits. Within the context of gender role norms held by the larger society, Black women may appear to be less "feminine" than their white counterparts.
Black women may work outside the home more frequently; in 1970 fully half over the age of 16 participated in the labor force compared to 43 percent of white women. However, more recent figures show white women working at the same rates as Blacks (U.S. Bureau of the Census, 1979). Working may also be more acceptable for a mother in the Black community, if for no other reason out of necessity (Duberman, 1975; O'Leary, 1977).

Black women are also more likely to grow up in a household run solely by their mother and later run their own household alone, compared with their white counterparts. In 1975 the Bureau of the Census (1979) estimates that: 54 percent of Black and 87 percent of white children were living with both parents; 35 percent of Black and 11 percent of white families were female-headed. Out of necessity, Black women have been more self-reliant, less dependent and taken on male roles in the running of these families.

Perhaps the aspect of decision-making within the family has come under closest scrutiny, in the controversy over the matriarchal structure of the Black family. Figures on female-headed households similar to those just presented have been interpreted as evidence that such a structure does exist (Moynihan, 1965). Blood and Wolfe (1960) are also frequently cited in support of this structure. Wives were found to be the dominant decision-makers in half and husbands in only nineteen percent of their sample of Black Detroit-based couples. However, several other studies show no Black-white differences in decision-making patterns, which appear to be largely egalitarian. Middleton and Putney (1960) based upon observational data found no ethnic differences in decision-making
among a sample of professors and skilled workers. Hyman and Reed (1969) based upon a secondary analysis of several national surveys report similar findings. In both studies, the decision-making patterns were found to be predominantly egalitarian. Yet another study shows Black men taking an active role in the decision-making process (Parker, 1966). In short, while characterization of the Black family as matriarchal is questionable, there is evidence that the Black woman is clearly at least equally involved in the decision-making process and where head of the family, sole decision-maker.

This pattern of work and active decision-making may result in a blurring of the expectations associated with gender in the Black community. Hill (1972) cites such role adaptability as one of the strengths of the Black family; a similar process of role integration is discussed by Staples (1973). There are several indications in the literature that this may be the case. Ladner (1972) notes that among the adolescent girls she studied, the most prevalent conception of womanhood was one of strength and resourcefulness. Most expressed great admiration for their mothers and other Black female models who were seen as independent, self-reliant, and successful. Two studies are cited by O'Leary (1977) that reflect this process: Steinman and Fox found that Black women believed men preferred women with a balance of familial and self-achieving orientations; O'Leary and Harrison compared sex-role stereotypes held by Blacks and whites with the former endorsing significantly fewer items that discriminated between the sexes.

However, there are also some indications that, even if only in
an ideal sense, generally held gender role norms may still have an impact within the Black community. Black women are still much less likely to participate in the labor force than are Black men. Fully 72 percent of Black men over 16 compared with only 49 percent of Black women over 16 participated in the labor force in 1975 (U.S. Bureau of the Census, 1980). It should be noted that the large portion of Black families are not female headed (Bureau of the Census, 1980). At least in an ideal sense the norm of the husband as provider and involved member of the family while the wife remains home is discussed by Rainwater (1966) and echoed by Ladner (1972). This author found her sample of teenage girls anxious to marry a man who would be their protector, supporter and companion. Scanzoni (1971) reports that middle class Blacks adopt the forms of the dominant society in which the husband fulfills his role obligations as provider in return for the wife's expressive rewards. Some empirical support is provided by Balkwell, Balswick and Balkwell (1978), who report that in their sample of high school students women were more ready to express fondness, pleasure and sadness while men were more ready to express antipathy. Ethnic differences were minimal.

Clearly, these few paragraphs do not do full justice to the literature available but do appear to indicate the following: Although gender role distinctions may be blurred within the Black community, very general sex-based differentials in expectations and behavior may still be useful in creating hypotheses and as an aid in interpreting the findings.

Finally, prior to using the expectations outlined above, the extent to which addicts hold similar norms should be considered. Miller, Sensenig, Stocker and Campbell (1973) administered the Rokeach
value-ranking instrument to 284 addicts admitted to the NIMH Clinical Research Center at Lexington, Kentucky. Male addicts compared to their female counterparts scored significantly higher on the instrumental values of ambition, intellect, logic, self-control, and the terminal value of an exciting life. Females placed significantly higher on the values of cleanliness and forgiveness and the terminal values happiness, inner harmony, self-respect and true friendship. Deren and Koslowski (1977) administered the 16 personality factor questionnaire to a sample of first admissions to programs run by the New York State Drug Abuse Control Commission. These authors found that compared to male addicts, female addicts scored higher on scales of dependency, conscientiousness, apprehension, suspiciousness, conservativeness and social awareness. The sex-related differences just reported may be indicative of holding a somewhat traditional gender role orientation. Colton (1979) reports that among her sample of Detroit addicts in treatment, addicted women shared with addicted men traditional expectations for a sex-based division of labor. Soffet and Brotman (1976) also note that female addicts appear to hold values which are remarkably traditional and conventional, retaining gender role stereotypes.

On the basis of these, admittedly few, indications and the theoretical arguments posited by Cloward and Piven (1977), it is not unreasonable to hypothesize that there will be sex-related differences, perhaps along the very general pattern outlined above. The literature to be reviewed concerning the female addict lends further strength to the argument that there are, indeed, differentials based on gender. At this point in our knowledge, however, whether or not these differences are associated
with norms attached to gender roles remains a matter of interpretation rather than empirical finding.

Some Demographic Variables:

Age, Sex, Ethnicity and Social Class

To place the findings in their proper context both empirically and theoretically, a brief review of the relevant demographic distributions of the known addict population among age, sex, ethnic and social class groupings is needed. Cloward and Piven (1977, 1979) consider these structural variables as important locators in the social structure.

Age is considered at several points in the analysis, but it may be useful to note that the known population of heroin users is relatively young. Only one-third of the individuals known to the narcotics register are over the age of 25 (Newman, Cates, Tytun and Werbell, 1974).

Sex is, of course, a major variable in this study and its place in the analysis has been considered as part of the methodology. However, it is important to note at this point that men outnumber women almost three to one among addicts known to the authorities. The figures reported in 1973 for female use from two national registers of addicts were 28 and 24 percent (Hunt, 1976). In 1974, the New York City Narcotics Register reported 6,536 women (22 percent) and 23,054 men (78 percent) in their census (New York City, 1974). Furthermore, the number and proportion of women addicted to heroin may be increasing. Newman and colleagues (1974) found the proportion of women known to the New York City Narcotics Register had slowly increased from 14 percent in 1968 to 25 percent in 1974. The Uniform Crime Reports note 46,785 women nationally were charged with violating drug laws in 1977, an increase of 163.9 percent since 1968 (Uniform Crime Reports, 1977).
Ethnicity and social class are considered in the analysis implicitly by holding them constant. Only Blacks have been included in the sample and it is expected that their socioeconomic status is relatively homogeneous due partially to the catchment area from which they are drawn. But, two general points should be noted here.

Addicts in treatment are predominantly of minority group origin (Ball and Chambers, 1970; Newman et al., 1974; Wald and Hutt, 1972). There are indications that female addicts are more likely to be white compared to their male counterparts, based on the population treated at Lexington (Cuskey et al., 1972; Chambers et al., 1970). Eldred and Washington (1975) report similar findings from a sample of patients in a Washington, D.C. methadone maintenance program, although the large portion continue to be Black.

It also appears that while in the United States opiate users do come from ethnic groups that are disproportionately lower class, there is no evidence to suggest that within these groups the worst off are the most likely to become users, and there is some evidence to the contrary. Both the LeDain Commission (Final Report, 1973) and Platt and Labate (1976) after reviewing the literature conclude that the nature of the relationship between socioeconomic status and heroin use remains unclear.

Therefore, although only indirectly related to the research at hand, the following points should be kept in mind. Male addicts outnumber female addicts almost three to one. Minority group members predominate, but female addicts are somewhat more likely to be white. While the nature of the relationship between class and addiction is
unclear, heroin users in the United States are largely of lower social class origins.

Ties to Conventional Society

In an attempt to address the second task of this review, attachment to family and the labor force are considered first. The literature cited below appears to indicate that female addicts are more likely to create familial bonds, albeit tenuous ones, after a more difficult childhood. Men may be subject to greater academic pressure, but this might not hold in a Black sample. Men are, however, more likely to create and maintain ties to the labor force.

Attachment to Family

It is clear that the large portion of addicts are reared in homes which do not encompass both biological mother and father (Chambers, et al., 1970; Dale and Dale, 1973; Ellinwood, Smith and Vaillant, 1966; Spiegel, 1974). Furthermore, on the basis of data from several different treatment modalities, there appears to be agreement that compared with her male counterpart, the female addict reports living with only one parent at a younger age (Chambers, Moffet and Jones, 1968; Ellinwood, et al., 1966; Spiegel, 1974; Waldorf, 1973).

For both males and females who become involved in heroin use, the parent-child relationship is marked by conflict (Chein, Gerard, Lee and Rosenfeld, 1964; Graven, in press). Chein and colleagues (1964) note that, as children, their sample was either spoiled or harshly frustrated in an inconsistent manner. Brummit (1963), based upon a sample of female heroin-users confined in the House of Detention for Women in New York City, reports a history of parental brutality marked by conflict centered
on one parent from whom the addict never gained approval. Another group of Detroit women in methadone maintenance and therapeutic communities recalls a relatively happy childhood but a conflict-laden adolescence (Binion, 1979).

As adults, female addicts are more likely to create new familial bonds than are male addicts. There is wide agreement that female addicts are more likely to attempt a marriage, and later disrupt it (Duster, 1970; Eldred and Washington, 1976; Ellinwood, et al., 1966; O'Donnell, et al., 1967; Tucker, 1979). At entry to treatment, addicts are not typically married (Platt and Labate, 1976). Should there be any children from present or past unions, it is most frequently the female addict -- not her male counterpart -- who retains responsibility (Eldred and Washington, 1975; Spiegel, 1974).

The literature appears to indicate, then, that female addicts are more likely to create ties to family, albeit tenuous ones, after a more difficult childhood. While both men and women report conflictual relationships with their parent(s) and the absence of one from the home, women are subject to familial disruption at an earlier age. They are more likely to marry and later separate or divorce but retain child care responsibilities.

Attachment to School and the Labor Force

However, the literature is mixed on existing sex differentials in educational attainment. Gioia and Byrne (1975), based upon a small sample of addicts treated at the Illinois Drug Abuse Program, find men more likely than women to have completed high school on entry. Other studies report no significant differences between males and females (Eldred and Washington, 1976; Ellinwood, et al., 1966; Spiegel, 1974). Even when considering an all Black sample, Chambers, Moffet and Jones (1968) report no significant differences. Only Babst, Chambers and Warner (1971) reporting on a Methadone Maintenance Treatment Program sample find females have higher educational attainment compared to males.

Evidence does point to differences in the educational aspirations parents hold for male and female addicts. Chien and colleagues (1964) report parents of male addicts hold more unrealistic aspirations for their children compared to the parents of female addicts. Several studies based upon non-drug using samples do appear to indicate that parents generally hold higher aspirations for their sons (Sears, Maccoby and Levin, 1957; Wylie and Hutchins, 1967). These differences, however, may not be true for Blacks. Kandel (1971) reports Black mothers hold higher aspirations for their daughters than for their sons. Brook, Whiteman, Peisach and Deutsch (1974) note that although parental aspirations are higher for boys than girls, the discrepancy is less among their Black sample.

To this author's knowledge, nothing has been reported comparing the aspirations male and female addicts hold for themselves prior to addiction. A most cursory review of the relevant literature based on non-drug using samples seems to point to a higher level of aspirations
and expectations on the part of boys. Bordua (1960), based upon data gathered from high school students in two New England towns finds males more often have plans to attend college than females. Douvan and Adelson cited by Stein and Bailey (1973) report adolescent girls are more likely to have unrealistic and diffuse goals. Again, this may not be true for a Black sample.

The employment history of both male and female addicts is marked by instability and characterized by low-paid, unskilled positions. Prior to addiction, their involvement in the labor force is tenuous (Hawks, 1974; Robins and Murphy, 1967). While addicted, these individuals are not typically employed, judging from the low proportions holding jobs upon entering treatment (Ball and Chambers, 1970; Dale and Dale, 1973; Maddux and McDonald, 1973; Spiegel, 1974).

It is clear that men are more likely to be employed than are women while addicted. Differing samples from Lexington point in this direction (Ball, O'Donnell and Cottrell, 1966; Ellinwood, et al., 1966). This differential is substantiated by the findings of Eldred and Washington (1975), based on a sample of methadone-maintained clients; while the majority of both males and females report they are unemployed upon entry into the program, significantly fewer females than males are employed. Women who are unemployed at intake are more likely to receive some form of public assistance, perhaps because of their greater responsibility for children and resulting eligibility for AFDC funds. Clark, Capel, Goldsmith and Stewart (1972) echo these findings, as does Spiegel (1974). In a unique study on the subject, Caplovitz (1976) surveyed 555 addicts in treatment who were employed on a full-time basis for at least three months while addicted.
Again, women are less likely to secure employment and less able to retain their positions once found.

However, Rosenbaum (1980) does indicate that holding a job is important to the female addict's perception of herself as a junkie. Holding a job keeps the female from taking on a full addict identity. Typically when these women do hold jobs, the supervision and relatively inflexible hours make heroin use difficult and curb involvement. With greater use most women lose their jobs; the loss of a particular job and legitimate work in general is an important turning point.

While the literature is extremely mixed concerning educational attainment and aspirations, there is consensus that male addicts are more likely to participate in the labor force compared to their female counterparts. Men might be subject to higher parental educational aspirations and may hold higher goals for themselves than women, but this may not be true for a Black sample. Both sexes drop out of school at grade ten or eleven. Men then appear to work, but only sporadically, at greater rates than women.

**Associational Patterns**

It is perhaps in associational patterns that the most consistent gender-related differences are reported in the literature. Two aspects of this concept will be covered: involvement in criminal activity and contact with drug-using friends. The studies cited below indicate that while the large portion of addicts are involved in criminal activity, many prior to drug use, women consistently evidence shorter records. Men and women, addicted or not, appear to commit
different kinds of crimes. Women tend to be charged with crimes that revolve around family, home, market and lower level jobs while male crimes appear to be more violent and aggressive. It also appears that there are sharp differences in contact with drug-users. For both sexes, self use of drugs is highly related to friends' use, and initiation is through the peer group. However, while male addicts are taught by same-sexed friends, the female addict is more frequently taught by boyfriend, spouse or family member.

Involvement in Criminal Activity

A consistent finding in the literature is that the large portion of addicts in treatment have official police records (Platt and Labate, 1976). But, female addicts are less involved in crime compared with their male counterparts. Women are clearly less likely to be arrested prior to addiction (Brown, Gauvey, Meyers and Stark, 1971; Ellinwood, et al., 1966; O'Donnell, Besteman and Jones, 1967; Waldorf, 1973). Among the Lexington population, females are involved in less criminal activity while addicted than males, as indicated by number of arrests (Ball, et al., 1966; Chambers, Cuskey and Mofett, 1970; Chambers, et al., 1968; Ellinwood, et al., 1966; Tittle, 1972). This also appears to be true of other treatment modalities (Spiegel, 1974). Only Eldred and Washington (1975) find no difference between men and women when records for the three years preceding entry are obtained from the District of Columbia Department of Corrections. Despite this anomalous finding, the weight of evidence points to a higher rate of male compared to female criminal activity. These gender-related differences may be somewhat attenuated among Black addicts (Adler, 1975).
The types of criminal behavior men and women, both addicted and non-addicted, engage in do appear to be clearly demarcated by sex. Based on the Uniform Crime Reports, women tend not to be arrested for crimes that require typically male behavior, but rather engage in activities which cluster around the few situations and involve those victims circumscribed in a daily round of homes, family, market and lower level positions in work organizations (Adler, 1975; Simon, 1975). For example, women frequently shop, acquiring the skills needed to shoplift and access to the situation in which the crime may be performed. Similarly, the skills needed to prostitute are typically within the female's repertoire -- the apprenticeship period serves primarily to develop a clientele (Bryan, 1965; 1966). Even when women do engage in typically male criminal activities, they do so in a manner consistent with the expectations attached to their gender role (Norland and Shover, 1977). When arrested on charges of robbery or burglary, it is most often for playing a secondary, supportive role, acting as lookouts, "stalls" or transporters (Hoffman-Bustamonte, 1973; Simon, 1975). Ward, Jackson and Ward (cited by Hoffman-Bustamonte, 1973) in a study of crimes committed by adult female inmates of penal institutions finds women who had assaulted men typically use household objects as weapons in attacks upon husbands or lovers. Wolfgang (1958) supports these findings, based upon an analysis of all criminal homicides listed by the Philadelphia police between 1/1/48 and 12/31/52: 51.9 percent of the female offenders compared to 16.4 percent of the male offenders had a kin relationship to the victim. Not surprisingly, the female addict evidences a pattern of
criminal activity similar to that of her non-addicted sisters. File (1976) reports rather impressionistically that women tend to prefer shoplifting, prostitution and forgery; men tend to prefer robbery, burglary and pimping. Bahna and Gordon (1978) report a similar pattern of female crimes. Data from Lexington support the above impressions. Males in one such sample are predominantly arrested for theft and burglary while for females, theft, prostitution and forgery predominate (Chambers, et al., 1970). Nor does this pattern appear to be specific to the United States (D'Orban, 1970).

Contact with Drug-Using Friends

Perhaps the area of widest agreement in the literature related to drug abuse is the importance of the peer group in the initiation of use. An individual will rarely use marijuana if his/her friends are not also using the drug (Jessor, Jessor and Finney, 1973; Kandel, 1974; Kleinman and Lukoff, 1978; Suchman, 1968; Tec, 1972; Wolfson, Lavenhar, Blum, Quinones, Einstein and Louria, 1972). The self-reported use of heroin is also highly related to having friends who use heroin; in the vast majority of instances, the addict is introduced to heroin in a setting of previously established peer group activity (Hughes, Senay and Parker, 1972; Levengood, Lowinger and Schoof, 1973). De Alarcon (1969) identifies three stages in the process by which heroin use spread in an English "new town." Again, initiators are generally friends of long standing and introduction is frequently in their homes.

Sex differences here are sharp and consistent. There is wide agreement based on many different samples that for both male and female addicts, introduction to heroin is generally through a male peer (Bowker,
1974; Chambers, et al., 1968; Chein, et al., 1964; Duster, 1970; Eldred and Washington, 1976). Freeland and Campbell (1973) elaborate on this, reporting that, in the case of marijuana, men commonly first use this substance in the presence of only males while women use predominantly in mixed company. Furthermore, use by men tends to occur in small groups or dyads while that of women tends to occur in larger groups.

The male initiator may be a member of the female addict's family. Waldorf (1973), on the basis of a sample selected from two New York City treatment facilities, reports twice as many women state that they had lived with a relative who was addicted to heroin -- most often a sibling. Findings based on a survey conducted in Bedford Stuyvesant/Fort Greene, Brooklyn lend support to the above (Lukoff, 1977). Women under the age of 25 are more likely to have contact with heroin-using relatives compared to their male counterparts.

Perhaps even more frequently, the individual introducing a woman to heroin is her boyfriend or husband. O'Donnell and colleagues (1967) have published one of the key studies elaborating the relationship between the marital bond and initiation of heroin use. The sample consisted of 266 white addicts, all of whom were residents of Kentucky at the time of their first admission to Lexington. The findings based on this rather specialized group of addicts indicate subjects did tend to marry individuals who were already users or otherwise deviant, with both tendencies much stronger for female than for male subjects. Spouses who were not deviant before marriage tended to become deviant, taking up heroin use and other deviant behavior patterns. Male subjects show only a slight tendency to select deviant women to marry,
but a moderately strong tendency to introduce their wives to drugs and encourage use; female subjects show a marked tendency to select users or otherwise deviant men as husbands. These authors then infer that narcotics use appears to be transmitted more often from husband to wife than from wife to husband.

Patterns of Drug Use

Gender-related differences in patterns of drug use are also indicated in the literature reviewed below. Following patterns evident in the general population, female addicts may use other drugs along with heroin more frequently than their male counterparts. However, this may not be true for a Black sample. Evidence concerning age of addiction, and by implication extent of heroin use, is mixed but it appears that female addicts may become addicted at an older age. They do appear to have less contact with the heroin distribution system. Finally, there are indications that both men and women may use treatment as part of an ongoing pattern of drug use to decrease their habit and make it more manageable, or as a means of securing drugs for emergency or recreational use.

Existing literature consistently indicates that among the general population women are heavier users of prescription drugs, especially amphetamines, barbiturates and tranquilizers (Prather and Fidell, 1978; Suffet and Brotman, 1976). Female addicts may follow this trend. Abeles, Plew, Laudeutscher and Rosenthal (1966) report this finding based upon addicts entering the New York City Department of Corrections, as does Spiegel (1974) on the basis of data collected by the DARP system. But in a separate analysis of Black
women this author reports these addicts typically start with and stay with heroin only (Spiegel, 1974).

Evidence concerning age of addiction is mixed, however. In a sample based on admissions to Lexington from October, 1964 to March, 1965, and another based only on married addicts from Kentucky, no sex-related differences in age of addiction are evident (Ellinwood, et al., 1966; O'Donnell, et al., 1967). Cherubin, Palusci and Fortunato (1968) and Eldred and Washington (1975) also find no sex-related differences in age of addiction based upon samples taken respectively from a New York City hospital detoxification ward and a Washington, D.C. methadone maintenance clinic. Several studies have found women to have a later age of addiction compared to men. Duster (1970) reports this finding based upon a sample of residents of a California drug-free inpatient program, as do two other investigators utilizing samples similar to that under consideration (Newman, 1977; Spiegel, 1974). This last fact leads to the conclusion that, at least in this sample, gender-related differences in age of addiction can be expected.

Along with an anticipated later use of heroin, the literature also indicates female addicts can be expected to have less involvement in the heroin distribution system. In several different samples from various geographic locations and treatment modalities, females were more likely than males to procure drugs from friends rather than purchasing them directly from a dealer. More specifically, while both men and women most often purchase their own drugs, this method appears to be less frequent among women who may rely on another individual to obtain needed supplies and support them (Eldred and Washington, 1976: pp. 121-122). Fite (1976) incisively describes the various roles a
woman may acquire within the system: hustlers, purchasing heroin from dealers with money obtained through sex differentiated illicit activities; bag followers who attach themselves to dealers, providing prestige to the distributor and performing minor services, an infrequent role; workers legitimately employed and only marginally involved in the distribution system; dealers, an almost unheard of role for women; and finally a dependent role in which the woman is totally dependent on another for her needs and provides little in exchange. Women, on the whole, occupy active roles in relation to the distribution system less frequently.

Finally, Waldorf (1973) and Rosenbaum and Murphy (1979) note that treatment has been co-opted into the drug-using patterns of both male and female addicts. The addict may enter treatment to attempt abstinence, true. But there appears to be frequent use of such facilities to reduce the size of the habit and hence the difficulties of procuring the drug, "shooting up", and avoiding arrest. Drugs dispensed as part of treatment are sometimes used for recreational purposes along with heroin, or hoarded as an emergency supply.

Treatment

Given the differentials described above in ties to conventional society, associates and patterns of drug use, the gender-related differences in reaction to treatment described below are not unexpected. Female addicts while maintained on methadone continue to participate less frequently in both the labor force and the criminal world. Yet, their polydrug use remains higher than that of their male counterparts. The literature concerning differentials in retention is mixed. Available
information on programs for pregnant addicts is only tangentially related to the research question at hand.

In all the research reviewed to date, men are more successful than women when the criterion is employment while in treatment. Newman (1977) reports that men are almost three times as likely to have been employed while on the program, and this pattern does not change with increasing time in the program. Similar findings are reported by Gearing (1970), Dale and Dale (1973) and Spiegel and Sells (1974). That these women are much less likely to have worked prior to or during their addiction is one factor working against them. The extent to which their lower employment rate represents a perpetuation of differentials in prior behavior cannot be determined from the published literature. The goal of employment and self-sufficiency does appear to be equally important to both sexes (Gioia and Byrne, 1975; Eldred and Washington, 1976). There is some evidence that while in treatment, women may not receive the same job-related services as men. Edwards and Jackson (1975) found among patients enrolled in a Detroit methadone program women were less likely to be referred to the job training specialist compared to men, one-third of these women solely because they had small children. Once referred to these specialists, there were indications that female clients did not receive the same services as their male counterparts.

Little is known concerning sex differentials in rates of arrest while in treatment to this author's knowledge. Only Newman (1977) makes such a comparison. Among those retained, men are more likely to be arrested while on the program compared to women. However, it must
be recognized that these same women enter the program with a lower rate of arrests than men -- the extent to which this lower arrest rate is merely a perpetuation of behavior prior to treatment is not known at this time.

Non-opiate psychoactive drugs, particularly barbiturates, appear to be more frequently utilized by females, as compared to males, during their tenure in methadone programs (Bloom and Capel, 1973; Dale and Dale, 1973; Krakowski and Smart, 1974; Spiegel and Sells, 1974). However, there appear to be no sex differences in the use of heroin while in treatment (Newman, 1977; Nightingale, Michaux and Platt, 1972).

To this author's surprise, differences in male and female rates of retention are not as clear cut as expected. Several evaluations, using different criteria, report no gender-related differences in rates of retention (Adams, Capel, Bloom and Stewart, 1971; Dale and Dale, 1973; La Rosa, Lipsius and La Rosa, 1974; Spiegel and Sells, 1974). Only one program, the New York City Methadone Maintenance Treatment Program, reports a higher proportion of women retained compared to men. Several programs do indicate women are less likely to remain in treatment (Eldred and Washington, 1975, 1976; Gearing, 1970). Gioia and Byrne (1975) find that women receiving treatment in the Illinois Drug Abuse Program stay as long as men but evidence a greater propensity to leave and return during the period. Black women may have even lower rates of retention (Babst, Chambers and Warner, 1971). It is at this point a major gap in the literature becomes evident. Male and female addicts entering treatment differ in various ways which relate to retention, a point to be explored in further detail. Unless these variables are held constant in some manner, one cannot truly compare retention rates.
The outcome criteria cited above are to some extent interrelated. There is a relationship between employment and retention (Dale and Dale, 1975; Newman, 1977; Perkins and Bloch, 1970). Gearing's data (Gearing, 1970) specifically show women who are able to find and retain employment are more likely to stay than their counterparts who spend their time as housewives and students. Arrests while in treatment are also related to retention (Williams and Lee, 1975), as is opiate use while in treatment (Nightingale, et al., 1972; Perkins and Bloch, 1970; Williams and Lee, 1975).

Programs for Pregnant Addicts

Published material on specialized programs for pregnant addicts surprisingly adds little to our understanding of treatment. The large portion of material describes the program and offers some frequency distributions of outcomes (Freedman, Weiner and Finnegan, 1978; Harper, Solish, Sang and Perrow, 1973; Oglesby, 1974; Panepinto, Arnon, Silver, Orbe and Kissin, 1977; Ramer, Webb, Ramer and Mondaiano, 1973; Sang, Panepinto and Kissin, 1973; Schutt, 1972; Wilson, 1976). Distributions of demographic variables are occasionally included to describe the sample. Two statements concerning these programs can be made: Women entering such facilities may differ from those in unspecialized treatment (Brockman, London and Sang, 1973) and the provision of methadone and neonatal care alone is not sufficient to enable these clients to retain their children (Davis and Chappel, 1973). The information available from these studies, however, appears at this point to be only tangentially relevant to the research questions at hand.
Predicting Patterns of Addictive Lifestyles

Relatively little is known about the factors which predict varying patterns of addiction, perhaps for methodological reasons. A broken home may be predictive of later addiction; this factor in combination with parental relationships may be more salient for females. There are also indications that leaving school and criminal behavior are related to using heroin, and that the earlier these experiences occur, the earlier experimentation with drugs.

Yet, it does appear that once addicted, heroin users may develop certain lifestyles dependent upon the type of associates cultivated and employment patterns. Criminal associates and minimal labor force participation are typical of a group of "hustlers" and "outlaws" while working addicts are more conventional.

It is clear that these lifestyles are related to treatment outcome. Those who have ties to family and a relatively strong work history are likely to remain on methadone. Younger addicts with early involvement in crime and an earlier age of addiction are more likely to continue heroin use and cease clinic attendance.

Predicting Heroin Use

Addicts compared to individuals not involved in drug use are less likely to come from a home which encompasses both biological mother and father (Platt and Labate, 1976). Robins and Murphy (1967) specify this relationship further. Among their sample of Black men, although experimentation with drugs is not related to an intact home, once drugs are tried, the presence of father in the home is negatively related to addiction.
Furthermore, there are some indications that this factor may be a more salient one for female addicts, and cross-sexual in nature. One study reports their women in treatment recall a maternal relationship characterized as warm, happy and relaxed. Fathers are described less positively (Binion, 1979). Yet, Ellinwood and colleagues (1966) find their sample of women at Lexington largely remembers their mothers as harsh and authoritarian while their fathers are remembered as indulgent and seductive, a situation not infrequently culminating in incest. Graeven (in press), studying an admittedly atypical sample of white suburban heroin users, finds a lack of intimacy and closeness to the opposite-sexed parent predictive of heroin use for both men and women. Further analysis of these data show such experiences to be more predictive of female, compared to male, heroin use.

Both Robins and Murphy (1967) and Binion (1979) find addicts to have left school for various reasons, including pregnancy, more frequently than their drug-abstinent counterparts.

At least for men, criminal and addiction careers are closely related. An early age of addiction is related to criminal activity prior to addiction (Newman, 1977; O'Donnell, 1966). Furthermore, there are indications that the earlier a youth drops out of school and begins criminal activity, the earlier he/she is likely to become addicted (Platt and Labate, 1976).

The Development of Differentiated Lifestyles While Addicted

There are several studies which indicate that addicts may develop different lifestyles once addicted, the first of which considers employment as a crucial determinant. In a unique study on the
subject, Caplovitz (1976) reports that the social coloring of the working addict departs from that of addicts in general and moves closer to that of the non-addicted population. These individuals are better educated, more likely to be married and become addicted at an older age. Most appear able to combine their work life with their drug habit and are able to perform their jobs rather well in the process. Fully 19 percent purchased drugs at work and 21 percent are able to sell drugs at work, fully integrating the two worlds. Almost all still resorted to crime to supplement their income. Rosenbaum (1980) also describes the manner in which some women are able to integrate both the job and use of heroin.

Rosenbaum (1979), based on in depth interviews with 100 female addicts not involved in treatment, develops a similar typology. One group of women, primarily Blacks, characterized as being in the "fast life," combine the use of narcotics with frequent criminal activity. While the building of an expensive heroin habit often necessitates income-producing crimes, these individuals were already in the criminal world prior to their initial use of heroin. These women had used needles to inject other drugs before, and began their use of opiates "mainlining." Their introduction typically occurred at a party. Yet another group of females develops a more conventional lifestyle. They are involved in a traditional marital or semi-marital relationship with a spouse who introduces them to drugs. Instigation of the first use is far from passive; these females wish to share their spouses' mood and partake of a plentiful supply if their husbands are dealers. These individuals are typically not involved with crime.
Two studies indicate that those with criminal involvement prior to addiction and an earlier age of addiction are more heavily involved in crime while addicted (Alexander and McCaslin, 1974; Bloom and Capell, 1973). These findings are based on largely male samples.

Addictive Lifestyles and Treatment Outcome

The lifestyles tentatively outlined above appear to be related to treatment outcome. Addicts who are living with family, employed and relatively uninvolved with crime at entry to treatment do best. Age at entry and age of addiction also appear to affect behavior while in treatment.

Addicts who retain attachments to family are more likely to be successful at ceasing drug use. Among those discharged from Lexington, establishing families is predictive of abstinence from heroin (Vaillant, 1968; Zahn and Ball, 1972). For those entering methadone maintenance programs, residing with family is predictive of retention (Babst, et al., 1971; Dale and Dale, 1973; Krakowski and Smart, 1974; Maddux and McDonald, 1973; Newman, 1977; Perkins and Bloch, 1970; Rosenberg, et al., 1972). Eldred and Washington (1976) elaborate on this theme, reporting that for both sexes the encouragement of their opposite-sexed partner is positively associated with retention. But, female clients are more likely to maintain contact with a heroin user who is not supportive. This difficulty may be offset by the motivation created by concern for children or desire to retrieve them.

Attachment to school and the labor force also appears to affect behavior while maintained on methadone. Among patients in abstinence-oriented programs, educational attainment is related to a
successful outcome (Bowden and Langenauer, 1972; Vaillant, 1968). Employment at entry is predictive of retention and cessation of drug use while maintained on methadone (Babst, et al., 1971; Babst and Warner, 1970; Krakowski and Smart, 1974; Maddux and McDonald, 1973; Newman, 1977; Rosenberg, et al., 1972). There does seem to be an indication that employment at entry may not be as predictive of female retention (Chambers, et al., 1970).

Some question remains concerning the relationship between criminal patterns while addicted and various outcome measures. One problem is that most material published does not distinguish between charges or arrests prior to and during addiction. A second problem is that the number of charges for an individual is rarely standardized by the length of time "at risk," making comparisons across individuals dubious. With these caveats in mind, the finding generally reported is that a greater number of arrests and convictions at entrance into treatment is negatively associated with retention (Babst, et al., 1971; Henchy, et al., 1974; Krakowski and Smart, 1974). There is also an indication that those arrested prior to heroin use are less likely to remain in treatment (McGlothlin, Anglin and Wilson, 1977).

There is clear and consistent evidence that age of addiction is inversely related to retention in methadone maintenance programs (Maddux and McDonald, 1973; Newman, 1977); number of years addicted is similarly related (Babst, et al., 1971; Williams and Johnston, 1972).

Finally, the question of age and treatment outcome must be considered. Positive relationships between age at admission and
successful treatment outcome have been reported by a number of methadone programs (Henchy, et al., 1974; Joe, Pearson, Sells and Retka, 1974; Newman, Tytun and Bashkow, 1976; Williams and Johnston, 1972). These findings have been cited as empirical evidence supporting Winick's (1962) theory that as addicts age they spontaneously mature out of addiction. The cited data have not been analyzed by sex; whether this relationship holds true for both male and female addicts is unknown.

It is clear that no statement can be made concerning gender-related differences in age at entrance to treatment. The findings are quite mixed. Williams and Bates (1970) find females entering Lexington at older ages than males, but Ellinwood, Smith and Vaillant (1966) report no differences based on a sample from the same population. Eldred and Washington (1975) report women entering their program at an older age as well. Yet, Sells (1974) finds females admitted to a variety of treatment programs to be younger than males, although age differences are slight among Blacks. The available material, then, reports findings which are quite mixed.

The Addiction Research and Treatment Corporation

While no analysis similar to that proposed has been conducted, several publications have appeared utilizing the same data base. On the strength of these prior findings, certain inferences concerning the expected male and female patterning of experiences can be drawn.

