

AN ABSTRACT OF THE THESIS OF

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Title: A COMPARISON OF INTERPERSONAL BEHAVIOR  
AND PERCEIVED PARENTAL BEHAVIOR OF MALE  
DRUG ABUSERS AND NON-USERS

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The primary purpose of this study was to compare the interpersonal behavior and perceived parental behavior of male drug abusers and non-users.

Thirty-four males served as subjects for this study. Seventeen were drug abusers receiving treatment for drug abuse at the Drug Treatment Clinic of the Alcohol and Drug Section, Oregon State Department of Mental Health, Portland Oregon; and 17 were drug non-users and students attending Portland State University, Portland, Oregon; Clackamas Community College, Oregon City, Oregon; and Oregon State University, Corvallis, Oregon.

Leary's Interpersonal Check List (ICL) Level I which utilizes eight Minnesota Multiphasic Personality Inventory (MMPI) scale scores was used to obtain a measure of the interpersonal behavior of the subjects. Bronfenbrenner's Parental Behavior Questionnaire

(BPBQ) was used to measure the perceived parental behavior variables.

Analysis of the data included a descriptive analysis of the MMPI profiles and scale scores of male drug abusers and non-users, a test of two hypotheses related to the interpersonal behavior and perceived parental behavior of male drug abusers and non-users, and an exploratory analysis regarding the relationship between interpersonal behavior and perceived parental behavior among male drug abusers and non-users.

The t-test; the multivariate two-sample analysis of variance approach; Hotelling's  $T^2$  statistic; the Pearson Product Moment Correlation Method; and the Student's t-statistic were used to analyze the data.

Findings revealed that the male drug abusers scored significantly higher than male non-users on the MMPI F, Hy, D, Pt, and Sc Scales. No significant difference was found on the K scale. In reference to the interpersonal behavior of male drug abusers and non-users, no significant difference was found on the interpersonal behavior dimension of dominance, but a significant difference was found on the interpersonal behavior dimension of love. Male drug abusers had lower love scores than drug non-users. From a descriptive analysis in which the interpersonal behavior dimensions of dominance and love were plotted on the Interpersonal Diagnostic Grid to

obtain octant ratings, drug abusers fell largely into Octant three (blunt-aggressive) and four (skeptical-distrustful), while male non-users fell largely into Octant one (managerial-autocratic). No significant differences were found between male drug abusers and non-users on their perceived mother behavior, while only one significant difference was found on the perceived father behavior variable of parental presence. Finally, an exploratory analysis revealed significant correlations and differential patterns of relationships existed between interpersonal behavior and perceived parental behavior of male drug abusers and non-users.

Attempts were made to relate all findings to previous research, and suggestions for future research were made. Limitations of the study were also discussed.

A Comparison of the Interpersonal Behavior  
and Perceived Parental Behavior of Male  
Drug Abusers and Non-Users

by

Verne Marjorie Melberg

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# A COMPARISON OF THE INTERPERSONAL BEHAVIOR AND PERCEIVED PARENTAL BEHAVIOR OF MALE DRUG ABUSERS AND NON-USERS

## INTRODUCTION

In spite of the increasing use and abuse of drugs by adolescents and young adults during recent years, drug abuse is by no means a new phenomenon. Research on drug abuse in the United States prior to the 1950's revealed that drug abuse was primarily a problem within the lower socioeconomic groups in the poorer slum areas of large cities. Abusers were found to be largely youthful males who used narcotics and marihuana (Report of the Federal Bureau of Narcotics, 1965). For example, in 1938, New York Mayor Fiorello LaGuardia requested the New York Academy of Medicine to make a scientific and sociological study of the use of marihuana in New York City. The academy appointed 31 psychiatrists, physicians, psychologists, pharmacologists, chemists, and sociologists to conduct this study. The findings of the committee published in 1944 indicated marihuana use was confined mainly to the Harlem and the Broadway areas between 42nd and 59th Street. The majority of marihuana users ranged from 20 to 30 years of age, were without steady employment, suffered from boredom, and did not have criminal records (Curran, 1971).

Recent studies indicate narcotic drugs are still primarily abused by lower socioeconomic groups in large cities (Report of the

Federal Bureau of Narcotics, 1964; U. S. Treasury Department, Bureau of Narcotics, 1965; Task Force Report, 1967; McGlothlin, 1968; Chapel and Taylor, 1972). Most investigators, however, have found a marked change in the population of drug abusers. Younger, more affluent youth have become involved in abusing not only marijuana but a host of hallucinogenic, depressant, and stimulant type drugs (Finlator, 1968; Task Force Report, 1967; The Drug Abuse Survey Project, a report to the Ford Foundation, 1972; Althoff and Nussel, 1971).

Numerous studies throughout the literature have also explored the motivations for drug experimentation and abuse (Burke, 1971; Kleber, 1965; Keeler, 1965; Lipinski and Lipinski, 1967). Curiosity and the desire to go along with friends were reported by young people as the principal reasons for initiating drug use. Most reported they continued drug use to obtain relief from tensions and inhibitions to reach a state in which they could "let off steam." A considerably large number of ex post facto investigations have further found that those who go from experimentation to abuse are to a greater or lesser degree maladjusted individuals who manifest a complexity of psychological and behavioral symptoms (Kleber, 1965; Council on Mental Health and Committee on Drug Dependence, 1967; Ausubel, 1967; Gilbert and Lombardi, 1967; Janowitz, 1967; Welpton, 1968; Milman, 1969; Zinsberg and Weil, 1970; Smart and Fejer, 1969; Kendall and

Pittel, 1971; McAree, Steffenhagen, and Zhentlin, 1972; Burke and Eishberg, 1972). This finding has led investigators to search for a variety of variables related to drug abuse.

The relationship of interpersonal behavior to drug abuse has been one of the main lines of inquiry found in the literature. Low self-esteem was reported to be common among drug abusers (Rado, 1933; Zimmering et al., 1951; Gerard and Kornetsky, 1954; Ausubel, 1958; Laskowitz, 1961; Bowden, 1971; Paulson, 1969; Davis and Brehm, 1971). Numerous investigators found that drug abusers in their attempts to deal with others fell largely into two groups. One group retreated from relationships with others (Knight and Prout, 1951; Zimmering et al., 1951; Gerard and Kornetsky, 1954; Ausubel, 1958; Fort, 1966; Milman, 1969; Cockett and Marks, 1969; Mauer, 1970; Dearlin, 1971); while another group responded with aggressive, anti-social behavior (Gerard and Kornetsky, 1954; Ausubel, 1961; Edwards et al., 1969; Hensala et al., 1961; Mauer, 1970; Sorenson, 1971; Rosenberg, 1971; Cohen et al., 1971; Chapel and Taylor, 1972; Schoolar et al., 1972; Shibuya, 1972).

Gerard and Kornetsky (1954), Brill and Lieberman (1969), Ausubel (1958), Chein et al. (1964), Gilbert and Lombardi (1967), Pittel et al. (1971) reported drug abusers have difficulty in forming warm, lasting personal relationships. Other investigators reported drug abusers have a tremendous need for acceptance (Gerard and

Kornetsky, 1954; Ausubel, 1958; Lawton and Malmquist, 1961; Scherer, Ettinger, and Mudrick, 1972) love, intimacy or deep involvement with others which they are unable to achieve by normal social means (Griffin, 1966; Bowers et al., 1967; Milman, 1969). Numerous studies also indicate that those who turn to drug abuse are often lonely individuals who are isolated from peers and others (Gerard and Kornetsky, 1954; a, b, ; Fort, 1966; Brill and Lieberman, 1969; Gottschalk et al., 1970; Halpern and Gordon, 1971; Pittel et al., 1971; Chapel and Taylor, 1972).

The relationship of parental behavior to drug abuse has been another major line of inquiry found in the literature. Regarding the variable of affection, parents of drug abusers were generally found to demonstrate inadequate and/or inappropriate affection toward their children. Kuehn (1970) and Chapel and Taylor (1972), in reviews of drug abuse, reported parental love and understanding were characteristically lacking in families of drug abusers; and in a follow-up study of 100 addicts, Valliant (1969) found the lack of maternal affection during the pre-school years was a factor in the development of addiction. Extremes in parental affection was also indicated in a number of other studies. Chein et al. (1964), in a comparison of 30 narcotic addicts with 20 non-users, and Kleckner (1969), in a comparison of 33 male college students who were non-users, found drug abusers received more cool, hostile treatment and rejection

from their parents than did non-users. An abnormally strong attachment to mothers was found to be prevalent among many drug abusers (Knight and Prout, 1951; Ausubel, 1958; Hirsch, 1961; Chein et al., 1964; Radin, 1966; Welpton, 1968; Robinson, 1969; Valliant, 1969; Flynn, 1970; Rosenberg, 1971); and the relationship of fathers in other instances was found to be inadequate and distant (Chein et al., 1964; Hartman, 1969).

A second parental behavior variable, inadequate and/or inappropriate interaction, was also reported in the literature under family conflict, parental absence, and ineffective discipline. Family conflict among drug abuse families was found to be more intense, serious, and characteristic over a long period of time than conflict in families of non-users (Gerard and Kornetsky, 1954a; Lawton and Malmquist, 1961; Ausubel, 1958; Chein et al., 1964; Isbell, 1966; Fort, 1966; Crawley, 1971; Hawks et al., 1969; Chamberlin, 1969; Valliant, 1969; Gottschalk et al., 1970; Schoolar, White, and Cohen, 1972). Regarding the amount and kind of discipline administered by the parents from early childhood, numerous investigators have found that some drug abusers were reared in excessively permissive atmospheres in which parents were overindulgent and held vague or inconsistent standards of conduct for their children (Gerard and Kortnesky, 1954a; Chein, 1956; Mason, 1958; Ausubel, 1961; Valliant, 1969; Shetterley, 1971; Kuehn, 1970; Nobel and Barnes, 1971; Chapel



and Taylor, 1972); while others were reared in excessively controlling atmospheres in which parents were demanding, punitive and domineering (Gerard and Kornetsky, 1954a; Ausubel, 1958; Mason, 1958; Fort, 1966).

A third parental behavior variable, inadequate and/or inappropriate modeling of behavior by the parents of drug abusers has been examined in research studies. Alcoholism (Chein et al., 1964; Hensala et al., 1967; Rosenberg, 1971; Chapel and Taylor, 1972; Schoolar, White and Cohen, 1972), and drug use were commonly reported among parents (Keniston, 1969; Caroff et al., 1970; Dumont, 1971; Miller, 1971; Blum, 1972; Smart, Fejer, and Alexander, 1970; Smart and Fejer, 1972; The Drug Abuse Survey Project, a report to the Ford Foundation, 1972); and conflicting moral standards between parents occurred in some instances (Ausubel, 1958; Chein et al., 1964) as did seductive behavior on the part of mothers (Hirsch, 1961; Brill and Lieberman, 1969; Hartman, 1969). Cohen, White and Schoolar (1972), in a study comparing 80 drug patients and a matched group of non-users also found that only the non-users idealized the behavior they perceived characterized their mothers. Neither group idealized the behavior they perceived characterized their fathers.

### Purpose of the Study

The primary purpose of this study was to compare the interpersonal behavior and perceived parental behavior of male drug abusers and non-users.

### Definition of Terms

1. Interpersonal behavior: as measured by the Interpersonal Check List (ICL) Level I scored according to Leary's system. It involves "the interpersonal impact of the subject on others" according to the two dimensions of dominance and love (Leary, 1957). The ICL per se was not administered. Level I of the ICL uses eight Minnesota Multiphasic Personality Inventory (MMPI) scale scores to obtain information on the subject's interpersonal behavior.
2. Perceived parental behavior: as measured by Bronfenbrenner's Parental Behavior Questionnaire (BPBQ) (1961). This involves the subject's perception of his parents' behavior toward him when he was growing up (i. e., nurturance, affection, companionship, discipline, neglect, indulgence, achievement demands).

### Assumptions

1. The Interpersonal Check List (ICL) Level I scored according to Leary's System can be used to measure the interpersonal

behavior of drug abusers and non-users (Cohen, White and Scholar, 1971).

2. The Bronfenbrenner Parental Behavior Questionnaire (BPBQ) can be used to measure the perceived parental behavior of drug abusers and non-users (Bronfenbrenner, 1961).

### Hypotheses

1. There will be no significant difference between the interpersonal behavior of male drug abusers and non-users.
2. With respect to sex of parents there will be no significant difference between perceived parental behavior of male drug abusers and non-users.

## REVIEW OF LITERATURE

The review of literature of this thesis is organized into four major sections. These include: definitions of drug abuse terms and categories of illicit drugs, the measurement of interpersonal behavior and parental behavior among drug abusers, the nature of interpersonal behavior among drug abusers, and the nature of parental behavior among drug abusers.

### Definition of Drug Abuse Terms and Categories of Illicit Drugs

A problem often encountered in a discussion of drug abuse involves communications. Viewpoints differ on the meanings of terms and there are a host of different types of drugs, many with complex chemical names, that make communication difficult. A glossary of drug abuse terms and a categorization of drugs which are included in this section of the review of literature hopefully will help make studies reviewed on drug abuse presented in this thesis more understandable.

#### Definitions of Drug Abuse Terms:

1. Drug experimentation: the taking of drugs for non-medical purposes a few times because of group pressure or curiosity followed by occasional weekend use or stopping use completely (Curran, 1971).
2. Drug abuse: the persistent, intense and uncontrollable use of

drugs. In many cases drug abuse is an attempt to defy authority, or as an escape from personal problems. It may or may not involve psychological and/or physical dependence on the effect of a drug or drugs (Spratto, 1970).

3. Drug non-users: those who are not engaged in any illicit drug use and who only take drugs as prescribed for them by a qualified medical practitioner (Davis and Brehm, 1971).
4. Psychological dependence: "a tendency or craving for the repeated or compulsive use of an agent because its effects are deemed pleasurable or satisfying" (Irwin, 1971).
5. Physical dependence: "dependence of body tissue on the continued presence of a drug (even in the absence of psychological dependence) revealed by disturbing or life-threatening withdrawal symptoms that develop when the drug is discontinued" (Irwin, 1971).
6. Addiction: "a physiological state resulting from continued use of narcotics, barbiturates, or alcohol which is manifested by withdrawal symptoms and the achievement of drug tolerance" (Einstein, 1970).
7. Psychedelic drugs: drugs which when ingested alter perception, sensory experiences, illusions, and visions of an individual beyond the capacity of ordinary experience (Lingeman, 1969).

Definitions and Categorization of Illicit Drugs:

1. Narcotics: drugs that dull the senses, relieve pain, and induce lethargy and drowsiness or coma when taken in large dosages (Lingeman, 1969).
  - a. Codeine
  - b. Heroin
  - c. Morphine
  - d. Opium
  - e. Methodone
2. Marihuana: a drug that produces both mild hallucinogenic and sedative effects (The Drug Survey Project: a report to the Ford Foundation, 1972).
3. Hallucinogens: drugs that alter perception and increase sensory impressions. Hallucinations in the classic sense are rarely produced. (The Drug Abuse Survey Project: a report to the Ford Foundation, 1972).
  - a. LSD
  - b. Mescaline
  - c. Peyote
  - d. Psilocylin
  - e. STP
  - f. DMT
4. Amphetamines: stimulant drugs that stimulate physical and

mental activity and produce a feeling of optimism and alertness in the user (Report of the Butler University Drug Abuse Institute, 1968; The Drug Abuse Survey Project: a report to the Ford Foundation, 1972).

- a. Benzedrine
  - b. Dexedrine
  - c. Methedrine
5. Cocaine: a powerful stimulant drug that produces effects similar to amphetamines (Task Force Report, 1967).
6. Barbiturates: depressant drugs that have a sedative effect (Report of the Butler University Drug Institute, 1968).
  - a. Sodium amobarbital (Amtal)
  - b. Sodium pentobarbital (Amytal)
  - c. Phenobarbital (Luminal)
  - d. Sodium secobarbital (Seconal)
7. Volatile Chemical-substances that are inhaled for their intoxicant effects (Task Force Report, 1967).
  - a. airplane glue
  - b. gasoline
  - c. paint thinner or remover
  - d. other commercial products
8. Drugs that produce physical dependence:
  - a. narcotics
  - b. barbiturates

9. Drugs that produce psychological dependence but not physical dependence:

- a. marihuana
- b. amphetamines
- c. cocaine
- d. hallucinogens

Measurement of Interpersonal Behavior and Parental  
Behavior Among Drug Abusers

The interpersonal behavior of persons abusing various types of drugs (narcotics, hallucinogens, marihuana, stimulants, barbiturates, amphetamines, or volatile chemicals) and the behavior of parents of drug abusers have been studied using one or a combination of several methods and/or psychological measuring instruments.

One general method found in the literature consists of interviewing the subject. Rosenberg (1971) used the interview to compare a group of 35 addicts 14 to 21 years of age with their siblings 13 to 25 years of age regarding similar and dissimilar family relationships and interpersonal behavior. Welpton (1968) and Blacker et al. (1968) also used the interview exclusively to obtain a characteristic pattern of the family life among LSD abusers.

Shetterley (1971) combined an interview with the Mooney Problem Checklist, The High School Personality Questionnaire, and school



records, which revealed information about the parental and interpersonal behavior of 40 socially privileged male adolescents 14 to 18 years of age who were abusing marihuana. The Mooney Problem Checklist asks the examinee to check items appropriate to his problems in the following areas: morals and religion, finances and living conditions, adjustments to school, work, and social relations. The High School Personality Questionnaire is a modification of Cattell's Adult 16 Personality Factor Test.

Edwards, Bloom, and Cohen (1969) combined the interview with the Conrey Personality Inventory and Rosenzweig Picture Frustration Study; and Gerard and Kornetsky (1954a) combined it with the Rorschach, the Thematic Apperception Test (TAT), and the Draw A Person Test to obtain family and interpersonal data on LSD abusers and adolescent drug addicts, respectively. The Conrey Personality Inventory is a self-report inventory designed to measure eight personality dimensions: trust, orderliness, social conformity, activity, emotional stability, extroversion, masculinity, and empathy. The Rosenzweig Picture Frustration Study consists of 24 pictures of frustrating situations involving two persons. One person in each picture says something which frustrates the other or describes his frustration, and the subject is to give the verbal reaction of the other person. The purpose of the test is to determine the subject's typical reaction patterns in potentially frustrating situations. The Rorschach

Test is a projective technique consisting of a standard set of ten relatively ambiguous inkblots for studying unconscious factors in behavior and personality. The subject is instructed to tell what he sees in the blots; and from his verbal responses, modes of behavior and personality are determined. The Thematic Apperception Test (TAT) is a set of cards picturing people and their respondents. A subject is asked to make up a story for each picture. On the basis of these stories, interpreters are enabled to reconstruct the subject's dominant drives, emotions, sentiments, complexes, and conflicts. For the Draw A Person Test, each subject is instructed to draw a person. After the first figure is drawn, the subject is usually asked to draw a person of the opposite sex and then to tell a story about each person. During the story telling period, the subject is asked a series of questions about the age, education, ambitions, and fears associated with the figures drawn. The test is a projective device designed to reveal unconscious personality features, dispositional qualities, and behavioral syndromes.