These clients report creating ties to conventional society similar to those of patients enrolled in other methadone maintenance programs. The majority grew up in a home broken before the age of 14
and fully two-fifths never create marital ties. Most did not complete
high school (Kleinman, 1978; Kleinman and Lukoff, 1975). Employment
was not divided into pre- and post-addiction periods in prior analyses,
but it is clear that while both male and female clients work relatively
sporadically, a larger portion of females had never worked or worked
for only short periods of time compared with males (Sardell, 1972).

Findings concerning criminal activity are similar to those
described above. The large portion were arrested prior to addiction
(Kleinman and Lukoff, 1975). Hayim (1973) reports a clear division
by sex in the types of illegal activities committed while addicted.
Male clients are more likely to be charged with property and assaultive
crimes while female clients are most frequently charged with forgery
and prostitution. As expected, the overall male charge rate is higher
than the female.

Patterns of drug usage noted in this sample are only partially
consistent with patterns found in other programs. Fully 60 percent
of one sample drawn are involved in polydrug use during the two months
prior to entering ARTC (Kleinman and Lukoff, 1975). However, no sex
differences in age of addiction are present in analyses done to date
(Kleinman, 1974).

In an area where knowledge remains sparse, Sardell (1972)
and Kleinman (1974, 1978) have made important contributions in their
explorations of the precursors of an early age of addiction. Being
reared in homes disrupted by heavy drinking, arrest prior to addiction
and dissatisfaction with jobs held prior to addiction are related to
an early onset of daily heroin use. Those of lower socioeconomic status
are reportedly prone to addiction at an earlier age, but only among that portion of the sample born in New York. Surprisingly, being reared in a broken home, stability of routines as a child and parental educational aspirations do not appear to affect age of addiction. However, it must be noted that these analyses are not performed by sex.

Past studies of ARTC clients have contributed much to this author's ability to hypothesize gender-related distributions of behavior while in treatment and expected relationships with experiences prior to and during addiction. It appears that the various behaviors while in treatment considered here are related to each other, although only moderately. Kleinman and Lukoff (1975), after an extensive evaluation of this program, conclude that those destined to stay in the program evidence superior performance on other outcome criteria from their first year in treatment. Several aspects of experiences both before and after initiation to heroin are found to predict retention. Those who leave treatment have lower levels of educational attainment, less participation in the labor force and more extensive criminal histories (Kleinman and Lukoff, 1975; Quatrone, 1973; Vorenberg and Lukoff, 1973). A positive relationship between age at entry to treatment and retention has also been reported, although only among clients entering during the program's first year of existence (Kleinman and Lukoff, 1975). These findings are generally consistent with those based on other methadone maintenance programs.

It is, however, an analysis which utilizes the technique of canonical correlation and includes several of the experiences
considered here which lends greatest support to the hypothesis proposed above. Of particular interest is the description of a largely feminine group characterized by a later age of addiction, relatively low involvement in criminal activity and minimal employment history associated with an outcome pattern of low levels of criminal activity and employment while in treatment but a relatively high level of retention (Lukoff, 1977).

It appears, then, that previous analyses of the data base to be utilized are generally in agreement with patterns reported by other programs. The large portion of clients create and maintain only weak ties to family and the labor force. Their involvement in criminal activity is extensive and differentiated by sex. There might be some patterning of experiences. Separation from parents, dissatisfaction with jobs held prior to addiction and prior criminal histories are found to predict an early age of addiction. Behavior in treatment may be related to a pattern of feminine experience in a manner consistent with the proposed hypothesis.

Summary

Based upon the theoretical work of Hirschi (1969), Matza (1964) and Sutherland and Cressey (1974), two salient aspects of the addict's career over time have been chosen: ties to conventional society and associational patterns. The work of Cloward and Piven (1977, 1979) on the social structuring of deviance indicates these aspects might be expected to differ for male and female respondents along very general norms and behavioral expectations associated with gender. Expectations for women may be characterized by warmth,
expressiveness, and nurturance paralleled by expectations of compe-
tence and power for men; behavioral differences may be characterized
by relatively greater aggression on the part of men and compliance
as well as less participation in the labor force on the part of women.
Although these differences appear to be attenuated among the Black
community, there are indications in the literature that, even if
only on an ideal level, gender role norms held by the wider society
may have some impact. Female addicts may be affected by gender-related
norms as well, based on the expectations reported in past studies.
It may be that for interpretive purposes, the norms very generally
outlined above are useful.

A review of the available literature does indeed indicate
that there are some salient differences between male and female
addicts in their attachment to family and the labor force. While
both male and female addicts typically report growing up in a broken
home characterized by conflict, females are subject to such experi-
ences at an earlier age. Yet, they are more likely to marry and later
dissolve this bond while retaining child care responsibilities.
Findings related to educational attainment and aspirations are
extremely mixed. Male addicts may be subject to higher parental
educational aspirations and may hold higher goals for themselves,
but this may not be true for a Black sample. Educational attainment
is typically low for both sexes. There is wide agreement that male
addicts are more likely to work, although sporadically, compared
with women.

The most consistent gender-related differences may be in
the associates cultivated by males and females. While the large
portion of addicts become involved in crime, frequently prior to heroin use, this is much more characteristic of male addicts. The type of criminal activity chosen also appears to be gender-related. Females come to the attention of law enforcement officials for crimes that revolve around family, market and lower level positions in the occupational structure. Males are more often involved in aggressive or violent crimes. While for both sexes drug use is highly related to friends' use, the female addict is more likely to initiate use through a family member, boyfriend or spouse.

Some gender-related differences in patterns of drug use are also indicated in the materials reviewed. Female addicts may evidence polydrug use to a greater extent, but this may not be true for Black addicts. Evidence concerning age of addiction is mixed, but past studies of samples similar to the one considered here indicate women may begin daily heroin use at an older age. Their contact with the heroin distribution system is less. Both male and female addicts appear to have coopted the treatment system into their patterns of drug use. Such facilities may be used as a means of decreasing their habit to make it more manageable or securing drugs for emergency and recreational use.

When in treatment, female addicts show lower levels of employment and criminal activities along with higher levels of non-opiate drug use. The findings concerning retention are mixed. These behaviors are all at least moderately interrelated. Published material on specialized programs for the pregnant addict appears to be only tangentially related to the research questions at hand.
There are some indications that patterns of experiences may lead addicts to develop different lifestyles. A disrupted home, and conflictual relationships with the opposite-sexed parent may be more salient precursors of heroin use for female addicts. At least among male addicts, early criminal activity and absence from school appear to be precursors of an early age of addiction. Several studies indicate that, once addicted, individuals may develop certain lifestyles dependent upon associates and labor force participation. Criminal involvement and minimal employment are typical of a group of "hustlers" and "outlaws." They may have had greater prior experience with other drugs. Working addicts and addicts living with their families have managed to fit their heroin use into a more conventional lifestyle. These addicts clearly are more successful in methadone maintenance programs. However, outside of the predictors of success in treatment, the literature on the patterning of experiences and differing lifestyles developed by addicts, in particular female addicts, remains sparse.

The paucity of material in several crucial areas only highlights the need for an analysis such as the one proposed. Further inquiry as to the female addict's differing patterns of experiences prior to and during addiction, and their relationship to the manner in which treatment is experienced, will hopefully provide a small contribution to the field.
CHAPTER III

THE RESEARCH DESIGN

This study is a secondary analysis of data collected to evaluate the Addiction Research and Treatment Corporation (ARTC). The advantages of this approach are discussed in detail by Hyman (1972). By realizing the full potential of existing materials, scarce resources for funding research are used more efficiently. Another benefit is that data to which the secondary analyst has access may be richer than that which he/she might collect as primary analyst. Two characteristics make this available data base a strategic site to study the questions posed. The first is the program's size and therefore the relatively large number of women in the study population. A second is the extensive amount of information available on each client.

The remainder of this chapter is devoted to an explication of the research design. A description of the study population and sampling procedures begins the discussion. Existing data bases, the measurement of concepts and questions of reliability and validity are then considered. In conclusion, several caveats concerning design are offered and hypothesis-testing techniques developed.

The Sample

The Study Population

The population under consideration is all individuals entering the Addiction Research and Treatment Corporation from its opening in
October of 1969 to September 1972.

ARTC began life as a New York City sponsored but independently operated program, funded by the National Institute of Mental Health, HUD (Model Cities) and the City of New York. Vera Institute of Justice developed the protocol for the program and provided technical assistance during its establishment. A Salvation Army building in the Bedford Stuyvesant area of Brooklyn housed the facility, divided into several clinics of 100 clients, each with its own compliment of counselors. Services other than counseling were offered on a building-wide basis. In mid-1973 the program was decentralized and dispersed to four geographically distinct locations in Brooklyn (Kleinman & Lukoff, 1975).

Conceived of as a largely research-oriented, experimental service, ARTC adopted two innovative policies. The first was the minimal selectivity exercised in patient admission during the period of time considered. A second distinguishing characteristic of this particular methadone maintenance program was an emphasis on relatively low dosages of methadone and a strong commitment to a multi-modality approach. Beginning in late 1972, the average maintenance dosage was radically decreased from roughly 80 mg. a day to 40 mg. a day. Concurrently, program staff increased attempts to detoxify patients.

There is no way of knowing how representative ARTC clients are compared to the target population of individuals who use heroin daily. Based on an analysis of several demographic characteristics, the program under study does appear to have attracted a largely Black and somewhat older group of patients compared to those individuals known to the New York City Narcotics Register (see Table 3-1).
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<th></th>
<th>ARTC 1</th>
<th>Narcotics 2</th>
<th>ARTC 1</th>
<th>Narcotics 2</th>
<th>ARTC 1</th>
<th>Narcotics 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Female</td>
<td>22</td>
<td>20</td>
<td>21</td>
<td>20</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>Percent Black</td>
<td>78</td>
<td>47</td>
<td>78</td>
<td>50</td>
<td>81</td>
<td>46</td>
</tr>
<tr>
<td>Percent Age 25+</td>
<td>27</td>
<td>31</td>
<td></td>
<td></td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Average Age at Admission</td>
<td>33.1</td>
<td></td>
<td>29.4</td>
<td></td>
<td>28.1</td>
<td></td>
</tr>
</tbody>
</table>

1Figures taken from Kleinman and Lukoff (1975).

2Figures taken from Newman, Cates, Tytun and Werbell (1974) and are approximations as they have been extrapolated from charts.
Sampling Procedures

A list of all women entering ARTC from October, 1969 to September, 1972 was compiled on the basis of first names and checked against available data to verify sex.

Two decisions were made at this point, resulting in the exclusion of some female clients from the sample. The first was not to include white or Puerto Rican women. Indications are that patterns of drug use and behavior in treatment vary by ethnicity, requiring that this variable be controlled in the analyses. The number of "non-Black" women admitted during the three year period was so small that the simplest means of control was to eliminate them. Therefore, a total of nine women of unknown ethnic origin and 82 White and Puerto Rican women were excluded, leaving a total of 300 Black women (see Table III-2). A second decision was to exclude those women for whom a portion of the data base was not collected.

An obvious question becomes do the 104 female respondents with complete data differ from their counterparts not included in the sample? A portion of the data base is available for almost all respondents, permitting a comparison of the two groups in question on several variables. Women included in the sample are significantly more likely to be divorced or separated and were addicted at an older age. There are no significant differentials in other characteristics.

The male sample was chosen to match the female sample in ethnicity and year of entry. Concurrent with the changes in policy discussed previously, several changes in program composition occurred during the three years under consideration. An analysis conducted by
TABLE III-2
SAMPLE COMPOSITION BY SEX

<table>
<thead>
<tr>
<th></th>
<th>Entering 10/69-9/70</th>
<th>Entering 10/70-9/71</th>
<th>Entering 10/71-9/72</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Cohort 1)</td>
<td>(Cohort 2)</td>
<td>(Cohort 3)</td>
</tr>
<tr>
<td>Women race unknown</td>
<td>6</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Non-Black women</td>
<td>26</td>
<td>33</td>
<td>23</td>
</tr>
<tr>
<td>Total Black women</td>
<td>74</td>
<td>115</td>
<td>111</td>
</tr>
<tr>
<td>N in sample</td>
<td>30</td>
<td>46</td>
<td>28</td>
</tr>
<tr>
<td>Percent of total Black women</td>
<td>41%</td>
<td>40%</td>
<td>25%</td>
</tr>
<tr>
<td>Total Black men</td>
<td>264</td>
<td>452</td>
<td>383</td>
</tr>
<tr>
<td>N with full data sets</td>
<td>119</td>
<td>198</td>
<td>88</td>
</tr>
<tr>
<td>N in sample</td>
<td>30</td>
<td>46</td>
<td>28</td>
</tr>
<tr>
<td>Percent of those with full data sets</td>
<td>25%</td>
<td>23%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Kleinman and Lukoff (1975) indicates that over time those entering ARTC were younger, more involved in crime, and less likely to work or marry. Both fluctuating client characteristics and differences in policy may have affected behavior while in treatment. Therefore, a random sample of Black male clients (with complete sets of data) was chosen, stratified by their admission cohorts (see Table III-2).

Again, an analysis was conducted to determine the nature of biases created by the exclusion of male respondents with incomplete data. It
appears that those included in the sample do not differ from those excluded on any of the variables examined (see Table III-3).

Limitations

The exclusion of individuals with incomplete data presents several problems of interpretation. Retention implicitly becomes a criteria for selection because the longer clients stay in the program, the more likely they are to have a complete set of information. Clients who stay for only a few months are less likely to be included. Program outcomes are therefore spuriously inflated and do not represent the effectiveness of ARTC. Indeed, fully 37 percent of the study population did not complete a year in treatment compared to 20 percent of the sample. However, there is no reason to believe this bias differs by sex so that gender-related differentials in behavior while maintained on methadone remain valid. The proportions of men and women excluded due to incomplete data sets are roughly equivalent in each cohort. Interpretation of differentials in age of addiction and marital status at entry is more difficult, as the findings may be an artifact of sampling.

There are a number of other limitations inherent in this sample of known addicts, all of whom have come to a methadone maintenance program for treatment. From these individuals it would be incorrect to generalize to: a) all Black individuals who have ever tried heroin and; b) all Black individuals who ingest heroin daily. Nor is the available population necessarily representative of Black addicts known to the authorities or Black addicts entering treatment. Any generalization to these two sub-populations of addicts, if attempted at all, would have to be made cautiously. It does appear that those clients included in the sample are relatively representative of Blacks entering ARTC.
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Male</th>
<th></th>
<th></th>
<th>Female</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample</td>
<td>Excluded</td>
<td>$X^2$</td>
<td>Sample</td>
<td>Excluded</td>
<td>$X^2$</td>
</tr>
<tr>
<td>Over 29 at entry</td>
<td>53.4</td>
<td>50.9</td>
<td>.1402</td>
<td>56.3</td>
<td>45.8</td>
<td>2.5397</td>
</tr>
<tr>
<td>Separated/divorced/widowed at entry</td>
<td>30.1</td>
<td>28.4</td>
<td>.6137</td>
<td>35.0</td>
<td>25.0</td>
<td>6.6115*</td>
</tr>
<tr>
<td>Completed at least 11th grade</td>
<td>61.2</td>
<td>62.7</td>
<td>.0378</td>
<td>66.0</td>
<td>63.5</td>
<td>.0877</td>
</tr>
<tr>
<td>History of job stability (has held one job relatively long time)</td>
<td>52.9</td>
<td>44.4</td>
<td>2.2653</td>
<td>52.0</td>
<td>48.4</td>
<td>.2078</td>
</tr>
<tr>
<td>Referred by family or friends</td>
<td>20.4</td>
<td>16.9</td>
<td>.8803</td>
<td>20.4</td>
<td>32.8</td>
<td>5.0950</td>
</tr>
<tr>
<td>Involved with criminal justice system at entry</td>
<td>34.0</td>
<td>31.2</td>
<td>.2111</td>
<td>15.5</td>
<td>23.4</td>
<td>2.0939</td>
</tr>
<tr>
<td>Declared juvenile delinquent</td>
<td>24.3</td>
<td>24.8</td>
<td>.0000</td>
<td>12.6</td>
<td>13.1</td>
<td>0.000</td>
</tr>
<tr>
<td>Over 20 at daily use of heroin</td>
<td>45.6</td>
<td>48.7</td>
<td>.2263</td>
<td>60.2</td>
<td>47.9</td>
<td>3.5728*</td>
</tr>
<tr>
<td>Friends given as reason for first use</td>
<td>53.9</td>
<td>53.2</td>
<td>.0599</td>
<td>50.0</td>
<td>60.8</td>
<td>3.3034</td>
</tr>
<tr>
<td>Used cocaine last 2 months</td>
<td>52.4</td>
<td>43.8</td>
<td>2.3582</td>
<td>32.1</td>
<td>67.9</td>
<td>.4083</td>
</tr>
<tr>
<td>Used barbiturates last 2 months</td>
<td>14.0</td>
<td>15.5</td>
<td>.0736</td>
<td>22.3</td>
<td>25.5</td>
<td>.2172</td>
</tr>
<tr>
<td>Used amphetamines last 2 months</td>
<td>3.6</td>
<td>1.9</td>
<td>.3334</td>
<td>5.8</td>
<td>4.7</td>
<td>.0213</td>
</tr>
</tbody>
</table>

As tested by $X^2$ goodness of fit or median test

*p < .05; **p < .01
With all its problems, this author believes that the available sample will suffice for the purposes of this study. The nature of the information published to date is such that this investigation must be seen as a preliminary attempt at exploring some of the gender-related differentials in heroin use. Although evidence that the sample is representative of at least the known Black addict population would be desirable, a meaningful contribution to the field is still possible based on the information available.

Data Collection and Measurement

Description of the Data Bases

Two structured interviews were conducted with each client at intake by trained interviewers. The first instrument was developed by the National Institute of Mental Health for the collection of data from all treatment facilities funded by the agency (see Appendix A). Further information concerning activities before and during addiction was gathered in a second interview developed by the research staff responsible for the program evaluation (see Appendix B). Anonymity was emphasized and attention given to the provision of private settings.

The Bureau of Criminal Identification and the Office of Criminal Records provided records of the criminal charges lodged against each client from age 18 to one year after entering treatment.

During their tenure at ARTC, both self-reported and observational data were collected from each patient. Every two months counselors submitted status reports developed by NIMH (see Appendix C). Patient medication and urine analysis reports were made available.
For each indicator presented in Chapter I, measures have been created from the existing information. The charts presented below follow the general organization developed around ties to conventional behavior, associational patterns, patterns of drug use and behavior while in treatment. All items are described briefly; their reliability and validity are then considered. In some instances, a particular measure requiring a more extended discussion is pursued outside the graphic context. Appendix D relates each measure to specific items in the data collection instruments.

Measures of Ties to Conventional Behavior

Measures of attachment to the family at all three time periods are presented in Chart III-1. It appears that there is a basis for some confidence in the reliability and validity of most variables considered.

The eight reasons given for entering treatment represent a highly complex, multifaceted concept. A working hypothesis is that these data contain two dimensions. A first grouping of variables is expected to incorporate a desire to give up hustling, a desire for an honest job, the expense of the habit and wanting to live a more settled life. In contrast, the influence of family and friends is expected to represent a second dimension. With the exception of the influence of friends in ARTC, the distributions of these variables are highly skewed. Almost all say each reason for entering treatment is important to them (data not shown in tabular form). An analysis of these variables produces two groupings (see Table III-4). The two items specifically
### CHART III-1

**DEVELOPMENT OF MEASURES OF ATTACHMENT TO FAMILY**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description of Measure</th>
<th>Reliability/Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of parents in the home</td>
<td>Index composed of parental presence at ages 6 and 14 and communication with father if absent.</td>
<td>When this index is compared to a similar question in the other intake interview, the correlation is .57. The Cronbach alpha for this scale is .5388. The mean scores calculated separately for men and women were later given to the 17% of the sample missing information on the scale.</td>
</tr>
<tr>
<td>Supervision when young</td>
<td>Scale consisting of: regularity of meals, bedtime, reveille; supervision of homework; supervision after school.</td>
<td></td>
</tr>
<tr>
<td>Point in addiction career where marriage occurs</td>
<td>Calculated from age of first marriage and age of addiction.</td>
<td></td>
</tr>
<tr>
<td>Reasons for entering treatment</td>
<td>See Chapter IV for a discussion of how scales of familial reasons and program-specific reasons were calculated.</td>
<td>Familial reasons for entering Cronbach alpha = .5295; Program-specific reasons for entering Cronbach alpha = .3906.</td>
</tr>
<tr>
<td>Child rearing responsibility at entry</td>
<td>Number of children at entry and living arrangements at entry to treatment.</td>
<td>When compared to number of dependents at entry, asked in the other intake interview, the correlation is .57.</td>
</tr>
<tr>
<td>Living with family at entry to treatment</td>
<td>Based on item specifying living arrangements at entry to treatment.</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE III-4

**ANALYSIS OF REASONS GIVEN FOR ENTERING TREATMENT**

<table>
<thead>
<tr>
<th>Reasons Given For Entering</th>
<th>Goal-oriented Grouping (Factor 1)</th>
<th>Program-specific Grouping (Factor 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm tired of hustling</td>
<td>.4835</td>
<td>.2675</td>
</tr>
<tr>
<td>I want to find an honest job</td>
<td>.6020</td>
<td>.0254</td>
</tr>
<tr>
<td>I want my family to be proud</td>
<td>.6523</td>
<td>-.0734</td>
</tr>
<tr>
<td>The expense of the habit</td>
<td>.6105</td>
<td>.4126</td>
</tr>
<tr>
<td>I want to live a more settled life</td>
<td>.6003</td>
<td>-.2342</td>
</tr>
<tr>
<td>Family or friends want me to enter</td>
<td>.6241</td>
<td>.2372</td>
</tr>
<tr>
<td>Someone from ARTC persuaded me</td>
<td>.0594</td>
<td>.6717</td>
</tr>
<tr>
<td>I have friends at ARTC or they are entering with me</td>
<td>-.0140</td>
<td>.7923</td>
</tr>
</tbody>
</table>

Eigenvalue (Cohesiveness of the groupings) 2.3166 1.2692

The salient reasons for entry in each grouping have been underlined, based on a principal components factor analysis with varimax rotation.

referring to ARTC clearly form one set. Although a scale consisting of these two reasons for entering suffers from a low reliability (Cronbach alpha = .3996), the measure has been retained due to its substantive interest. The weakness described will be considered when interpreting
the findings. Another grouping represents a largely goal-oriented series of items. Further analysis by sex, extensively described in the next chapter, reveals the following reasons for entering can be considered as one factor: wanting an honest job; wanting to live a more settled life; wanting the family to be proud; family or friends wanted me to enter. The Cronbach alpha for a scale composed of the four items listed above is .5295, indicating a moderate level of reliability.

Ties to school and the labor force are considered in Chart III-2. Variables dealing with attitude to school, attendance and academic achievement are all at least moderately related. This indication of construct validity enhances confidence in these measures. There is no way to judge the strength of items measuring labor force participation (see Chart III-2).

The creation of scales measuring belief in the prevailing social order was attempted through an analysis of twelve items believed to tap this concept. Two scales were expected to emerge, one centering around a set of norms loosely called the "Protestant Ethic" and the other around perceived racial discrimination in the labor market, labeled "militancy". A correlation matrix of these variables shows few relationships of even moderate strength (data not shown in tabular form). A factor analysis does identify two sets of items along the lines hypothesized above (see Table III-5).

Two Likert scales were computed, and reliability coefficients calculated. The militancy scale has only a moderate Cronbach alpha of .4931 but remains included in future analyses. Unfortunately, the Cronbach alpha of .3821 for the Protestant Ethic scale is unacceptably
CHART III-2
DEVELOPMENT OF MEASURES OF TIES TO SCHOOL AND LABOR FORCE

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description of Measure</th>
<th>Reliability/Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude to school</td>
<td>Count of the number of reasons given for skipping school</td>
<td>Cronbach alpha = .6988</td>
</tr>
<tr>
<td>Last grade completed</td>
<td>Last year school completed</td>
<td>Correlation with a similar question asked in the other intake interview is .73. Correlation with number of reasons given for skipping school is -.24.</td>
</tr>
<tr>
<td>School attendance</td>
<td>Frequency of skipping school</td>
<td>Correlation with last year of school completed is -.22.</td>
</tr>
<tr>
<td>Parental educational aspirations and expectations</td>
<td>Last year of school parents wanted and thought respondent would complete</td>
<td></td>
</tr>
<tr>
<td>Respondent adolescent educational aspirations</td>
<td>Last year of school respondent wanted to complete</td>
<td></td>
</tr>
<tr>
<td>Employment history before addicted</td>
<td>Worked regularly: yes/no</td>
<td></td>
</tr>
<tr>
<td>Job source of support before addicted</td>
<td>Based on checklist of number of possible sources of support</td>
<td></td>
</tr>
<tr>
<td>Employment history while addicted</td>
<td>Worked regularly while addicted; did not work/worked irregularly/worked regularly</td>
<td></td>
</tr>
<tr>
<td>Working at entry to treatment</td>
<td>Number of months worked year before entry; working at entry</td>
<td></td>
</tr>
<tr>
<td>Occupational aspirations</td>
<td>Job respondent hoped to have one year after entering treatment. Ranked according to prestige based on a scale developed by Trieman (Trieman, 1977)</td>
<td>Protestant ethic scale Cronbach alpha = .3821; militancy scale Cronbach alpha = .4931</td>
</tr>
<tr>
<td>Belief in conventional order</td>
<td>See pages for a discussion of how Protestant ethic and militancy scales were developed</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE III-5
ANALYSIS OF ITEMS TAPPING BELIEF IN THE CONVENTIONAL ORDER

<table>
<thead>
<tr>
<th>Beliefs</th>
<th>Protestant Weightings</th>
<th>Militancy Weightings</th>
</tr>
</thead>
<tbody>
<tr>
<td>You would rather win than lose in a game</td>
<td>-.1437</td>
<td>-.1313</td>
</tr>
<tr>
<td>Blacks who have training can get good jobs mainly because they are Black</td>
<td>-.0107</td>
<td>.7835</td>
</tr>
<tr>
<td>Being on welfare is better than a dull job</td>
<td>.2752</td>
<td>.1267</td>
</tr>
<tr>
<td>A married person should stick it out with his/her spouse even if attracted to others</td>
<td>-.0496</td>
<td>-.0253</td>
</tr>
<tr>
<td>Work should be the most important part of a person's life</td>
<td>.3230</td>
<td>.0422</td>
</tr>
<tr>
<td>Blacks who don't get jobs usually don't have the ability to do the job</td>
<td>.0467</td>
<td>.6923</td>
</tr>
<tr>
<td>Blacks don't get the same breaks in getting ahead</td>
<td>-.2354</td>
<td>.5816</td>
</tr>
<tr>
<td>Everyone in this country can get ahead if he/she tries hard enough</td>
<td>.7388</td>
<td>-.1064</td>
</tr>
<tr>
<td>Kids shouldn't tie a man down</td>
<td>-.0760</td>
<td>-.0151</td>
</tr>
<tr>
<td>If you won enough money in a lottery to live comfortably you wouldn't work</td>
<td>-.5024</td>
<td>-.1379</td>
</tr>
<tr>
<td>A Black can never make it in America</td>
<td>-.0598</td>
<td>-.1129</td>
</tr>
<tr>
<td>You would not borrow money from family or friends unless you were sure of how to pay it back</td>
<td>.6950</td>
<td>-.1985</td>
</tr>
</tbody>
</table>

Eigenvalue (Cohesiveness of the groupings): 1.8373, 1.4414

The salient beliefs in each grouping have been underlined, based upon a principal components factor analysis with Varimax rotation.
low without further evidence of reliability and validity. The validity
of this measure is not supported by other items which presumably should
be related (see Table III-6). Therefore, this scale has been omitted
from future analyses.

TABLE III-6

CONSTRUCT VALIDITY OF THE PROTESTANT ETHIC SCALE

| Percentage | Low Protestant Ethic | High Protestant Ethic | $x^2$
|------------|----------------------|------------------------|------
| Job source of support before addicted | 72.1 | 69.4 | .0554 |
| Worked while addicted | 67.1 | 51.7 | .7487 |
| Worked year prior to entering treatment | 34.1 | 41.9 | .8307 |
| Supported by criminal activity year prior to entering treatment | 51.4 | 54.8 | .0870 |
| Expectations of occupation with high prestige | 49.3 | 41.9 | .6602 |
| Charged with criminal activity year before entering treatment | 45.0 | 50.0 | .2542 |
| Living with family of procreation at entry to treatment | 34.3 | 45.2 | 1.7270 |
| Two or more children at entry to treatment | 45.7 | 51.6 | .3863 |

As tested by the median test

* $p < .05$
** $p < .01$
Measurement of Criminal Activity

As shown in Chart III-3, for each time period six composite indices have been created and charge rates calculated. Cohen, Klein and Newfield (1976) and Kleinman and Lukoff (1975) note rates of criminal activity are typically reported as cumulative frequencies over extended periods of time. This often leads to the use of unequal "at risk" periods among individuals. To avoid the problem, rates of criminal activity are calculated in the following manner, developed by Kleinman and Lukoff (1975):

\[
\text{rate} = \frac{\text{Total number of charges in period}}{\text{Total number of months in period}} \times 100 / .0833
\]

Division by .0833 was introduced for ease of interpretation, resulting in a charge rate of 100 for an individual averaging one charge every 12 months.

Another methodological problem is created by the fact that police records are only available beginning at age eighteen. Therefore, the history of charges prior to addiction is incomplete for those addicted at an earlier age. Yet, an analysis of the types of activities individuals are charged with and fluctuations in rates over time remain of interest. In order to assess the extent of this problem, the impact of addiction before and after age 18 on later charge rates has been explored (see Table III-7). Those addicted at a younger age have higher charge rates for property and drug-related crime during addiction. This finding indicates that increases in rates of charges for these offenses after daily heroin use has begun may be inflated due to the exclusion of those addicted before 18 from estimates of charge rates prior to addiction.
CHART III-3
DEVELOPMENT OF MEASURES OF CRIMINAL BEHAVIOR

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description of Measure</th>
<th>Reliability/Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juvenile crime</td>
<td>An index consisting of whether respondent was legally declared a juvenile delinquent and institutionalized</td>
<td>When this index of juvenile delinquency is considered with respondents reporting arrest before addiction the correlation is .35.</td>
</tr>
<tr>
<td>Arrest before addiction</td>
<td>Calculated from age of first arrest and age of addiction</td>
<td>See pages for a discussion of methodological problems in the following areas: Those addicted before age 18; considerations in calculating charge rates; the general reliability and validity of official criminal records</td>
</tr>
<tr>
<td>Officially reported criminal activity</td>
<td>For each time period the following indices have been created:</td>
<td></td>
</tr>
<tr>
<td>A) Before addiction</td>
<td>1. Violent charges: charges for assault, rape, robbery, possession of weapons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Property-related charges: charges for burglary, petty larceny, grand larceny, possession of stolen property, forgery</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Victimless charges: prostitution, gambling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Drug-related charges: possession of heroin, selling heroin, possession of a hypodermic needle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Other charges: disorderly conduct, child abuse/neglect</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Calculation of charge rate:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total number of charges in period x 100/.0833</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total number of months in period</td>
<td></td>
</tr>
</tbody>
</table>
TABLE III-7
MEDIAN TESTS FOR SIX COMPOSITE CHARGE INDICES
BY AGE OF ADDICTION

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Addicted Before Age 18</th>
<th>Addicted After Age 18</th>
<th>( \chi^2 )</th>
</tr>
</thead>
</table>

**During addiction**

- Charged with extensive crime (overall) \(^1\): 53.2 \( \rightarrow \) 46.7 \( \chi^2 \) 0.4870
- Charged with violent crime: 37.1 \( \rightarrow \) 24.8 \( \chi^2 \) 2.5767
- Charged with property crime: 54.8 \( \rightarrow \) 38.0 \( \chi^2 \) 4.2934*
- Charged with victimless crime: 11.3 \( \rightarrow \) 16.8 \( \chi^2 \) 0.4295
- Charged with drug-related crime: 58.3 \( \rightarrow \) 35.8 \( \chi^2 \) 7.7858**
- Charged with other crime: 41.7 \( \rightarrow \) 58.3 \( \chi^2 \) 5.0686*

**Year before entry to treatment**

- Charged with any crime (overall): 40.3 \( \rightarrow \) 49.3 \( \chi^2 \) 1.0758
- Charged with violent crime: 3.2 \( \rightarrow \) 8.9 \( \chi^2 \) 1.3343
- Charged with property crime: 19.4 \( \rightarrow \) 15.1 \( \chi^2 \) 0.3133
- Charged with victimless crime: 4.8 \( \rightarrow \) 4.1 \( \chi^2 \) 0.0000
- Charged with drug-related crime: 19.4 \( \rightarrow \) 26.7 \( \chi^2 \) 0.9064
- Charged with other crime: 16.1 \( \rightarrow \) 11.0 \( \chi^2 \) 0.6434

\(^1\)This is the only instance in which the median value did not result in a none/any dichotomy.

As tested by the median test

*\( p < .05 \)
**\( p < .01 \)

The use of official records to operationalize criminal behavior implies a further limitation on the reliability and validity of these data. Much has been written concerning the relationship between official and unreported crime, however, the scope of this study permits only a
most cursory discussion. Official charges of criminal activity are
clearly underestimates, although there are indications that such
charges do indeed reflect seriousness and frequency of illegal behavior
(Black, 1970; Hood and Sparks, 1970). Savitz (1978) indicates that
the poor and members of minority groups are more likely to come to the
attention of law enforcement officials. Based upon these last two
points, it appears that charges at least partially reflect rates of
activity, particularly in a minority sample such as that under con-
sideration here.

Not only is there question as to the relationship between
activity and rates of charges, but there is also question as to the
extent charges faithfully reflect the type of activity engaged in.

The alternative, of course, is self-reported criminal activity.
Such data carry the risk that, once in treatment, addicts will under-
report their illicit activity, creating a spurious decline in such
behavior. Indeed, Lukoff (1974) notes that at one methadone program
counselors knew of only one third of their patients officially
reported criminal activity. After much work in this area, it is
Lukoff's opinion that, at least for heroin addicts, official data
remain more reliable than data provided by clients themselves,
rendered questionable by either faulty memory or motivated distortion
(Lukoff and Kleinman, 1977).