A second general method of obtaining information about the parental behavior and interpersonal behavior of drug abusers is that of observation. Knight and Prout (1951), Fort (1966) and Bowden (1971) used the observation method to study addicts admitted to the New York Hospital, Westchester Division, the U. S. Public Service Hospital at Lexington, Kentucky, and the National Institute of Mental

Health, Clinical Research Center in Lexington, Kentucky, respectively.

Hirsch (1961) observed the parents of five adolescent drug addicts in experimental group therapy, while Gottschalk et al. (1970) were participant observer therapists in an evening clinic for parents and youth. Kuehn (1970) presents observations concerning the drug abuser based on seven years of experience as a college psychiatrist at three large state universities; and Deralin (1971) summarizes observations about student drug use based on repeated reference to observations by students and teachers in five school systems in Connecticut. Norton (1968) combined observations with the Maudsley Personality Inventory to obtain data on 13 marihuana abusers. The Maudsley Personality Inventory consists of 24 items to measure neuroticism (general emotional stability, emotional overactiveness, and the predisposition to neurotic breakdown under stress) and extroversion (uninhibited, outgoing, and sociable characteristics).

A third method used extensively in the literature to study the parental behavior and interpersonal behavior of drug abusers is the case study. Gerard and Kornetsky (1954b), Robinson and Wennik (1969), Crawley (1971), Lawton and Malmquist (1961) used this method in their studies of addiction, while Chein et al. (1964) combined the clinical reports of addicts from hospitals and clinics with the Rorschach Test in their study. Bowers et al. (1967) presented three clinical case studies of patients who were under psychiatric care as

a result of experiences with three major psychedelic compounds.

Psychotherapy notes, clinical interviews and projective test results (TAT, Rorschach Test, Word Association, and Draw a Person), were included in the analysis of these three case studies. Hensala et al. (1967) combined the study of in-patient records of LSD abusers with discussion of psychiatric staff members; and McLaney (1971), Halpern and Gordon (1971), and Milman (1969) used case reports to study multi-drug abuse and marihuana abuse, respectively.

A fourth method of obtaining data on drug abusers which includes information on parental behavior and interpersonal behavior is the questionnaire. Pittel et al. (1971) developed a questionnaire to obtain a "composite picture of parental traits and behaviors" as viewed by 250 volunteer subjects from the Haight-Asbury community in San Francisco; Hawks et al. (1969) designed a relatively structured standardized questionnaire used to interview 74 abusers of methyl-ampetamine; Smart and Fejer (1972) developed survey questions to study the relationship of drug use among adolescents and their parents; Hartman (1969) devised a questionnaire based on some of Anna Freud's Developmental Profile as modified by Laufer to study 12 drug abusers; and Sorenson (1971) used a modified multiple-choice questionnaire developed by Kenneth Ells of the California Institute of Technology, which included items of endurance and aggression traits taken from the Edwards Personal Preference Schedule (EPPS).

Another questionnaire, The Minnesota Multiphasic Personality Inventory (MMPI) used by Gilbert and Lombardi (1967) to study the personality characteristics of addicts and by Kendall and Pittel (1971) to study the personality characteristics of past and present multi-drug users in Haight-Ashbury presented data on a number of interpersonal characteristics of drug abusers. Schoolar, White, and Cohen (1972) combined certain MMPI scales and the Interpersonal Check List (ICL), using Leary's Scoring System, to obtain interpersonal data on 80 drug abusers and 80 non-abusers. The Interpersonal Check List (ICL) is an objective multi-level method of assessing four levels of interpersonal behavior: Level I (Public Communication), Level II (Conscious Descriptions of Self, Mother, Father, Spouse, and Hero), Level III (Preconscious Symbolization - Projective Fantasy Productions) and Level IV (Ego Ideal).

Several other methods and instruments have been used in the literature to tap either/or both the parental behavior and interpersonal behavior of drug abusers. Valliant (1969) and Noble and Barnes (1971) used the follow-up study to obtain pertinent data of both aspects. Valliant's study (1969) was an investigation of 100 narcotic addicts 12 years after they left the U. S. Public Health Service Hospital for narcotic addiction at Lexington, Kentucky; and Noble and Barnes' study (1971) was a three year follow-up study of 227 girls taking non-narcotic drugs and 100 controls admitted to a London remand home

for juvenile court offenders. Scherer et al. (1972) used the Marlowe-Crowne Social Desirability Scale to study the relationship between drug abuse and the need for social approval. Kleckner (1969) used the E, H, and G scales of the Cattell 16 Personality Factor Test to measure aggressiveness, adventurousness, and superego strength, the Elias Family Opinion Scale to test subjects' perceptions of their family interaction patterns and feelings of rejection by their families, and a scale adapted for his study to test family cohesiveness. Chein et al. (1964) developed an index to measure the family cohesiveness of four groups of boys ranging in age from 16 to 20 who were from neighborhoods similar in delinquency and drug rates. Answers to questions concerning family practices were given a value of zero, one, and two with "the highest value indicating a more frequent or marked cohesive practice."

In the present study Leary's Interpersonal Check List Level I which utilizes eight MMPI scales to obtain a measure of interpersonal behavior, and Bronfenbrenner's Parental Behavior Questionnaire, which utilizes a subject's perception of his parents' behavior toward him to obtain a measure of parental behavior, will be used. These self-report questionnaires were selected because: (1) the items given each respondent will be identical; (2) the standard administration and scoring procedures will help eliminate bias and judgemental errors in analyzing data for this study; and (3) they require less training and

skill to administer than the other methods which have been generally used to obtain data from drug abusers.

There are, however, several disadvantages in using the self-report questionnaires. Even though items given each respondent are identical, many are open to varied interpretations by the respondents. Words and entire statements may be ambiguous or the wording used may not convey the typical situation the test constructor had in mind, so the respondent's frame of reference may be different from the one intended. The fixed alternative responses the subjects are required to make to each item may eliminate valuable descriptive data as well as force the respondents to endorse items which are not true of themselves or their parents. Furthermore, respondents may distort their own or their parents' behavior because: (1) they are not consciously aware of some of their own motivations and actions as well as those of their parents; (2) they may have forgotten some aspects of their own and their parents' actions, or their perceptions may have changed over time; or (3) they may have willfully or unintentionally selected socially desirable answers to avoid criticism of their own and their parents' actions or to maintain a socially and personally acceptable image for themselves and their parents.

### Nature of the Interpersonal Behavior Among Drug Abusers

Discussions regarding the interpersonal behavior of drug abusers has received a great deal of attention among researchers interested in drug abuse. Rado, (1933); Zimmering et al. (1951), Gerard and Kornetsky (1954a), Ausubel (1958), Laskowitz (1961), and Bowden (1971) reported low self-esteem to be common among adolescent narcotic addicts. In a review of social service reports and interviews, Gerard and Kornetsky (1954a) found low self-esteem among 32 adolescent male narcotic addicts admitted to the United States Public Service Hospital at Lexington, Kentucky. They further found, as did Ausubel (1961) and Zimmering et al. (1951), that the need for status and belongingness is so great among drug addicts they are willing to sacrifice their individual preferences and convictions in the hope of being accepted. In a study of hallucinogens, amphetamines, barbiturates, opiates, and tranquilizers among college students, Paulson (1969) found the self-esteem of abusers to be significantly lower than the self-esteem of non-users. In a study of 91 youthful inmates at the North Carolina State Prison Juvenile Unit, Davis and Brehm (1971) also found that the factor of self-esteem discriminated between drug abusers and non-users in this criminal population.

In their attempts at dealing with others, drug abusers fall largely into two groups. One group retreated from relationships



with others by withdrawing and exhibiting shyness, passivity and self-consciousness (Knight and Prout, 1951; Zimmering et al., 1951, Gerard and Kornetsky, 1954a; Ausubel, 1958, Fort, 1966; Milman, 1969; Cockett and Marks, 1969; Mauer, 1970; Dearlin, 1971); while another group responded with aggressive anti-social behavior (Gerard and Kornetsky, 1954; Ausubel, 1961; Edwards et al., 1969; Hensala et al., 1967; Mauer, 1970; Sorenson, 1971; Rosenberg, 1971; Cohen et al., 1971; Chapel and Taylor, 1972; Schoolar et al., 1972; Shibuya, 1972). In a comparison study of amphetamine takers with non-users, Cockett and Marks (1969) found amphetamine takers to have lower extroversion scores than non-users on the Cattell 16 Personality Factor Test; and Milman (1969) found a group of males who were chronic marihuana users all characteristically passive in their behaviors. Gilbert and Lombardi (1967), however, in a comparison study of male narcotic addicts with non-addicts found addicts scored higher on the MMPI protocols indicating a tendency toward irresponsible acting out behavior and ineffective behavior controls; and Sorenson (1971) in a study of college age marihuana and LSD users, found students with Edward's Personal Preference Schedule (EPPS) aggression scores above the third quartile had a higher rate of marihuana usage than students with scores below quartile one. Gerard and Kornetsky (1954a) also substantiated in their study of adolescent addicts that a number of these addicts acted in aggressive,

anti-social ways, as they attempted to deny and repress their underlying wishes for passivity and dependency. In the recent study by Schoolar, White and Cohen (1972) utilizing the MMPI and Leary's System of Interpersonal Diagnosis, 80 multi-drug habituated patients with a matched control group of individuals seeking professional help for problems not involving drug abuse were compared. Findings revealed that drug abusers were more antagonistic, critical and argumentive. Physical abuse was uncommon among these drug abusers, but less physical means of communication was described as being equally effective in communicating their "hostile, bitter messages."

Some drug abusers have been found to be angry with their parents (Kleber, 1965; Blacker et al., 1968) especially toward their fathers (Welpton, 1968; Rosenberg, 1971). Rosenberg (1971) in a comparison of addicts with their siblings found that addicts had more intense hostility toward their fathers than their non-addicted siblings, such addicts also could not identify in a positive way with their fathers. In the study by Welpton (1968) all ten of the male LSD abusers studied were highly critical of their fathers.

Gerard and Kornetsky, 1954a; Brill and Lieberman, 1969; Ausubel, 1958; Chein et al., 1964; and Gilbert and Lombardi, 1967, reported that addicts have difficulty forming warm, lasting personal relationships. Gerard and Kornetsky (1954a) found the hospitalized

adolescent male addicts purposely stayed away from others and responded defensively and suspiciously to interest or warmth during therapy. In a more recent study of 250 drug abusers from the Haight-Ashbury community of San Francisco (Pittel et al., 1971), subjects reported similar problems from early childhood, and almost all of them attributed difficulties in forming adequate relationships to a sense of being "different" or "special." These feelings of uniqueness occurred when: (a) gifted subjects were unable to communicate the quality of their sensory perceptual experiences to others; (b) subjects valued positively the attributes which led them to feel apart from others; or (c) subjects were scorned or rejected by others because of chronic illness or other infirmities. Other investigators found some drug abusers are unable to form warm, lasting personal relationships because they are narcissistic individuals, unable to show responsible, sympathetic and empathetic concern or interest in others (Rado, 1933; Knight and Prout, 1951; Ausubel, 1958; Radin, 1966; Norton, 1968; Lawton and Malmquist, 1961).

Gerard and Kornetsky (1954b), Ausubel (1958), and Lawton and Malmquist (1961) reported numerous addicts had a tremendous need for acceptance from peers. In an investigation of the relationship between drug use and the need for social approval, Scherer et al. (1972) found hard drug users showed higher approval motivation on the Marlowe-Crowne Social Desirability Scale than "soft" drug users

and non-users.

Other investigators support the contention that many drug abusers have an intense need for love, intimacy, or deep involvement with others, which they are unable to achieve by normal social means (Griffin, 1966; Bowers et al., 1967; Milman, 1969). Many drug abusers feel that drugs help them attain the closeness they desire with individuals and groups (Bowden, 1971; Bowers et al., 1967; Mauer, 1970). Griffin (1966) in a study of amphetamine use in which he not only interviewed drug abusers and peddlers, but also attended drug parties, concluded that behavior indicating genuine intimacy, affection, kindness, or love is quite rarely found in a group of drug abusers because none of them know how to express such feelings. Instead, a complicated code for sharing property, food, money, lodging, alcohol, and drugs, has been substituted as a partial solution to their love needs.

Numerous studies also indicate that those who practice drug abuse are often lonely, individuals who are isolated from peers and others (Gerard and Kornetsky, 1954 a, b; Fort, 1966; Brill and Lieberman, 1969; Gottschalk et al., 1970; Halpern and Gordon, 1971; Chapel and Taylor, 1972; Pittel et al., 1971). Some drug abusers were found to be isolated from their peers and others for different reasons. Chapel and Taylor (1972) in a review of drugs being abused by children and adolescents maintained drug abusers were often

excluded by peers because they were aggressive and demonstrated anti-social tendencies. Some were found to explode into diffuse uncontrolled, irrational rage when they were pushed beyond a certain point of tolerance. Others were "loud, self-centered individuals who lacked social roots or a sense of belonging somewhere or to someone."

Chapel and Taylor (1972) also found, as did Mauer (1970) and Gottschalk et al. (1970) that some drug abusers had few friends and little group experience because they were shy, self-conscious individuals who suffered from feelings of inadequacy. Most were described as non-aggressive individuals who generally exhibited withdrawal reactions and marked constriction of affect. Drugs were found to be a means of escape for both the aggressive and shy groups because the profound feelings of loneliness and isolation they were experiencing partly disappeared under the influence of drugs (Fort, 1966; Randall, 1970; Bowden, 1971; Mauer, 1970).

The interpersonal behavior of drug abusers has been the subject of a number of investigations. The studies discussed in this section of the review of literature indicate the interpersonal behavior of drug abusers cluster around the following characteristics: low self-esteem, withdrawal from relationships with others, aggressive, anti-social behavior toward others, difficulty in forming warm, lasting relationships, intense need for acceptance and love, and isolation

from peers and others. In the present study an attempt will be made to compare the interpersonal behavior of male drug abusers and non-users.

### Nature of Parental Behavior Among Drug Abusers

Parental behavior variables among drug abusers have also been included in a number of investigations on drug abuse. The first variable, inadequate and/or inappropriate affection by parents of drug abuser has been demonstrated in a number of studies. Ungeler and Bower (1969) in a review of two case studies of drug abusers, and Gottschalk et al. (1970) through being participant observer therapists in a clinic for parents and youth found that breakdown in communication between drug abusers and their parents were quite common. In an analysis of the self-reports of 40 drug abusers, Shetterly (1971) indicated that rifts between drug abusers and their parents were heightened by criticisms leveled at them by their parents, and frequent clashes of opinion occurred between parent and child. In spite of conflicts, however, he found parents supportive of them both morally and materially. Kuehn (1970), however, indicated parental love to be more talked about in the families of drug abusers than provided for in the form of consistent trust and support.

Valliant (1969) found in a follow-up study of the life times of 100

addicts that the lack of maternal affection during the pre-school years was a factor in the development of addiction; while Chapel and Taylor (1972) in a review of drugs being abused by children and adolescents reported parents of drug abusers of both middle and lower class backgrounds were not able to give the needed love and understanding their children needed.

Chein (1956) further found that a group of 30 addicts experienced much more cool, hostile treatment from their parents than did a group of 20 non-users; and Kleckner (1969) also found that a group of male college students who were abusing LSD felt significantly more rejected by their families than a matched group of 33 male college students who were non-users. Lawton and Malmquist (1961) and Hirsch (1961) also found parents of addicts to be characteristically ambivalent toward them beginning during the earlier periods of life.

A number of studies have found many drug abusers to have an abnormally strong attachment to their mothers which has prevented them from attaining the sense of identity necessary for forming intimate ties with others (Knight and Prout, 1951; Ausubel, 1958; Hirsch, 1961; Chein et al., 1964; Radin, 1966; Welpton, 1968; Robinson, 1969; Valliant, 1969; Flynn, 1970; and Rosenberg, 1971). Hirsch's (1961) observations of drug addicts both in and out of therapy settings revealed that the mothers had a powerful need to infantilize their offspring in order to bolster their own omnipotence. Welpton

(1968) in a study of ten male chronic LSD users further maintained that because of the intense attachment to their mothers, the subjects of his study lived home-bound lives.

The relationship of drug abusers to their fathers is also described in the literature. Chein et al. (1964) describes the father of addicts as a "shadowy and inadequate, less-involved figure than the mother"; and Hartman (1969) describes the fathers' relationship to a group of multiple drug users as being "distant."

The second variable, inadequate and/or inappropriate interaction was reported in the literature under family conflict, parental absence and ineffective discipline. Family conflict was reported by Gerard and Kornetsky (1954 a, b), Lawton and Malmquist (1961), Ausubel (1958), Chein et al. (1964), Hensala et al. (1967), Welpton (1968), Chamberlin (1969), Noble and Barnes (1971), Kendall and Pittel (1971), McLaney (1971), Pittel et al. (1971), and Chapel and Taylor (1972) to be intense, serious, and characteristic over a long period of time. Emotional upheaval and instability between parents and their offspring were common. Chein et al. (1964) in a study of the family life of male addicts who were hospitalized at the Riverside Hospital in New York found there was a disturbed relationship between parents in 97% of the cases which were evidenced by open hostility, lack of warmth and mutual interest, separation and divorce. Gottschalk et al. (1970) also observed that drug abusers and their families



demonstrate more internal turmoil, marital discord, and emotional distance than do most families in the community. Welpton (1968) in a study of ten LSD abusers further found there was not only conflict between fathers and mothers, brothers and sisters, but these family members took sides against each other in family conflicts. In addition, Kuehn (1970) in a review of 41 drug cases he experienced as a college psychiatrist at three large state universities observed there was a history of parental conflict frequently suppressed behind the facade of a "nice" family. Parents often presented a united front to their children, but their children observed a definite difference between what was said by their parents and what was observed.

Parental absence because of separation, divorce, death, or disinterest were commonly found in the families of drug abusers (Gerard and Kornetsky, 1954a; Chein et al., 1964; Isbell, 1966; Fort, 1966; Crawley, 1971; Hawkes et al., 1969; Chamberlin, 1969; Valliant, 1969; Gottschalk et al., 1970; Pittel et al., 1971; and Schoolar et al., 1972). Hawks et al. (1969) through interviews with 74 regular users of methylamphetamine who were under 25 years of age found a significant number had a history of parental separation, absence, or bereavement before age 16. Generally, it has also been reported by most investigators that the father is the parent usually absent from the family (Gerard and Kornetsky, 1954a, Chein et al., 1964; Fort, 1966; Lawton and Malmquist, 1961; Chamberlin, 1969; and

Chapel and Taylor, 1972).