Measurement of Association
with Drug-using Individuals

Measures of association with drug-using individuals are
presented in Chart III-4. There is little evidence concerning the
reliability and validity of the measures used (see Chart III-4).
## CHART III-4
DEVELOPMENT OF MEASURES OF ASSOCIATION WITH DRUG USERS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description of Measure</th>
<th>Reliability/Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familial heroin use</td>
<td>An index counting the number of relatives the respondent states have used heroin</td>
<td>This encompasses most drug use, other than marijuana. When this question is compared to a similar question in the other intake interview, 64% of the sample gives the same response.</td>
</tr>
<tr>
<td>Perceived neighborhood heroin use</td>
<td>Perceived extent of heroin use in the neighborhood at the point of respondent's initiation</td>
<td></td>
</tr>
<tr>
<td>Initiation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individuals participating</td>
<td>Participants in respondent's initial experience with heroin: alone/friends/acquaintances</td>
<td>The answers given are not very stable. When this question is compared to a similar question in the other intake interview, only 40% of the sample gives the same response.</td>
</tr>
<tr>
<td>Initiator of action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How drug procured</td>
<td>Whose idea was first use</td>
<td></td>
</tr>
<tr>
<td>Reasons for first use</td>
<td>The most important reason for trying heroin, aside from curiosity</td>
<td></td>
</tr>
<tr>
<td>Friend drug use at entry to ARTC</td>
<td>Number of friends at entry who are addicts</td>
<td></td>
</tr>
<tr>
<td>Association with abstinent addicts</td>
<td>Drug usage of best friend</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of acquaintances at entry who have stopped using heroin for two or more years</td>
<td></td>
</tr>
</tbody>
</table>
Measurement of Patterns of Drug Use

A description of items measuring patterns of drug use is provided in Chart III-5. Variables tapping extent of drug use seem to be relatively reliable, although items concerning past attempts at abstinence do not appear as consistent (see Chart III-5).

Measures of Behavior While in Treatment

Chart III-6 presents measures of behavior while in treatment. Retention appears to be the most reliable. Some question exists concerning the accuracy of medications missed and indications of drug use based on urine analysis (see Chart III-6). Behavior while in treatment is measured only for the year after methadone maintenance is begun. This clearly limits what can be said about client reactions to ARTC. However, a longer period of time would have caused too great a rate of sample attrition due to missing information.

Limitations

As this is a secondary analysis, there are areas where the possibilities of operationalization are limited due to the nature of the available information. The concept of ties to family would have been enhanced by better dating of marital disruption and childbirth. Information concerning child care arrangements would also have been useful. Better measures of acceptance of widely held norms might have added to the analysis -- in particular norms related to gender. Inclusion of this concept would have enabled this investigator to explore the extent differences between men and women reflect these addicts' own expectations. Operationally, associational patterns
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description of Measure</th>
<th>Reliability/Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at first use</td>
<td>Age of respondent at first use of any opiate</td>
<td>When compared to the same question asked on the other intake interview, the correlation is .90.</td>
</tr>
<tr>
<td>Age at addiction</td>
<td>Age of respondent at first use of any opiate on a daily basis</td>
<td>When compared to a similar question asked on the other intake interview, the correlation is .86.</td>
</tr>
<tr>
<td>Length of time addicted</td>
<td>Calculated from age at entry and age at addiction</td>
<td>Robins (1973) found the large number of those detected as drug-positive on leaving the army, and 97% of those whose records indicated a history of drug use while in Vietnam, reported their heroin use to interviewers.</td>
</tr>
<tr>
<td>Recent polydrug use</td>
<td>An index of the number of other illicit drugs respondent used during the two months prior to entry</td>
<td>This item is not significantly related to another question concerning heavy drinking, as tested by the median test.</td>
</tr>
<tr>
<td>Recent alcohol use</td>
<td>Average daily ounces of absolute alcohol during the two months prior to entry</td>
<td>Only moderately related to similar question in other intake interview, correlation = .3247</td>
</tr>
<tr>
<td>Prior treatment</td>
<td>Number of times respondent has been in treatment (range 0-2)</td>
<td>This variable does not appear to be related to the number of times the respondent tried to stop using heroin (r=.06).</td>
</tr>
<tr>
<td>Spontaneous abstinence</td>
<td>Longest period of time respondent stopped using heroin voluntarily, outside of jail or program</td>
<td>Cronbach alpha = .6351</td>
</tr>
<tr>
<td>Expectations of treatment</td>
<td>Specific expectations concerning the length of time needed to stop wanting heroin and become accustomed to methadone</td>
<td></td>
</tr>
</tbody>
</table>
CHART III-6
DEVELOPMENT OF MEASURES FOR BEHAVIOR WHILE IN TREATMENT

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description of Measure</th>
<th>Reliability/Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of months attending ARTC</td>
<td>&quot;Operational retention&quot; as developed by Kleinman and Lukoff (1975). Month and year of operational termination determined simply as last ones in which information on medication and urinalysis appear. Patients who missed their medication 20 or more times in two or more consecutive months were operationally terminated as of the first of the two months unless such a period of inactivity was followed by a period of two or more consecutive months in which medication was missed fewer than 20 times. In this instance the patient was not terminated.</td>
<td>Two judges calculated the date of termination, independently, for 10% of the cases. They concurred 91.7% of the time with a two-month margin of latitude allowed (Kleinman and Lukoff, 1975). The criteria used resulted in a generous, or relatively late, date of termination.</td>
</tr>
<tr>
<td>Type and extent of criminal charges during the year after entering treatment</td>
<td>Number of charges from date of entrance into treatment to one year anniversary are summed and divided by 100 to create a charge rate.</td>
<td>See discussion, p.</td>
</tr>
<tr>
<td>Extent of employment while in treatment</td>
<td>Number of days employed while in treatment aggregated.</td>
<td>Quarters will be used rather than monthly figures for ease of presentation, interpretation and greater reliability (Kleinman and Lukoff, 1975).</td>
</tr>
<tr>
<td>Missed methadone dosages</td>
<td>The proportion of medication missed during the last three months the patient was retained in treatment.</td>
<td>There are serious difficulties with this measure. The small number of urine tests given, particularly in 1971, and relative ease of deception make this measure unreliable and the validity questionable.</td>
</tr>
<tr>
<td>Evidence of drugs in urine</td>
<td>The ratio of morphine positives to urine samples submitted in the last three months the patient was retained in treatment.</td>
<td></td>
</tr>
</tbody>
</table>
appear to be weakest. Information concerning criminal activity and drug use of friends at all three time periods would be most desirable. Detailed records of services provided, other than the dispensing of methadone, would have enabled this study to relate gender-related differences in services received to differences in behavior while maintained on methadone.

The retrospective nature of all but the most immediate of measures represents an additional problem of reliability and validity. Information concerning experiences prior to and during addiction collected at entry to ARTC may be colored by past experiences, memory lapses and motivated distortion. Robins (1973) found that one source of variability in her data was distance in time from the event of interest. It is anticipated that measures of earlier time periods will suffer in accuracy.

A last point to be made is that existing measures differ in their reliability and validity. While variables reflecting ties to the established society and patterns of drug use are relatively good, measures of criminal activity and association with drug-using friends are more questionable. The strength of items composing behavior in treatment varies.

The Design of the Study

Two methodological caveats are offered here, based on the material discussed above. The first stems from the nature of the sample. The reader is warned against the temptation to interpret those experiences prior to drug use as leading to addiction -- a
causal paradigm. This inference is methodologically most unsound when based upon a sample of known, treated addicts. In order to truly explore causative factors in the addiction process, one would ideally employ an epidemiological model, beginning with drug-free individuals and following them over time. Although less sound, a comparison of addicted and non-addicted men and women might be useful. This is not possible within the limitations of this study. Therefore, no causal inferences concerning addiction are attempted. Hypotheses are couched in descriptive language appropriate to inferences the data can support.

The second caveat to the reader stems from both the nature of the research problem and the data collected. This is an ex-post-facto study. The varying experiences of male and female respondents cannot be manipulated, as in an experiment. While this last statement is simplistically obvious, it has profound implications for the means by which the impact of any one variable can be assessed. One of the most powerful methods of exploration and testing alternative hypotheses in this situation is the use of statistical controls. The remainder of this chapter describes the types of statistical analyses employed in testing the hypotheses presented in Chapter I.

The Statistical Analysis

Hypotheses 1 through 5 consist of statements concerning the bivariate relationship between sex and each of the variables included in the analyses. Gender-related differences are assessed by the \( X^2 \) goodness of fit test or the median test (Seigel, 1956). Hypothesis 3
concerning criminal activity has not been tested statistically. Charge rates over time are not independent of one another, a requirement for such procedures. The observations are almost certainly autocorrelated. Therefore, fluctuations in criminal activity are only described.

Hypotheses 6, 7 and 8 concern themselves with which variables are most salient in distinguishing between male and female respondents. The general analytic strategy employed is that of multiple discriminant analysis. This technique will weight and linearly combine experiences which are believed to distinguish women from men in such a way that prediction of sex is most accurate. Differences between the sexes are maximized while differences among men and women are minimized by this procedure. The weighting attached to each experience indicates its usefulness in discriminating after all other experiences included in the analysis have had their effects. Therefore, those variables with the largest weightings are most salient in discriminating between male and female respondents, directly addressing the hypotheses.

Because the assumption that discriminating variables have multivariate normal distributions is not met, these and other multiple discriminant analyses are employed as exploratory descriptive devices, and no statements concerning statistical significance are made (Klecka, 1980).

Patterns of behavior prior to daily heroin use and while addicted are considered next, in Chapter V. Multiple regression analysis is used to explore gender-related differentials in predictors of labor force participation. This statistical procedure provides the
analyst with a multiple correlation coefficient which indicates the
proportion of variation in labor force participation accounted for.
Standardized beta weights, analogous to the weightings in a multiple
discriminant analysis, are also calculated. These regression co­
efficients indicate the "explanatory" power of a behavior after all
other variables in the analysis have "explained" what they can.
Perusal of the beta weights and the multiple correlation coefficient
indicates how well the behaviors included in the analysis account for
employment and which are directly predictive, addressing the questions
of whether a pattern exists and differentials in salient experiences.
Although statistical tests are noted in the multiple regression
analyses performed, they are most conservatively interpreted due to
the violation of certain statistical assumptions. The patterning of
behavior based upon living arrangements at entry to treatment is
explored through a series of multiple discriminant analyses.

All of the techniques discussed above are utilized in assessing
propositions about behavior while at ARTC. Bivariate relationships
are tested by the $X^2$ goodness of fit test or the median test. Multi­
variate techniques are employed to determine salient predictors of
retention and patterns of behavior while in treatment.
CHAPTER IV

GENDER-RELATED DIFFERENTIALS IN EXPERIENCES

The published literature clearly points to large gaps in our understanding of the female addict. Few investigators have presented comparisons of men and women on selected characteristics at entry to treatment. No systematic attempt has been made to consider gender-related differences prior to and during addiction, even at the bivariate level of analysis. No studies that have come to this author's attention take a multivariate approach, exploring which, if any, experiences are most salient in distinguishing between men and women (see Chapter II). Based upon the above, this chapter addresses the following questions: Do the experiences of male and female addicts differ before addiction, during addiction and at entry to treatment? Of these differences, which are most prominent?

As posed, the problem first requires a description of the relationship between sex and each experience; ties to conventional behavior, associational patterns and patterns of drug use will be considered over the client's addiction career. Three multiple discriminant analyses will be performed to determine which behaviors and experiences allow one to most consistently predict the client's sex.

Attachment to Family

Attachment to the family as described by theorists and explored in the quantitative literature appears to be an important tie which
makes conventional behavior more likely (see Chapter II). As such, one question of both intellectual and practical interest is the extent to which men and women entering treatment programs differ in familial involvement. On the basis of prior investigations and generally held sex role expectations, it is hypothesized that female respondents will evidence familial ties to a greater extent than their male counterparts.

As children, clients of both sexes appear to have suffered equally the disruption of their home, but female clients are clearly subject to a greater degree of supervision. Both men and women typically experienced a break in their family while growing up (data not shown in tabular form). Inclusion of communication with a father not present in the house does not further specify gender-related differences in familial cohesiveness (see Table IV-1). A broken home by no means meant lack of concern. The sample as a whole indicates that their eating, sleeping habits, school work and play were largely regulated by family members. Women report significantly greater levels of supervision (see Table IV-1).

Upon reaching adulthood, female clients establish more extensive, albeit tenuous, ties to a family of procreation compared to their male counterparts. Close to half the sample never establishes such bonds, at least formally. Yet, among those who do marry, almost all the women compared to only half the men do so prior to daily heroin use. This difference is highly significant. Both men and women are equally likely to dissolve their marriages; 29.8 percent of the men and 34.6 percent of the women are divorced or separated at entry to treatment (data not shown in tabular form). Despite this rate of dissolution women clearly maintain greater familial responsibilities at entry to
TABLE IV-1
ATTACHMENT TO FAMILY

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>( \chi^2 )</td>
</tr>
<tr>
<td>High cohesiveness of family as a child</td>
<td>44.9</td>
<td>39.4</td>
<td>0.0000</td>
</tr>
<tr>
<td>High supervision by parents as a child</td>
<td>33.7</td>
<td>61.5</td>
<td>15.1119**</td>
</tr>
<tr>
<td>Married prior to addiction</td>
<td>24.0</td>
<td>41.3</td>
<td>6.3143**</td>
</tr>
<tr>
<td>Living with family of procreation at entry to treatment</td>
<td>28.8</td>
<td>46.2</td>
<td>5.9282**</td>
</tr>
<tr>
<td>Two or more children at entry to treatment</td>
<td>47.1</td>
<td>49.0</td>
<td>0.0193</td>
</tr>
<tr>
<td>Familial reasons for entering treatment very important</td>
<td>56.4</td>
<td>56.6</td>
<td>0.0000</td>
</tr>
<tr>
<td>Program specific reasons for entering treatment very important</td>
<td>71.2</td>
<td>61.5</td>
<td>1.7441</td>
</tr>
</tbody>
</table>

As tested by \( \chi^2 \) goodness of fit or median test.

\*\( p < .05 \quad \)\quad **\( p < .01 \)

While both men and women typically report parenting at least one child, upon arrival at ARTC women are much more likely to have child care responsibility (data not shown in tabular form). Women are also significantly more likely to be living with a family member—child or spouse—upon commencing methadone maintenance (see Table IV-1).

As expected, child and spouse have a greater impact on the female client's decision to initiate treatment. When reasons for entering ARTC are factor analyzed, the first and most cohesive
grouping, or factor, appears to differ by sex (see Table IV-2). Wanting an honest job and a desire to settle down motivate both men and women to commence methadone maintenance. However, for men, these reasons are associated with the expense of the habit and the rigors of hustling. For women, these reasons are associated with the push of family and friends. The root mean square comparing the male financially oriented and the female family oriented groupings is only .3303. This indicates both that there is only a moderate relationship among these reasons and that gender-related differences are not great.

Understandably, there are no differences between the men and women on a scale created from the female constellation (see Table IV-1; men and women are also similar in the impact program-specific reasons have on their decision to enter ARTC). Although this measure fails to significantly distinguish men from women in this sample, the scale remains substantively useful and warrants exploration in further analysis.

It appears, then, that gender-related differences begin with the earliest familial experiences. Female clients are more closely supervised as children than are male clients. Not only are female clients held more closely within the family when young, but upon reaching adulthood they establish new families at an earlier point in their addiction career. Marriage also has a more lasting impact on female clients in that they are more likely to retain child care responsibilities and slightly more likely to cite the push of family members as a motivation for entering treatment.

These findings are not completely consistent with those of other studies. Previous research does indicate that female addicts entering treatment experience greater disruption of their homes as children than
<table>
<thead>
<tr>
<th>Reasons Given for Entering</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financial Oriented Grouping (Factor 1)</td>
<td>Family Oriented Grouping (Factor 2)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>I'm tired of hustling</td>
<td>.5993</td>
<td>.1641</td>
</tr>
<tr>
<td>I want to find an honest job</td>
<td>.5822</td>
<td>.1887</td>
</tr>
<tr>
<td>I want my family to be proud</td>
<td>.0028</td>
<td>.8386</td>
</tr>
<tr>
<td>The expense of the habit</td>
<td>.7535</td>
<td>-.0159</td>
</tr>
<tr>
<td>I want to live a more settled life</td>
<td>.6704</td>
<td>.0939</td>
</tr>
<tr>
<td>Family or friends want me to enter</td>
<td>.2707</td>
<td>.6880</td>
</tr>
<tr>
<td>Someone from ARTC persuaded me</td>
<td>.1389</td>
<td>.2551</td>
</tr>
<tr>
<td>I have friends at ARTC or they are entering with me</td>
<td>.0517</td>
<td>-.2075</td>
</tr>
<tr>
<td>Eigenvalue (cohesiveness of the grouping)</td>
<td>2.2392</td>
<td>1.2510</td>
</tr>
</tbody>
</table>

The salient reasons for entry in each grouping have been underlined, based on a principal components factor analysis with varimax rotation.
do men; these data do not show the expected differential (Chambers, et al., 1968; Ellinwood, et al., 1966; Spiegel, 1974; Waldorf, 1973). It is believed that this discrepancy is due to differences in sample characteristics. The first two studies cited above are based on patients in the Public Health Service Hospital at Lexington, Kentucky. These samples are younger, less likely to be Black and participating in a different treatment modality when compared to the ARTC sample. Waldorf's sample also differs in age, ethnic composition and type of treatment. While the respondents under study are included in Spiegel's work, the average age at entry for clients of ARTC is 30 compared to 25 for the total DARP population. Differentials in treatment modality and ethnicity also exist between the two groups of clients.

Age and ethnic composition of the samples considered may also account for discrepant findings concerning marital status at entry to treatment. In several instances, previous research reports female addicts enter and dissolve marriages more frequently than do male addicts (Eldred and Washington, 1976; Ellinwood, et al., 1966; O'Donnell, et al., 1967). Two of these studies are again based upon a Lexington population. The third study considers clients of a methadone maintenance program who are largely Black but considerably younger than patients at ARTC.

Findings concerning involvement with family are largely consistent, then, with previous research. The discrepancies discussed above, may be due to sample characteristics. Differing age, treatment modality and ethnic composition have been considered as possible explanations. Why these variables should result in a lower incidence of broken homes and disrupted marriages among the female sample than would be expected is not clear.
Much literature points to involvement in and commitment to school and the labor force as another salient set of ties to the existing social order. Hirschi (1969) posits that attachment to school will be related to delinquency and his data appear to uphold the hypothesis. Educational expectations and aspirations also hold important positions in the theoretical frameworks of other theorists (Cloward and Ohlin, 1960; Cohen, 1955). These authors are largely concerned with the etiology of criminal activity on the part of young adolescents; it is not surprising that employment is not discussed as a binding force upon individuals too young to enter the labor force. But, common sense, as well as the empirical literature, points to both education and unemployment as predictors of deviant behavior, including drug use. Robins and Murphy (1967) find dropping out of school is predictive of drug use. There is also evidence pointing to a relationship between employment and treatment outcome (see Chapter II).

On the strength of prior research, two predictions have been made: Parental and self educational aspirations and expectations will be higher for male respondents compared to female respondents; male respondents will also report greater involvement in and commitment to the labor force at all points during their addiction career.

As expected, client involvement in school was not extensive. Both men and women had thought of several reasons for skipping school, acted on them often and typically left somewhere between tenth and eleventh grade. This small investment in education is clearly inconsistent with expectations; all generally expected to continue their
studies beyond high school. In this area, however, men may have been subject to greater pressure, reporting significantly higher parental educational expectations (see Table IV-3).

Despite differentials in parental expectations, both male and female clients initially enter the labor force at similar rates. The large portion of the sample works regularly before involvement with heroin (see Table IV-3), typically in blue collar positions (data not shown in tabular form). When asked whether a legal job had been a source of financial support the year prior to addiction, men tend to respond in the affirmative more frequently than women although the difference does not quite reach significance. This finding may indicate that the eventual break with the working world comes later for the men.

While using heroin on a daily basis, clients largely drop out of the labor force, although males are more likely to hold a job during this period than are females. While three-quarters of the men and half the women do work at some point during addiction, these jobs are held only sporadically (see Table IV-3). When employed, both men and women report holding largely blue collar positions (data not shown in tabular form).

The pattern described above persists the year before entering treatment, but at an even lower rate of participation. Only half the men and one-quarter of the women work during this period (see Table IV-3). Such employment is largely intermittent; men are employed an average of 2.9 months compared to 1.3 months for women. Indeed, only 18 of the 208 individuals in the sample report holding a job at intake (data not shown in tabular form).

Yet, despite their less extensive employment histories, female
TABLE IV-3
COMMITMENT TO AND INVOLVEMENT IN SCHOOL AND THE LABOR FORCE

<table>
<thead>
<tr>
<th>Attachment to School:</th>
<th>Percentage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Three or more reasons given for skipping school</td>
<td>52.5</td>
<td>47.5</td>
</tr>
<tr>
<td>Skipped school at least &quot;some of the time&quot;</td>
<td>55.2</td>
<td>44.8</td>
</tr>
<tr>
<td>Completed at least 11th grade</td>
<td>60.6</td>
<td>65.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commitment to School:</th>
<th>Percentage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents aspired to college entry</td>
<td>54.9</td>
<td>43.2</td>
</tr>
<tr>
<td>Parents expected college entry</td>
<td>40.3</td>
<td>21.2</td>
</tr>
<tr>
<td>As adolescent respondent expected college entry</td>
<td>25.2</td>
<td>23.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Involvement in Conventional Activity (Employment):</th>
<th>Percentage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Worked regularly before addicted</td>
<td>70.2</td>
<td>62.5</td>
</tr>
<tr>
<td>Job source of support before addicted</td>
<td>77.9</td>
<td>65.4</td>
</tr>
<tr>
<td>Worked while addicted</td>
<td>75.0</td>
<td>53.8</td>
</tr>
<tr>
<td>Worked year prior to entering treatment</td>
<td>47.1</td>
<td>25.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commitment to Conventional Activity:</th>
<th>Percentage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectations of occupation with high prestige</td>
<td>51.9</td>
<td>48.1</td>
</tr>
<tr>
<td>Aspirations to occupation with high prestige</td>
<td>36.5</td>
<td>58.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Belief in Conventional Order:</th>
<th>Percentage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very militant: perceive relatively high degree of discriminatory hiring practices</td>
<td>51.5</td>
<td>44.4</td>
</tr>
</tbody>
</table>

As tested by $\chi^2$ goodness of fit or median test.

* $p < .05$  
** $p < .01$
clients expect to secure jobs with equal prestige compared to their male counterparts and have higher aspirations (see Table IV-3). The latter finding is largely due to sex differentials in aspirations to clerical and blue collar positions; both men and women equally wish to be professionals or managers. It is surprising that perceived discriminatory hiring practices do not have a greater impact on the relatively high aspirations expressed.

Based on the above, female clients in this sample are less likely to be employed at all time periods, although their commitment to the labor force and educational experiences are similar to those of males. Clients typically invest relatively little in education when young, although male clients may have encountered somewhat greater pressure to continue their studies. After leaving school, male and female clients enter the labor force in equal numbers but female clients are significantly more likely to drop out. However, their aspirations are at least as high as those reported by their male counterparts.

The patterns described above by and large uphold the hypotheses posited and are consistent with prior literature. Findings of weaker attachment to the labor force on the part of women are as anticipated. The findings concerning attachment to school are surprising in view of the work done by Kandel (1971) who reports that, among Blacks, parents had higher expectations for female children. It may be that the parents of addicted Blacks do not exhibit the gender-related differentials just described, as Chein and associates (1964) report findings consistent with those presented here.
Criminal Activity

Associational patterns--contact with other individuals involved in deviant activity--occupies a salient place in the literature. Involvement in crime as measured by formal charges lodged against clients is considered to be an indicator, albeit a weak one, of criminal associations. Criminal activity is intrinsically interesting for at least two other reasons. To begin, this behavior is related to later involvement in drug use (Platt and Labate, 1976; Robins and Murphy, 1967). Among heroin using individuals, age at addiction and age at first arrest are highly correlated (Newman, 1977). Criminal activity prior to entering treatment has also been found to predict treatment outcome (Babst, et al., 1971; Henchy, et al., 1974; Krakowski and Smart, 1974). A description of gender-related differentials in criminal activity may be useful.

Involvement in crime will be described in two ways. Interactions with law enforcement officials which result in arrest and formal charges appear to be relatively infrequent occurrences. For this reason, the discussion will begin with the proportions ever charged with particular types of crime during the three time periods under consideration. Because the number of years before addiction and the number of years addicted differ for each individual, the median rates of charges standardized by months "at risk" will then be presented to describe activity across time periods (see Chapter III for a discussion of how crime rates have been calculated).

It is hypothesized that at all three time periods, male respondents will consistently be charged at higher rates and will be
TABLE IV-4
CRIMINAL ACTIVITY BEFORE ADDICTION

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
<th>( \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrested before addiction</td>
<td>59.6</td>
<td>30.8</td>
</tr>
<tr>
<td>Declared juvenile delinquent</td>
<td>24.0</td>
<td>12.5</td>
</tr>
</tbody>
</table>

As tested by \( \chi^2 \) goodness of fit test.

\*p < .05  \quad \quad \quad **p < .01

involved in more aggressive types of crime compared to their female counterparts.

Prior to addiction there are sharp gender-related differentials in the extent and type of crime clients are charged with. Men are involved in illicit activities before addiction to a significantly greater extent than are women. To begin, men are more likely to be adjudicated a juvenile delinquent and to be arrested prior to daily heroin use (see Table IV-4).

During addiction, both male and female clients are quite involved in sex-delineated areas of criminal activity. Most have been charged with at least one crime approximately every two years from first use of heroin on a daily basis to one year before entering treatment. Charges are most frequently drug-related (see Chart IV-1). Men are significantly more likely than women to be so charged, largely due to differentials in charges for possession of heroin (see Table IV-5). Property-related charges are next in frequency. While there are no
CHART IV-1
PROPORTIONS CHARGED WITH SIX COMPOSITE CHARGE INDICES BY SEX

1. Charge indices prior to addiction have been calculated only for those addicted after the age of 18; see Chapter III for methodological discussion.

2. A rate of 100 is equivalent to one charge per year.

As tested by the median test (see Appendix to CHART IV-1)
* p < .05
** p < .01
### APPENDIX TO CHART IV-1

MEDIAN TESTS FOR SIX COMPOSITE CHARGE INDICES BY SEX

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>X^2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Before Addiction:**
- Charged with any crime (overall) 63.5 24.1 21.3639**
- Charged with violent crime 36.5 8.4 15.6136**
- Charged with property crime 38.1 7.2 19.0528**
- Charged with victimless crime 4.8 4.8 0.0
- Charged with drug-related crime 3.2 3.2 .4887
- Charged with other crime 17.5 9.6 1.3063

**During Addiction:**
- Charged with extensive crime (overall) \(^1\) 50.0 47.5 .0460
- Charged with violent crime 37.0 20.2 6.0709**
- Charged with property crime 47.0 39.4 .8834
- Charged with victimless crime 8.0 22.2 6.7882**
- Charged with drug-related crime 53.0 32.3 7.8677**
- Charged with other crime 44.0 28.3 4.6634*

**Year Before Entry to Treatment:**
- Charged with any crime (overall) 54.8 38.5 4.9455*
- Charged with violent crime 9.6 4.8 1.1496
- Charged with property crime 24.0 8.7 7.9107**
- Charged with victimless crime 1.0 7.7 4.1809*
- Charged with drug-related crime 32.7 16.3 6.6502**
- Charged with other crime 9.6 15.4 1.0989

\(^1\) This is the only instance in which the median value did not result in a none/any dichotomy.

As tested by the median test

\*p < .05  \**p < .01
TABLE IV-5
CRIMINAL ACTIVITY SPECIFIED

<table>
<thead>
<tr>
<th>Before Addiction:</th>
<th>Percentage</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Charged with assaultive crime</td>
<td>20.6</td>
<td>7.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with sexual abuse</td>
<td>12.7</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with robbery</td>
<td>12.7</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with burglary</td>
<td>14.3</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with grand larceny</td>
<td>22.2</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>During Addiction:</th>
<th>Percentage</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Charged with possession of a weapon</td>
<td>17.0</td>
<td>5.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with burglary</td>
<td>33.0</td>
<td>11.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with criminal possession of stolen property</td>
<td>17.0</td>
<td>6.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with forgery</td>
<td>7.0</td>
<td>29.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with prostitution</td>
<td>3.0</td>
<td>20.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with possession of heroin</td>
<td>45.0</td>
<td>29.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year Before Entry to Treatment:</th>
<th>Percentage</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Charged with burglary</td>
<td>9.6</td>
<td>1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with criminal possession of stolen property</td>
<td>9.6</td>
<td>1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with prostitution</td>
<td>1.0</td>
<td>7.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged with possession of a hypodermic needle</td>
<td>23.1</td>
<td>6.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As tested by the median test.

* \( p < .05 \)
** \( p < .01 \)
significant sex differences in charge rates, a closer look at the specific types of charges indicates a clear differentiation in how money is procured to finance heroin purchases. Men are more likely to be charged with burglary and possession of stolen goods. Women evidence a significantly higher rate of charges for forgery during this period (see Table IV-5). Prostitution is also a significantly female money-making activity, although only a relatively small number ($N = 28$) are so charged while addicted (see Table IV-5). Finally, charges for violent activity are relatively infrequent but are significantly higher for men, largely due to their greater propensity to carry a weapon.

Patterns of activity the year prior to entering ARTC appear to be continuations of prior behavior. One-half of the male and one-third of the female sample were charged with at least one crime during the year, a statistically significant difference (see Chart IV-1). Drug-related criminal charges are most frequent. Men appear to be charged with such activity more often than women, largely due to their higher rate of charges for possession of a hypodermic needle. Property-related charges are next in frequency, evidencing the same pattern as shown during addiction for men. The pattern of money-making illicit activity for women, however, changes. Women report no charges for forgery during the year; prostitution is still a significantly female activity, although the numbers involved are few ($N = 9$) (see Table IV-5).

As discussed previously, medians of the charge rates standardized by the number of months "at risk" present a clearer picture of fluctuations in activity over time. Contact with law enforcement officials culminating in formal arrest and charges remains relatively infrequent during addiction. Rates typically increase the year prior to
CHART IV-2
MEDIANS FOR SIX COMPOSITE CHARGE INDICES OVER TIME BY SEX

SEE LEGEND NEXT PAGE
CHART IV-2
(continued)

MEDIANS FOR SIX COMPOSITE CHARGE INDICES OVER TIME BY SEX

<table>
<thead>
<tr>
<th>Property Charge Index Medians</th>
<th>Victimless Charge Index Medians</th>
<th>Other Charge Index Medians</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>FEMALE</td>
<td>MALE</td>
</tr>
<tr>
<td>0.6</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>15.8</td>
<td></td>
<td>4.7</td>
</tr>
<tr>
<td>4.2</td>
<td></td>
<td>0.2</td>
</tr>
<tr>
<td>5.3</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>9.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LEGEND
- Median Before Addiction
- Median During Addiction
- Median At Entry

Charge indices prior to addiction have been calculated only for those addicted after the age of 18. See Chapter III for methodological discussion.

A rate of 100 is equivalent to one charge per year.
entering treatment, although at a slower pace for women compared to men. Property and drug-related charges appear to rise the fastest (see Chart IV-2). Due to the methodological issues raised in Chapter III, statistical tests across time periods have not been conducted.

The analysis of criminal activity just presented clearly indicates gender-related patterns of behavior. Male clients are more deeply involved in crime. They appear to learn and practice techniques prior to addiction, as evidenced by charges for burglary and grand larceny, although rates of charges for such behavior are relatively low. These activities are then continued at an ever increasing pace until entry to treatment. Few female clients are involved in criminal activity prior to addiction but they learn to forge and prostitute as a means of supporting drug purchases. Charges for these crimes remain relatively infrequent. Female rates of charges also rise the year before arrival at ARTC, although at a slower pace compared to male charges.

When these findings are seen in the context of reasons given for entering treatment, criminal activity may also play a differential role in bringing clients to methadone maintenance programs. The year prior to arrival at ARTC male clients seem to face increasing difficulties with law enforcement officials and even resort to carrying "works" more frequently, a relatively low status means of earning money in the addict community. Their difficulties hustling and the cost of heroin seem to be one motivation for beginning treatment. Crime does not appear to play such a role for female clients, although it may for those few who remain heavily involved in such behavior the year before entry.
These findings are largely consistent with prior literature in the area and generally support the hypotheses posited above.

**Association with Drug Users**

Along with patterns of criminal activity, contact with other drug users is a most salient aspect of associational patterns for this sample. Sutherland (1967) posits that deviant behavior is learned through associates; Becker (1960) specifies that a novice must learn both the techniques of drug use and appreciation of the high produced. Therefore, a description of sex differences in contact with familial and neighborhood heroin use, the initiation experience and contact with current drug users should prove most enlightening.

It is anticipated that female respondents will evidence greater contact with familial drug use, a more dependent role in the initiation experience and more extensive contact with drug users on entering treatment when compared to males.

Female clients report significantly greater levels of familial heroin use than do male clients, although surprisingly few report drug use by their spouse. Fully 40 percent of the women compared to 23.1 percent of the men state a family member had tried heroin at least once (see Table IV-6). Only six women and four men report this of their spouse (data not shown in tabular form).

Both male and female clients perceive little neighborhood heroin use at the time of their initial experience with the drug (see Table IV-6).

Despite differences in criminal activity and contact with familial drug use, experiences surrounding introduction to heroin use
**TABLE IV-6**

**ASSOCIATION WITH DRUG USERS**

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Little perceived neighborhood heroin use at initiation (&quot;a few in neighborhood&quot;)</td>
<td>52.5</td>
<td>53.6</td>
<td>.0372</td>
</tr>
<tr>
<td>Familial heroin use</td>
<td>23.1</td>
<td>40.4</td>
<td>6.4140**</td>
</tr>
<tr>
<td>With good friends at initiation</td>
<td>76.0</td>
<td>73.1</td>
<td>.1013</td>
</tr>
<tr>
<td>Initiation at least partially respondent's own idea</td>
<td>34.6</td>
<td>36.5</td>
<td>.0210</td>
</tr>
<tr>
<td>Friends given as reason for first use</td>
<td>53.8</td>
<td>50.6</td>
<td>.1733</td>
</tr>
<tr>
<td>Heroin used at initiation given as gift</td>
<td>66.3</td>
<td>88.5</td>
<td>13.3041**</td>
</tr>
<tr>
<td>At entry to treatment maintains addicted friends</td>
<td>52.5</td>
<td>50.0</td>
<td>.0278</td>
</tr>
<tr>
<td>At entry to treatment best friend is an ex-addict</td>
<td>10.8</td>
<td>21.4</td>
<td>8.4507*</td>
</tr>
<tr>
<td>At entry to treatment knows at least two individuals who have stopped using heroin for two or more years</td>
<td>61.4</td>
<td>56.0</td>
<td>.3257</td>
</tr>
</tbody>
</table>

As tested by $\chi^2$ goodness of fit or median test.

* $p < .05$  
** $p < .01$

are surprisingly similar. All typically state that the initiation is largely at the suggestion of others, and takes place among good friends who play a role in the reasons for experimentation (see Table IV-6). Women do play a somewhat more passive role; they are more frequently given their first heroin as a gift compared to men who are significantly more likely to purchase their initial supply (see Table IV-6).
Again, at entry to treatment, client involvement with current drug users is surprisingly similar. Over two-thirds of both men and women know at least one individual who has abstained from heroin use for two years or longer. Half the sample maintains at least one addicted friend on coming to ARTC. These friends are not close, for a majority of both men and women state they have no best friend. Of those who do have a close friend, men are more likely than women to report that this individual has never used drugs. The drug-experienced special friends of women in this sample are largely ex-addicts, however, and not current users (see Table IV-6).

In sum, gender-related differences in contact with drug users are not as great as anticipated. Female clients are more likely to report heroin use by a family member. The initial experience with the drug is largely the same for most clients, characterized by the presence of good friends, who play a part in both suggesting the activity and the reasons for experimentation. Upon coming to ARTC, most clients retain at least one addicted friend. Yet, when close relationships are considered, female clients are more likely to be involved with a heroin-experienced individual than are males.

These findings are not completely consistent with those previously reported in other studies. One of the most consistent findings in the literature is the propensity of female addicts to report introduction to heroin by a male peer (see Chapter II). While there are indications that this man may be a relative (Lukoff, 1977; Waldorf, 1973), in light of O'Donnell's work it is surprising so few women in this sample report heroin use on the part of their husbands (O'Donnell, et al., 1967). It may be that differentials in age and ethnicity
between the Lexington sample and that under study account for the discrepancy. But, in this author's judgment, differences in measurement are more salient. The interview item used in this study only considers current marriages and does not take into account less stable romantic alliances not culminating in marriage nor disrupted marital bonds.

Patterns of Drug Use

Age of addiction, extent of drug use and previous attempts at abstinence—patterns of drug use—clearly have ramifications for the theoretician, planner and practitioner. Theorists of the Chicago School would hypothesize that contact with criminally oriented peers (or in the case of this study, respondent's criminal activity) and contact with drug users at an early age would lead to a younger age of addiction. Control theory (Hirschi, 1969; Matza, 1964) if carried to logical conclusion would also note: (1) that the weaker the existing ties the earlier the addiction, and (2) addiction at a young age truncates socialization and limits the development of further ties. Past studies have found age of addiction, drug usage patterns at entry and prior treatment predictive of treatment outcome (see Chapter II).

Available information from previous studies and the theoretical perspective taken indicate that female respondents should become addicted at a later age but evidence more extensive use of other psychoactive substances. There is not enough basis on which to hypothesize patterns of abstinence and treatment.

ARTC clients all have relatively long histories of heroin use; over half arrive with a habit that is at least five years old. Yet, women have been involved for a significantly shorter period of time.
TABLE IV-7

PATTERNS OF DRUG USE

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>X²</td>
<td></td>
</tr>
<tr>
<td>Over 19 at first use of heroin</td>
<td>39.4</td>
<td>57.7</td>
<td>6.2360**</td>
<td></td>
</tr>
<tr>
<td>Over 20 at daily use of heroin</td>
<td>43.1</td>
<td>56.9</td>
<td>3.7780*</td>
<td></td>
</tr>
<tr>
<td>Addicted for at least six years at entry</td>
<td>68.3</td>
<td>50.0</td>
<td>6.4459**</td>
<td></td>
</tr>
<tr>
<td>Uses other psychoactive drugs with heroin at entry</td>
<td>69.2</td>
<td>52.9</td>
<td>5.1762*</td>
<td></td>
</tr>
<tr>
<td>Imbibes alcohol daily two months before entry</td>
<td>35.9</td>
<td>27.2</td>
<td>1.4385</td>
<td></td>
</tr>
<tr>
<td>Experienced at least one three month period of abstinence at entry</td>
<td>45.5</td>
<td>54.6</td>
<td>1.1187</td>
<td></td>
</tr>
<tr>
<td>Has relatively tolerant expectations of treatment</td>
<td>51.0</td>
<td>50.0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Has experienced prior treatment</td>
<td>56.7</td>
<td>63.5</td>
<td>.7217</td>
<td></td>
</tr>
</tbody>
</table>

As tested by χ² goodness of fit or median test.

* p < .05  ** p < .01

compared to men. They first try heroin at an older age, begin daily use at an older age and enter treatment after significantly fewer years of addiction (see Table IV-7).

With the exception of alcohol, the use of other illicit drugs along with heroin is common to all clients, but more typically male. The large portion of both men and women have used at least one psychoactive drug other than heroin during the two-month period preceding
admission. Men, however, are significantly more likely to do so than women. Neither men nor women enter methadone maintenance with a recent history of extensive alcohol use (see Table IV-7).

Although they have been addicted for a longer period of time and use more psychoactive substances, male clients attempt abstinence as frequently as female clients. Both men and women report being able to remain drug free for only two months when unsupported by treatment. Both also report having utilized professional help, unsuccessfully, prior to their arrival at ARTC. Perhaps, due to previous experience with other programs, men and women are relatively tolerant in their expectations of ARTC (see Table IV-7).

The findings reported above, then, indicate that there are gender-related differences in extent of drug use but not in attempts at abstinence. Male clients are more heavily involved in drug use than are female clients. Neither sex has been successful at abstinence on the street or at their efforts to cease drug use in treatment programs. Yet, clients remain optimistic concerning their present course of action.

These findings largely follow prior differences based on other samples with one exception. Prior studies show that women entering treatment ingest a wider variety of drugs along with heroin compared to men (Abeles, et al., 1966). However, upon conducting an analysis of only Black clients, Spiegel (1974) reports findings comparable to those presented here.
Multiple Discriminant Analysis: Which Differences Are Most Prominent?

After exploring a series of sex-related differences, the reader is logically led to ask: Which are most important? In an attempt to explore this very question, three multiple discriminant analyses have been performed.

The first analysis considers all measures of attachment to the family, school and the labor force on which gender-related differences are significant. As hypothesized in Chapter I, it is anticipated that supervision, marriage before addiction and work history will best distinguish male from female respondents.

Together, differentials in ties to the social order explain approximately 21 percent of the difference between men and women ($R_{can} = .45$). Using only these items, 70 percent of the sample can be classified correctly as to sex. When answers to these seven measures are weighted and summed, men averaged -.54 and women .48 reflecting a notable difference. The size and direction of the weightings indicate that marriage prior to addiction is most useful in discriminating women. Parental academic expectations and the number of months worked the year prior to entering treatment are most useful in discriminating men (see Table IV-8).

A second analysis is aimed at specifying the distinctly gender-related patterns of criminal activity evident at all three time periods. Differentials in arrest prior to addiction, charges for violent crimes and charges for victimless crimes are expected to be sharpest.

There can be no question that the seven indices included in the analysis discriminate well between male and female clients. Together,


<table>
<thead>
<tr>
<th>Canonical Correlation $R_{can}$ =</th>
<th>.4539</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centroids (means)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>-.5352</td>
</tr>
<tr>
<td>Female</td>
<td>.4781</td>
</tr>
<tr>
<td>Discriminant function coefficients (weightings)</td>
<td></td>
</tr>
<tr>
<td>Supervision by parents as child</td>
<td>.3831</td>
</tr>
<tr>
<td>Married before addiction</td>
<td>(.4656)</td>
</tr>
<tr>
<td>Parental educational expectations</td>
<td>/-.5294/</td>
</tr>
<tr>
<td>Regularity of work while addicted</td>
<td>-.0735</td>
</tr>
<tr>
<td>Number of months worked year prior to entering treatment</td>
<td>/-.6369/</td>
</tr>
<tr>
<td>Occupational aspirations</td>
<td>-.1320</td>
</tr>
<tr>
<td>Living with family at entry to treatment</td>
<td>.2817</td>
</tr>
<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Predicted Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Actual Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>65.7%</td>
</tr>
<tr>
<td>Female</td>
<td>26.7%</td>
</tr>
</tbody>
</table>

( ) indicates salient experiences distinguishing females.

/ / indicates salient experiences distinguishing males.
these measures explain 27 percent of the variation \( R^2 = .52 \) and can predict a client's sex correctly three-quarters of the time. The means of .60 for men and -.61 for women indicate substantial differences. As anticipated, men are especially likely to be arrested prior to addiction. Somewhat unexpectedly, a female propensity to be charged with forgery is most important in distinguishing women from men (see Table IV-9).

Contact with heroin users and patterns of drug use will be the last set of variables considered. Based upon prior research, it is anticipated that familial heroin use and differences surrounding the initial experience will have the largest impact in predicting sex.

Only 13 percent of the difference between male and female clients can be explained by this analysis, but 67 percent of the sample can still be classified by sex correctly using the four pieces of information included. As predicted, contact with familial heroin use and a somewhat more passive role in the initial experience are typically female and the most salient of the gender-related differences (see Table IV-10).

These three analyses indicate that male and female clients clearly differ in their ties to the social order, criminal charges, and contact with heroin users. In each analysis the variables included are able to classify correctly by sex no less than two-thirds of the sample. Male clients are particularly characterized by a tie to the labor force, although a weak one, and more extensive criminal activity. Female clients are particularly characterized by formation of a family at an earlier point in their career, very specialized criminal activity, contact with relatives who use drugs and a more dependent role in the
TABLE IV-9
GENDER-RELATED CRIMINAL ACTIVITY

Canonical Correlation $R_{can} =$ .5195

Centroid (means)

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.6019</td>
<td>-.6080</td>
</tr>
</tbody>
</table>

Discriminant function coefficients (weightings)

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrested before addiction</td>
<td>.5183</td>
</tr>
<tr>
<td>Violent charges during addiction</td>
<td>.1463</td>
</tr>
<tr>
<td>Burglary charges during addiction</td>
<td>.3317</td>
</tr>
<tr>
<td>Forgery charges during addiction</td>
<td>-.6307</td>
</tr>
<tr>
<td>Drug-related charges during addiction</td>
<td>.0644</td>
</tr>
<tr>
<td>Property charges year before entry</td>
<td>.2502</td>
</tr>
<tr>
<td>Drug-related charges year before entry</td>
<td>.3325</td>
</tr>
<tr>
<td>Victimless charges while addicted</td>
<td>-.3231</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Actual Sex</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>68.0%</td>
<td>32.0%</td>
</tr>
<tr>
<td>Female</td>
<td>22.2%</td>
<td>77.8%</td>
</tr>
</tbody>
</table>

( ) indicates salient experiences distinguishing females.
/ / indicates salient experiences distinguishing males.

Due to their availability for only a sub-sample, types of charges before addiction are not included.

Juvenile delinquency is not included due to its correlation of .3506 with arrest before addiction.

Victimless charges during addiction and one year before entry to treatment correlated .75 and are therefore combined.
### TABLE IV-10

**GENDER-RELATED CONTACT WITH DRUG USERS AND PATTERNS OF DRUG USE**

<table>
<thead>
<tr>
<th>Canonical Correlation $R_{can}$</th>
<th>.3612</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Centroids (means)</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>.3855</td>
</tr>
<tr>
<td>Female</td>
<td>-.3855</td>
</tr>
<tr>
<td><strong>Discriminant function coefficients (weightings)</strong></td>
<td></td>
</tr>
<tr>
<td>Familial heroin use</td>
<td>(-.5035)</td>
</tr>
<tr>
<td>Purchased own heroin at initiation</td>
<td>/ .6825/</td>
</tr>
<tr>
<td>Age of addiction</td>
<td>.3667</td>
</tr>
<tr>
<td>Polydrug use at entry to treatment</td>
<td>.3091</td>
</tr>
</tbody>
</table>

**Classification**

<table>
<thead>
<tr>
<th>Predicted Sex</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Actual Sex</strong></td>
<td>Male</td>
<td>60.6%</td>
</tr>
<tr>
<td>Female</td>
<td>26.0%</td>
<td>74.0%</td>
</tr>
</tbody>
</table>

( ) indicates salient experiences distinguishing females.

/ / indicates salient experiences distinguishing males.

Due to their high correlations with age of addiction, age of first use and number of years addicted are not included although men and women did differ on these variables.
initiation process. Differences in extent of drug use are not especially prominent.

Summary and Conclusions

The main intent of this chapter is a preliminary description of the differences between men and women entering ARTC. Only two minor contributions to the field are possible at this point: a more systematic descriptive effort and an exploration of the most salient gender-related differences.

Female clients establish and maintain familial ties, although somewhat tenuously, to a greater extent than do males. Although most clients do not grow up in an intact family, females as children are subject to greater supervision. They are especially likely to form their own families prior to addiction and are more likely to retain responsibility for children, although about half of those who have children do not do so. Family also appears to have a greater impact on the female client's decision to enter treatment than on the male client's.

From childhood, male clients develop stronger ties to school and the labor force. They recall significantly higher parental educational expectations--one of the most salient gender-related differences. Yet, the limited educational investment of male clients equals that of female clients. After leaving school, both sexes equally initiate attempts to enter the labor force. Male clients report participation rates lower than those of the Bedford Stuyvesant community as a whole (70 percent compared to 85 percent) while female clients report higher rates of participation (62.5 percent compared to 41.6 percent)(U.S. Bureau of the Census, 1972). Female clients are progressively less successful as their involvement with heroin increases. While addicted, male clients
are more likely to be employed but only sporadically. Despite their more limited work history, female clients express occupational aspirations equal to or greater than those expressed by males.

There are also distinctive gender-linked patterns of criminal activity, as indicated by charge rates. Most male clients have been arrested before addiction, largely for such crimes as assault, robbery, burglary and grand larceny, but contact with law enforcement officials culminating in formal arrest and charge is relatively infrequent. Most female clients are not criminally involved at this point in their addiction career. While using heroin daily, there are clear patterns in the activities which male and female clients choose to support themselves. Males are more likely to be arrested for burglary and criminal possession of stolen property, while females have higher charge rates for forgery and prostitution. Indeed, these are among the most salient gender-related differences in criminal behavior. Charge rates rise the year prior to arrival at ARTC, but at a slower pace for female clients. There are also indications that gender-related patterns of illicit activity may play differential roles in the decision to enter treatment.

Female clients appear to be emotionally more involved with the addicted individuals they know. They are especially likely to have a family member involved with heroin. Although female clients know as many addicted individuals as males, the best friends of these women are more likely to be heroin-experienced.

Finally, male clients appear to have more extensive histories of drug use. They are particularly active in seeking out heroin for experimentation. Males also report a younger age of involvement, a longer period of addiction and greater use of other drugs along with heroin.
In this sample, then, there are clearly gender-linked differences in addiction careers. The typical female client is more closely tied to her family, although ties to the labor force are weaker. Her heroin-using associates are often relatives, and her criminal involvement limited and quite specific in nature. Her drug use is also less extensive. She is more passive at initiation, which comes at a later age, is addicted for fewer years before commencing methadone maintenance, and is less involved in polydrug use. Female clients might be characterized by Matza's (1964) conception of "drift"; their behavior is more conventional and their associational and drug using patterns less deviant. The typical male client truncates his socialization by relatively early involvement in crime and drugs. During addiction, criminal activity increases, reaching a peak the year prior to treatment with a concurrent decline in employment. His involvement with heroin and other psychoactive substances is more extensive.

The patterns reported above generally follow those established in previous literature. Divergence is most likely due to measurement difficulties and the peculiarities of this older, Black, inner city sample. Clearly, confidence in the reliability and validity of these sex-related differences is enhanced by the general convergence of the findings.
CHAPTER V

THE PATTERNING OF GENDER-RELATED DIFFERENTIALS

The previous chapter establishes that there exist significant sex-related differentials in ties to conventional society, criminal behavior and involvement with drugs. However, the manner in which these various aspects of a career in addiction are related to one another has not been explored. Are there patterns of behavior and experiences? If so, do these configurations differ for male and female addicts? Is there only one pattern that is typically male and another typically female? Existing literature treats female addicts as a relatively monolithic group, with the exception of the pregnant addict.

Two points of departure have been taken to explore constellations of behavior in this sample: work history the year prior to arrival at ARTC and living arrangements at entry to treatment. Theory, practice and prior empirical findings recommend these two items. Theoretically, Hirschi (1969) would posit that family and labor force are part of a pattern begun in childhood. An exploration of the dynamics resulting in employment and household formation should also be useful to practitioners; both activities are predictive of treatment outcome (Babst, et al., 1971; Chambers, Babst and Warner, 1970; Dale and Dale, 1973; Eldred and Washington, 1975, 1976; Kleinman and Lukoff, 1975; Krakowski and Smart, 1974; Maddux and McDonald, 1973; Newman, 1977; Perkins and Bloch, 1970; Rosenberg, et al., 1972; Quatrone, 1973).
Furthermore, gender-related differences in these experiences indicate that there indeed may be divergent patterns. Men in this sample work at significantly higher levels the year before entering treatment compared to women. Living arrangements warrant further scrutiny. As stated earlier, although men marry as frequently as women, the latter are more likely to be living with family at entry to treatment. A closer perusal of Table V-1 reveals a far more interesting finding. Women living with their families comprise two distinct groups. Twenty-five women live with children but have separated from their husbands. Another 22 women are living with their spouses but although almost all state they have children, are not currently caring for their offspring. Only one woman lives with both child and spouse. However, a large portion of men who have maintained their familial ties include children in their households. These differences in living arrangements may indicate differing levels of resources and should relate to differing patterns of experiences (see Table V-1).

The Careers of Male Clients

A first question of interest is: Is there a constellation of prior experiences that enables a male client in this sample to maintain labor force participation the year before entering treatment? Measures of several ties to conventional society, criminal behavior and drug use are considered. Completion of high school and relatively steady labor force participation during addiction are expected to increase the likelihood of employment just prior to treatment. Male respondents married prior to addiction are also expected to show more regular participation
TABLE V-1
LIVING ARRANGEMENTS AT ENTRY BY SEX

<table>
<thead>
<tr>
<th>Living Arrangements</th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Alone</td>
<td>25</td>
<td>24.3</td>
<td>22</td>
<td>21.2</td>
</tr>
<tr>
<td>Spouse only</td>
<td>12</td>
<td>11.7</td>
<td>22</td>
<td>21.2</td>
</tr>
<tr>
<td>Spouse and child</td>
<td>17</td>
<td>16.5</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Child without spouse</td>
<td>1</td>
<td>1.0</td>
<td>25</td>
<td>24.0</td>
</tr>
<tr>
<td>Parents</td>
<td>28</td>
<td>27.2</td>
<td>16</td>
<td>15.4</td>
</tr>
<tr>
<td>Other</td>
<td>30</td>
<td>19.4</td>
<td>18</td>
<td>17.3</td>
</tr>
<tr>
<td></td>
<td>103</td>
<td>100.0</td>
<td>104</td>
<td>100.0</td>
</tr>
</tbody>
</table>

in the labor force. Based upon the work of Hirschi (1969), arrest before addiction should decrease employment if criminal behavior is indicative of socialization into a different set of values. If Matza (1964) is correct, this activity will not have an impact on labor force participation. Age of addiction should have a negative impact, truncating further socialization and conventional experiences if Hirschi (1969) is correct.

The number of months worked the year before arrival at ARTC is positively related to never having been arrested, working regularly during addiction, establishing marital bonds both before and after addiction and age of addiction (data not shown in tabular form). When
TABLE V-2
FOR MEN
IMPACT OF PRIOR ACCEPTANCE OF CONVENTIONAL ROLES ON EMPLOYMENT
THE YEAR PRIOR TO ENTERING TREATMENT

| Impact of prior acceptance of conventional roles on employment the year prior to entering treatment (Standardized Beta Weights) |
|--------------------|----------------|
| Last year of school completed | -.0386 |
| Last year of school wanted to complete | .1575 |
| Married before addiction | .1311 |
| Never married | -.1668 |
| Arrested before addiction | -.0638 |
| Age of addiction | .2178 |
| Regularity of work while addicted | .1764 |

*p < .05  **p < .01

All these experiences are considered in one analysis, fully 18 percent of the variation in labor force participation is explained. Because all these behaviors are interrelated, no one has a significant direct effect. The relative strength of age of addiction and regularity of work while addicted are in line with the dynamics posited by Hirschi (1969) (see Table V-2).

Are these same experiences related to living with family—both with and without children—at entry to treatment? It is hypothesized that male respondents married prior to addiction will be more likely to remain with their family compared to those married after addiction.
TABLE V-3
FOR MEN
IMPACT OF PRIOR ACCEPTANCE OF CONVENTIONAL ROLES ON LIVING WITH FAMILY AT ENTRY TO TREATMENT

<table>
<thead>
<tr>
<th>Centroids (means)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Living with family</td>
<td>-.6596</td>
</tr>
<tr>
<td>Other</td>
<td>.2711</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discriminant function coefficients (weightings)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Last year school completed</td>
<td>-.1229</td>
</tr>
<tr>
<td>Last year school wanted to complete</td>
<td>-.1307</td>
</tr>
<tr>
<td>Married before addiction</td>
<td>.0214</td>
</tr>
<tr>
<td>Never married</td>
<td>.9336</td>
</tr>
<tr>
<td>Arrested before addiction</td>
<td>.2558</td>
</tr>
<tr>
<td>Age of addiction</td>
<td>-.0697</td>
</tr>
<tr>
<td>Regularity of work while addicted</td>
<td>.1439</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Actually living with</th>
<th>Predicted living with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>Other</td>
</tr>
<tr>
<td>Family</td>
<td>83.3%</td>
</tr>
<tr>
<td>Other</td>
<td>42.5%</td>
</tr>
</tbody>
</table>

[] indicates salient experiences distinguishing men not living with family.
Male respondents working while addicted are also expected to live with their families more frequently than the unemployed. Arrest before addiction is anticipated to decrease the likelihood of living with family at entry. In short, this author believes that the same pattern of experiences culminates in working the year prior to commencing methadone maintenance and living with family at entry to treatment.

This hypothesis is largely corroborated. Living with family is significantly correlated with never having been arrested, working regularly while addicted, and working the year before entering treatment (data not shown in tabular form). The multiple discriminant analysis shows that men living with their family are indeed discriminated from men in other living situations. Fully 16 percent of the variation in living arrangements is explained by this analysis. Sixty-five percent of the male sample can be classified correctly with the pieces of information considered here. The weightings assigned to those never married and those married prior to addiction indicate that those married before addiction are as likely as those married after addiction to remain with their families (see Table V-3).

Based upon the preceding analysis, there appear to be two patterns of experiences. Men living with their family work while addicted and the year before entering treatment, have not been arrested, and although not indicated in this analysis may be somewhat older at addiction. A relatively larger group of men have never established a family of procreation, evidence a more limited work history, were arrested prior to addiction and may have become addicted at a younger age. These patterns are summarized in the following chart.


CHART V-1

INITIAL PATTERNING OF EXPERIENCES FOR MALE CLIENTS OF ARTC

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Living With Family (&quot;Home Life&quot;)</th>
<th>Not Living With Family (&quot;Fast Life&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriage</td>
<td>Established</td>
<td>Never established</td>
</tr>
<tr>
<td>Labor force participation</td>
<td>Relatively steady</td>
<td>Relatively sporadic</td>
</tr>
<tr>
<td>Schooling</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Arrest prior to addiction</td>
<td>Not arrested</td>
<td>Arrested before addiction</td>
</tr>
<tr>
<td>Age of addiction</td>
<td>Probably older</td>
<td>Probably younger</td>
</tr>
</tbody>
</table>

Evidently, male clients are not one homogeneous group but rather come to ARTC with two distinct constellations of experiences. One consists of a relatively progressive set of conventional behaviors. If such activities imply holding relatively conventional norms, these respondents may have drifted into addiction in the manner posited by Matza (1964). The second configuration of behaviors approaches the pattern of truncated socialization earlier described as typical of males. Weak ties to family and school, along with early involvement in crime precede an early age of addiction which limits the development of further conventional behavior (Hirschi, 1969; Sutherland and Cressey, 1974). To this point, the typology appears to be useful. If living
arrangements truly indicate two different patterns, these two groups should be distinguished by differences in other behavior and experiences (Lazarsfeld, 1974).

Given that male respondents in the "fast life" are more likely to be arrested prior to addiction, their later involvement in crime should be greater than the "drifters." It is expected that an exploration of specific types of criminal activity during addiction will show the latter group to be less involved in crime as indicated by less extensive and less varied criminal charges.

The analysis presented in Table V-4 is in line with the patterning of criminal activity posited above. Men living with their family are typically charged with drug-related crimes--most likely possession. Men not living with their family are more likely to be charged with property and victimless crimes. Fully 66 percent of the male sample can be classified correctly as to living situation with information on criminal charges, although the canonical correlation indicates only a small portion of the variance in living arrangements is explained (see Table V-4).

Differing patterns of drug usage should also discriminate living situation. Due to their relatively conventional behavior, male respondents living with family are expected to evidence a less extensive pattern of drug usage. Their initial experience should be more passive in nature, their use of alcohol and other illicit drugs at entry less, and their heroin-using friends fewer.

Again, as expected, clients involved in the "fast life" are fairly well discriminated from those characterized by "drift." The seven pieces of information included in this analysis will classify
TABLE V-4
FOR MEN
IMPACT OF SPECIFIC CRIMINAL ACTIVITY ON LIVING WITH FAMILY AT ENTRY TO TREATMENT

<table>
<thead>
<tr>
<th>Canonical Correlation $R_{\text{can}}$ =</th>
<th>.2153</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centroids (means)</td>
<td></td>
</tr>
<tr>
<td>Living with family</td>
<td>-.3415</td>
</tr>
<tr>
<td>Other</td>
<td>.1395</td>
</tr>
<tr>
<td>Discriminant function coefficients (weightings)</td>
<td></td>
</tr>
<tr>
<td>Violent charges during addiction</td>
<td>-.2789</td>
</tr>
<tr>
<td>Property charges during addiction</td>
<td>.6047</td>
</tr>
<tr>
<td>Victimless charges during addiction</td>
<td>.4139</td>
</tr>
<tr>
<td>Drug-related charges during addiction</td>
<td>-.7630</td>
</tr>
<tr>
<td>Violent charges year before entry</td>
<td>.2784</td>
</tr>
<tr>
<td>Property charges year before entry</td>
<td>.4776</td>
</tr>
<tr>
<td>Drug-related charges year before entry</td>
<td>-.2547</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Actually living with</th>
<th>Predicted living with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Family</td>
</tr>
<tr>
<td>Family</td>
<td>58.6%</td>
</tr>
<tr>
<td>Other</td>
<td>31.0%</td>
</tr>
</tbody>
</table>

 accuses salient experiences distinguishing men living with family.

 indicates salient experiences distinguishing men not living with family.
TABLE V-5

FOR MEN

IMPACT OF DRUG-USING ASSOCIATES AND PATTERNS OF DRUG USE ON LIVING WITH FAMILY AT ENTRY TO TREATMENT

---

Canonical Correlation $R_{can} = 0.2851$

Centroids (means)

<table>
<thead>
<tr>
<th></th>
<th>Living with family</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$-0.1899$</td>
<td>$0.4540$</td>
</tr>
</tbody>
</table>

Discriminant function coefficients (weightings)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided own heroin at initiation</td>
<td>$-0.4398$</td>
</tr>
<tr>
<td>Initiation own idea</td>
<td>$-0.4977$</td>
</tr>
<tr>
<td>Number heroin-using friends</td>
<td>$0.4581$</td>
</tr>
<tr>
<td>Number abstinent acquaintances</td>
<td>$0.5785$</td>
</tr>
<tr>
<td>Familial heroin use</td>
<td>$-0.2070$</td>
</tr>
<tr>
<td>Polydrug use at entry to treatment</td>
<td>$-0.2303$</td>
</tr>
<tr>
<td>Alcohol intake</td>
<td>$-0.1409$</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th></th>
<th>Predicted living with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Family</td>
</tr>
<tr>
<td>Actually living with</td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>69.6%</td>
</tr>
<tr>
<td>Other</td>
<td>43.6%</td>
</tr>
</tbody>
</table>

[ ] indicates salient experiences distinguishing men not living with family.

[ ] indicates salient experiences distinguishing men living with family.
60 percent of the male sample correctly. Men living with their families are more passive at initiation, reporting that the activity was not their idea and that they were given their first heroin as a gift. Interestingly, these same men also report knowing more abstinent acquaintances and heroin-using friends than their counterparts in the "fast life" who may be relatively isolated. Contrary to expectation, polydrug use and alcohol intake are not useful in distinguishing among the two groups, nor is familial heroin use. Why this is so remains unclear (see Table V-5).

A final area of crucial importance is the varying attempts of male respondents living with and without family to give up their use of heroin. Through logical extension of the theories proposed by Hirschi (1969) and Matza (1964), individuals with the strongest ties to conventional society should make the most efforts to cease drug use. It is anticipated that, based on their stronger ties, male respondents living with family will make more attempts to abstain from heroin use both voluntarily and within the context of treatment. Their expectations of methadone maintenance should be more tolerant, and their reasons for entering family-oriented.

The means, or centroids, of .3786 for men living with family and -.1591 for men not living with family on the five pieces of information included indicate a fair level of discrimination. Sixty-one percent of the male sample can be classified correctly into the two hypothesized groups. The weightings assigned to various experiences indicating attempts to cease heroin use show that men living with family have had less prior treatment but have been voluntarily abstinent for longer periods compared to men not living with family. Unexpectedly, the
## TABLE V-6
FOR MEN
DIFFERENTIALS IN ATTEMPTS AT ABSTINENCE

<table>
<thead>
<tr>
<th>Classification</th>
<th>Predicted living with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actually living with</td>
<td>Family</td>
</tr>
<tr>
<td>Family</td>
<td>48.3%</td>
</tr>
<tr>
<td>Other</td>
<td>33.3%</td>
</tr>
</tbody>
</table>

Canonical Correlation $R_{can} = 0.2407$

Centroids (means)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Centroid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living with family</td>
<td>0.3786</td>
</tr>
<tr>
<td>Other</td>
<td>-0.1591</td>
</tr>
</tbody>
</table>

Discriminant function coefficients (weightings)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior treatment</td>
<td>-0.4972</td>
</tr>
<tr>
<td>Specific expectations of treatment</td>
<td>0.3398</td>
</tr>
<tr>
<td>Longest period of voluntary abstinence</td>
<td>0.6188</td>
</tr>
<tr>
<td>Familial reasons for entering treatment</td>
<td>-0.6230</td>
</tr>
<tr>
<td>Program-specific reasons for entering treatment</td>
<td>-0.0603</td>
</tr>
</tbody>
</table>

( ) indicates salient variables distinguishing men not living with family.

[] indicates salient variables distinguishing men living with family.
latter group reports a somewhat higher level of familial reasons for entering. This may be due to those men (N = 28) living with their parents. The finding, however, remains an anomaly (see Table V-6).

The typology created, then, appears to be quite useful; male clients in this sample seem to follow one of two distinct career patterns. The larger portion appear to have chosen the "fast life." These clients did not establish familial ties nor work histories prior to addiction, but became involved in criminal activity. They play a relatively active role in their initial experience with heroin, which may have occurred at a younger age. After addiction, these clients do not go on to establish ties, supporting themselves through property crime and gambling. They may be relatively isolated, reporting fewer addicted friends and abstinent acquaintances at entry to treatment. Attempts at prior treatment and voluntary abstinence on the part of this group are less extensive. A smaller group of male clients evidences a more conventional pattern, establishing work histories prior to addiction and in some instances marital ties. These individuals are typically not arrested prior to daily use of heroin. After addiction, their participation in the labor force is somewhat more consistent and those who have not yet established families do so. Involvement in criminal activity while addicted remains at a relatively low level and attempts at abstinence are more frequent.

The Careers of Female Clients

Do the paths taken by female clients in this sample diverge from those followed by their male counterparts? In an attempt to explore this question, the analysis described above was replicated for the
female sample. One difference has been introduced. Women living with their families of procreation are divided into those living with spouse and those living with children.

Female clients work less frequently than their male counterparts. Does this mean that female labor force participation is based upon different requirements? Of course, a most important prerequisite for all respondents is prior work experience. However, educational requirements may differ. Although female respondents who work report holding largely blue collar jobs, schooling may have a greater impact on their work patterns for two possible reasons. The first is that employed female respondents may be more motivated to enter the labor force than their male counterparts, which may express itself through completion of school. A second possibility is that stronger academic credentials are required of female respondents who wish to enter the labor force and only those completing relatively high levels of education are admitted. Arrest and age of addiction should not be related if, as indicated in the last chapter, female respondents are typically characterized by Matza's (1964) concept of "drift."

Working the year before entry to treatment is significantly related to academic achievement, not having been arrested prior to addiction and working regularly while addicted (data not shown in tabular form). Age of addiction is not related. Together these experiences account for over one quarter of the variation in labor force participation. This multiple regression analysis indicates that when other behaviors are controlled, arrest and regularity of work while addicted retain a significant direct impact on employment the year before methadone maintenance is begun. Education does not have the differential
TABLE V-7
FOR WOMEN
IMPACT OF PRIOR ACCEPTANCE OF CONVENTIONAL ROLES ON EMPLOYMENT
THE YEAR PRIOR TO ENTERING TREATMENT

<table>
<thead>
<tr>
<th>Impact of prior acceptance of conventional roles on employment the year prior to entering treatment</th>
<th>(Standardized Beta Weights)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last year of school completed</td>
<td>.1887</td>
</tr>
<tr>
<td>Last year of school wanted to complete</td>
<td>-.1771</td>
</tr>
<tr>
<td>Married before addiction</td>
<td>.0481</td>
</tr>
<tr>
<td>Arrested before addiction</td>
<td>-.2080*</td>
</tr>
<tr>
<td>Never arrested</td>
<td>-.0665</td>
</tr>
<tr>
<td>Age of addiction</td>
<td>-.0331</td>
</tr>
<tr>
<td>Regularity of work while addicted</td>
<td>.4302**</td>
</tr>
</tbody>
</table>

Multiple Correlation: \( R = .5141^{**} \)

Variance in number of months worked the year prior to entering treatment explained \( R^2 = 26.4\%

\*p < .05 \quad \text{**p < .01}

Are these same experiences able to distinguish among female respondents living without family, with spouse and with children?

Both theory and the previous analysis conducted on the male sample indicate ties to work and family are interrelated. Therefore, it is anticipated that female respondents not living with family will evidence relatively higher levels of criminal charges, a younger age of addiction and lower levels of employment. Their socialization, as with
men in the "fast life" has been truncated. Respondents living with children will be employed at relatively low levels, rarely arrested before addiction but most frequently married before addiction. Their addiction is expected to occur at a relatively later point in life.

The experiences considered distinguish among the three hypothesized groups quite well. Living with children is significantly related to establishing marital bonds prior to addiction (r=.3045), bearing a relatively large number of children (r=.3869), not having been arrested prior to addiction (r=-.1800), and not having worked regularly while addicted (r=-.2440). Women living with their husbands are slightly less likely to be arrested prior to addiction (r=-.1545) although the relationship does not quite reach significance. Women not living with family exhibit a diametrically opposed pattern: not marrying before addiction, being arrested prior to addiction, and having few children.

Together, these experiences account for over one-third of the variation in household formation. With the information included in this analysis, fully 60 percent of the female sample can be classified into their correct living arrangement. There appear to be two groupings of experiences or "functions," both of which correlate fairly well with living situation (see Table V-8).