Gerard and Kornetsky (1954a) reported 60% of the fathers of addicts they studied were absent due to desertion, separation, divorce, or disinterest; and Chein et al. (1964) reported one-half of the male addict cases in his study had no father figure for some significant period of time. When the father was present he was usually emotionally distant or hostile in his attitude toward the boy. Chamberlin (1969) also indicated that the fathers of many drug abusers spend their lives in the office or on the golf course, rather than with their children. Chapel and Taylor (1972) in a review of drugs being abused by children and adolescents maintained parents of middle class children are often so busy accumulating money, status, and friends that they have neglected to give their children a worthwhile family life.

The amount and kind of discipline administered by the parents from early childhood has been considered important in determining whether an individual will become a drug abuser provided drugs are easily available to him. Gerard and Kornetsky (1954a), Chein (1956), Mason (1958), Ausubel (1961), Valliant (1969), Shetterley (1971), Kuehn (1970), Noble and Barnes (1971), and Chapel and Taylor (1972) found that numerous drug abusers had been reared in excessively permissive atmospheres where limits were inadequate, inappropriate, or inconsistent.

Gerard and Kornetsky (1954a, b), Ausubel (1958), Mason (1958),

and Fort (1966) found excessive control or over domination by the parent a factor in some instances of drug abuse. Overprotection and overindulgence were found to be factors in other instances by Rees and Comb (1932), Ausubel (1958), Chein et al. (1964), and Fort (1966).

The third variable, inadequate and/or inappropriate modeling of behavior by parents has been cited in the literature as a variable often found in the families of drug abusers. Chein et al. (1964), Hensala et al. (1967), Rosenberg (1971), Chapel and Taylor (1972), and Schoolar, White and Cohen (1972) found an abnormally high incidence of alcoholism among both parents of drug abusers; while Rosenberg (1971) in a study of families of 35 addicts ranging in age from 14 to 21 years of age found behavior disorders predominantly included abuse of alcohol and drugs among fathers.

Only two investigations found in the literature have directly studied drug use among adolescents and their parents. Smart, Fejer and Alexander (1970) and Smart and Fejer (1972) found similar results in two Niagara Counties in Canada. Subjects were surveyed as to their use of the following drugs during the six month period prior to the survey: alcohol, tobacco, marihuana, glue solvents, barbiturates, opiates, methedrine, stimulants, LSD, tranquilizers, and hashish. Questions were also asked about their parents' use of alcohol, tobacco, tranquilizers, stimulants, and barbiturates. A

positive association was found between parental use of alcohol, tobacco, and psychoactive drugs and the use of psychoactive and hallucinogenic drugs by their children. This relationship was found to be strongest when both parents and children used psychoactive drugs.

Numerous studies are also present which indicate that parental model behavior other than alcoholism and drug use which may contribute to drug abuse among children. For example, Ausubel (1958) found habitual users of marihuana came from home backgrounds in which there was a contrast between a mother of high, exacting moral standards and a morally lax father; and Chein et al. (1964) reported that the father figure in addict families often presented immoral models to their children through deviant activities such as criminality and infidelity. Other investigators (Hirsch, 1961; Brill and Lieberman, 1969; Hartman, 1969) found seductive behavior prevalent among mothers of drug abusers. In addition, Hirsch (1961) in experimental therapy with parents of five adolescent drug addicts found mothers of these addicts to be narcissistic individuals. Such mothers could only be giving and permissive with their addicted sons when their sons gratified their needs. If their addicted sons did not do so, these mothers reacted by aggression or rejection of their sons.

Further evidence that inadequate and/or inappropriate modeling

of behavior by parents contributes to drug abuse among their children comes from a variety of other investigations. Brill and Lieberman (1969) and Kuehn (1970) reported role reversals to be common among parents of drug abusers. The father was characteristically described as a passive-reacting, compliant figure and the mother as an active, assertive, dominating figure. In a recent study, Cohen et al. (1972) utilized Leary's Interpersonal Check List to obtain a measure of the identification or disidentification among 80 drug abuse patients and a matched group of non-users with their parents. Sixty percent of the drug abusers perceived their mothers as strong, dominant and independent, but did not representatively perceive their mothers as emphatic, nurturant, sharing, and intimate. The mothers of non-users, however, were significantly perceived as having all of these characteristics. Fathers of both groups were perceived as dominant and independent; behavior which represent independent self-interest and the ability to remain aloof or exploit others to achieve personal goals. Approximately one-third of the drug abusers perceived their fathers in this manner. Only the non-users idealized the behavior that characterized their mothers and neither drug abusers or non-users idealized the behavior that characterized their fathers.

Although parental behavior variables vary to some extent among social classes and families, the preceding investigations indicate parental behavior variables among drug abusers cluster

around three major characteristics: (1) inadequate or inappropriate affection; (2) inadequate or inappropriate interaction with their children; and (3) inadequate or inappropriate modeling of behavior for their children. The present study will attempt to compare the perceived parental behavior of male drug abusers and non-users.

## METHOD

### Subjects

The subjects for the present study were 34 young males. Seventeen of these subjects were drug abusers receiving treatment at the Drug Treatment Clinic of the Alcohol and Drug Section, Oregon State Department of Mental Health, Portland, Oregon. Another 17 of these subjects were drug non-users and students attending Portland State University, Portland, Oregon; Clackamas Community College, Oregon City, Oregon; and Oregon State University, Corvallis, Oregon. Information needed to select the sample of drug non-users for this study was obtained from a checklist filled out by these subjects concerning their use of drugs. See Appendix E for a description of this checklist. Only subjects who indicated "never" or "rarely" (i.e. only experimented rarely with marihuana or hashish) used drugs were included in this study. Furthermore the male drug abusers and non-users in this study were matched according to the variables of sex, age, and socioeconomic background as determined by Warner's (1960) Revised Scale for Rating Occupations (see Appendix F).

A description of the sample of male drug abusers and non-users used in this study according to age is summarized in Table 1.

Table 1. Description of Male Drug Abusers and Non-Users by Age.

Subjects	N	Mean Age (years/months)
Male Drug Abusers	17	20/4
Male Non-Users	17	20/4
Total	34	20/4

### Age and Sex

The sample of 34 subjects included 17 male drug abusers and 17 non-users ranging in age from 17 to 25 years. The mean age for both the male drug abusers and non-users was 20 years, 4 months.

### Socioeconomic Status

Warner's Revised Scale for Rating Occupations was used to determine the socioeconomic status of the parents of subjects in the present study. The factor used by Warner to obtain this rating was the source of income which was given a scaled rating from one (upper) to seven (lower) that divided socioeconomic status into seven classes (Warner, 1960). In developing this rating scale, Warner (1960) assumed (1) that there was a social class structure in our society; (2) that the source of income was a good or better determinant of socioeconomic status than the amount of income; (3) that the source of income was generally known from the type of job; and (4) people



were not as reluctant to disclose the source of their income as they were the amount of income. See Appendix F for a copy of Warner's Revised Scale for Rating Occupations. According to Warner's Revised Scale for Rating Occupations (1960), the parents of male drug abusers and non-users in this study were distributed among the socioeconomic status ratings as summarized in Table 2.

Table 2. Description of Parents of Male Drug Abusers and Non-Users by Socioeconomic Status.

Socioeconomic Status	Male Drug Abusers N	Male Non-Users N
I (upper)	0	0
II	7	7
III	2	2
IV	4	4
V	0	0
VI	3	3
VII (lower)	<u>1</u>	<u>1</u>
Total	17	17

All pertinent information for selecting the male drug abusers in this study was obtained from the case files at the Drug Treatment Clinic of the Alcohol and Drug Section, Oregon State Department of Mental Health, Portland, Oregon. A "Background Information Sheet" to be used in this selection process is found in Appendix D.

All pertinent information for selecting the male drug non-users was obtained from a "Background Information Sheet" filled out by young males at Portland State University, Portland, Oregon; Clackamas Community College, Oregon City, Oregon; and Oregon State University, Corvallis, Oregon. A copy of this "Background Information Sheet" is found in Appendix E.

### Instruments

Three instruments were used to collect the data for the present study. These included: the Minnesota Multiphasic Personality Inventory (MMPI), the Interpersonal Check List Level I (ICL), and Bronfenbrenner's Parental Behavior Questionnaire (BPBQ). Only the MMPI and the BPBQ were administered to the subjects of this study. The ICL per se did not need to be administered. Level I of the ICL uses eight MMPI scale scores to obtain information on the subject's interpersonal behavior.

#### The Minnesota Multiphasic Personality Inventory (MMPI)

The Minnesota Multiphasic Personality Inventory (MMPI) is a self-report inventory developed by Hathaway and McKinley (1943) to measure symptomatic normal and/or pathological personality traits of an individual. The instrument consists of 550 statements that cover a wide range of personal topics concerning health, emotional

state, and social attitudes. The subject is asked to respond "True," "False," or "Cannot Say" to each statement asked of him. Item responses are tallied according to nine clinical scales and four validity scales. Scales and their description are found in Appendix A.

### Reliability

The test-retest method has been used to determine the reliability coefficient of stability for the MMPI. In all cases reviewed the Pearson Product Moment Correlation Method was used to calculate the coefficient of stability. The interval between test-retest varied from one day to more than a year depending upon the study reviewed.

McKinley and Hathaway (1943) found a correlation coefficient of: .77 for the depression scale and .80 for the hypochondriac scale of 40 normals; .57 for the hysteria scale and .71 for the psychopathic deviate scale of 47 normals; .47 for the hysteria scale of 98 high school girls; .83 for the hypomania scale of an unspecified number of normals; and .74 for the psychasthenia scale of 47 normals.

Correlation coefficients between scales of the long and short forms ranged from: .710 to .830 for 40-47 normals (McKinley and Hathaway, 1943); .519 to .921 for 30 psychiatric patients (Holzberg and Alessi, 1949); .55 to .88 for 40 male psychiatric patients (Stone, 1965); and .22 to .84 for 10 female college students (Pauker, 1966).