The means for each type of living arrangement indicate that women living with children are characterized by a high score on the first pattern of experiences. That is, they are most likely to marry prior to addiction and have a large number of children. Conversely, women not living with family are characterized by a low score on the first pattern, indicating their greater propensity to be arrested before addiction, and their lack of family ties and children (see Table V-8).
TABLE V-8
IMPACT OF PRIOR ACCEPTANCE OF CONVENTIONAL ROLES ON LIVING WITH FAMILY AT ENTRY TO TREATMENT

Canonical Correlations

| Grouping: female head of household (Function 1) | $R_{can} = .5819$ |
| Grouping: wife (Function 2) | $R_{can} = .2562$ |

Centroids (means)

<table>
<thead>
<tr>
<th>Living with spouse</th>
<th>Female Head of Household</th>
<th>Wife</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living with children</td>
<td>1.0762</td>
<td>.2381</td>
</tr>
<tr>
<td>Other</td>
<td>-.6065</td>
<td>.0895</td>
</tr>
</tbody>
</table>

Discriminant function coefficients (weightings)

<table>
<thead>
<tr>
<th>Grouping: Female Head of Household</th>
<th>Wife</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last year school completed</td>
<td>.0866</td>
</tr>
<tr>
<td>Last year school wanted to complete</td>
<td>.1824</td>
</tr>
<tr>
<td>Married before addiction</td>
<td>(.5042)</td>
</tr>
<tr>
<td>Arrested before addiction</td>
<td>-.4881</td>
</tr>
<tr>
<td>Never arrested</td>
<td>-.0522</td>
</tr>
<tr>
<td>Age of addiction</td>
<td>(-2984)</td>
</tr>
<tr>
<td>Regularity of work while addicted</td>
<td>-.2482</td>
</tr>
<tr>
<td>Number of children at entry</td>
<td>(.7668)</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Predicted living with</th>
<th>Actually living with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spouse</td>
</tr>
<tr>
<td>Spouse</td>
<td>39.1%</td>
</tr>
<tr>
<td>Child</td>
<td>24.0%</td>
</tr>
<tr>
<td>Other</td>
<td>16.1%</td>
</tr>
</tbody>
</table>

[] indicates salient experiences distinguishing women not living with family.

[] indicates salient experiences distinguishing women living with children.

[] indicates salient experiences distinguishing women living with spouse.
Women living with their spouse are distinguished by the second grouping of experiences. They have relatively modest educational aspirations, which may indicate that the last grade completed may be closer to the last grade they hoped to complete, compared to women choosing other living arrangements. Women maintaining a household with their spouse are also characterized by relatively stable labor force participation while addicted and infrequency of arrest prior to addiction. Furthermore, the nine women in this sample who married after addiction appear to be typically living with their husbands at entry to treatment (data not shown in tabular form). Unfortunately, it must be noted that women living with their husbands are not well distinguished from those in other living arrangements (see Table V-8).

The analysis of female clients to this point appears to indicate that there are at least two distinct patterns of experiences, and possibly a third. These findings are summarized in the following chart. A useful observation is that both male and female clients not living with family bring to ARTC a similar history.

CHART V-2

INITIAL PATTERNING OF EXPERIENCES FOR FEMALE CLIENTS OF ARTC

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Living With Spouse</th>
<th>Living With Child</th>
<th>Not Living With Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriage</td>
<td>After addiction</td>
<td>Before addiction</td>
<td>Not married</td>
</tr>
<tr>
<td>Labor force participation</td>
<td>Relatively steady</td>
<td>Relatively sporadic</td>
<td>Relatively sporadic</td>
</tr>
<tr>
<td>Schooling</td>
<td>Completed what wanted</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Arrest prior to addiction</td>
<td>Not arrested</td>
<td>Not arrested</td>
<td>Arrested</td>
</tr>
<tr>
<td>Age of addiction</td>
<td>Probably older</td>
<td>Probably older</td>
<td>Probably younger</td>
</tr>
</tbody>
</table>
If the typology created above is useful, female respondents not living with family should participate most extensively in illicit activities. This is indeed the case when types of charges while addicted are considered. The canonical correlations presented in Table V-9 indicate that the second pattern of charge rates accounts for only four percent of the variation in living arrangements and is therefore not very useful. The means on the first pattern of charges for those living with spouse (-.4197) and those living with children (-.5290) indicate these two groups of women are similar. Both are characterized by arrests for drug-related crimes. Women not living with family are characterized by their greater involvement in property crime, most likely forgery. Prediction of living arrangements from patterns of charge rates is not as successful as hoped (see Table V-9).

Patterns of drug use and extent of heroin-using friends should distinguish among female respondents choosing different living arrangements as well. Those living with spouse and child should evidence less extensive involvement due to their more conventional behavior. Further differences cannot be posited.

Women living with their husbands differ little from women in other living situations. Living with spouse is weakly correlated with having few heroin-using friends at entry to treatment (r = -.1682), while those not living with family have many (r = .1551). Neither of these relationships quite reaches significance. There are also indications that women living with spouse are more likely to provide their own heroin at initiation, but too few women did so to test statistically (data not shown in tabular form). Not unexpectedly, neither grouping of experiences created by the multiple discriminant analysis
TABLE V-9

FOR WOMEN:
IMPACT OF SPECIFIC CRIMINAL ACTIVITY ON LIVING WITH FAMILY AT ENTRY

Canonical Correlation

<table>
<thead>
<tr>
<th>Grouping:</th>
<th>Female Head of Household (Function 1)</th>
<th>$R_{can} =$</th>
<th>0.4029</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grouping:</td>
<td>Wife (Function 2)</td>
<td>$R_{can} =$</td>
<td>0.2003</td>
</tr>
</tbody>
</table>

Centroids (means)

| Living with spouse | -.4197 |
| Living with children | -.5290 |
| Other | .3943 |

Discriminant function coefficients (weightings)

<table>
<thead>
<tr>
<th>Grouping:</th>
<th>Female Head of Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violent charges during addiction</td>
<td>.2533</td>
</tr>
<tr>
<td>Property charges during addiction</td>
<td>0.7222</td>
</tr>
<tr>
<td>Drug-related charges during addiction</td>
<td>-.4823</td>
</tr>
<tr>
<td>Violent charges year before entry</td>
<td>.0345</td>
</tr>
<tr>
<td>Property charges year before entry</td>
<td>-.0186</td>
</tr>
<tr>
<td>Drug-related charges year before entry</td>
<td>-.5541</td>
</tr>
<tr>
<td>Victimless charges while addicted</td>
<td>.3357</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Actually living with</th>
<th>Predicted living with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spouse</td>
</tr>
<tr>
<td>Spouse</td>
<td>30.4%</td>
</tr>
<tr>
<td>Child</td>
<td>18.2%</td>
</tr>
<tr>
<td>Other</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

- Indicates salient experiences distinguishing women not living with family.
- Indicates salient experiences distinguishing women living with family.
is highly correlated with living situation. The first pattern of experiences will be discussed briefly, although it explains only a relatively small proportion of the variation in household formation. It appears that when contact with drug users and patterns of drug usage are considered, the most salient difference among the three groups of women is in their contact with drug users. Women living with spouse are least likely to report having addicted friends at entry to treatment (see Table V-10). The soundest interpretation of this analysis is that patterns of drug use and contact with drug users do not distinguish among women living with spouse, child or others. Women living with their husbands may have slightly fewer heroin using friends and may have been somewhat more aggressive in arranging their initiation. Clearly, these experiences do not add much to develop the typology explored here.

Female respondents living with spouse or child should evidence greater attempts at abstinence, both within and outside the treatment context. This statement is made on the strength of two points. The first is that theoretically those individuals with the strongest ties to conventional society and weakest association with criminals and drug users should be most likely to cease drug use. Previous empirical findings also point toward the hypothesis stated above. Male respondents in the "fast life" report fewer attempts at abstinence compared to men living with family; to this point female respondents not living with family seem to follow a strikingly similar pattern. Child care responsibilities may make entering treatment programs more difficult, inhibiting treatment participation by female respondents living with children.
TABLE V-10
FOR WOMEN:
IMPACT OF DRUG-USING ASSOCIATES AND PATTERNS OF DRUG USE ON LIVING WITH FAMILY AT ENTRY TO TREATMENT

Canonical Correlation:

<table>
<thead>
<tr>
<th>Grouping</th>
<th>R_{can}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wife (Function 1)</td>
<td>0.2295</td>
</tr>
<tr>
<td>Female Head of Household (Function 2)</td>
<td>0.1034</td>
</tr>
</tbody>
</table>

Centroids (means)

<table>
<thead>
<tr>
<th>Grouping</th>
<th>Living with spouse</th>
<th>Living with children</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wife</td>
<td>-0.3126</td>
<td>-0.1712</td>
<td>0.2060</td>
</tr>
</tbody>
</table>

Discriminant function coefficients (weightings)

<table>
<thead>
<tr>
<th>Grouping</th>
<th>Initiation own idea</th>
<th>Number heroin using friends</th>
<th>Number abstinent acquaintances</th>
<th>Familial heroin use</th>
<th>Polydrug use at entry to treatment</th>
<th>Alcohol intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wife</td>
<td>0.3283</td>
<td>0.8618</td>
<td>0.2817</td>
<td>0.3302</td>
<td>0.1288</td>
<td>-0.3344</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Actually living with</th>
<th>Predicted living with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spouse</td>
</tr>
<tr>
<td>Spouse</td>
<td>57.1%</td>
</tr>
<tr>
<td>Child</td>
<td>35.3%</td>
</tr>
<tr>
<td>Other</td>
<td>37.0%</td>
</tr>
</tbody>
</table>

† indicates salient experiences distinguishing women living with spouse.
Discrimination with abstinence-related experiences is not as accurate for women as it is for men. Based upon the canonical correlations, it appears that there is only one grouping of experiences which is useful in distinguishing among the three types of households. Women living with children or spouse are, surprisingly, characterized by relatively low levels of prior treatment and voluntary abstinence, but are relatively tolerant in their expectations of methadone maintenance. Conversely, those not living with family have experienced greater attempts at abstinence both in and out of treatment and are relatively intolerant (see Table V-11).

The above analysis appears to indicate at least two, and possibly three, distinct patterns of behavior within the female sample. Female clients living with their children on arrival at ARTC are characterized by marriage prior to addiction along with relatively low levels of both labor force participation and criminal activity prior to addiction. Their initial experience may have occurred at a somewhat older age although this is not indicated in the analysis conducted here. While addicted, their involvement in work and crime remains sparse. These women make relatively few attempts at abstinence. Women in the "fast life" do not marry or work and are most frequently arrested prior to addiction. While addicted, these women support themselves through property crime, typically forgery judging from the analysis presented in Chapter IV. They bring with them to ARTC a greater number of heroin-using friends and more extensive experience in treatment, but are relatively pessimistic concerning adaptation to methadone. Women living with their spouse are not well discriminated from those living with children. They are largely distinguished by
TABLE V-11
FOR WOMEN:
DIFFERENTIALS IN ATTEMPTS AT ABSTINENCE

Canonical Correlation

| Grouping: Female Head of Household (Function 1) | $R_{can} = 0.3436$ |
| Grouping: Wife (Function 2) | $R_{can} = 0.1734$ |

Centroids (means)

<table>
<thead>
<tr>
<th>Living with spouse</th>
<th>Living with children</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grouping: Female Head of Household</td>
<td>-0.2345</td>
<td>-0.4929</td>
</tr>
</tbody>
</table>

Discriminant function coefficients (weightings)

<table>
<thead>
<tr>
<th>Prior treatment</th>
<th>Specific expectations of treatment</th>
<th>Longest period of voluntary abstinence</th>
<th>Familial reasons for entering treatment</th>
<th>Program-specific reasons for entering treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grouping: Female Head of Household</td>
<td>0.9016</td>
<td>-0.3780</td>
<td>0.4387</td>
<td>-0.2075</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Actually living with</th>
<th>Predicted living with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spouse</td>
</tr>
<tr>
<td>Spouse</td>
<td>26.1%</td>
</tr>
<tr>
<td>Child</td>
<td>26.1%</td>
</tr>
<tr>
<td>Other</td>
<td>28.0%</td>
</tr>
</tbody>
</table>

- Indicates salient experiences distinguishing women not living with family
- Indicates salient experiences distinguishing women living with family.
marriage after addiction, stronger work histories and a more aggres-
sive role in the initial experience with heroin.

Summary and Conclusions

Two very interesting points can be drawn from the findings presented in this chapter. The first is that there are differing configurations of behavior among female and male clients—these are not monolithic groups. A second point is that these patterns are not as divergent as the initial sex-related differences described in the last chapter would lead clinicians and planners to believe.

There appear to be two relatively discrete groups of male clients; there are also at least two and possibly three distinct groups of female clients. The largest portion of male respondents have chosen the "fast life" while a smaller number evidence a pattern of somewhat more conventional behavior. Female clients living with children are clearly distinct in behavior from those not living with family. Female respondents living with their spouse are not well dis-
tinguished from female respondents living with their children, although there do seem to be some differences in marital patterns and employ-
ment. The constellations of experiences described above are summa-
ized in Chart V-3.

From this chart it is also evident that the gender-related dif-
ferences reported in the previous chapter are not as great as might be expected. Male and female clients choosing the "fast life" show striking similarities, although there are some differences in type of criminal activity, association with addicted friends and extent of abstinence. Clients who can be characterized as "drifters"—living
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Male Clients</th>
<th></th>
<th>Female Clients</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Live With Family</td>
<td>Do Not Live With Family</td>
<td>Live With Spouse</td>
<td>Live With Child</td>
<td>Do Not Live With Family</td>
</tr>
<tr>
<td>Marriage</td>
<td>Before or after addiction</td>
<td>Never marry</td>
<td>After addiction</td>
<td>Before addiction</td>
<td>Never marry</td>
</tr>
<tr>
<td>Labor force participation</td>
<td>Relatively strong history</td>
<td>Relatively weak history</td>
<td>Relatively strong history</td>
<td>Relatively weak history</td>
<td>Relatively weak history</td>
</tr>
<tr>
<td>Arrest prior to addiction</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Age of addiction initiation</td>
<td>Possibly older</td>
<td>Possibly younger</td>
<td>Possibly older</td>
<td>Possibly older</td>
<td>Possibly younger</td>
</tr>
<tr>
<td>Crime while addicted</td>
<td>Relatively passive</td>
<td>Relatively active</td>
<td>Relatively active</td>
<td>Relatively passive</td>
<td>No impact</td>
</tr>
<tr>
<td></td>
<td>Largely drug-related</td>
<td>Property-related and victimless (burglary and gambling)</td>
<td>Largely drug-related</td>
<td>Largely drug-related</td>
<td>Property-related (forgery)</td>
</tr>
<tr>
<td>Heroin-using friends</td>
<td>More</td>
<td>Less</td>
<td>Least</td>
<td>Less</td>
<td>Most</td>
</tr>
<tr>
<td>Abstinent acquaintances</td>
<td>More</td>
<td>Less</td>
<td>No impact</td>
<td>No impact</td>
<td>No impact</td>
</tr>
<tr>
<td>Prior treatment</td>
<td>Less</td>
<td>More</td>
<td>Less</td>
<td>Least</td>
<td>Most</td>
</tr>
<tr>
<td>Reasons for entering</td>
<td>Not familial</td>
<td>Familial</td>
<td>No impact</td>
<td>No impact</td>
<td>No impact</td>
</tr>
</tbody>
</table>
with spouse, child or both—also share certain experiences. They are minimally involved in criminal activity prior to and during addiction, engage in drug use at a relatively older age and enter ARTC with relatively less previous treatment. Of course, male clients living with family do differ in several important ways from their female counterparts living with spouse or child. Women living with their spouse are more likely to marry after addiction and take a more active role in their initiation to heroin. Women living with children have a greater number of children, a much weaker employment history and may have experienced less prior treatment.

One possible concern is that these patterns are confounded by or related to age. At least in this sample, there are no gender-related differences in age at entry to treatment. Age is also not related to the living situation of female clients at entry to treatment. Those living with spouse have a mean age of 29.6; those living with children have a mean age of 29.4. Those not living with family include women living alone, with parents and in other situations whose mean ages are 31.9, 30.5, and 29.1 respectively. For men, those living with family are as old as those not living with family. However, those not living with family are composed of two distinct groups: men living alone (mean age 36.5); and men living with parents or transiently (mean age 27.6 and 26.7 respectively). It may be that the two younger groups are most salient among men not living with family. The "fast life" may be associated with a younger age, at least for men.

Little in the literature corroborates these patterns, although there are a few indications of varying constellations of experiences. Caplovitz (1976) based upon a largely male sample reports that the "social coloring" of working addicts departs from that of addicts in
general and moves closer to that of the non-addicted population. Working addicts exhibit a more conventional lifestyle. Their age of addiction is older, they are more likely to be married and are more highly educated compared to the known addict population of New York City (Caplovitz, 1976). As stated earlier, the sparse literature on female addicts tends to treat these women as a largely undifferentiated group. Existing knowledge provides little with which to corroborate the existence of the three hypothesized groups of female clients. Rosenbaum (1979) does report different modes of introduction to heroin among her sample of female addicts, related to varying lifestyles. The findings of other studies cited in the literature review are not contraindicative of the patterns explored here.

Studies considering men and women as two homogeneous groups will most likely report findings similar to those in the previous chapter. This stems from the differential distribution of men and women between the "fast life" and "drifting" life. If Cloward and Piven (1977) are right, this differential may be due to both internal and external imposition of gender-related norms. These data cannot speak to the point. The theoretical and programmatic implications of these findings will be explored further in Chapter VII.
CHAPTER VI

THE PATTERNING OF GENDER-RELATED DIFFERENTIALS AND TREATMENT

Having explored gender-related differences and the patterning of experiences prior to arrival at ARTC, the analysis now turns to client behavior while in treatment. This chapter attempts to address the following questions: Do male and female clients differ in their behavior while at ARTC; to what extent are the differences found related to past experiences; to what extent does the patterning identified in the last chapter persist?

Before proceeding, several cautionary notes concerning the limitations of the analysis to be presented are in order. This chapter does not consider treatment outcome. Information on services received while in treatment is available for merely a small portion of this sample. Therefore, although behavior while maintained on methadone is partially reflective of program offerings, only the impact of prior experiences will be explored. A second limitation is that the behavior of this sample while in treatment cannot be generalized to all who entered ARTC from October 1969 to September 1972, nor to patients in other programs. This sample is selective in many ways. Only those individuals with complete data sets are considered. Naturally, the less time a client spent in the program, the less likely he or she was to have a complete data set. Such selectivity implies that rates of crime
and drug use presented here may be somewhat low, while employment and retention may be somewhat high, compared to rates based on a more representative sample of clients. Despite the selectivity of this sample, there is no reason to believe there are sex-related biases in the completion of data sets; the same proportion of male and female clients were excluded from the sample for this reason. To the extent that the assumption made holds, comparisons between male and female clients' behavior while enrolled at ARTC remain valid. This issue of sample selectivity is expanded upon further in Chapter III.

The questions posed above will each be considered in turn. Gender-related differences in retention, employment, crime and drug use while in treatment are described first. Then, the antecedents of employment, crime and retention are considered. Finally, differences in behavior based upon living patterns at entry to treatment are explored.

Gender-related Differences in Behavior While at ARTC

On the basis of previous literature and the findings presented in Chapter IV, it is anticipated that behavior while maintained on methadone will differ by sex. Female respondents will have lower rates of employment and criminal activity compared to their male counterparts. No speculations concerning differentials in drug use and retention can be set forth, due to the mixed nature of past findings and gaps in present knowledge.

In this sample, there are no gender-related differences in retention. Approximately 80 percent of both men and women remain in treatment for at least twelve months (see Table VI-1). This proportion
### TABLE VI-1

BEHAVIOR WHILE IN TREATMENT

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Retained less than one year</td>
<td>22.1</td>
<td>17.3</td>
<td>.4857</td>
</tr>
<tr>
<td>Employed while in the program</td>
<td>39.1</td>
<td>16.1</td>
<td>11.1291**</td>
</tr>
<tr>
<td>Miss medication more than 25% of the time</td>
<td>31.9</td>
<td>25.8</td>
<td>.6042</td>
</tr>
<tr>
<td>More than 25% of urine tests indicate heroin use</td>
<td>37.1</td>
<td>31.6</td>
<td>.4290</td>
</tr>
<tr>
<td>Charged with any crime (overall)</td>
<td>33.7</td>
<td>27.9</td>
<td>.5642</td>
</tr>
<tr>
<td>Charged with violent crime</td>
<td>10.6</td>
<td>2.9</td>
<td>3.7526*</td>
</tr>
<tr>
<td>Charged with property crime</td>
<td>14.4</td>
<td>9.6</td>
<td>.7274</td>
</tr>
<tr>
<td>Charged with victimless crime</td>
<td>1.0</td>
<td>6.7</td>
<td>a</td>
</tr>
<tr>
<td>Charged with drug-related crime</td>
<td>18.3</td>
<td>8.7</td>
<td>3.3429</td>
</tr>
<tr>
<td>Charged with other crimes</td>
<td>13.5</td>
<td>14.4</td>
<td>0.0</td>
</tr>
</tbody>
</table>

*Chi-square could not be calculated because two of the four cells have expected values of less than 5, as tested by median test.

As tested by the median test

* $p<.05$  ** $p<.01$

may be slightly higher than that for the program as a whole, although exactly comparable figures are not available. Kleinman and Lukoff (1975) report 63 percent of their more representative sample was retained at least 13 months. As was stated in Chapter III, the one year measure of retention was used to avoid sample attrition.

Again, no gender-related differences are evident in heroin use
while maintained on methadone, although there are indications that some regular use is common. Slightly more than one-quarter of both men and women fail to appear for their medication more than 26 percent of the time (see Table VI-1). These absences are reflected in indications of heroin use based upon urine analysis. For one-third of the sample, urine testing indicates the presence of heroin over one-quarter of the time (see Table VI-1). These findings point to regular heroin use by a sizable portion of the sample while in treatment; men and women do not appear to differ. Kleinman and Lukoff (1975) present somewhat higher figures--38 percent of their sample missed medication regularly and based upon urine analysis 32 percent appeared to be using heroin regularly.

Surprisingly, there is no difference between male and female clients in their overall rate of criminal charges. Almost one-third of the sample is arrested and charged with some illicit activity during the year after entering treatment. A closer perusal of the types of criminal charges involved reveals that men are significantly more likely to be charged with violent crimes and tend to be charged with drug-related crimes more frequently compared to women. Women appear to be more involved in victimless crime than men, but the numbers are too small for any statistical test to be performed (see Table VI-1).

As expected, men are employed at significantly higher rates while in treatment compared to women. Thirty-nine percent of the men and only 16 percent of the women held jobs at some point during their tenure at ARTC (see Table VI-1).

This picture of client behavior while maintained on methadone is not an especially bright one. Although the overwhelming majority
stay for at least one year, approximately one-third appear to continue substantial heroin use. A number do find employment while at ARTC. Only 18 clients were employed at arrival compared to 51 who worked for at least one month during their tenure in treatment. Male clients are more likely to participate in the labor force than are female clients. Criminal activity continues; almost one-third are arrested during this period. Male clients are more likely to be arrested and charged with violent crimes and less likely to be charged with victimless crimes. These gender-related differences in behavior are as anticipated.

Antecedents of Behavior While in Treatment:
Work and Crime

Given the differences in crime and employment described above, to what extent are they reflective of prior experiences? How well can such behavior be predicted by past behavior? A working hypothesis will be that criminal activity and employment during methadone maintenance typically follow patterns developed at earlier points in time; a prior evaluation of ARTC, based upon a more representative sample, did not show great changes in behavior while in treatment (Kleinman and Lukoff, 1975).

Involvement in crime while maintained on methadone is not expected to change greatly. Based upon an earlier study of the same client population (Vorenberg and Lukoff, 1973), it is expected that during the year after arrival at ARTC, male respondents will be charged less frequently for drug-related crimes but other illicit activities will follow patterns established before entry. Given their later involvement and lower levels of activity, it is expected that female
respondents will also show a decline in drug-related charges and perhaps in other areas of illicit activity as well.

Methodological difficulties in comparing crime rates at different periods of time have been discussed in Chapter III and will not be reiterated here; rates of crime across the addict's career have been charted and will merely be described with no statistical tests of significance performed. For men, the median overall charge rate falls to the level established prior to addiction from a high of 71.7 the year before arrival to 25.4 (from a rate of 3 charges every four years to one charge every four years) (see Chart VI-1). For women, although the median overall charge rate while in treatment (19.3) is lower than that during addiction and the year before arrival at ARTC (38.5 and 31.3), the level of criminal activity remains a good bit higher than before addiction (0.0) (see Chart VI-1).

A closer perusal of criminal activity indicates that the decline in criminal charges is largely due to a decline in drug-related and income-producing illicit activities. The rate of drug-related charges drops sharply for both men and women from the year prior to entering ARTC but only to levels typically maintained while addicted. Male property-related and female victimless criminal charges present a similar picture over time, again dropping but not below levels maintained during addiction (see Chart VI-1). Violent charges remain unchanged in frequency. Male charges for misdemeanors such as disorderly conduct ("other charges") actually rise.

Based upon the above analysis, it appears that the decline in criminal activity while maintained on methadone reported here and elsewhere is somewhat misleading. True, overall criminal charge rates
CHART VI-1
MEDIANs FOR SIX COMPOSITE CHARGE INDICES OVER TIME BY SEX

Overall Charge Index Medians

Violent Charge Index Medians

Drug Charge Index Medians

SEE LEGEND NEXT PAGE
CHART VI-1
(continued)
MEDIANs FOR SIX COMPOSITE CHARGE INDICES OVER TIME BY SEX

<table>
<thead>
<tr>
<th>Property Charge Index</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Before Addiction</td>
<td>7.8</td>
<td>0.2</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Median During Addiction</td>
<td>5.3</td>
<td>1.0</td>
<td>4.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Median At Entry</td>
<td>15.8</td>
<td>0.6</td>
<td>1.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Median After Treatment</td>
<td>8.4</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>

LEGEND
- Median Before Addiction
- Median During Addiction
- Median At Entry
- Median After Treatment

Charge indices prior to addiction have been calculated only for those addicted after the age of 18. See Chapter III for methodological discussion.

A rate of 100 is equivalent to one charge per year.
drop, but largely due to a decline in drug-related illicit activity. Charges for income-producing illicit activity also appear to decline, but to a lesser extent. It appears that for both men and women, criminal arrests and charges while in treatment typically recede from a high the year before arrival at ARTC to a more stable level established during addiction.

Does labor force participation while maintained on methadone also follow patterns established at earlier points in time? To begin, it is expected that the rate of labor force participation while in treatment will rise regardless of sex, but that gender-related differentials in previous employment will be reflected in a sharper increase for male respondents.

The picture presented in Chart VI-2 is a surprising one. While almost half the men worked at least one month out of the year prior to entering treatment, only 39 percent worked at all while at ARTC. Of those men who remain for one year, the rate of employment is close to that prior to entry, but does not exceed it. For women, participation in the labor force drops from one-fourth to 16 percent. Even those women who complete at least 12 months of treatment have no greater rate of employment. It appears that there may be some requirement of the program that impedes holding down a job. ARTC may also be less successful in helping women re-enter the labor force.

Although a relative drop in rate of labor force participation is unexpected, gender-related differentials in the decline appear to follow previously established patterns; do the predictors of employment also follow patterns established at earlier points in time? What experiences are indications that a client may require more assistance to
CHART VI-2
EMPLOYMENT OVER TIME

<table>
<thead>
<tr>
<th>Year Before Entry</th>
<th>In Treatment</th>
<th>In Treatment 1 Year</th>
<th>Year Before Entry</th>
<th>In Treatment</th>
<th>In Treatment 1 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEN</td>
<td>47.1</td>
<td>39.1</td>
<td>43.6</td>
<td>25.5</td>
<td>16.0</td>
</tr>
<tr>
<td>WOMEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
secure employment? Are these the same experiences that impeded the job search before entering treatment? For men, predictors of employment the year prior to treatment are regularity of work while addicted, arrest before addiction, marriage before addiction and age of addiction (see Chapter V). If, as indicated in earlier analyses, male respondents are typically characterized by a process of truncated socialization, these same experiences should predict work while in treatment. For women, employment the year prior to addiction is related to education, arrest, and working regularly while addicted. However, it is anticipated that work while in treatment will be more directly related to immediate constraining factors if female respondents as a group are characterized by a process closer to that described by Matza (1964).

As expected, marriage prior to addiction, regularity of work while addicted and a later age of addiction all significantly predict employment during methadone maintenance for men. Together, these experiences account for fully 18 percent of the variation in labor force participation while in treatment, with recent work history most salient (see Table VI-2). This same historical pattern is predictive of labor force participation the year prior to treatment, once arrest before addiction is included. As anticipated, the findings at both points in time indicate a process of socialization truncated by involvement in crime and drugs resulting in a poor recent work history, impeding the job search.

Experiences predictive of employment while at ARTC are more immediate in nature for women in this sample. Regularity of work-while addicted, employment the year prior to treatment and fewer child care
TABLE VI-2
FOR MEN
IMPACT OF PRIOR ACCEPTANCE OF CONVENTIONAL ROLES
ON RATE OF WORK WHILE IN TREATMENT

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Correlation R</td>
<td>.4211*</td>
</tr>
<tr>
<td>Variance in rate of work</td>
<td>17.7%</td>
</tr>
<tr>
<td>while in treatment explained $R^2$</td>
<td></td>
</tr>
<tr>
<td>Impact of prior acceptance of conventional roles on rate of work while in treatment (Standardized Beta Weights)</td>
<td></td>
</tr>
<tr>
<td>Married before addiction</td>
<td>.0935</td>
</tr>
<tr>
<td>Regularity of work while addicted</td>
<td>.1794</td>
</tr>
<tr>
<td>Number of months worked the year prior to entering treatment</td>
<td>.2767**</td>
</tr>
<tr>
<td>Age of addiction</td>
<td>.0674</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01

responsibilities significantly enhance the likelihood of holding a job during methadone maintenance. Together, these characteristics account for 11 percent of the variation, although all are interrelated and no one alone has a significant direct impact (see Table VI-3). Education and arrest before addiction, although related to previous employment, are not directly related to labor force participation while in treatment.

These findings are generally consistent with the hypothesis proposed above. It appears that for male clients in this sample, the...
TABLE VI-3
FOR WOMEN
IMPACT OF PRIOR ACCEPTANCE OF CONVENTIONAL ROLES ON RATE OF WORK WHILE IN TREATMENT

<table>
<thead>
<tr>
<th>Multiple Correlation R =</th>
<th>.3346*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variance in rate of work while in treatment explained $R^2 =</td>
<td>11.2%</td>
</tr>
<tr>
<td>Impact of prior acceptance of conventional roles on rate of work while in treatment (Standardized Beta Weights)</td>
<td></td>
</tr>
<tr>
<td>Regularity of work while addicted</td>
<td>.1117</td>
</tr>
<tr>
<td>Number of months worked the year prior to entering treatment</td>
<td>.2020</td>
</tr>
<tr>
<td>Number of children at entry to treatment</td>
<td>-.1608</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01

process is typically one of truncated socialization which affects employment both the year prior to treatment and while maintained on methadone. For female clients in this sample there are fewer indications of such a process; the most salient predictors of securing employment while at ARTC are recent labor force participation and child rearing responsibilities. Female clients who work while maintained on methadone appear to be those with more extensive employment histories and fewer children.

This analysis of criminal activity and labor force participation
indicating that there is relatively little change in behavior after methadone maintenance begins for both male and female clients in this sample. Fully one-third of the male and one-quarter of the female sample is arrested during the year after entry to treatment; male clients in this sample are more likely to be charged with violent and female with victimless crimes during this period, maintaining gender-related differences previously established. Overall, rates of criminal charges do drop, but this appears to be due largely to a decline in drug-related and income producing illicit activities. Male and female rates appear to hover around those established during addiction. Participation in the labor force also shows little change while at ARTC. For clients of both sexes, there appears to be a steady decline in employment from a peak prior to addiction, although fully 33 clients successfully found employment during their tenure in treatment. The findings presented point toward the possibility that some program requirements may impede holding down a job and that female clients in this sample may not receive the same assistance in this area as their male counterparts. Predictors of male employment remain almost the same before and after entry into treatment; female clients in this sample evidence more immediate constraints on their labor force participation while maintained on methadone.

Antecedents of Retention: The Traditional Analysis

Methadone maintenance as originally conceived implied life-long treatment (Dole and Nyswander, 1965). While programs have modified their conception of this to some extent, as evidenced by the increasing numbers of clients detoxified during ARTC's third year of
existence, past evaluations have centered on the client's length of stay and experiences associated with retention. The identification of experiences that predict who will stay long enough to stabilize their lifestyle and perhaps eventually be detoxified remains of interest. In this sample, do the patterns of experiences associated with tenure at ARTC differ by sex?

Male and female respondents are expected to exhibit distinct predictors of retention. The pattern for male respondents should be clearer than that for female respondents; criminal activity, employment and drug use should be more directly related to length of stay for male respondents. This expectation is based on reports from other programs and findings presented in Chapter IV which may indicate that men follow a pattern of truncated socialization while women follow a pattern of "drift."

Men in this sample exhibit a relationship between retention and other behaviors while in treatment similar to that reported by other studies (Gearing, 1970; Nightingale, et al., 1972; Perkins and Bloch, 1970; Williams and Lee, 1975). Employment while at ARTC and charges for property-related criminal activity are significantly related to retention (see Table VI-4). Labor force participation is in turn significantly related to missed medication, as are rates of charges for violent and property crimes. Neither missed medication nor indications of morphine in urine testing are directly predictive of retention (see Table VI-4). This pattern of relationships may indicate that missed medication (indicative of drug use) decreases the likelihood of employment and increases the likelihood of property crime, both of which increase the likelihood of dropping out of treatment.
TABLE VI-4
FOR MEN
INTERRELATIONSHIPS AMONG BEHAVIORS WHILE IN TREATMENT

<table>
<thead>
<tr>
<th></th>
<th>Retention</th>
<th>Rate of Work</th>
<th>Missed Medication</th>
<th>Urine Tests</th>
<th>Violent Charges</th>
<th>Property Charges</th>
<th>Drug-Related Charges</th>
<th>Other Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of work</td>
<td></td>
<td>.1748*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missed medication</td>
<td>-.1483</td>
<td>-.2377**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urine tests</td>
<td></td>
<td>-.0801</td>
<td>.0140</td>
<td>.3544**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent charges</td>
<td></td>
<td>.0263</td>
<td>-.1110</td>
<td>.2088**</td>
<td>.1174</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property charges</td>
<td></td>
<td>-.2661**</td>
<td>-.1843*</td>
<td>.2316**</td>
<td>.1492</td>
<td>.1307</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Drug-related charges</td>
<td>.0815</td>
<td>-.1063</td>
<td>.1784*</td>
<td>.2698**</td>
<td>.2367**</td>
<td>.1516</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Other charges</td>
<td></td>
<td>-.1656*</td>
<td>-.1386</td>
<td>.0395</td>
<td>.1861*</td>
<td>.0228</td>
<td>.0836</td>
<td>.3143**</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01
Cohort of entry is also significantly related to retention for men \( (r = -0.2307) \); those entering in the third year of ARTC's existence evidence shorter tenure in the program. This relationship may be due to changes in policy. As discussed in Chapter III, in its third year of existence, ARTC adopted a policy of lower dosages and more frequent detoxification. During this period, the program's operation was also decentralized into smaller units located at several different sites. However, these procedural modifications occurred concurrently with changes in the characteristics of clients entering the program so that the interpretation of entry cohort remains unclear.

Several experiences prior to arrival at ARTC are also predictive of male retention. They have been included in this analysis to determine the salience of the relationships described in Table VI-4, and aid in the interpretation of cohort of entry. Extent of parental supervision, last grade completed in school, marriage prior to addiction, property crime the year prior to entry, and polydrug use are all significantly related to length of stay at ARTC (data not shown in tabular form). An analysis of these experiences, along with employment while in treatment, property crime while in treatment, and cohort of entry, indicates that property crime both the year prior to and the year after entry is most salient in predicting retention (see Table VI-5). Together, the experiences explain 26 percent of the variation in length of stay. Men who continue a past pattern of property crime are least likely to remain in treatment. The relationship between cohort of entry and retention is apparently due to the changing composition of client characteristics over time; when these characteristics are taken into account, their impact is stronger than that of the programmatic
variable. It appears that men in this sample typically experience a process of truncated socialization and relatively weak ties--lack of supervision, relatively little education, lack of marital ties--connected to a pattern of income-producing criminal activity which continues while in treatment and affects tenure in the program.

Do women exhibit a similar pattern of experiences? Evidently
not. For this portion of the sample, there is a surprising lack of relationship between retention and any other behavior while in treatment (see Table VI-6). Cohort of entry is the only variable at this point in time which relates to retention (r = -0.3836); women entering ARTC during its third year of existence stay for a shorter period of time. Again, this relationship may be a function of the changing characteristics over time of women admitted.

As was done for the men, earlier experiences which are also related to retention have been considered. Both disruption of the home as a child and unemployment prior to addiction are predictive of a shorter stay. When all three experiences related to length of stay are considered simultaneously, cohort of entry has by far the largest impact, although employment prior to addiction remains directly related (see Table VI-7). Together, these experiences explain 20 percent of the variation in female retention.

These findings appear to approach the hypotheses stated above. There is an identifiable pattern for male clients in this sample which is in a small part predictive of retention: Men who continue drug use and support themselves through property crime are unlikely to remain in treatment. It may be that male clients in this sample able to secure income from their "hustles" perceive this life as a viable, and preferable, option to methadone and employment. Male clients who are presently or were recently employed may stay, viewing the conventional world as the more viable option. Female clients in this sample may perceive both employment and gainful criminal activity as less viable options. Faced with relatively limited criminal connections, scanty work experience and, for some, the responsibility of children, what do
TABLE VI-6

FOR WOMEN

INTERRELATIONSHIPS AMONG BEHAVIOR WHILE IN TREATMENT

<table>
<thead>
<tr>
<th></th>
<th>Retention</th>
<th>Rate of Work</th>
<th>Missed Medication</th>
<th>Urine Tests</th>
<th>Violent Charges</th>
<th>Property Charges</th>
<th>Victimless Charges</th>
<th>Drug-related Charges</th>
<th>Other Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of work</td>
<td></td>
<td>0.0606</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missed medication</td>
<td></td>
<td></td>
<td></td>
<td>0.0905</td>
<td>-0.348</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urine tests</td>
<td></td>
<td></td>
<td></td>
<td>-0.1062</td>
<td>-0.0870</td>
<td>0.1884*</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent charges</td>
<td></td>
<td></td>
<td></td>
<td>-0.0741</td>
<td>-0.0198</td>
<td>0.0881</td>
<td>0.1183</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Property charges</td>
<td></td>
<td></td>
<td></td>
<td>-0.0948</td>
<td>-0.1010</td>
<td>0.0545</td>
<td>-0.0417</td>
<td>0.1409</td>
<td>1.00</td>
</tr>
<tr>
<td>Victimless charges</td>
<td></td>
<td></td>
<td></td>
<td>0.0984</td>
<td>-0.0507</td>
<td>0.0511</td>
<td>0.1527</td>
<td>0.0935</td>
<td>0.0</td>
</tr>
<tr>
<td>Drug-related charges</td>
<td></td>
<td></td>
<td></td>
<td>0.0198</td>
<td>-0.0935</td>
<td>0.0162</td>
<td>0.0280</td>
<td>-0.0468</td>
<td>0.0836</td>
</tr>
<tr>
<td>Other charges</td>
<td></td>
<td></td>
<td></td>
<td>0.0028</td>
<td>-0.0585</td>
<td>0.1496</td>
<td>0.2127</td>
<td>0.1789*</td>
<td>0.1137</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01
female clients who wish to leave the program have to go to? The interpretation of cohort of entry may be: The most significant factor in determining whether female clients in this sample leave the program or remain at ARTC is their perception that a higher dosage is available elsewhere.

The Patterning of Behavior Prior to and While in Treatment

The above analysis, a rather traditional one based on prior literature, clearly treats men and women as two monolithic groups of addicts. The findings presented in Chapter V indicate that this is not
the case. Several patterns of experiences emerge, largely centered around whether the individual lives with his or her family of procrea-
tion. Both male and female clients not living with their families
evidence a pattern that has been described as one of truncated social-
ization. Men living with family evidence a relatively more conventional
pattern of behavior, as do women living with family. Women living with
children are distinguished from women living only with their spouses
by a relatively weak employment history, marriage prior to addiction,
a greater number of children, and less prior treatment. Women living
with children are perhaps the most traditional in their adherence to
generally held gender-role norms.

A next question, then, is whether the framework developed in
the prior chapter is useful in understanding behavior while in treat-
ment. Based on the discussion of retention just presented, and the
analysis explored in Chapter V, the following is expected: Male
respondents living with family will work more extensively, be less in-
volved in crime, miss their medication less, show lower levels of
urine tests indicating drug use, and stay longer at ARTC compared to
their counterparts not living with family. Female respondents living
with children will be less successful in securing employment while main-
tained on methadone; female respondents living with their spouses will
participate in the labor force more often; female respondents not
living with family will be most involved in crime, most likely to miss
medication, most likely to evidence heroin use in urine testing and
stay for the shortest period of time.

Findings for the male sample are surprising at first perusal.
Men living with their families are not more likely to stay at ARTC, and
are not more likely to find employment than their counterparts in other living situations. However, "drifters" drop a significantly higher proportion of urine samples indicating heroin use compared to men in the "fast life," despite their equal rates of missed medication. When these highly interrelated behaviors are considered as a group, the typology developed in the last chapter remains useful. Two-thirds of the male sample can be correctly placed into their living situation based on their behavior while in treatment. Sixteen percent of the variation in living arrangements is explained by this analysis. Men who do not live with their families are more likely to be arrested and charged with property-related criminal activity the year after entering treatment. Given the amount of medication missed, men living with their families are more likely to give urine samples indicating heroin use; their drug use is more likely to be picked up in urine testing (see Table VI-8).

Discrimination into living arrangements for women in this sample is not nearly as accurate. Again, at first the findings are somewhat surprising. When each behavior is examined separately, there are no differences in retention, employment, or proportion of urine samples indicating heroin use. Women living with their spouses are significantly more likely to miss their medication compared to women in other living arrangements (r = .2063). Women not living with family tend to be arrested for property crime more often than their counterparts living with spouse or child, although the relationship does not quite reach statistical significance.

When these behaviors are considered together, they do appear to cluster, although not as distinctly as might be wished. The
TABLE VI-8

FOR MEN

RELATIONSHIP OF LIVING WITH FAMILY AT ENTRY TO TREATMENT TO BEHAVIOR WHILE IN TREATMENT

<table>
<thead>
<tr>
<th>Canonical Correlation R&lt;sub&gt;can&lt;/sub&gt;</th>
<th>.3940</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centroids (means)</td>
<td></td>
</tr>
<tr>
<td>Living with family</td>
<td>.6810</td>
</tr>
<tr>
<td>Other</td>
<td>-.2636</td>
</tr>
<tr>
<td>Discriminant function coefficients (weightings)</td>
<td></td>
</tr>
<tr>
<td>Retention</td>
<td>.1221</td>
</tr>
<tr>
<td>Rate of work while in treatment</td>
<td>.0515</td>
</tr>
<tr>
<td>Missed medication</td>
<td>-.0286</td>
</tr>
<tr>
<td>Urine tests</td>
<td>.7749</td>
</tr>
<tr>
<td>Violent charges</td>
<td>.1418</td>
</tr>
<tr>
<td>Property charges</td>
<td>-.4489</td>
</tr>
<tr>
<td>Drug-related charges</td>
<td>.2542</td>
</tr>
<tr>
<td>Cohort of entry</td>
<td>-.1941</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Predicted living with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
</tr>
<tr>
<td>Predicted living with</td>
</tr>
<tr>
<td>Family</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

indicates salient experiences distinguishing men not living with family.

indicates salient experiences distinguishing men living with family.
canonical correlations of .2779 and .2341 for the two groupings of experiences indicate that only a small portion of the variation in living patterns is explained by the experiences included in this analysis. The first grouping indicates that women living with their husbands can be distinguished from women not living with family. Women living with their spouse are more likely to miss medication; women in "the fast life" are characterized by charges for violent and property crimes the year after arrival at ARTC and by entry in the program's third year of existence. The second grouping indicates women living with children are distinguished by their lack of employment and, given the amount of medication missed, higher levels of urine tests indicating drug use. The discrimination evidenced in this analysis, however, is marginal.

It appears that, at least to some extent, men and women not living with their families evidence similar patterns of behavior while in treatment. These men and women in the "fast life" continue to be most involved in crime, and most adept at evading detection of heroin use in urine testing--perhaps due to their more extensive experience in treatment. Based on the previous analysis of retention, it might be expected that, given their more extensive criminal networks, these clients would leave soonest, returning to a life of hustling and heroin use made viable again after a period of respite. It is surprising that this group does not show a shorter tenure in the program, but it may be that the one year measure of retention is too brief.

Women who live with their children are most similar to men living with their families--both groups are relatively conventional for this sample. Both are minimally involved in crime, and drug use on
TABLE VI-9

FOR WOMEN

RELATIONSHIP OF LIVING WITH FAMILY AT ENTRY TO TREATMENT TO BEHAVIOR WHILE IN TREATMENT

Canonical correlation

Grouping: Wife (Function 1) \( R_{\text{can}} = .2779 \)
Grouping: Female head of household (Function 2) \( R_{\text{can}} = .2341 \)

Centroids (means)

<table>
<thead>
<tr>
<th>Grouping</th>
<th>Wife</th>
<th>Female Head of Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living with spouse</td>
<td>-.5498</td>
<td>.1213</td>
</tr>
<tr>
<td>Living with children</td>
<td>.0060</td>
<td>.4428</td>
</tr>
<tr>
<td>Other</td>
<td>.1880</td>
<td>-.1283</td>
</tr>
</tbody>
</table>

Discriminant function coefficients (weightings)

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<tr>
<th>Grouping</th>
<th>Wife</th>
<th>Female Head of Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention</td>
<td>.1031</td>
<td>.2970</td>
</tr>
<tr>
<td>Rate of work while in</td>
<td>-.3320</td>
<td>-.4975</td>
</tr>
<tr>
<td>treatment</td>
<td>(-.5121)</td>
<td>(-.3988)</td>
</tr>
<tr>
<td>Missed medication</td>
<td>.1416</td>
<td>.0788</td>
</tr>
<tr>
<td>Urine tests</td>
<td>(.4106)</td>
<td>(-.3988)</td>
</tr>
<tr>
<td>Violent charges</td>
<td>(.4498)</td>
<td>(.1322)</td>
</tr>
<tr>
<td>Property charges</td>
<td>(.4498)</td>
<td>(.1322)</td>
</tr>
<tr>
<td>Victimless charges</td>
<td>.0421</td>
<td>-.2056</td>
</tr>
<tr>
<td>Drug-related charges</td>
<td>.2613</td>
<td>.0482</td>
</tr>
<tr>
<td>Cohort of entry</td>
<td>(.5717)</td>
<td>-.0162</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Actually living with</th>
<th>Predicted living with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spouse</td>
</tr>
<tr>
<td>Spouse</td>
<td>38.9%</td>
</tr>
<tr>
<td>Child</td>
<td>30.0%</td>
</tr>
<tr>
<td>Other</td>
<td>46.2%</td>
</tr>
</tbody>
</table>

\(\Box\) indicates salient experiences distinguishing women not living with family.

\(\Box\) indicates salient experiences distinguishing women living with children.

\(\Box\) indicates salient experiences distinguishing women living with spouse.
the part of these individuals is most accurately picked up in urine testing. However, following a past pattern of behavior, women with children appear to participate less extensively in the labor force than do their male counterparts. One suspects that these clients are least likely to leave and when they do it is for other programs offering higher dosages.

Women who live only with their spouses are most surprising in their behavior while at ARTC. Theirs is the highest rate of missed medication and, by inference, heroin use. Furthermore, these women are as likely as women in the "fast life" to cheat on their urine tests. Given this group's relatively low level of involvement in crime, and a slightly greater likelihood of returning to the labor force while at ARTC, the pattern described above is unexpected. These clients are most ambivalent about the program, remaining yet continuing their drug use at a higher level than their counterparts in other living situations.

Summary and Conclusions

Behavior while at ARTC typically does not show any dramatic changes, and tends to follow gender-related patterns previously established. Although retention for at least a year is the norm for this sample, a substantial portion of clients continue drug use while in treatment.

Criminal activity also changes little during methadone maintenance. Overall rates of criminal charges drop from a high the year before arrival at ARTC, to a more stable level established during addiction. This decline is largely due to lower levels of drug-related
illicit activities. Female clients in this sample remain more likely to be charged with victimless crimes, less likely to be charged with violent crimes and slightly less likely to be charged with drug-related crimes.

Participation in the labor force again follows previously established patterns. Male rates of employment, both prior to entering treatment and while at ARTC, are affected by experiences indicating that the socialization process has been truncated due to an early age of addiction and criminal involvement. Participation in the labor force by female clients may be affected by a similar process, but appears to be more directly affected by immediate constraints such as child care responsibilities. The slightly lower rate of labor force participation for both sexes while maintained on methadone, relative to the year before, may indicate the program contains a structural component which hinders attaining and maintaining a job. Given their lower rate of labor force participation and limited criminal connections, female clients in this sample appear to have more limited options compared to their male counterparts.

A traditional analysis of retention and its predictors appears to indicate that male clients in this sample make a choice whether or not to remain in treatment, while female clients remain for lack of other alternatives. Male clients who continue a pattern of drug use, criminal activity and unemployment are most likely to leave; those currently or recently employed are most likely to stay. Male clients in this sample appear to choose between drugs and crime or methadone and employment. Female clients while at ARTC do not appear to make this choice--employment, criminal activity and indication of drug use
are not related to retention--but appear to leave when medication levels are lowered and higher dosages are available elsewhere.

Further analysis indicates that the typology developed in Chapter V may be useful, despite the marginal nature of the analyses presented here. Clients of both sexes identified as being in the "fast life" evidence a pattern of greater involvement in crime. They are most adept at evading detection of heroin use through urine testing, possibly because of their prior experiences in treatment. Were the measure of retention to cover a longer period of time, these individuals would probably leave soonest for a life of hustling and heroin viable once again after the respite of methadone maintenance.

Male clients in this sample living with their families appear to do well in the program. They are most likely to be employed while at ARTC, and are comparatively uninvolved with crime. It is notable that even those relatively successful clients by and large do not completely refrain from drug use, but such lapses are more accurately monitored by urine testing compared to clients in the "fast life." Again, if retention were measured over a longer period, male clients living with their families would probably show a somewhat longer period of maintenance. They may be "burnt out" and wish to leave the chaotic scene of heroin use.

In this sample, female heads of household have the fewest options. Their criminal connections are weakest, and their work history shortest. Any heroin use on the part of these clients is easily monitored. Perhaps due to a lack of other avenues, these women most likely stay for a relatively long time, leaving only when another program offers a higher dosage of methadone. They also appear to do relatively well.
The most ambivalent group appears to be female clients living with their spouses. These clients are likely to miss medication and, by implication, use heroin. They are as likely to evade detection through urine tests as their counterparts in the "fast life." Yet, female clients sharing a home with only their spouses are as likely to stay in the program for a year as are clients with other living arrangements. This constellation of behaviors may be interpreted as an expression of frustration; were retention measured for a longer period of time these clients would probably show a relatively shorter period of tenure.

Prior studies of men and women in methadone maintenance programs are largely in agreement with the findings presented above. Gender-related differentials in retention and heroin use while in treatment have not been clearly delineated in previous studies, so it is not surprising that no differences are evident in this sample. Men have been found to participate in the labor force and in criminal activity at higher levels than women (Dale and Dale, 1970; Gearing, 1970; Newman, 1977; Spiegel and Sells, 1974).

Again, the pattern typically reported in the literature linking retention to heroin use, criminal activity and employment is also found here, although the other studies cited are based on samples that contain more young white and Hispanic individuals (Babst, et al., 1971; Henchy, et al., 1974; Krakowski and Smart, 1974; Maddux and McDonald, 1973; Newman, 1977; Rosenberg, et al., 1972). However, this pattern is largely a male pattern, as the analysis of retention indicates. Indeed, Chambers and colleagues (1970) indicate that employment may not be useful in predicting female retention.
Past analysis such as those noted above treat men and women in methadone maintenance programs as two monolithic groups. Although there are relatively few prior indications in the literature concerning differences among groups of men and groups of women, those that do exist do not contradict the findings presented in this chapter. Living with family has been found a potent predictor of behavior in treatment by many (Babst, et al., 1971; Dale and Dale, 1973; Eldred and Washington, 1975, 1976; Krakowski and Smart, 1974; Maddux and McDonald, 1973; Newman, 1977; Perkins and Bloch, 1970; Rosenberg, et al., 1972). Clearly the typology developed in the last two chapters backed up by the general convergence of the findings with other studies carries programmatic and planning implications to be developed further in the final chapter.
CHAPTER VII
SUMMARY AND CONCLUSIONS

This study attempts to meet several goals described in Chapter I. The first is a more systematic description of gender-related differences in experiences. Next is an increased understanding of the patterning of such experiences into addiction careers, and specification of any differential distribution of such careers by sex. Third is an increased understanding of the impact differing addiction careers have upon behavior while in treatment, expanding our understanding of the treatment needs of women, particularly minority group women. Last is the development of recommendations and conclusions based upon the findings.

A summary of the analyses presented in Chapters IV through VI should address the first three objectives. The fourth will be addressed separately.

Summary

Are There Gender-related Differences in Ties to Conventional Society, Associational Patterns and Drug Usage? Which Are Most Salient?

As hypothesized, female clients do develop stronger ties to the family while male clients develop stronger ties to the labor force. Women are supervised more closely as children, are more likely to marry
prior to daily heroin use, are more likely to retain child caring responsibilities and are more likely to be living with family at entry to treatment. From childhood, men are subject to higher parental educational aspirations. The large portion of this sample works prior to addiction, typically in blue collar positions. Once addicted, men are more likely to remain in the labor force, but only sporadically. This gender-related difference widens with time. Of these differentials in ties to conventional society, the most salient are marital patterns, parental academic aspirations and employment the year prior to entering treatment.

At all time periods, male respondents were expected to evidence higher rates of criminal charges and greater involvement in aggressive types of crime compared to their female counterparts. Male clients do have more extensive criminal histories. They are more likely to have had a delinquency petition taken out against them, to have been arrested prior to addiction, and to evidence higher rates of criminal charges the year prior to entering treatment. There are also significant differences in the types of illicit activities men and women become involved in. Men appear to learn the techniques involved in burglary and the disposal of stolen goods prior to addiction; they then continue these same activities, presumably to support drug purchases. Women in this sample learn to forge and prostitute, but only after addiction. Differences in arrest prior to addiction and in charges for forgery best distinguish between men and women.

Gender-related differences in associational patterns were hypothesized as follows: female respondents should report
greater exposure to familial heroin use, a more dependent role in the initiation process and more extensive contact with drug users at entry to treatment. This hypothesis is largely corroborated. Women are more extensively exposed to familial heroin use, although the lack of drug use by spouses is surprising. The initial experience appears to be a more passive one for women, who rarely take an active role by purchasing their first heroin.

There are also differentials in patterns of drug use. As anticipated, women in this sample are less involved with heroin at entry to treatment; they first try heroin at an older age, become addicted at an older age and enter treatment after fewer years of addiction. While this finding could be an artifact of sampling difficulties -- women addicted at a younger age were more likely to be excluded -- this author believes the sex-based distinctions are great enough that they represent a substantial difference. Unexpectedly, men report greater polydrug use.

Of the gender-related differences in association with drug users and patterns of drug use, familial heroin use and receipt of heroin as a gift at initial use are most characteristic of women.

The findings presented in Chapter IV are largely consistent with existing literature, despite a few notable exceptions to be discussed. Kandel (1971) reports that Black parents typically hold higher aspirations for their daughters than for their sons. Yet, the findings described above note just the opposite for this Black sample. It may be that male respondents might have been under greater pressure as children compared to youths not addicted; or the parents of female respondents may have held unusually low aspirations for them. These data do not directly
address this question and are based upon a sample of unknown representativeness. A second discrepancy between these findings and those of previous studies is the lack of gender-related differentials in broken homes and divorce as adults. This is most probably due to the fact that past studies are based on samples containing a higher proportion of whites, and possibly indicates a unique aspect of the Black addict's experiences. Past literature has consistently found female addicts report greater use by spouses than male addicts. Difficulties in the measurement of this variable may account for the lack of differences in the sample considered here.

In response to the question posed above, it appears that male and female clients do exhibit significant differences in ties to conventional society, associational patterns and patterns of drug use. Female clients establish stronger ties to family, are less involved in criminal activity but more involved with family members who use heroin. Their own use of heroin is less extensive. These differentials appear to follow generally held gender role norms.

Are Female Addicts One Monolithic Group or Can Several Different Patterns of Behavior Be Identified; to What Extent Do These Patterns Correspond to Those Identified Among Male Addicts; Does the Distribution of These Patterns Differ by Sex?

The series of regression and multiple discriminant analyses presented in Chapter V identifies several different patterns of experiences, centered around the client's living situation at entry to treatment and work history.
A first group of male and female clients are characterized by the "fast life" and hustling. They do not marry, and have relatively weak work histories prior to addiction. Involvement in crime before heroin use is typical of this group. After addiction, which most likely occurs at a relatively young age, these individuals continue their involvement in crime. Further ties to the work force or family are not established. Their greater experience with treatment prior to arrival at ARTC may indicate a revolving door effect (see Chart VII-1). It appears that these individuals reject conventional norms and presumably associate with criminally inclined individuals prior to addiction. Further socialization is truncated by addiction at a young age while heroin use continues. This pattern appears similar to that posited by Hirschi (1969) and Sutherland (1974).

Male clients living with family appear to have adapted their heroin use to a more conventional lifestyle. Prior to addiction this group is employed on a relatively steady basis and some establish families at this point. Participation in criminal activity is limited. Their initial experience with heroin is more passive in nature, and probably comes at an older age. After addiction, these men continue to work, although sporadically, and are relatively uninvolved with the criminal justice system except for drug-related arrests (see Chart VII-1). They seem to accept conventional norms related to family and work, attempting to fulfill the traditional role assigned to men despite the difficulties a minority group member living in an inner city ghetto faces. These men may be characterized by Matza's (1964) conception of "drift".
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Hustlers (Men and Women Not Living With Family)</th>
<th>Men Living With Family</th>
<th>Women Living With Spouse</th>
<th>Female Heads of Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Addiction</td>
<td>Weak</td>
<td>Relatively Strong</td>
<td>Weak</td>
<td>Relatively Strong</td>
</tr>
<tr>
<td>Ties to Family</td>
<td>Weak</td>
<td>Relatively Strong</td>
<td>Weak</td>
<td>Less</td>
</tr>
<tr>
<td>Ties to Work</td>
<td>Extensive</td>
<td>Relatively Strong</td>
<td>Less</td>
<td></td>
</tr>
<tr>
<td>Criminal Activity</td>
<td>Possibly Younger</td>
<td>Possibly Older</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of Addiction</td>
<td>Active</td>
<td>Passive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Experience</td>
<td>Weak</td>
<td>Relatively Strong</td>
<td></td>
<td></td>
</tr>
<tr>
<td>While Addicted</td>
<td>Weak</td>
<td>Relatively Strong</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ties to Family</td>
<td>Extensive and Sex-Differentiated</td>
<td>Relatively Strong</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ties to Work</td>
<td>Less</td>
<td>Less</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criminal Activity</td>
<td>More</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior Treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavior While in Treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Retention</td>
<td>Probably Shortest</td>
<td>Probably Long</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>Little</td>
<td>Probably</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missed Medication</td>
<td>Relatively More</td>
<td>Long</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urine Tests</td>
<td>Some</td>
<td>Relatively Extensive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criminal Activity</td>
<td>Cheating</td>
<td>Cheating</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extensive and Sex-Differentiated</td>
<td>Less</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Female clients who live with their families may tentatively be categorized into two groups. A most interesting finding is that women in this sample do not live with both spouse and children. Women with child care responsibility are female heads of households; they do not live with their husbands. Women in this sample who have maintained a marriage have not incorporated children into their families.

Clients entering the program as female heads of households apparently establish a pattern of behavior reminiscent of traditional female sex role expectations. They typically marry prior to addiction and participate in the labor force less frequently. These women are minimally involved in crime prior to heroin use. Although not indicated by the data, their initial experience probably occurs at a relatively older age and does appear to be passive in nature. A pattern of minimal participation in crime and the labor force continues after addiction. They are less likely to have experienced treatment prior to ARTC, compared to women in the "fast life" (see Chart VII-1).

Female clients living only with their spouse are not clearly distinguishable from female clients living with children, but evidence a few distinctive aspects worth exploring. Currently married women are more likely to establish these bonds after addiction and have relatively strong work histories. They, too, are minimally involved in crime prior to addiction. After initiation to heroin, which appears to be a more active process, ties to the labor force are tenuously maintained (see Chart VII-1). It seems that female clients living only with their husbands accept conventional norms--they work and marry--but not the traditional assignment by sex.
The findings reported above point toward two relatively distinct patterns of experiences operative for both male and female clients. One appears to be a process of weak ties to society and cultivation of deviant associates culminating in an early age of addiction which truncates further socialization. This is close to the process hypothesized by Hirschi (1969) and Sutherland (1974). A second pattern is closer to Matza's (1964) conception of "drift" characterized by relatively conventional behavior and an acceptance of established societal norms along with intermittent commission of deviant acts. These lifestyles might be a function of age but, at least in this sample, there are no gender-related differentials in age at entry. Age is not related to female clients' living arrangements but differentials for men indicate the "fast life" may be more typical of younger clients. The gender-related differences found in Chapter IV are reflective of the differential distribution by sex of the patterns described above. Three-quarters of the men compared to only half the women are involved in a pattern of hustling. Together, these individuals constitute the majority of this sample. Previous literature does not contradict the findings presented above, although female addicts have typically been seen as a monolithic group.

Are There Gender-related Differences in Behavior While in Treatment? Are These Differences Related to Previously Established Patterns of Behavior?

It was anticipated that while in treatment respondents would show relatively little change in previously established behavior and therefore gender-related differences would remain; male respondents would show higher rates of employment and crime. Rates of employment
do not reach levels attained the year prior to entry, however, it must be noted that fully 33 individuals found jobs during their tenure in treatment, the large portion males. Women continue to participate in the labor force at lower levels. Again, men continue their pattern of more extensive sex-specific criminal activity. Drug-related crime and to a somewhat lesser extent income-producing crime do drop the year after entering treatment.

There are also sex differentials in the prediction of retention, as hypothesized. For women, entering at a later point in the program's existence is predictive of a shorter stay. Due to a program-wide change in methadone dosage levels, this finding may indicate women typically leave only when another facility offers a higher level of medication. Their options are limited. Men in this sample appear to make a choice. Those who remain unemployed and involved in crime, while continuing to use heroin at least sporadically, leave soonest. Their former life has become viable again. Men who are or were recently employed and sporadic in their drug use remain, choosing to negotiate re-entry into conventional society.

The typology of lifestyles developed in Chapter V may be somewhat useful in understanding behavior while in treatment (see Chart VIII-1). Male and female respondents in the "fast life" were expected to leave treatment soonest, use drugs more extensively and commit crimes more often. Men and women not living with family do remain more involved with crime, are employed less and cheat more on their urine tests. This group may use methadone maintenance as a respite from the rigors of securing heroin and avoiding incarceration; indicators may be their
relatively frequent use of treatment facilities, along with the
general rise in criminal charges prior to arrival at ARTC. When hustling
and drug use become viable again, these individuals leave.

Male clients living with their family are perhaps the most
successful in treatment. They are more likely to work and are minimally
involved in crime. Although sporadic heroin use is continued, these
individuals are easily monitored through urine testing. Their stay is
probably longest. Given the differential between employment the year
prior to entering treatment (n=50) and holding a job at entry (n=18), it
is possible that being fired precipitates entry to treatment for these
men. They may have chosen methadone and employment, "burned out" by
the daily exigencies of pursuing heroin and maintaining a job.

Female heads of household have the fewest options upon entering
treatment. They continue a past pattern of weak ties to the labor force
and limited criminal connections. Sporadic drug use continues but
cheating on urine tests is not typical. It is believed that were the
measure of retention more extensive, these women would probably show a
relatively long tenure in treatment. Although the data is not available,
some familial crisis may have brought them to ARTC. These women may also
be considered successful should their lack of employment be by choice.

Female clients living with their spouses are perhaps the most
ambivalent. Of the three groups of women, they are most likely to miss
their medication, indicating a higher level of drug use. Their rate
of employment is relatively high, although probably not at the
level of men living with family. Involvement in crime is minimal.
These women may have entered the program after losing a job and feel
they are not receiving the same vocational services as their male counterparts.

In response to the question posed above, it appears that methadone maintenance does not dramatically change previously established patterns of behavior. Lest this paint too bleak a picture, while attending ARTC clients are less frequently arrested for drug-related crimes and somewhat less involved in illicit income-producing activities. At least 33 clients re-enter the labor force. Yet, gender-related differentials in criminal activity and labor force participation remain. Although the relationship outlined above between lifestyle and behavior while in treatment is marginal, the substantive nature of the finding is interesting. Males and females in the "fast life" are typically unemployed, involved in crime and cheating on their urine tests while in treatment. They may be using the facility as a respite from the rigors of drug use and "hustling". Male clients living with family may be considered relatively successful. They are most likely to work, are minimally involved in crime and are easily monitored through urine tests although sporadic drug use continues. Their stay is probably longest. They have opted for a life of methadone and work, possibly after an employment-related crisis. Female heads of household have fewest options at entry, their attachment to the labor force and criminal networks remains minimal although this may be by choice. These women may also be considered relatively successful. Female clients living with spouses are perhaps the most ambivalent about ARTC. Their drug use is highest of any group. These clients are minimally involved in crime and show relatively high levels of employment compared to other female clients. Yet, they may find the program is not providing them with the same levels of job
referrals and guidance, accounting for the ambivalence. These findings, although marginal in nature, do have useful implications for treatment and planning. The recommendations suggested below are tentatively offered and should be contingent upon further exploration of the typology developed here.

Implications and Recommendations

Theoretical Implications

Several conceptual frameworks may be applicable to involvement in one form of deviance. Indeed, the theories developed by Hirschi (1969), Matza (1964) and Sutherland (1974) all appear to be at least partially reflected in this sample. Hirschi (1969) posits that deviance occurs after bonds to the established social order are broken and conventional norms rejected. For clients espousing the "fast life", described above, a lack of ties to conventional society appears to presage a process of socialization truncated by early drug use. These individuals seem to have rejected conventional norms. Matza (1964) posits that deviance occurs when accepted norms are temporarily set aside, resulting in transient involvement in illicit behavior. If the existence of ties to family and labor force are indicative of accepting these norms, other respondents may maintain generally accepted beliefs while engaging in deviance. Associational patterns as posited by Sutherland (1979) appear to be crucial, and linked to the type of ties maintained. Respondents who lack ties tend to be involved in more extensive criminal activity and, by implication, have criminal associates. Those who maintain ties lack criminal associates but may establish friendships with drug users in other settings, possibly at work, within
the family, or in the context of dating. Societal bonds and associational patterns in this sample are intertwined. No one theory appears to have a corner on explaining the process.

Furthermore, it appears that location in the social structure may impact on the manner in which a deviant career is carried out. Cloward and Piven (1977, 1979) argue that internal acceptance and external imposition of generally held norms attached to gender will delimit choice of deviant activity. Based on this reasoning, it follows that these norms should also affect the manner in which a deviant career is pursued, once chosen. Male addicts should differ from female addicts along generally held gender-role norms. In this sample, even before heroin use is begun, the ties maintained and types of associates acquired presage differentials in careers. The patterns these experiences form are distributed very differently by sex, although a limited number of lifestyles may exist. That those clients espousing the "fast life" are predominantly male may indicate such a career is less accessible to females. Given the probable blurring of some sex-related distinctions within the Black community, it might be that such access is more the effect of external imposition rather than internal acceptance of generally held gender role norms. The data cannot directly address the issues raised by the theorists cited above, but their framework does appear to be a useful interpretive aid.

Treatment Implications and Recommendations

If the four groups of clients tentatively developed above are reflective of current reality in methadone maintenance programs, differing treatment needs follow. The pattern of surveillance,
vocational and family-related services should be molded to the specific lifestyles presented.

Men and women in the "fast life" are the largest group in this sample and are probably most frequently encountered in treatment. Given their pattern of truncated socialization, these individuals need to form ties to conventional society. Development of basic language, mathematical and vocational skills may be crucial, yet difficult given their short tenure in treatment. Continued involvement in crime and tendency to cheat on urine tests indicates that these same clients might require closer surveillance and more limited take home medication privileges.

Women living with their children appear to have the fewest options of any group. These women have not established ties to the labor force and need the same sort of socialization experiences as those in the "fast life". Preparation to enter the labor force would give these women the option of working or remaining at home, but only if inexpensive reliable day care arrangements can be made; linkage with the child welfare system is crucial. Such contact would also provide support to meet the stresses single parents are subject to and might serve as a protective measure for the children. Training in parenting and homemaking skills may be particularly important for this group, given their responsibilities. These women may need less surveillance, based on their propensity to be honest on urine tests.

Men living with family arrive at ARTC with relatively strong ties to work and family. Their needs are for concrete assistance in securing employment--an aggressive job development and referral system.
The realities of the job market make this form of advocacy particularly necessary for minority group members living in the inner city. Naturally, the family should also be involved in treatment. These ties to family and the labor force exist and need to be strengthened. Although this group of men continues to use drugs, these lapses are easily monitored by urine testing so that less surveillance is probably needed.

Women living only with their husbands have needs similar to men living with family, given their familial ties and past employment history. However, these women appear to be particularly disaffected; their drug use while at ARTC is the highest. Therefore, these women may need a bit more surveillance at the beginning stages of methadone maintenance, but once settled in a job, the amount of missed medication and need for monitoring should diminish.

The picture presented above is one of a client population largely in need of socialization experiences and some surveillance; a smaller group is in need of active support to strengthen existing ties.