The split-half method has also been used to obtain internal consistency reliability coefficients. Several studies of psychiatric

groups have reported coefficients ranging from .11 (Welsh, 1952) to .92 (Winfield, 1952). Gilliland and Colgin (1951) in a study of normal college students found a coefficient as low as -.05.

### Validity

Validity of eight MMPI scales used to obtain a measure of interpersonal behavior of subjects in this study was obtained by the authors at the time of test construction.

#### Scale I. Hypochondriasis (Hy)

Scores on the Hy scale of 699 normals, 25 diagnosed cases of hypochondriasis and 45 miscellaneous psychiatric patients were compared. Eight of the 25 hypochondriasis cases were beyond the higher score of any normal. The lowest score of the hypochondriasis group was above the mean on the normal group (Hathaway and McKinley, 1956).

#### Scale II. Depression (D)

Test scores of 690 normals, 35 clinical cases diagnosed as depression and 35 clinical cases marked by the clinical staff as having some degree of depression were analyzed. Results found that the scale differentiated between at least 50% of the diagnosed depressed cases from the normals, and to some extent from those having more depression than the normals (Hathaway and McKinley, 1956).

#### Scale III. Hysteria (Hs)

In a test group of 75 cases diagnosed hypochondriasis, 76%

received a score of 70 or above on the Hs scale or on both the Hs and Hy scales, but only 12% received a score of 70 or above on the Hy scale. In a test group of 60 cases diagnosed as hypochondriasis, 72% received a score of 70 or above on the Hy scale or on both the Hy and Hs scales and only 7% on the Hs scale (Hathaway and McKinley, 1956).

#### Scale VII. Psychasthenia (Pt)

Scores of 690 normals, 20 criterion psychasthenia cases, and 50 psychiatric cases of heterogenous diagnosis, but with some symptomatic evidence of obsessions or compulsion, were compared. Both the criterion cases and the psychiatric cases of heterogenous diagnosis had significantly higher scores, and only 10% fell below the mean for the normal group (Hathaway and McKinley, 1956).

#### Scale VIII. Schizophrenia (Sc)

The most recently published Sc scale was only slightly better than the three previous Sc scales. It was not until the K scale was adopted that discrimination of the Sc scale could be sharpened. K correction raised the percentage of cross-validation cases reaching or exceeding T scores of 70 to 59 and the percentage of normals dropped to 2%. Even with this correction, many cross-validation cases had the T score below 61 (Hathaway and McKinley, 1956).

#### Scale IX. Hypomania (Ma)

In a comparison of 690 normals, 300 psychiatric clinic cases, 24 Ma criterion cases, and 30 Ma test cases, the percentage of scores greater than 70 for each group were as follows: 1.8% for the normals,

5.3% for the psychiatric cases, 37.5% for the criterion cases and 31.4% for the test cases. The evidence for the validity of the Ma is not conclusive. However, there is a tendency for persons with hypomania symptoms to secure high scores (Hathaway and McKinley, 1956).

#### F Scale. Validity

The MMPI F scale was not formally validated, but was presented on face validity. The 64 items in the scale were selected because they were generally answered with a low frequency in either the true or false direction by the main normal group (Hathaway and McKinley, 1956).

#### K Scale. Correction Factor

Borderline MMPI profiles from normal and hospital groups who had at least one scale (excluding Mf) elevated as high as T-65 but none elevated to 80 were analyzed. The analysis of data then attempted to separate the normals from the abnormals. The scores for each sex of all groups were arranged in the order of magnitude of K scores. The K distribution was cut on the basis of the proportion of normals and abnormals in the sample. Those above the cut were called abnormals, those below were called normals. A four-fold table was then set up and chi-square values were computed. Chi-square values of 20.436 for males and 29.540 for females were obtained, which were significant at the .001 level (Meehe and Hathaway, 1956).

#### Concurrent Validity

Significant correlation coefficients of -.57, -.60, and -.65 were

obtained between IQ as measured by the Weschsler-Bellevue Test and the Pd, Ha, and Hy scales of the MMPI, respectively, when both tests were administered to 48 students (Brower, 1947).

No correlation coefficients significantly different than zero were found between MMPI Pd, D, Ma, Sc and Pa scales and the Humm Wadsworth measure of hysteroid, depressive mania, autistic and paranoid dimensions, respectively (Gilliland, 1951).

Positive product moment correlation coefficients significant at the .001 level were obtained between Rorschach protocols scored according to Klopfler's Prognostic rating scales and the standard scales of the MMPI plus Welsh's A and R factor scales and Barron's Es (Ego strength) scales for a sample of 36 hospitalized in-patients with functional psychiatric disorders (Adams et al., 1963).

#### Predictive Validity

MMPI scale scores of 32 entering college freshmen and their grades obtained in course work as a criterion of achievement were compared. The K, Pd, Ma, and Hs scales were found to be valid predictors of academic achievement and the Pd and K scales appeared to measure the same factor as the American College Entrance Test (ACE) (Hackett, 1955).

Cooke and Kiesler (1967) analyzed the MMPI scores of college freshmen to determine whether the test could be used to differentiate students who later applied to the university counseling service for

personal adjustment problems. Both male and female clients were found to have significantly higher total MMPI and neurotic tetrad means than non-clients. In a similar study Danet (1965) found that the criterion of one or more MMPI scales with a T score equal to or greater than 70 was successful in predicting which of a group of college entrants later received psychotherapy.

#### Content Validity

MMPI records of 25 normal white males, 35 physically ill normals, and 25 psychotics were analyzed by ten different indices. The following five indices were most effective in separating the psychotic subjects from the other groups: F scale score, Peterson's signs of psychosis, Sc scale score, mean of Pa, Pt, Sc, and the clinical scales where T scores were equal to or greater than 70 (Winter and Stortroen, 1963).

Silver and Sines (1962, 1963) used the Q sort method to determine the diagnostic efficiency of the MMPI when the K scale, K correction and F scale were used. It was concluded that neither K score nor the K correcting several scales increased the diagnostic efficiency of the MMPI. Significant positive correlation coefficients of .64 for males and .71 for females were obtained between the clinicians' judgments and the F scores of hospitalized patients.

#### Interpersonal Check List (ICL)

The Interpersonal Check List (ICL) developed by LaForge and



Suczek (1955) is an objective multi-level method for assessing interpersonal behavior. It combines the Interpersonal Checklist, the Thematic Apperception Test, and certain MMPI scale scores to tap the following four levels of interpersonal behavior: (1) Level I (Public Communication): ". . . the interpersonal impact of the subject on others--" according to the two dimensions of dominance and love (Leary, 1957); (2) Level II (Conscious Descriptions): "the subjects view of self and world. . ." (Leary, 1957); (3) Level III (Preconscious Symbolization): "the subject's autistic, projective fantasy productions" (Leary, 1957); and (4) Level IV (Ego Ideal): "the subject's statements about his interpersonal ideas, standards, conceptions of good and evil" (Leary, 1957).

A set of 16 interpersonal variables listed in a circular diagnostic grid is used to categorize behavior at all four levels. The grid is divided into eight octants with two interpersonal variables in each octant. The octants with the adaptive title appearing first and the maladaptive title second (Leary, 1957) are as follows:

Octant 1: managerial-autocratic

Octant 2: competitive-narcissistic

Octant 3: critical-sadistic

Octant 4: skeptical-distrustful

Octant 5: self-effacing-masochistic

Octant 6: docile-dependent

Octant 7: cooperative-overconventional

Octant 8: responsible-overgenerous

The vertical axis of the circular grid measures dominance and the horizontal axis measures love. The center of the circle represents the mean of the normative population, and the distance and direction of a subject's summary point from the center gives a qualitative measure of a particular kind of behavior as well as a degree of deviation from the norm.

For the present study only Level I of the Interpersonal Check List (ICL) scored according to Leary's system (1957) was used to obtain a measure of interpersonal behavior among the male drug abusers and non-users. T scores from eight scales of the MMPI scales which had been previously administered to the male drug abusers and which was administered to the male drug non-users were required to obtain the Level I measurement, which consisted of a dominance and a love index. The T scores from the eight MMPI scales are combined into the two indices using the following formulas: (1) Mania (Ma) - Depression (D) + Hypochondriasis (Hs) - Psychasthenia (Pt) = dominance; and (2) Correction Factor (K) - Validity (F) + Hysteria (Hy) - Schizophrenia (Sc) = love. Raw scores obtained for each index are then converted into standard scores by referring to

a table in the manual. Standard scores for each indice range from 10 to 90.

### Reliability

LaForge and Suczek (1955) used the test-retest method on a sample of 77 obese women to obtain reliability coefficients for the ICL. Significant correlations averaged .78 for octant reliability.

Using a sample of 50 normal and 50 alcoholic males and the Kuder Richardson estimate of reliability, Armstrong (1958) computed internal consistency reliability coefficients for the ICL scored according to Leary's system. All 100 subjects were given the ICL and asked to rate mother, father, wife, ideal wife and ideal self. Correlation coefficients ranging from .956 to .976 indicated all 12 ratings were highly significant and had a similar degree of internal consistency.

### Validity

Evidence of content validity for the ICL was obtained by Briar and Biere (1963) in a factor analysis and trait inference study.

### Factor Analysis

A product moment intercorrelation matrix was computed from the octant scores of 250 respondents and three primary factors (love, dominance, and inferiority feelings) were extracted. These three

factors were then rotated by Kaiser's Varimax Technique and results were consistent with Leary's assumption that the ICL measures the two principal and orthogonal factors of dominance and love. Inferiority feelings found to be measured by the ICL were not explicitly planned for in Leary's formulation.