Clearly, one crucial need for these clients is the development and strengthening of ties to the labor force. The New York State Division of Substance Abuse Services (the single state agency responsible for substance abuse planning) cites a . . . critical and ongoing need to incorporate vocational plans and activities into the total treatment process . . . Two major concerns continue to be the inability of the treatment community to develop and implement individually appropriate vocational programming, and absence of professionally trained vocational counselors in local programs (New York State, 1978, p. 70).

The suggestions offered below are not new ones, but the realization that these needs are equally felt by both male and female clients
probably does require more staff attention.

- For those clients with minimal ties to the labor force, more aggressive referral to existing training and high school equivalency programs might be helpful. However, a short tenure in treatment is typical of these individuals. Intensive, time-limited, self-contained modules in basic skills offered by one or if need be several drug treatment facilities would possibly be more suitable. Existing skills acquired in financing and purchasing drugs might be transferable to other, legitimate, activities.

- For clients who enter with somewhat more extensive ties, staff could shift their emphasis to: a) active advocacy, job development and referrals along with supportive follow up of these efforts and; b) workshops on job seeking and self-presentation strategies.

Ties to the community and family require attention in tandem with the development of job-related skills and employment opportunities. The findings reported above indicate that both are interrelated. Again, the majority of this sample has no ties to family at entry. Yet, fully 38 percent of this sample lives with spouse, child or both. Staff might consider the following to cultivate and strengthen existing familial attachments.

- Individuals characterized by the "fast life" may be more isolated and wary of any relationships. They may benefit from more intensive staff work using a problem oriented approach to attend to immediate problems. More structured strategies that can result in fast, observable effects may be needed, given these clients' short stay.
-For clients currently married one possibility is the offer of treatment slots for their spouses, if addicted. Rosenbaum and Murphy (1979) indicate that women will wait to enter treatment until they and their spouse can both attend the same facility.

-Staff might assist both male and female clients living with children to make greater use of community-based child welfare services, especially day care. This form of assistance may be crucial for the female client with sole child care responsibility, providing: the opportunity for her to gain skills and seek employment should she wish to; support that might otherwise be provided by her spouse; protection for the children from unnecessary placement as well as neglect or abuse. Yet, staff assistance in linkage to these services could clearly be useful to male clients with children in their family. Securing needed shelter, food and clothing might be immediate concerns. Staff may also act as intermediaries with the school system if children are of school age.

-Clients currently living with spouse, both male and female, might benefit from greater provision of family counseling, with perhaps a broader definition of "family" when dealing with the Black community. There are indications in the literature that one of the strengths this community has is the existence of a broad extended family network, characterized by a flow of services and goods (Billingsley, 1968; Gutman, 1976; Hill, 1972; Rainwater, 1966; Stack, 1974).

-Training in parenting skills for both men and women living with children may be helpful. Again, this may be more crucial for female heads of households but could be beneficial to all parents.
These recommendations are surely not original but, again, an awareness is needed that while the services above may be more crucial for the single parent, they are not necessarily sex-linked.

Yet, the discussion above should not be taken to mean that female addicts may not have specialized needs. The gender-related differentials in experiences described above indicate that the female client, at least in this sample, may encounter unique difficulties.

- Staff in programs that are largely male, such as ARTC, should be aware that female addicts might require more assistance with training and securing employment in a society which appears to consider them pariahs to an even greater extent than their male counterparts (Colton, 1979). The generally lower levels of female participation in the labor force described above makes entry into the job market even more difficult. Female clients may also wish to train for different jobs than males; there are indications in the findings that female respondents report different aspirations than males. However, female clients should not be pushed in this direction. Others may wish to stay home with their children, an equally viable option if freely chosen.

- Assistance with child care might be particularly needed by female heads of household so that they may broaden their options.

- Reed and Moise (1979) note two other treatment needs of female addicts which, while not addressed by these data, may nevertheless be useful. Groups run solely for women might offer specialized assistance with health problems and needs. Colton (1979) indicates that females in her sample enter with more extensive health problems than do men. Further instruction in techniques of birth control might prove useful. Attempts to hire female counselors could provide female clients with
role models they can more easily identify with.

While the findings presented above indicate female respondents may have special needs, the concordance in male and female patterns of experiences could indicate specialized programs might not be the answer. Specialized programs for female addicts can clearly gear themselves to meet the unique needs of these women, especially pregnant women. Such programs are also more likely to make special efforts to reach out to women reluctant to enter male-dominated programs. Yet, segregation by sex could have the unanticipated consequence of reinforcing the particularly low image female addicts appear to have of themselves (Colton, 1979). Furthermore, such specialized programs might lead to treatment of these clients as one monolithic group when the data above suggest this may not be the case. If staff are properly sensitive and trained, the specialized needs of the female addict may be met in a heterosexual environment. The needs of the clients in this sample to create and strengthen ties to family and the labor force go beyond sex.

Policy and Planning Implications

The differing drug-usage patterns and surveillance needs outlined above indicate that flexibility in the policies and regulations concerning abstinence might be advisable. Attwell and Gerstein (1979) note that the standard of success for methadone programs in the past has been total abstinence from both heroin and methadone. Most clients in this sample, even the most conventional, appear to continue at least sporadic heroin use if missed medication is any indication.
- It may be that a policy of total abstinence is an unrealistic one and that the number of drug-free graduates may not be the best measure of a methadone maintenance program's success. Total abstinence may not be necessary for graduation. Rather, retention and the creation or strengthening of vocational and familial ties may be more productive programmatic goals.

Current New York State regulations have extremely strict procedures concerning take-home privileges and urine testing. Based upon the apparently differing patterns of the groups outlined above; one possibility might be providing greater leeway within the regulations.

- Take-home privileges might be less rigidly tied to length of time on the program but more dependent upon client behavior. This could provide a flexible reward that might be utilized to retain clients (Attwell and Gerstein, 1979).

- The scheduling of urine samples could be more flexible. Weekly collection might not be frequent enough for men and women in the "fast life" and increased monitoring might also alleviate the feeling of poor luck and arbitrariness at being caught (Attwell and Gerstein, 1979). Men who live with family and women who live with children may need less frequent monitoring as they appear less likely to cheat on urine tests.

Both national and state drug policies place emphasis on expansion of linkages between community-based drug treatment facilities and available educational, vocational and child welfare services (Drug Use Patterns, 1978; New York State, 1978; Statewide, 1979). The data con-

\(^1\text{Requirements for Operating a Methadone Program. Official Compilation of Codes, Rules and Regulations of the State of New York, sec. 2021}\)
sidered in this study do not directly address gaps in the coordination of services. Yet, if staff is to provide both male and female addicts services needed to create and develop familial and vocational ties, linkage to the plans developed and services provided by other relevant delivery systems is needed.

- The single state agency responsible for planning services to drug abusers should continue participation in coordinating bodies such as the New York State Council on Children and Families. Greater awareness of the interface between planning for drug abusers and the child welfare system might be particularly helpful to the female client, as she appears to carry greater child care responsibilities.

- At both the state and national level, creation of services for the addict that are jointly developed and funded by NIDA and other delivery systems would possibly assist in service coordination and provision. Greater expansion of possibilities within existing CETA programs could be particularly helpful to those male and female clients who are in the process of developing ties to the labor force. CETA's enabling legislation provides for the authorship of special programs that might be linked to treatment facilities and jointly funded by the Department of Labor and NIDA (Vargas, 1979). At the state level, similar attempts might be tried. Joint efforts with local private industries might be useful to those clients who have developed work skills but are unable to find employment, given the difficulties faced by minorities living in the inner city. This may be especially true for female addicts with lifestyles similar to that of women living with their spouses described above.
- Single state agencies could continue efforts to provide staff at drug treatment facilities with information concerning local vocational, educational and child welfare programs. This might be done through creation of directories in each area and provision for continued updating. A directory of child welfare services, especially existing local day care arrangements, would be of particular help to female addicts and probably has not received needed attention.

  More emphasis might be placed on the development of specialized training to staff at drug abuse facilities. The provision of needed expertise at least in linkage to services is one consideration if the needs of addicts leading different lifestyles are to be addressed.

  Greater provision for expertise in vocational rehabilitation within drug treatment facilities might be considered. Specialized training to current staff could be provided and offered frequently. This objective might be better served by modifying the staffing pattern of methadone clinics specified by the state regulations. Perhaps espousal of a less medical orientation and inclusion of individuals with expertise in vocational rehabilitation would address the need.

  Greater provision for staff training in family counseling might be considered, although the New York State Division of Substance Abuse Services reports that such a course was included in their offerings to staff in 1977 (New York State, 1978). Materials for counselors attached to inner city programs with large proportions of minority clientele could include information on the special needs and strengths of Black and Hispanic families. Clearly, the current ratio of one counselor to 75 patients mandated in the state regulations leaves little time to work with individuals, let alone families.
- Staff training in the particular difficulties female addicts face when attempting re-entry into the labor market or caring for children might be augmented.

A final issue that these data at least partially address is the provision of specialized programs for women. NIDA and the New York State Division of Substance Abuse Services have placed an emphasis on the special needs of female addicts and the development of special services for these clients (Drug Use Patterns, 1978; New York State, 1978; Statewide, 1978). Several other priorities have been identified by these agencies and discussed above as well--the need for increased vocational rehabilitation services and services to the families of clients, more extensive training of staff, more intensive staff work with particular groups of clients. The question remains which of these priorities should receive most emphasis, especially given anticipated severe budgetary constraints? The findings above suggest that while female clients in this sample may have specialized needs in the areas of child care and vocational training, there are many similarities in the lifestyles developed by both sexes. Male and female clients in the "fast life" exhibit surprisingly similar patterns of activity.

- The data presented above are at least partially supportive of placing greater priority on the delivery of more intensive services to male and female addicts within heterosexual programs. Special programs could meet the specialized needs of female addicts. Yet, the needs of clients to create and strengthen existing ties to family and the labor force might be met as well in a sex-integrated program, were it sensitive to the difficulties faced by heroin-using women. Given current fiscal constraints, it might be prudent to strengthen existing
integrated programs, especially in the area of vocational training, rather than establish separate facilities.

Future Research

This piece of research is clearly a very preliminary effort at distinguishing among varying groups of addicts. The discrimination is not nearly as clean cut as might be wished and can only be taken as indicative of differences among the hypothesized groupings. Further research might center upon an exploration of the typology developed above, from a variety of angles.

One of the exigencies of conducting a secondary analysis is that the researcher must creatively use existing information to tap the concepts she/he is interested in. There are always gaps in the data available to the analyst. This study is no different.

Even if further research were conducted on a similar sample, improved measurement of existing concepts would be useful. Material elaborating existing ties to the family and the labor force could be included. Information dating points of marital disruption and child-birth as well as existing support networks would enhance the usefulness of the typology outlined here. Elaboration of patterns of entry and exit from the labor force might provide useful insights. The Office of Drug Abuse Policy (Drug Use Patterns, 1978), has noted the impact of entry and exit into adult roles as one of their research priorities.

The theoretical usefulness of such a study could also be enhanced by including measures of the gender role norms held,
associational patterns and psychological status. Cloward and Piven (1977, 1979) posit that both internal acceptance and external imposition of generally held norms associated with gender should impact upon addiction career. Inclusion of measures tapping clients' perceptions of these expectations would address at least a portion of this question, indicating whether differences in the norms held by addicts are associated with different lifestyles. Further specification of the drug using and criminal activities of friends would aid in further understanding the role associational patterns play in the typology developed. Some theorists posit that stress is related deviance (Cloward and Ohlin, 1960; Cloward and Piven, 1977, 1979; Cohen, 1955; Merton, 1968). Inclusion of measures of self-esteem, depression and anomie might allow some insight as well as specify any differences among the groups developed here.

A sample including white and Hispanic respondents should indicate whether there are ethnic differences in the distribution of the different lifestyles described here. As indicated in Chapter III, there do appear to be ethnic differences in patterns of drug use (Kleinman, 1978).

Longitudinal analysis of clients entering treatment might indicate which, if any, of the groups outlined above are increasing in programs and their differential distribution across modality types.

As previously discussed in Chapter III, the nature of the sample precludes any discussion of etiology. A comparison of addicted and non-addicted men and women might be useful in teasing out causal factors, although not ideal. Such a study might also be useful in teasing out gender-related differences that are unique to addicts and those that follow differences existing in the general population. One possible comparison group might be a household sample of men and women
from the Bedford Stuyvesant area. However, a household sample by its very nature would not include the more deviant individuals in the community whose living arrangements are transient. Hence the greater levels of conventionality and gender-related differences in such a sample might be due to selection bias. Yet, this may be the most feasible route possible given the current state of the art. Another comparison group might be alcoholic men and women but differences in age and minority group status make study of these individuals a less desirable solution to the problem posed above.

The question of service delivery has not been directly addressed by these data; gender-related differences in the delivery of services and the impact of services on the typology developed remain relatively unexplored. A study with this evaluative component would be useful to both direct service providers and planners. Questions addressed might be: Do individuals with different lifestyles receive different services; do these services have different impacts; do women in specialized programs for the female addict receive more services and do better, or can women be served equally well in sex-integrated programs that are sufficiently sensitive to gender-related issues in treatment?
APPENDIX A

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH SERVICES AND MENTAL-HEALTH ADMINISTRATION
NATIONAL INSTITUTE OF MENTAL HEALTH

In Cooperation With

TEXAS CHRISTIAN UNIVERSITY
INSTITUTE OF BEHAVIORAL RESEARCH

DRUG ABUSE REPORTING PROGRAM

ADMISSION RECORD

Any information furnished to the National Institute of Mental Health, to its grantees, or to its contractors on this form which would permit identification of the individual supplying such information is required by law (42 CFR P 1.103 (a)) to be held strictly confidential. This information may be used only by persons engaged in and for the purposes of research, survey, investigation, evaluation or collection of data, and may not be disclosed or released to others for any other purpose.

FORM APPROVED
BUDGET BUREAU NO. 68-R1086

Complete this page of the Admission Form for all persons screened and assigned to a treatment facility.
See instructions below, following Item 27 (Disposition), concerning remainder of the Form.

<p>| | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1.</td>
<td>I.B.R. Number (Leave Blank—for T.C.U. use only)</td>
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<tr>
<td>2.</td>
<td>Agency Number</td>
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<td>3.</td>
<td>Patient's Identification Number</td>
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<td>4.</td>
<td>Form Type (Leave Blank—for T.C.U. use only)</td>
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<td>5.</td>
<td>Period of Report</td>
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<td>6.</td>
<td>Sequence Number (Leave Blank—for T.C.U. use only)</td>
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<td>7.</td>
<td>Date of This Interview</td>
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<td>8.</td>
<td>Patient's Place of Residence</td>
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<td>County</td>
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<td>State</td>
<td>County Code</td>
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<tr>
<td>9a.</td>
<td>How far does the patient live from the treatment location to which he is being assigned?</td>
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<tr>
<td></td>
<td>Miles</td>
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<td>9b.</td>
<td>How long does it take the patient to get to the treatment location from where he lives?</td>
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<td></td>
<td>Minutes</td>
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<td>10.</td>
<td>Age at last birthday:</td>
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<td></td>
<td></td>
<td>Age</td>
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<td>11.</td>
<td>Date of Birth:</td>
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<td></td>
<td>Month</td>
<td>Day</td>
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<tr>
<td>12.</td>
<td>Sex:</td>
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<tr>
<td></td>
<td>A. Male</td>
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<td></td>
<td>B. Female</td>
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<td>13.</td>
<td>Population Group:</td>
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<tr>
<td></td>
<td>A. Black</td>
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<td>B. Puerto Rican</td>
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<td></td>
<td>C. Mexican American or Spanish-American</td>
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<td></td>
<td>D. Other White</td>
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<td></td>
<td>E. Other (Specify)</td>
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<td>14.</td>
<td>Which of the following was mainly responsible for the patient's coming here? (Use category letter.)</td>
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<tr>
<td></td>
<td>A. Court, probation or parole officer, police</td>
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</tbody>
</table>
### 15-24. What drugs did the patient use during the last two months? (use Frequency Code for each item)

<table>
<thead>
<tr>
<th>Frequency Code</th>
<th>Frequency of Use</th>
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</thead>
<tbody>
<tr>
<td>A. Daily</td>
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<tr>
<td>B. At least once a week</td>
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<tr>
<td>C. Less than weekly</td>
<td></td>
</tr>
<tr>
<td>D. Not at all</td>
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</tbody>
</table>

- 15. Heroin  
- 16. Methadone (illegal)  
- 17. Other opiates  
- 18. Barbiturates, sedatives, tranquilizers  
- 19. Cocaine  
- 20. Amphetamines and similar agents  
- 21. Hallucinogens  
- 22. Marijuana  
- 23. Methadone legally dispensed by agency or source  
- 24. Other (Specify):  

### 25. Over the past two months what was the average daily cost of the patient's drug habit?  

Dollars

### 26. What is the patient's current legal status? (use category letters)

- A. Probation  
- B. Parole  
- C. Awaiting trial  
- D. Other legal status or proceedings  
- E. None of the above

### 27. Disposition

- A. Admitted to program  
- B. Failed to return  
- C. Other (Specify)

### INSTRUCTIONS FOR REMAINDER OF FORM

Complete remainder of Form for patients admitted to Program (27-A). Do not complete remainder of Form for individuals who fail to return (27-B) or who are not admitted for any other reason (27-C). Send the Form, with page 1 only completed, to TCU.

### Complete Pages 2, 3, and 4 for all Patients admitted to Treatment (27A).
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>32. Was the patient's Mother born in this country?</td>
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<td>A. Yes</td>
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<td>B. No</td>
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<tr>
<td>33. Was the patient's Father born in this country?</td>
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<tr>
<td>A. Yes</td>
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<td>B. No</td>
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<tr>
<td>34. What languages were spoken in the home in which the patient grew up?</td>
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<tr>
<td>1. English</td>
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<td>2. Spanish</td>
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<tr>
<td>C. Other (Specify):</td>
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<tr>
<td>35. What languages were spoken by the majority of people in the neighborhood in which the patient grew up?</td>
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<tr>
<td>1. English</td>
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<td>2. Spanish</td>
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<tr>
<td>C. Other (Specify):</td>
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<tr>
<td>36. What is the patient's present religion? (use category letter below)</td>
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<tr>
<td>37. What is the patient's religious background? (use category letter)</td>
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<tr>
<td>A. None</td>
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<tr>
<td>B. Protestant</td>
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<td>C. Catholic</td>
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<td>D. Other Christian</td>
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<td>E. Jewish</td>
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<td>F. Muslim</td>
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<tr>
<td>G. Other non-Christian</td>
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<tr>
<td>38. Does the patient consider himself an active member of any religious faith?</td>
<td></td>
</tr>
<tr>
<td>A. Yes</td>
<td></td>
</tr>
<tr>
<td>B. No</td>
<td></td>
</tr>
<tr>
<td>39. How many times has the patient been legally married? (write &quot;O&quot; if never married)</td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>40. At what age was the patient first legally married? (write &quot;X&quot; if never married)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>41a. Which of the following categories indicates the patient's present marital status? (use category letter)</td>
<td></td>
</tr>
<tr>
<td>A. Never married</td>
<td></td>
</tr>
<tr>
<td>B. First marriage</td>
<td></td>
</tr>
<tr>
<td>C. Re-married</td>
<td></td>
</tr>
<tr>
<td>D. Separated</td>
<td></td>
</tr>
<tr>
<td>E. Divorced</td>
<td></td>
</tr>
<tr>
<td>F. Widowed</td>
<td></td>
</tr>
<tr>
<td>G. Other (Specify):</td>
<td></td>
</tr>
<tr>
<td>41b. If the answer to 41a was any category from B through G, was it a legal marriage?</td>
<td></td>
</tr>
<tr>
<td>A. Yes</td>
<td></td>
</tr>
<tr>
<td>B. No</td>
<td></td>
</tr>
<tr>
<td>42. How many people depend on the patient for support? (children, spouse, other relatives, etc.)</td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>43. With whom was the patient living at the time he entered this program? (use category letter and list all that apply)</td>
<td></td>
</tr>
<tr>
<td>A. Spouse</td>
<td></td>
</tr>
<tr>
<td>B. Family or relatives</td>
<td></td>
</tr>
<tr>
<td>C. Friend(s)</td>
<td></td>
</tr>
<tr>
<td>D. By himself</td>
<td></td>
</tr>
<tr>
<td>E. Other (Specify):</td>
<td></td>
</tr>
<tr>
<td>44. Was the patient living with the same persons two months ago?</td>
<td></td>
</tr>
<tr>
<td>45. Was anybody at the patient's place of residence using illegal drugs? (use category letter)</td>
<td></td>
</tr>
<tr>
<td>A. Spouse</td>
<td></td>
</tr>
<tr>
<td>B. Family or relatives</td>
<td></td>
</tr>
<tr>
<td>C. Friend(s)</td>
<td></td>
</tr>
<tr>
<td>D. Other (Specify):</td>
<td></td>
</tr>
<tr>
<td>E. None</td>
<td></td>
</tr>
<tr>
<td>46. During the last two months how many times did the patient change his place of residence? (If none, write &quot;O&quot;)</td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>47. In what type of place did the patient mainly live during the past two months? (use category letter)</td>
<td></td>
</tr>
<tr>
<td>A. No regular place</td>
<td></td>
</tr>
<tr>
<td>B. Rooming or boarding house</td>
<td></td>
</tr>
</tbody>
</table>
52. Was the patient ever hospitalized for a major physical ailment for longer than a month?
   A. Yes
   B. No

53. What is the highest year in school completed by the patient’s Father?______ 65
   Years

54. What is the highest year in school completed by the patient’s Mother?______ 66
   Years

55. Does the patient have a high school diploma or equivalent?
   A. Yes
   B. No

56. Is the patient still in school?
   A. Yes
   B. No

57. What is the highest year of schooling that the patient has completed or is now attending?______ 69
   Years

58. What special training, qualifications, or licenses does the patient have? (If none, write “none”)______ 70

59. How many months of active service did the patient have in the United States Armed Forces? (If none, write “0”)______ 71
   Months

60a. If item 59 is not zero, give date of discharge.______ 72
    Month Year

b. Indicate the type of discharge the patient had from Military Service.
   A. Honorable
   B. General
   C. Dishonorable

   c. Did the patient use any drugs
      1) prior to military service?
         A. Yes
         B. No
76. Has the patient ever been committed to an institution for juvenile delinquency or a place for supervision by a juvenile court?
   A. Yes  
   B. No

77. How old was the patient at his first arrest? Age

78. What was the main reason for the patient's starting to use drugs?
   A. Friend's influence
   B. Kicks
   C. Medical
   D. Pusher
   E. Other (explain)

79. How has the patient usually taken heroin?
   A. Injection-vein
   B. Other ( Specify): __________
   C. Never used heroin

80. What is the longest period of time the patient ever stopped using drugs "on his own" in the street? Days

81. How many times has the patient stopped using drugs "on his own" in the street? Number

82. How many times has the patient been in a treatment program for drug abuse? Number

83. What is the name of the first illegal drug the patient used? Name

84. What is the name of the first illegal drug the patient used daily? Name

85. How old was the patient when he first used an illegal drug? Age

86. What is the name of the first opiate drug the patient used? Name

87. What is the name of the first opiate drug that the patient used daily? Name

88. How old was the patient when he first used heroin or another opiate drug? Age

89. How old was the patient when he first used heroin or other opiates daily? Age

90-92. What has been the patient's alcohol use during the last two months:
   90. Beer: (average number daily) Cans or Bottles
   91. Wine: (average number daily) Pints
   92. Liquor: (average number daily) Drinks

93. Has the patient ever had a medical problem, lost a job, or gotten into legal or family trouble because of excessive use of alcohol?
   A. Yes
   B. No

94. Does the patient show any noticeable signs of physical illness or disability?
   A. Yes
   B. No

If yes, explain ________________

MH-193  
Rev. 10-71
APPENDIX B

PERSONAL AND SOCIAL INVENTORY

I will be asking you some questions about your life, your feelings, and your experiences. These are things that the experts cannot find out about just by reading books.

We will also want to talk to you again after you've been in the program for about a year. Then we will be trying to find out how the program is working, things that are working out well, and if anything is not working out well.

Your answers to these questions will not be seen by anyone besides me. These papers will be moved to an office outside of the Center soon after we finish this interview. No one will ever be allowed to see how any particular person answered any question.

I expect many of the subjects we cover will be interesting for you to think about. If you have any ideas or suggestions for improving our questionnaire so that we can understand addiction better than we do, I would like you to tell me about them at the conclusion of our interview.

Addiction Research and Treatment Corporation Evaluation Team
1. How old are you? ___ years old

2. Are you:
   1. Single
   2. Married
   3. Separated
   4. Divorced
   5. Married-common law
   6. Other (Specify) ____________________________

3. Do you have any children?
   1. No
   2. Yes

4. Have you ever been married before this?
   1. No
   2. Yes

5. If Yes) How many times? ___
27-28/ 5. With whom are you living now? (All) (For Intake and Follow-up)

With whom were you living when you entered A.R.T.C.? (All)

29-31/ 6. Where were you born?

(City) __________ (Borough) __________ (State) __________

(Country) __________

32 33 34

7. Where was your mother born?

(City) __________ (State) __________ (Country) __________

35 36 37

8. Where was your father born?

(City) __________ (State) __________ (Country) __________

38/ 9. What is your religion?

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

Last page completed: ____________________

Next appointment: ____________________
39/ 10. After you applied to the A.R.T.C. program, how long were you kept on the waiting list before you were admitted? ___ months

40/ 11. Why did you come to this particular program?

41/ 12. What things about the program do you think you will like and dislike?

*(OMIT IN LATE ADMINISTRATION AND 1 YEAR FOLLOW UP)*

42/ 13. How do your friends who are addicts feel about your coming to the program?

*(FOR LATE ADMINISTRATION AND FOLLOW UP):

How did your friends who are addicts feel about your coming to the program?
14. Here are some reasons that some people might give for coming to treatment. Please say which reasons are important to you and which ones are not important at all.

<table>
<thead>
<tr>
<th></th>
<th>Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>43/ You're worried about your health.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>44/ You want to stay out of prison.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>45/ You're really not eating enough any more.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>46/ You've been hooked so long, if you don't stop soon you may never be able to.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>47/ You're just tired of hustling, or can't hustle as much money.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>48/ You would like to find an honest job.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>49/ Your veins have given out.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>50/ You would like your family to be proud of you.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>51/ Your habit is getting too expensive for you to support.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>52/ You want to live a more settled life.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>53/ You're afraid of an overdose.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>54/ Family or friends wanted you to.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>55/ Probation or parole officer suggested it.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>56/ Someone from A.R.T.C. persuaded you</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>57/ You have friends already in A.R.T.C., or entering with you</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>58/ Other (specify)</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>
Here are some reasons that some people might give for coming to treatment. Please think back to when you started treatment, and say which reasons were important for you then, and which ones were not important.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>You were worried about your health</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>You wanted to stay out of prison</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>You were really not eating enough any more.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>You were hooked so long, if you didn't stop soon you were afraid you might never be able to.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>You were just tired of hustling, or couldn't hustle as much money.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>You wanted to find an honest job.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>Your veins gave out.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>You wanted your family to be proud of you.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>Your habit was getting too expensive for you to support.</td>
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<tr>
<td>You wanted to live a more settled life.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>You were afraid of an overdose.</td>
<td>( )</td>
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</tr>
<tr>
<td>Family or friends wanted you to.</td>
<td>( )</td>
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</tr>
<tr>
<td>Probation or parole officer suggested it.</td>
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<td>( )</td>
</tr>
<tr>
<td>Someone from A.R.T.C. persuaded you.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>You had friends already in A.R.T.C., or entering with you.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>
15. For each of the following statements, please say whether you agree with it or not.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Agreement</th>
<th>Disagreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>59/ I would be willing to stay in a hospital for as long as five years if I thought that would be the only way I could kick my habit.</td>
<td>( )</td>
<td>( )</td>
<td></td>
</tr>
<tr>
<td>60/ I'm not sure whether I want to stop using heroin altogether.</td>
<td>( )</td>
<td>( )</td>
<td></td>
</tr>
<tr>
<td>61/ If I don't stop using heroin in this program, I'll probably be too discouraged to try any other program.</td>
<td>( )</td>
<td>( )</td>
<td></td>
</tr>
</tbody>
</table>

16. What do you guess would be a reasonable amount of time before you might... *(FOR FOLLOW UP): How long did it take you to... *

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62/ Get used to methadone</td>
<td>Already or Right</td>
<td>Away</td>
<td>Days</td>
<td>Weeks</td>
<td>Months</td>
<td>Years</td>
<td>Never</td>
</tr>
<tr>
<td>63/ Stop wanting heroin physically</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64/ Stop wanting heroin mentally</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>65/ Get used to a treatment group</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>66/ Get off methadone</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
17. What other treatment programs have you been in?
   Number of times?
   What year was that?
   How long was that for?
   Did you go on your own, or were you sent there by the court?

<table>
<thead>
<tr>
<th># Times</th>
<th>Year</th>
<th>How long (months)</th>
<th>Voluntary</th>
</tr>
</thead>
<tbody>
<tr>
<td>13/ Beth Israel detoxification (Manhattan General)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14/ Beth Israel - methadone maintenance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15/ N.A.C.C.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16/ Metropolitan Hospital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17/ Harlem Hospital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18/ Lexington</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19/ Phoenix House</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20/ Odyssey House</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21/ Daytop Village</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22/ Riverside</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23/ Other (Specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24-25/
26-27/
28/

18. Did you ever try to get into any other program, and not be able to get in?
   1. No
   2. Yes
      (If yes) Which ones? How many times?

29/ Beth Israel-detoxification
30/ Beth Israel-methadone maintenance
31/ N.A.C.C.
32/ Metropolitan Hospital
33/ Harlem Hospital
34/ Lexington
35/ Phoenix House
36/ Odyssey House
37/ Daytop Village
38/ Riverside
39/ Other (Specify)____________________________

19. How many times did you kick or stop using drugs?
40-41/ Voluntarily on the outside _______ times
42-43/ In an institution in which you put yourself____ times
44-45/ In jail or other institution where you were placed against your will____ times

20. What is the longest time you have stayed off drugs voluntarily (outside an institution or program)?
46-47/ _______ weeks
48-49/ _______ months
50-51/ _______ years

21. How is your physical health now? Is it good, bad or somewhere in between?
1. Good
2. Not good, not bad
3. Bad

*(FOR FOLLOW UP ONLY): How was your physical health when you entered A.R.T.C.? Good, bad, or somewhere in between?
22. In the past year, in how many different places have you lived?
   1. One
   2. Two or three
   3. Four or five
   4. Six or more

23. Do you have any of the following things now?
   1. Telephone in your name
   2. Car
   3. Apartment with a lease in your name (or in husband's name)
   4. Debts for furniture, TV, or car

24. Have you done any of the following things in the last six months? Have you...
   1. Gone to a party or a dance
   2. Gone to a movie
   3. Watched TV
   4. Gone traveling to some other place
   5. Eaten dinner in a nice restaurant
   6. Read a book
   7. Gone out for an evening with wife or girl friend (Husband or boyfriend)
   8. Talked with friends about politics

25. Do you belong to any organizations now?
   1. No
   2. Yes (If Yes) Which ones?
Now let's go back and talk about your family and how it was when you were growing up.

11-12/03

27. Who were you living with back when you were 6 or 7 at the beginning of grade school? (CIRCLE ALL THAT APPLY)

13/ Mother
14/ Father
15/ Stepmother
16/ Stepmother
17/ Grandmother (Specify Mother's (1) or Father's (2) side)
18/ Grandfather (Specify Mother's (1) or Father's (2) side)
19/ Sisters (How many at that time__________________)
20/ Brothers (How many at that time__________________)
21/ Other relatives (Who? Specify Mother's (1) or Father's (2) side)
22/ Non-relatives (Who?______________________)
23/ Foster parents
24/ Foundling home, orphan home, or other institution
25/ (IF FATHER (14/) was NOT MENTIONED AS ONE OF ADULTS IN Q. 27)

A. Did you see your father in those days?
   1. No
   2. Yes

26/ (If Yes) How often did you see him?
   1. Once a week or more
   2. A few times a month
   3. Once a month
   4. Once every couple of months
   5. Once a year or less
B. Did you see any members of your father's family in those days?

1. No
2. Yes

(IF YES) Who?________________________

How often did you see______________________?

1. Once a year or less
2. Once every couple of months
3. Once a month
4. A few times a month
5. Once a week or more

27A. Compared with other children your age, how was your life when you were 6 or 7?
28. Who was the one person who mostly took care of you when you were 6 or 7?
   1. No one person, many different ones
   2. Relationship__________________________
      (Specify)

29. Did you have a regular bedtime, which you had to stick to: all of the time, most of the time, some of the time, or almost never?
   1. All of the time
   2. Most of the time
   3. Some of the time
   4. Almost never

30. Did someone wake you up in the morning to see that you'd be on time for school: all of the time, most of the time, some of the time, or almost never?
   1. All of the time
   2. Most of the time
   3. Some of the time
   4. Almost never

31. When you were 10 or 11, did someone check up on you to see if you had done your homework: all of the time, most of the time, some of the time, or almost never?
   1. All of the time
   2. Most of the time
   3. Some of the time
   4. Almost never

32. Was there someone older than you at home to meet you after school was over: all of the time, most of the time, some of the time, or almost never?
   1. All of the time
   2. Most of the time
   3. Some of the time
   4. Almost never
34. (IF RESPONDENT WAS LIVING OUTSIDE OF AN INSTITUTION)
When you were growing up who provided most of the financial support for the family?

1. Mother
2. Father
3. Mother and father equally
4. Stepfather
5. Other relative (Who? ____________________)
6. Welfare (Skip to Q. 39)
7. Other (Specify _________________________)

35. What was your ________ 's occupation while you were growing up?

36. What did he (she) do on that job?

37. What was his (her) employer's business or industry?

38. Was he (she) employed regularly?

1. No
2. Yes
39. With whom did you live when you were 14 years old?  
(Refer to Q. 27, Page 9)

40. Who was the one person who mostly took care of you when you were 14?

40A. Did your family have regular meal-times when everyone ate together: all of the time, most of the time, some of the time, or never.

1. All of the time
2. Most of the time
3. Some of the time
4. Never
11-12/04

(IN QUESTIONS 43 AND 44 REFER TO PERSON MENTIONED IN QUESTION 40)

SKIP

13/

14/

15-16

43. How far in school did __________ want you to go?

17-18

44. How far did __________ think you really would go in school?

19/

45. During the years when you were growing up, did anyone in your family drink to the extent that it interfered with your family life?

1. Yes

2. No

20/ (IF YES) Who?

1. Father

2. Mother

3. Brother

4. Sister

5. Other (Specify) ____________________
13-14/

46. I would like to know how you identify yourself ethnically.
   ___ (HAND CARD)

   (INSERT ANSWER FROM Q. 46 IN Qs. 47, 49, 55, 59)
   (IF WHITE, SKIP Qs. 47, 49, 55, 59)

   (IF WHITE, SKIP)

15-16/

47. In your opinion, has being ______ prevented you from getting the things you wanted?
   1. Yes, very much
   2. Yes, to some degree
   3. Yes, slightly
   4. No

The next questions have been used in a lot of different studies of personality differences. There are no right or wrong answers to any of these questions—whatever seems right to you is right.