### Trait Inference

Forty subjects made judgements about a person in a group on the ICL from stimulus information that varied systematically in the two behaviors of love and dominance. Differences between the mean octant judgments of the subjects who received either high or low dominance information and the subjects who received either high or low love information were consistent with octant factor loadings on both the dominance and love factors.

Using a sample of 31 subjects and the Pearson Product Moment Correlation Method, Kopfler (1961) obtained evidence of concurrent validity for the ICL Level I scored according to Leary's system. The dominance and love scores for Level I were obtained from the usual combination of MMPI scale scores as well as from ICL scores computed from a psychologist's ratings of each subject on the ICL per se. Correlation coefficients of the dominance dimension as measured by the MMPI and the ICL was .29 and the correlation coefficient of the love dimension as measured by the MMPI and the ICL was

a significant .54.

### The Bronfenbrenner Parental Behavior Questionnaire (BPBQ)

The Bronfenbrenner Parental Questionnaire (BPBQ) is a measurement device developed by Urie Bronfenbrenner (1961) to measure a subject's perception of his parents' behavior toward him when he was growing up. The Questionnaire consists of 100 generalized statements about child rearing to which a subject is asked to indicate to what extent each statement applies to each parent's treatment of himself as he was growing up. Fathers and mothers are rated separately according to the following scale:

- 0 - definitely does not apply, something this parent would never do.
- 1 - applies only a little, happened only occasionally
- 2 - applies fairly well, happened fairly well, happened fairly often but not regularly.
- 3 - applies well, a usual thing with this parent.
- 4 - applies strongly, outstanding in this parent.

The BPBQ attempts to measure 20 perceived parental behavior variables with five items to measure each variable (see Appendix B).

The scores for each variable range from zero to 20 (Bronfenbrenner, 1961).

## Reliability

Using a sample of 192 tenth grade students to explore the relationship between parental behavior, and responsibility and leadership among adolescents, Bronfenbrenner (1961) obtained a reliability coefficient of .48 for the BPBQ.

Using a revised form of the BPBQ and a sample of 131 girls and 81 boys in grades four to six, Sigelman (1965) utilized Kuder-Richardson's Formula 20 to obtain internal consistency reliabilities ranging from .26 to .83 for male-fathers, .23 to .70 for male-mothers, .55 to .88 for female-fathers, and .32 to .75 for female-mothers. In an attempt to increase the reliability of the BPBQ, he merged scores from several scales and obtained factor score reliability coefficients ranging from .70 to .91.

## Validity

Evidence of content validity for the BPBQ has been obtained by Bronfenbrenner (1961) in a study of the relationship between parental behavior, and leadership and responsibility among adolescents. In this study the BPBQ proved sensitive to differences between the parental behavior of mothers and fathers in relationship to the adolescent's sex, the father's educational level, and the adolescent's responsibility and leadership. The BPBQ was given to an equal

number of boys and girls in a total sample of 192.

Mothers were significantly perceived by adolescents to be the more salient figure in most positive and negative aspects of parental treatment. Girls were found to receive significantly more affection, praise, and companionship than boys. Boys were subject to significantly more achievement demands and physical punishment from fathers only.

When the father's educational level increased, mothers were found to spend significantly more time with their children and were significantly less severe in their punishment; and fathers spent significantly more time participating in projects and activities with their children, even though they were away from home more often. The scales of affection, nurturance, affective rewards, and affective punishment fail to show any significant positive relationship to the father's educational level.

Adolescents who received the lowest ratings in responsibility described their parents as most likely to complain and ridicule them, compare them unfavorably with other children, spent little time with them and avoided their company. High levels of responsibility among sons were associated with parental presence, nurturance, affection and companionship, especially from mothers, and increased discipline and authority from the fathers. High levels of responsibility among girls were negatively related to all of these parental variables, the

most markedly for intercession, protectiveness, and power.

A significant positive relationship was found between low levels of leadership and neglect, absence, or withdrawal on the part of the parent of the same sex.

A significant positive relationship was found between high levels of leadership among sons and the parental behavior variables of affiliative companionship, nurturance, principled discipline and affective reward. A significant negative relationship was found between high levels of leadership among girls and the above parental behavior variables. This relationship for girls was greatest when fathers were at the upper educational levels.

## Procedures

### Establishment of Rapport

Rapport did not need to be established with the male drug abusers in this study since therapists administered the MMPI and the BPBQ to them as part of their routine evaluation.

Time was spent with the male drug non-users during the initial contact period asking for their cooperation in the study. The purpose of the study was explained and anonymity of background information and test results was assured.



### Administration of the MMPI

The MMPI was given to the male drug abusers upon admission to the Drug Treatment Clinic of the Alcohol and Drug Section, Oregon State Department of Mental Health, Portland, Oregon. The staff at the Drug Treatment Clinic agreed to make these scores available to the investigator.

The male drug non-users used in the present study were tested with the MMPI. Various times were set aside for testing in a college classroom at Portland State University, Portland, Oregon; Clackamas Community College, Oregon City, Oregon; and Oregon State University, Corvallis, Oregon. Where it was not feasible to test in a college classroom, testing was conducted in the lobby of a college dormitory, or testing materials and written instructions for taking the test were given to a few subjects so they could complete them at home. Standardized instructions for administering the MMPI are found in a manual for administering the test (McKinley and Hathaway, 1943). The test took approximately 45 to 60 minutes to administer.

### Administration of the BPBQ

The BPBQ was administered to the male drug abusers at the Drug Treatment Clinic by therapists as part of their routine evaluation at the Clinic. A cover letter explaining the purpose of the study,

the hypotheses, and procedures for administering the BPBQ was sent to all therapists cooperating in the study. A copy of the letter is found in Appendix C.

The BPBQ was administered to the male drug non-users at the same time the MMPI was administered. Standardized instructions for administering the BPBQ and a copy of the questionnaire are found in Appendix B. The test took approximately 15 minutes to administer.

## RESULTS

The purpose of the present study was to compare the interpersonal behavior and perceived parental behavior of male drug abusers and non-users. A total of 34 male subjects comprised the sample of this study. Seventeen males were drug abusers receiving treatment at the Drug Treatment Clinic, Alcohol and Drug Section, Oregon State Department of Mental Health, Portland, Oregon; while 17 males were drug non-users and students attending Portland State University, Portland, Oregon; Clackamas Community College, Oregon City, Oregon; and Oregon State University, Corvallis, Oregon. Drug abusers and non-users in the present study were matched according to the variables of sex, age, and socioeconomic status of their parents.

Presentation of the results obtained in this study are organized around the following subheadings: descriptive analysis of the MMPI profiles, tests of hypotheses and exploratory analysis.

### Descriptive Analysis of MMPI Profiles

Since the interpersonal behavior scores to be analyzed under Hypothesis I were derived from eight Minnesota Multiphasic Personality Inventory scales (F, Pt, Hs, Hy, K, Sc, and Ma), descriptive analyses of the MMPI profiles of male drug abusers and non-users

were undertaken. This was done to obtain a composite picture of the drug abusers and non-users in the present study. For this analysis the t-statistic was used to determine the degree of difference that existed between male drug abusers on the personality dimensions measured by the MMPI scales. The formula for the t-statistic is:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_p^2 (1/n_1 + 1/n_2)}$$

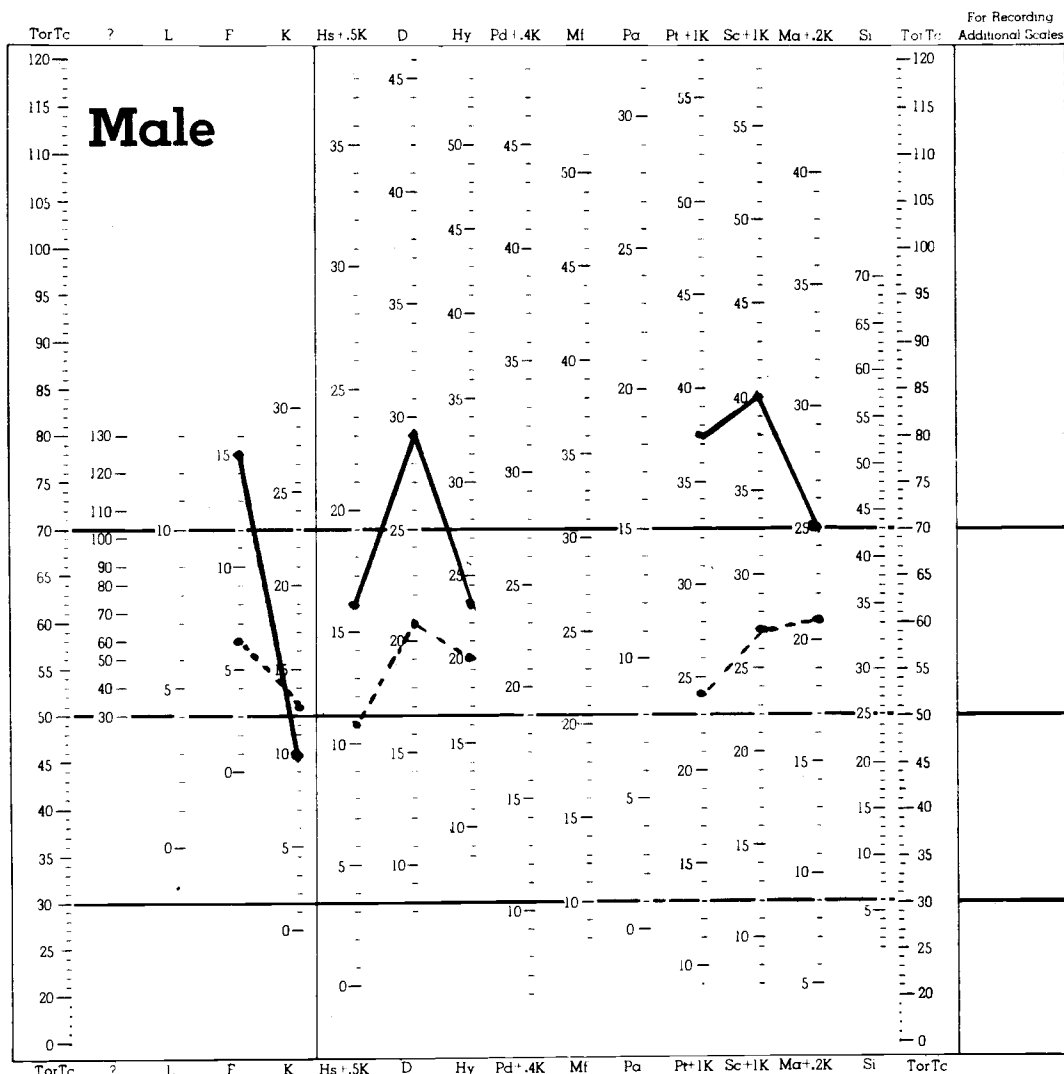
where  $n_1$  represents the sample size of Population I (male drug abusers) and  $n_2$  represents the sample size of Population II (male non-users) and  $\bar{X}_1$  represents the sample mean of Population I (male drug abusers) and  $\bar{X}_2$  represents the sample mean of Population II (male non-users), and  $s_p^2$  represents the sample variances.