   (1)     (2)
   Agree  Disagree

17/

48. You would rather win than lose in a game. ( ) ( )

   (IF WHITE TO Q. 46, SKIP)

18/

49. Many ______ (INSERT FROM Q. 46) people who have the training can't get a good job mainly because they are ______. ( ) ( )

19/

50. Being on welfare is better than working on a dull job. ( ) ( )

20/

51. A married person should stick it out with his wife, or her husband—even if he finds someone else attractive. ( ) ( )
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21/</td>
<td>52. Work should be the most important part of a person's life.</td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>22/</td>
<td>53. What is going to happen will happen, you don't have much to say about it.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>23/</td>
<td>54. You like to know some important people because it makes you feel important.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>(IF WHITE TO Q. 46, SKIP)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24/</td>
<td>55. people who don't get jobs usually don't have the ability to do the job.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>25/</td>
<td>56. You do not always tell the truth.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>26/</td>
<td>57. You gossip a little at times.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>27/</td>
<td>58. When you make plans they usually work out.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>(IF WHITE TO Q. 46, SKIP)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28/</td>
<td>59. A person doesn't get the same breaks in getting ahead as other people.</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>

SKIP

SKIP

SKIP

SKIP
Now I'd like to ask you a few questions about schools.

31-32/ 62. When you were in school, what was the last year of school you wanted to finish?
- Elementary School 01 02 03 04 05 06 07 08
- High School 09 10 11 12
- College 13 14 15 16 17+
- Vocational school or technical college 13

33-34/ 63. What was the last year of school you actually finished?

35-36/ 64. How old were you then? _______ years old

(IF 12 TO 63 ASK Q. 65)

37/ 65. Did you graduate from high school?
- 1. Yes
- 2. No

38/ 66. Did you ever take any courses after you left school?
- 1. Yes
- 2. No

(IF YES)

39/ 67. Did you ever get a high school equivalency diploma?
- 1. Yes
- 2. No

40/ 68. How well did you do in school, worse than most people, about the same as most, or better than most?
- 1. Worse than most
- 2. About the same as most
- 3. Better than most
Ask Q. 69 After Q. 70

41/ 69. When you were in school, how much of the time did you skip school? Did you

1. Skip school a lot of the time
2. Skip school some of the time
3. Hardly ever skip school

70. Here are a lot of reasons that some people might give for wanting to skip school. Tell me if any of these crossed your mind.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>42/ You didn't like sitting still for so long</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43/ What they were teaching weren't the things you wanted to learn about</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44/ You felt the teachers didn't like you</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45/ You couldn't understand most of what was going on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46/ You felt the teachers were prejudiced against you</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47/ School was just plain dull</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48/ You couldn't see what good going to school would do you</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49/ Most of your friends were skipping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50/ There were more exciting things to do outside of school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51/ You wanted to earn money</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52/ You were needed at home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53/ Other (Specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Here are some more of the questions that ask whether you agree or disagree.

<table>
<thead>
<tr>
<th></th>
<th>(1) Agree</th>
<th>(2) Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>54/71.</td>
<td>You get angry sometimes.</td>
<td>( )</td>
</tr>
<tr>
<td>55/72.</td>
<td>Everyone in this country can get ahead if he tries hard enough.</td>
<td>( )</td>
</tr>
<tr>
<td>56/73.</td>
<td>What happens to you is your own doing.</td>
<td>( )</td>
</tr>
<tr>
<td>57/74.</td>
<td>You do not like everyone you know.</td>
<td>( )</td>
</tr>
<tr>
<td>58/75.</td>
<td>When a man has a chance to go out with his friends he shouldn't let his kids tie him down.</td>
<td>( )</td>
</tr>
<tr>
<td>59/76.</td>
<td>It is better for you to make a decision than to wait and see what will happen.</td>
<td>( )</td>
</tr>
<tr>
<td>60/77.</td>
<td>If you won enough money in a lottery so that you and your family could live comfortably without your working, you wouldn't work.</td>
<td>( )</td>
</tr>
<tr>
<td>61/78.</td>
<td>You don't have much control over what happens to you.</td>
<td>( )</td>
</tr>
<tr>
<td>62/79.</td>
<td>Things that happen by chance are not very important in your life.</td>
<td>( )</td>
</tr>
</tbody>
</table>

(IF WHITE TO Q. 46, SKIP)

<table>
<thead>
<tr>
<th></th>
<th>(1) Agree</th>
<th>(2) Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>63/80.</td>
<td>A(n)_____ can never make it in America.</td>
<td>( )</td>
</tr>
<tr>
<td>64/81.</td>
<td>Plans don't matter very much because chance has a lot to do with what happens to you.</td>
<td>( )</td>
</tr>
</tbody>
</table>

SKIP

<table>
<thead>
<tr>
<th></th>
<th>(1) Agree</th>
<th>(2) Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>66/83.</td>
<td>Once in a while you think of things too bad to talk about.</td>
<td>( )</td>
</tr>
<tr>
<td>67/84.</td>
<td>You would not borrow money from family or friends unless you were sure how you were going to pay them back.</td>
<td>( )</td>
</tr>
</tbody>
</table>
Now let's talk about your experiences with drugs.

11-12/06

13/ 85. Before you started using drugs, about how many close friends did you have?
   1. No close friends
   2. 1 or 2 close friends
   3. 3-5 close friends
   4. More than five close friends

14/ 86. Were you with people most of the time or did you usually stay by yourself?
   1. Stayed by self
   2. With people

15/ 87. Did you ever drink heavily or do you drink heavily now?
   1. Yes
   2. No

16/ 88. Did you ever drink regularly or do you drink regularly now?
   1. Yes
   2. No

17-18/ 89. (IF YES TO EITHER 87 or 88)
   When, before drug use, during drug use or during abstention from drugs?
   1. Before drug use
   2. During drug use
   3. During abstention from drugs
   4. Before and during drug use
   5. Before drug use and during abstention
   6. During drug use and during abstention
   7. Before and during drug use and during abstention
   8. Other combinations (specify)___________________
How old were you when you first used heroin in any form? ___ years old

Could you please tell me about the day you first took heroin in any form? (PROBE: HOW DID YOU FEEL ABOUT IT THAT TIME?)

(CODE OR ASK IF NOT CLEAR)

A. Were you with someone else or alone?
   1. Don't remember (Skip to D)
   2. Alone (SKIP TO D)
   3. With someone else

B. Did you know the other people? Were they good friends, did you know them somewhat, or did you just meet them?
   1. Good friends
   2. Knew them somewhat
   3. Just met them

C. Whose idea was it, someone else's, or yours?
   1. Someone else's
   2. Yours

D. How did you get the heroin you used that time?
   1. Bought from a pusher
   2. From one of the other people I was with
   3. Other ______________________
   4. Don't remember
Aside from curiosity, which of the following reasons do you think was most important in getting you to try heroin the first time?

1. You wanted to be like someone you knew who used it
2. You wanted to spite someone
3. You wanted to escape from your troubles
4. You were searching for something
5. For kicks
6. A friend urged you to try it
7. You wanted to be like others you knew who used it.
8. To be in with a group of people
9. Other ____________________________

Would you say there was some turning point in your life that led you to use heroin? (Probe)
(FOR FOLLOW UP)
95A Have you used heroin since you've been in A.R.T.C.?
1. No
2. Yes
   (IF YES) About how many times?___________
   (IF MORE THAN ONCE) Were these mostly in the last month or two, mostly in the month or two since you entered the program, or were they spread around over many different months?
1. Mostly in the last month or two
2. Spread around over different months
3. Mostly in month or two since entering program

( FOR FOLLOW UP)
95B Do you feel that you have some idea about what your level of methadone dosage is?
1. No
2. Yes
   (IF YES) About what do you think it is?
   ________________________milligrams a day
   (IF YES TO 95B) Do you think the amount of methadone you've received has changed during the time you've been on the program?
1. No
2. Yes
   (IF YES) What makes you think so?
31/ When you took heroin the first time, did you mainline or use it some other way?

1. Mainline (SKIP TO Q. 98)
2. Skin-pop
3. Snort

32/ (IF OTHER WAY)

97. How long did you use heroin before you started to mainline?

33/ 98. What was the heroin you used usually cut with?

1. Milk sugar
2. Quinine
3. Benitas
4. Anything else (specify)________________
5. Don't know
99. Which of the following have you used ten times or more?

34/ Methadone (dollies) (OUTSIDE OF TREATMENT PROGRAM)
35/ Demerol
36/ Morphine
37/ Cocaine
38/ Marijuana
39/ Hash
40/ Amphetamines (methedrine, meth, bombitas, pep pills, speed, bennies, dexies)

41/ Mescaline, peyote
42/ LSD
43/ Barbiturates (goof balls, downs, tuinals)
44/ Opium
45/ Airplane glue, carbona, cleaning fluid, cough medicine
46/ Doriden

100. Have you ever taken pills, or shot something, when you didn't know what was in it?

1. Yes
2. No

101. When you started to use heroin, what would you say about the other people in your neighborhood, did few of them, or many of them, use it?

1. Few of them
2. Many of them
3. Half and half
4. Don't know
50/ 102. Has anyone in your immediate family ever smoked marijuana?
   1. No
   2. Yes
   3. Don't know

51/ A. (IF YES) Who?
   1. Father
   2. Mother
   3. Brother
   4. Sister
   5. Wife (or husband)
   6. Other (Specify)

52/ 103. Has anyone in your immediate family ever used drugs (except marijuana)?
   1. No
   2. Yes
   3. Don't know

11-12/07

<table>
<thead>
<tr>
<th>A. (IF YES) Who?</th>
<th>What</th>
<th>(1) Before or after you started using</th>
<th>(2) Still Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father</td>
<td>13/___</td>
<td>14/___</td>
<td>___</td>
</tr>
<tr>
<td>Mother</td>
<td>16/___</td>
<td>17/___</td>
<td>___</td>
</tr>
<tr>
<td>Brother</td>
<td>19/___</td>
<td>20/___</td>
<td>___</td>
</tr>
<tr>
<td>Sister</td>
<td>22/___</td>
<td>23/___</td>
<td>___</td>
</tr>
<tr>
<td>Wife (or husband)</td>
<td>25/___</td>
<td>26/___</td>
<td>___</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>28/___</td>
<td>29/___</td>
<td>___</td>
</tr>
</tbody>
</table>
31-32/104. How old were you when you decided that you were an addict?
   [ ] years old

33/104A. What made you decide that you were an addict?

34/105. What would you call yourself now, an addict, an ex-addict, or on the borderline?
   1. Addict
   2. On the borderline
   3. Ex-addict

35/106. Is there anyone you would call your best friend now?
   1. No (Skip to Q: 108)
   2. Yes

36/ (If yes)
   107. Does your best friend now use drugs, or did he (she) ever use?
      1. Uses
      2. Doesn't use
      3. Did use in past

37/108. How many friends (associates) do you have? __________

108A. How many of your friends (associates) have never used, how many are ex-addicts, and how many are users?

[ ] 38/ Never used________

[ ] 39/ Ex-addicts________

[ ] 40/ Users________
41/109. How often do you see your friends (associates) who have never used heroin: once a week or more, a few times a month, once a month, or less than once a month.

1. Once a week or more
2. A few times a month
3. Once a month
4. Less than once a month

42/110. How often do you see your friends (associates) who are ex-addicts: once a week or more, a few times a month, once a month, or less than once a month?

1. Once a week or more
2. A few times a month
3. Once a month
4. Less than once a month

43/111. How often do you see your friends (associates) who are addicts: once a week or more, a few times a month, once a month, or less than once a month?

1. Once a week or more
2. A few times a month
3. Once a month
4. Less than once a month

44/112. How much do you talk with your friends (associates) about heroin: most of the time, now and then, or seldom?

1. Most of the time
2. Now and then
3. Seldom

(IF NEVER SKIP TO Q. 114)
113. For each of the following kinds of discussions, please say whether it comes up very often, comes up sometimes, or comes up seldom.

<table>
<thead>
<tr>
<th></th>
<th>Very Often</th>
<th>Some Times</th>
<th>Seldom</th>
</tr>
</thead>
<tbody>
<tr>
<td>45/</td>
<td>Talk about the times you've used heroin,</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>46/</td>
<td>Talk about the times you've been busted or almost been busted.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>47/</td>
<td>Talk about your fears about what heroin will do to your health.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>48/</td>
<td>Talk about how bad you feel when you need a fix.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>49/</td>
<td>Talk about raising money for heroin.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>50/</td>
<td>Talk about how you'd like to stop using it.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>51/</td>
<td>Talk about your associates who are still on stuff, and hope they can get themselves together.</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>

52/114. Do you know any people who have stopped using heroin for two years or more?

1. No. (SKIP TO Q. 115)
2. Yes

A. (IF YES) How many?_____

B. (IF YES) How did they stop?

C. (IF YES) Were any of them friends of yours?
1. No
2. Yes
Now come some more of the questions that ask whether you agree or disagree.

<table>
<thead>
<tr>
<th>11-12-08</th>
<th>(1) Agree</th>
<th>(2) Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>13/115. At times you think you are no good at all.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>14/116. You feel you do not have much to be proud of.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>15/117. You certainly feel useless at times.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>16/118. You wish you could have more respect for yourself.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>17/119. All in all, you are inclined to feel that you are a failure.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>18/120. You take a positive attitude toward yourself.</td>
<td>( )</td>
<td>( )</td>
</tr>
<tr>
<td>19/121. On the whole, you are satisfied with yourself.</td>
<td>( )</td>
<td>( )</td>
</tr>
</tbody>
</table>

Now a few questions to find out what kind of help is available to people outside of A.R.T.C.

20/122. If you knew someone who wanted a high school diploma, where would you tell him to go to find out about getting one?

21/123. Where would you go to look for a job on your own?

22/124. If you were on welfare and were having difficulties with the welfare department itself, is there any other place that you know about that you could go for help?

1. Yes
2. No

23/ (IF YES) Where is that?

24/125. Have you yourself ever gotten help in dealing with the Welfare Department?

1. Yes
2. No

25/ (IF YES) Where did you get it from?
Now I'd like to ask some questions about how you've supported yourself—both before and since you were addicted to heroin.

127. In the year before you were addicted, which of these were your sources of financial support? (ALL)

27/ Job that was legal
28/ Public assistance, welfare for yourself
29/ Wife (or husband)
30/ Other family or friends
31/ Illegal sources
32/ Other ________________________

(IF ADDICTED AFTER AGE 18—SEE Q. 104)

33 34 35 36 37 38

128. What was the job you stayed at longest before you were addicted?

33-34/ 1. Name of job 2. No job before addiction (SKIP TO Q. 131)

35-36/ A. What did you do on that job?

37-38/ B. What was your employer's business or industry?

39-40/ C. How long did you stay on that job?

41-42/ D. How much take-home pay did you earn a week?
E. How much did you like that job? not at all, a little, or a lot?

1. Not at all
2. A little
3. A lot

F. Was it a full-time (1) or a part-time (2) job?

44/129. Did you work regularly before you were addicted to heroin?

1. Yes
2. No

(ASK Q. 132 NEXT)

45/131. Are you working now?

1. No (SKIP TO Q. 131A or 131B)
2. Yes

(IF YES)

A. What do you do on your job?

48/49. B. What is your employer's business or industry?

50/51. C. How long have you been on this job?

52/53. D. How much take-home pay do you earn a week?

54/ E. How much do you like the job; not at all, a little, or a lot?

1. Not at all
2. A little
3. A lot
-29A-

55/ F. Is it a full-time (1) or part-time (2) job?

*(FOR LATE ADMINISTRATION AND FOLLOW UP)*

131A. Were you working when you entered A.R.T.C.? 10-31/
1. No (SKIP TO Q. 131B)
2. Yes
  (IF YES)
  A. What did you do on your job? 32-33/
  B. What was your employer's business or industry? 34-35/
  C. How long did you work on that job? 36-37/
  D. How much take-home pay did you earn a week? 38-39/
  E. How much did you like the job; not at all, a little, or a lot?
     1. Not at all
     2. A little
     3. A lot
  F. Was that a full-time (1) or a part-time (2) job?

56/ 131B. Do you receive any welfare now?
1. Yes
2. No
57/
132. Did you ever have a job after you were addicted to heroin, and before you entered A.R.T.C.?
   1. No (SKIP TO Q. 135, WOMEN; or 137, MEN)
   2. Yes
(IF YES)
58-59/
133. What was the job you stayed at longest after you were addicted to heroin?

58 59 60 61 62 63

60-61/
   A. What did you do on that job?

62-63/
   B. What was your employer's business or industry?

64-65/
   C. How long did you stay at that job?

66-67/
   D. How much take-home pay did you earn a week?

68/
   E. How much did you like the job: not at all, a little, or a lot?
      1. Not at all
      2. A little
      3. A lot

69/
   F. Was that a full-time (1) or a part-time (2) job?
70/134. Have you worked regularly since you've been addicted to heroin?

* (FOR LATE ADMINISTRATION AND FOLLOW UP)

Did you work regularly while you were addicted to heroin?

1. Yes
2. No

71-72/ (IF YES)

How long have you been working? _______________

11-12/09

(FOR WOMEN: IF NEVER MARRIED OR COMMON LAW SKIP TO Q. 137)

13/135. Does your husband (or did your husband) have a job that is (was) legal?

1. Yes
2. No (SKIP TO Q. 137)
(IF YES)

Please tell me about the job that he stayed at for the longest time.

16-17/ A. What did he do on that job?

18-19/ B. What was his employer's business or industry?

20-21/ C. How long did he stay at that job?

22-23/ D. How much take-home pay did he earn a week?

(FOR THOSE EVER EMPLOYED: IF NEVER EMPLOYED Skip to Q. 143)

24-25/ 137. What kind of a job would you like to have a year from now?

26-27/ 138. What kind of job do you think you will probably have a year from now?

28-29/ 139. How much money do you think you'll make a week on that job?

30-31/ 140. What kind of job do you think you will probably have in 5 years?

32-33/ 141. How much money do you think you'll make a week on that job?
142. How much money do you think you would need to make a week, in order to live fairly well right now? (Go to Q. 150)

(FOR THOSE NEVER PREVIOUSLY EMPLOYED)

143. Do you want a job that is legal: very much, somewhat, or not at all?

1. Very much
2. Somewhat
3. Not at all

(IF "1" OR "2")

144. What kind of a job would you like to have?

145. How much money do you think you would make a week on that job?

146. What kind of a job would you like to have a year from now?
147. What kind of a job do you think you will probably have a year from now?

148. How much money do you think you will probably make on that job?

149. How much money do you think you would need to make a week, in order to live fairly well right now?

150. Thinking about your life in the next year or so, how would you like it to be?

FOR INTAKE AND LATE ADMINISTRATION SKIP TO Q. 156.

*(FOR FOLLOW UP)

Just a few questions about your experiences in the program before we finish.

151. How many counselors have you had since you've been in A.R.T.C.? __________

152. About how often have you seen your counselor? __________ times a week

153. Would you say they've been very helpful, somewhat helpful or not helpful at all?

1. Very helpful
2. Somewhat helpful
3. Not helpful at all
A. Why do you say that?

154. Have you gone to any of the groups? (IF YES)

A. Which ones?

B. On the whole do you feel it (they) have been very helpful, somewhat helpful or not helpful at all?

1. Very helpful
2. Somewhat helpful
3. Not helpful at all

155. Has the program been helpful or not helpful to you as far as finding a job or getting job training?

1. Helpful
2. Not helpful

A. Why do you say that?
156. On the basis of your own experience with drugs, what would you say is probably the best way of helping drug addicts?

Thank you very much for taking the trouble to answer so many questions. The answers you gave will help to improve this program, and others like it that may be set up in the future. I hope you've found parts of it interesting for yourself, too.
FOR INTERVIEWER

52/ 1. Did the respondent seem to be:
   1. Unusually honest
   2. Reasonably honest
   3. Somewhat dishonest
   4. Very dishonest
   5. Couldn't be at all sure whether he (she) was telling the truth

53/ 2. Was the rapport:
   1. Very good
   2. Good
   3. Fair
   4. Poor
   5. Very bad

54/ 3. As far as intelligence, did the respondent seem to be
   1. Above average
   2. Average
   3. Below average

55/ 4. Did the respondent seem to understand:
   1. All of the questions
   2. Most of the questions
   3. Some of the questions
   4. Few of the questions
   5. Couldn't be sure

56-57/ 5. How long did the interview take to complete?
   ____________________________ minutes

58/ 6. Was respondent:
   1. Alone
   2. Others were present

59-61/ 7. Were there any interruptions in the interview?
   How many and how long?

62/ 8. Do you think he (she) will:
   1. Permanently stay off heroin
   2. Probably use a little bit
   3. Probably be an addict again
   4. Can't tell
9. Did the respondent seem to have:
   1. A lot of self-awareness
   2. Some self-awareness
   3. Little or no self-awareness

10. Did he (she) act high?
    1. Yes
    2. No

11. Other comments about the interview and the respondent...
### APPENDIX C

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION
NATIONAL INSTITUTE OF MENTAL HEALTH

In Cooperation With
TEXAS CHRISTIAN UNIVERSITY
INSTITUTE OF BEHAVIORAL RESEARCH

DRUG ABUSE REPORTING PROGRAM

STATUS EVALUATION RECORD

Any information furnished to the National Institute of Mental Health, to its grantees, or to its contractors on this form which would permit identification of the individual supplying such information is required by law (42 CFR Part 1.103 (a)) to be held strictly confidential. This information may be used only by persons engaged in and for the purposes of research, survey, investigation, evaluation or collection of data, and may not be disclosed or released to others for any other purposes.

FORM APPROVED
BUDGET BUREAU NO. 68-R1086

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I.B.R. Number (Leave blank—for TCU use only)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2. Agency Number</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>3. Patient's Identification Number</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>4. Form Type (Leave blank—for TCU use only)</td>
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<td>4</td>
</tr>
<tr>
<td>5. Period of Report</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>6. Status Report Number</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>7. Date of This Report</td>
<td>Month Day Year</td>
<td></td>
</tr>
</tbody>
</table>

8a. Type of Report:
   A. Status
   B. Termination
   C. Readmission
b. If answer is B or C, then give date of action
   Month Day Year 10

9. Patient's Place of Residence
   City                      County                      County Code 14
   State                     State Code                  15

10. Current Classification (use category letter)  16
    A. In treatment
    B. Readmission
    C. Completed treatment
    D. Left Program—Patient's Choice
    E. Left Program—Program's Choice
    F. Hospitalized—Explain
    G. Jailed—Explain
    H. Deceased—State cause of death
    I. Referred elsewhere

11. Was contact made with the patient during the period covered by this report?  17
    A. Yes
    B. No

12. Components to which patient was assigned for treatment this reporting period, in order of occurrence.
    1)  18
       A. Inpatient (Hospital)
       B. Therapeutic Community or Other Residence Center
       C. Partial Hospitalization
       D. Outpatient
       E. Other Specify

13. Type of treatment assigned:  21
    A. Chemotherapy
    B. Drug Free Therapy

14. Did patient receive treatment during the period covered by this report?  22
    A. Yes
    B. No

15. If item 14 is Yes, indicate treatment:
    a. Detoxified or withdrawn during the report period  23
       A. Yes
       B. No
    b. Maintenance drug (prescribed or approved by this program)  24
       A. None
       B. Methadone
C. Cyclazocine
D. Naloxone
E. Other

Specify

c. Other Therapy:
(1) Individual Psychotherapy
A. Yes
B. No

(2) Group Psychotherapy
A. Yes
B. No

(3) Vocational or Educational Activity
A. Yes
B. No

(4) Other Drug Free Therapies
A. Yes
B. No

16. With whom did the patient mainly live during reporting period? (use category letters)
A. Spouse
B. Family or relatives
C. Friend(s)
D. By himself
E. Other

17. In what type of place did the patient mainly live during the past two months? (use category letters)
A. No regular place
B. Rooming or boarding house
C. Hotel
D. Apartment or single family dwelling
E. Jail or prison
F. Institution or hospital
G. Therapeutic community or residential facility
H. Other

Specify

18. How many times did the patient change his place of residence during the reporting period? (If none, write "0")

Number

19. Is getting to the treatment location a problem for the patient in terms of distance or travel time?

Number

20a. Which of the following categories indicates the patient's present marital status?

A. Single
B. Married
C. Separated
D. Divorced
E. Widowed
F. Other

Specify

b. If the answer to 20a. was any category from B through F, was it a legal marriage?

A. Yes
B. No

21. How many days during the reporting period was the patient employed on legitimate jobs? (include on-the-job training)

Days full time (40 hr./wk. or equivalent)

Days less than full time

Days unemployed

22. Has the patient engaged in activities during reporting period?

A. Attending school
B. Vocational training outside of program
C. Homemaking
D. Other

Specify

E. None

23. During the last two months, how much money did the patient earn from legitimate jobs?

Dollars

24. How many times did the patient change jobs during the reporting period?

Number

25. Which of the categories listed most closely indicates the patient's occupation during the last two months?

A. Higher executive, major professional
B. Business manager, proprietor of medium sized business
C. Administrative personnel, small business owner, foreman, supervisor
D. Clerical/sales worker
E. Skilled manual worker
F. Machine operator or semi-skilled worker
G. Unskilled worker (migrant, farm worker, day laborer, porter, yardman, housemaid)
H. Housewife
I. Student
K. None of the above (Specify) _______

26. What were the patient's sources of support during this reporting period? (use category letters and list all that apply) 1) ______
   A. Legitimate job
   B. Public assistance
   C. Spouse
   D. Family or friends
   E. Illegal
   F. Treatment program
   G. Other (Specify) _______

27. What has been the patient's alcohol use during reporting period?
   27. Beer: (average number daily) cans or bottles ______
   28. Wine: (average number daily) pints ______
   29. Liquor: (average number daily) drinks ______

30. Did the patient have a medical problem, lose a job, or get into legal or family trouble because of excessive use of alcohol during the report period?
    A. Yes
    B. No

31. Number of days of Drug Abuse during reporting period: (Use all sources of information available. Do not include prescribed maintenance drugs, such as methadone.)
    31. Heroin ______
    32. Methadone (illegal) ______

33. Other Opiates ______
34. Barbiturates, tranquilizers, and other sedatives ______
35. Cocaine ______
36. Amphetamines and similar agents ______
37. Hallucinogens ______
38. Marihuana ______
39. Other (Specify) _______

40. Total drug-free days during reporting period (excluding prescribed maintenance drugs) ______ No. of Days
41. Total opiate-free days during reporting period (excluding prescribed maintenance drugs) ______ No. of Days

42a. Has the patient had any urine tests during the report period?
    A. Yes—If yes, complete item 42b.
    B. No—If no, omit item 42b.
    b. If yes, then give
       1) Number of samples tested ______
       2) Number of positive results ______

43-49. Arrests During Report Period (If none write "O" for each category where "O" applies) Number of Arrests for Activity
    43. Gambling, running numbers, etc. ______
    44. Prostitution or pimping ______
    45. Stealing, forging, etc. ______
    46. Drug violations ______
    47. Crimes against persons ______
    48. Disorderly conduct, vagrancy ______
    49. Others (Specify) _______

50. Number of days in jail during the reporting period ______
APPENDIX D

DESCRIPTION OF MEASURES AND ITEMS USED

As described in Chapter III, the data base is drawn from five sources:
- Drug Abuse Reporting Program Admission Record (Appendix A)
- Personal and Social Inventory (Appendix B)
- Drug Abuse Reporting Program Status Evaluation Record (Appendix C)
- Official criminal records
- Program records of medication disbursement and urine testing

Each of the six charts which follow relates the measure described in Chapter III to one of the sources listed above. In the case of measures taken from Appendices A through C, the appendix and item number are specified. For example, the index composed of parental presence at ages 6 and 14 is constructed from items 27 and 29 in Appendix B (see Chart D-1).
<table>
<thead>
<tr>
<th>Description of Measure</th>
<th>Items Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index composed of parental presence at ages 6 and 14 and communication with father if absent.</td>
<td>B27; B39</td>
</tr>
<tr>
<td>Scale consisting of: regularity of meals, bedtime, reveille; supervision of homework; supervision after school.</td>
<td>B29-30; B40a</td>
</tr>
<tr>
<td>Point in addiction career where marriage occurs: Calculated from age of first marriage and age of addiction.</td>
<td>A89 - 440</td>
</tr>
<tr>
<td>See Chapter IV for a discussion of how scales of familial reasons and program-specific reasons were calculated.</td>
<td>B14 a-o</td>
</tr>
<tr>
<td>Number of children at entry and living arrangements at entry to treatment.</td>
<td>A42</td>
</tr>
<tr>
<td>Living with family at entry to treatment: Based on item specifying living arrangements at entry to treatment.</td>
<td>A43; A41a</td>
</tr>
</tbody>
</table>
### CHART D-2

**MEASURES OF TIES TO SCHOOL AND THE LABOR FORCE**

<table>
<thead>
<tr>
<th>Description of Measure</th>
<th>Items Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count of the number of reasons given for skipping school</td>
<td>B70</td>
</tr>
<tr>
<td>Last year school completed</td>
<td>A57</td>
</tr>
<tr>
<td>Frequency of skipping school</td>
<td>B69</td>
</tr>
<tr>
<td>Last year of school parents wanted and thought respondent would complete</td>
<td>B43, B44</td>
</tr>
<tr>
<td>Last year of school respondent wanted to complete</td>
<td>B62</td>
</tr>
<tr>
<td>Worked regularly: yes/no</td>
<td>A65</td>
</tr>
<tr>
<td>Job source of support before addicted: Based on checklist of number of possible sources of support</td>
<td>B127</td>
</tr>
<tr>
<td>Worked regularly while addicted: did not work/worked irregularly/worked regularly</td>
<td>B137</td>
</tr>
<tr>
<td>Number of months worked year before entry; working at entry</td>
<td>A71, A62</td>
</tr>
<tr>
<td>Job respondent hoped to have one year after entering treatment. Ranked according to prestige based on a scale developed by Trieman (Trieman, 1977)</td>
<td>B137, B138, B144, B147</td>
</tr>
<tr>
<td>See pages for a discussion of how Protestant ethic and militancy scales were developed</td>
<td>B47-52, B55, B59, B75, B77, B89</td>
</tr>
</tbody>
</table>
CHART D-3
MEASURES OF CRIMINAL BEHAVIOR

<table>
<thead>
<tr>
<th>Description of Measure</th>
<th>Items Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>An index consisting of whether respondent was legally declared a juvenile delinquent and institutionalized</td>
<td>A76, A77</td>
</tr>
<tr>
<td>Calculated from age of first arrest and age of addiction</td>
<td>A89 minus A77</td>
</tr>
<tr>
<td>For each time period the following indices have been created:</td>
<td>See Chapter III for a methodological discussion of official criminal records from which these measures are taken</td>
</tr>
<tr>
<td>1. Violent charges: charges for assault, rape, robbery, possession of weapons</td>
<td></td>
</tr>
<tr>
<td>2. Property-related charges: charges for burglary, petty larceny, grand larceny, possession of stolen property, forgery</td>
<td></td>
</tr>
<tr>
<td>3. Victimless charges: prostitution, gambling</td>
<td></td>
</tr>
<tr>
<td>4. Drug-related charges: possession of heroin, selling heroin, possession of a hypodermic needle</td>
<td></td>
</tr>
<tr>
<td>5. Other charges: disorderly conduct, child abuse/neglect</td>
<td></td>
</tr>
<tr>
<td>Calculation of charge rate:</td>
<td></td>
</tr>
</tbody>
</table>
| \[
\text{Total number of charges in period} \times \frac{100}{.0833}
\] | |
| \[
\text{Total number of months in period}
\] | |
<table>
<thead>
<tr>
<th>Description of Measure</th>
<th>Items Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>An index counting the number of relatives the respondent states have used heroin</td>
<td>B103A</td>
</tr>
<tr>
<td>Perceived extent of heroin use in the neighborhood at the point of respondent's initiation</td>
<td>B101</td>
</tr>
<tr>
<td>Participants in respondent's initial experience with heroin: alone/friends/acquaintances</td>
<td>B93A</td>
</tr>
<tr>
<td>Whose idea was first use</td>
<td>B93B</td>
</tr>
<tr>
<td>How respondent procured heroin: bought/gift/other/don't remember</td>
<td>B93C</td>
</tr>
<tr>
<td>The most important reason for trying heroin, aside from curiosity</td>
<td>B94</td>
</tr>
<tr>
<td>Number of friends at entry who are addicts</td>
<td>B108A</td>
</tr>
<tr>
<td>Drug usage of best friend</td>
<td>B107</td>
</tr>
<tr>
<td>Number of acquaintances at entry who have stopped using heroin for two or more years</td>
<td>B114 a-c</td>
</tr>
</tbody>
</table>
### MEASURES OF PATTERNS OF DRUG USE

<table>
<thead>
<tr>
<th>Description of Measure</th>
<th>Items Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of respondent at first use of any opiate</td>
<td>A88</td>
</tr>
<tr>
<td>Age of respondent at first use of any opiate on a daily basis</td>
<td>A89</td>
</tr>
<tr>
<td>Length of time addicted: Calculated from age at entry and age at addiction</td>
<td>A10 minus A89</td>
</tr>
<tr>
<td>An index of the number of other illicit drugs respondent used during the two months prior to entry</td>
<td>A15-A24</td>
</tr>
<tr>
<td>Average daily ounces of absolute alcohol during the two months prior to entry</td>
<td>A90-A92</td>
</tr>
<tr>
<td>Number of times respondent has been in treatment (range 0-2)</td>
<td>B17</td>
</tr>
<tr>
<td>Longest period of time respondent stopped using heroin voluntarily, outside of jail or program</td>
<td>B19, B20</td>
</tr>
<tr>
<td>Specific expectations concerning the length of time needed to stop wanting heroin and become accustomed to methadone</td>
<td>B16</td>
</tr>
</tbody>
</table>
CHART D-6
MEASURES OF BEHAVIOR WHILE IN TREATMENT

<table>
<thead>
<tr>
<th>Description of Measure</th>
<th>Items Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Operational retention&quot; as developed by Kleinman and Lukoff (1975). Month and year of operational termination determined simply as last ones in which information on medication and urinalysis appear. Patients who missed their medication 20 or more times in two or more consecutive months were operationally terminated as of the first of the two months unless such a period of inactivity was followed by a period of two or more consecutive months in which medication was missed fewer than 20 times. In this instance the patient was not terminated. Number of charges from date of entrance into treatment to one year anniversary are summed and divided by 100 to create a charge rate. Number of days employed while in treatment aggregated. The proportion of medication missed during the last three months the patient was retained in treatment. The ratio of morphine positives to urine samples submitted in the last three months the patient was retained in treatment.</td>
<td></td>
</tr>
<tr>
<td>See Chapter III for a methodological discussion of the data base from which this measure is taken.</td>
<td>See Chapter III for a methodological discussion of the data base from which this measure is taken.</td>
</tr>
</tbody>
</table>
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