A summary of MMPI profiles for male drug abusers and non-users is found in Figure 1. A summary of the t values of the differences between the t score means of male drug abusers and non-users on eight MMPI scales is found in Table 3. Findings revealed that there was a significant difference between male drug abusers and non-users on the Validity (F) ( $p < .01$ ), Hypochondriasis (Hs) ( $p < .05$ ), Depression (D) ( $p < .01$ ), Psychasthenia (Pt) ( $p \leq .01$ ), and Schizophrenia (Sc) ( $p \leq .01$ ) scales. No significant differences, however, were found between male drug abusers and non-users on the Mania (Ma) and the Correction Factor (K) scales.

# The Minnesota Multiphasic Personality Inventory

Starke R. Hathaway and J. Chamley McKinley

Scorer's Initials \_\_\_\_\_



———— Drug Abusers  
 - - - - - Drug Non-users

Figure 1. A Summary of the MMPI Profiles of Male Drug Abusers and Non-users.

Table 3. A Summary of the T Values of the Differences Between the T score Means of Male Drug Abusers and Non-Users on Eight MMPI Scales.

MMPI scales	Drug Abusers N = 17		Drug Non-users N = 17		t
	Raw score Mean	T score Mean	Raw score Mean	T score Mean	
Validity (F)	15	70	6	59	4.26*
Correction Factor (K)	10	49	13	53	1.25
Hypochondriasis (Hs)	16	62	11	50	2.30**
Depression (D)	28	75	21	61	3.02*
Hysteria (Hy)	24	65	20	56	1.70
Psychasthenia (Pt)	37	78	25	54	4.20*
Schizophrenia (Sc)	40	84	27	60	4.40*
Mania (Ma)	25	70	21	60	1.70

\*  $t = 2.583$   $p < .01$

\*\*  $t = 1.746$   $p < .05$

### Tests of Hypotheses

Two null hypotheses were generated for this study. To obtain a measure of the interpersonal behavior for Hypothesis I the Interpersonal Check List Level I was used. T scores from eight MMPI scales (F, Pt, Hs, Hy, K, Sc and Ma) were combined to make two interpersonal indices, dominance and love, by using the following formula: (1) Mania (Ma) - Depression (D) + Hypochondriasis (Hs) - Psychasthenia (Pt) = dominance; and (2) Correction Factor (K) - Validity (F) + Hysteria (Hy) - Schizophrenia (Sc) = love. Standard scores ranging from 20 to 80 on the dominance and love dimensions of the ICL were computed from raw scores according to conversion tables accompanying the ICL. To obtain a measure of perceived parental behavior for Hypothesis II, Bronfenbrenner's Parental Behavior Questionnaire was used. Each of 20 variables measured by this instrument is comprised of five generalized statements about child rearing. Subjects responded to these statements by rating each of his parents from zero to four according to how well each statement applied to his parents' treatment of himself as he was growing up.

To test the two null hypotheses generated by this study the multivariate two-sample analysis of variance approach was used. This approach attempts to determine whether the difference (d)

between mean responses of Population I ( $X_1$ -male drug abusers) and Population II ( $X_2$ -male drug non-users) respectively, was equal to zero ( $d = X_1 - X_2$ ). If the mean difference ( $d$ ) was found not to be equal to zero, the next step was to determine the upper and lower bound or the true mean difference in order to conclude that  $X_1$  was in actuality greater or smaller than  $X_2$ . In order to make this judgement, a confidence interval for the mean difference ( $d$ ) was calculated from the two populations of male drug abusers and non-users. Suppose that this interval is given by  $L \leq d \leq H$ , then one knows that under the appropriate probability the actual difference between the two mean responses for male drug abusers and non-users will fall between  $L$  and  $H$ . If it happens that zero falls between  $L$  and  $H$ , then one cannot conclude that the mean responses are not equal to zero. Only when the confidence interval does not contain zero, can one assert that the true differences in the mean responses between male drug abusers and non-users are not zero (i.e. the mean responses are different). The multivariate two-sample analysis of variance approach used in this study utilized Hotelling's  $T^2$  statistic to test the difference between the sequence of means in the experimental and control groups, simultaneously. The formula for Hotelling's  $T^2$  statistic is:

$$T^2 = \frac{N_1 N_2}{N_1 + N_2} (\bar{X}_1 - \bar{X}_2)' S^{-1} (\bar{X}_1 - \bar{X}_2)$$



where  $N_1$  represents the sample size of Population I (male drug abusers) and  $N_2$  represents the sample size of Population II (male non-users),  $X_1$  represents the vector means of Population I (male drug abusers) and  $X_2$  represents the vector means of Population II (male non-users), and  $S$  represents the sample covariance matrix (estimated variances and estimated covariances).

### Hypothesis I

Hypothesis I: There will be no significant difference between the interpersonal behavior of male drug abusers and non-users."

A summary of the findings regarding the difference between male drug abusers and non-users in their interpersonal behavior is found in Table 4. These findings reveal that while there was no significant difference between male drug abusers and non-users on the interpersonal behavior dimension of dominance, there was a significant difference between male drug abusers and non-users on the interpersonal dimension of love. Male drug abusers scored significantly lower than non-users. Therefore, the null hypothesis cannot be rejected for the interpersonal behavior dimension of dominance, but may be rejected for the interpersonal behavior dimension of love.

Table 4. A Summary of the Differences Between Male Drug Abusers and Non-Users in Interpersonal Behavior (Means, Mean Differences, and Confidence Intervals).

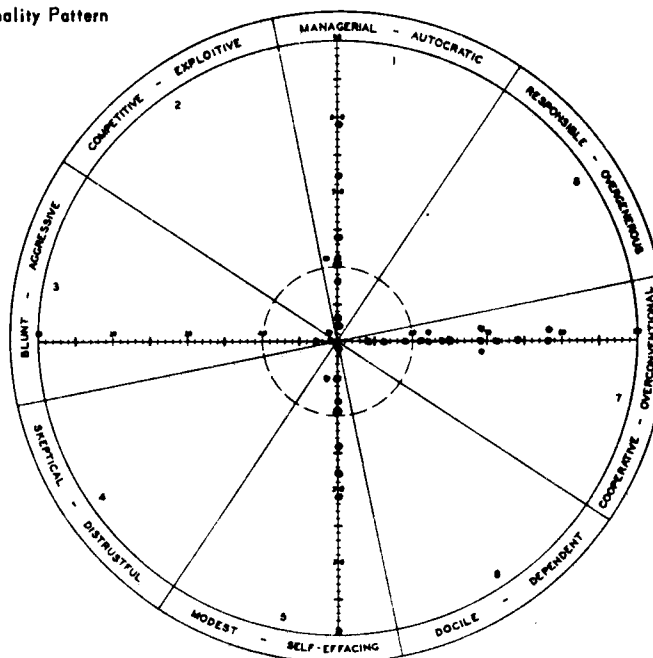
Interpersonal Behavior	Drug Abusers N = 17	Drug Non-users N = 17	Mean differences	.05 Confidence Interval of Mean Differences	
	Means	Means		Lower	Upper
Dominance	48.88	59.53	9.65	-1.5	19.38
Love	37.71	49.76	10.25	4.65**	19.82**

\*\* = significant at the .05 level

In addition, further analysis of the interpersonal behavior of male drug abusers and non-users was obtained by plotting their dominance and love scores on the Interpersonal Diagnostic Grid. Figure 2 illustrates where subjects in each group fell on the dominance (vertical axis) and the love (horizontal axis) continuums of the Interpersonal Check List Level I. According to Leary (1956), the center of the circular grid represents the mean of the normative population. Of the 17 male drug abusers eight scored above the mean on the interpersonal behavior dimension of dominance, one scored at the mean and eight subjects scored below the mean. On the interpersonal behavior dimension of love, three subjects scored above the mean while 14 scored below the mean. In reference to the male non-users, 15 subjects scored above the mean on the interpersonal behavior dimension of dominance, while two scored below the mean. On the interpersonal behavior dimension of love, ten scored above the mean, one scored at the mean and six scored below the mean.

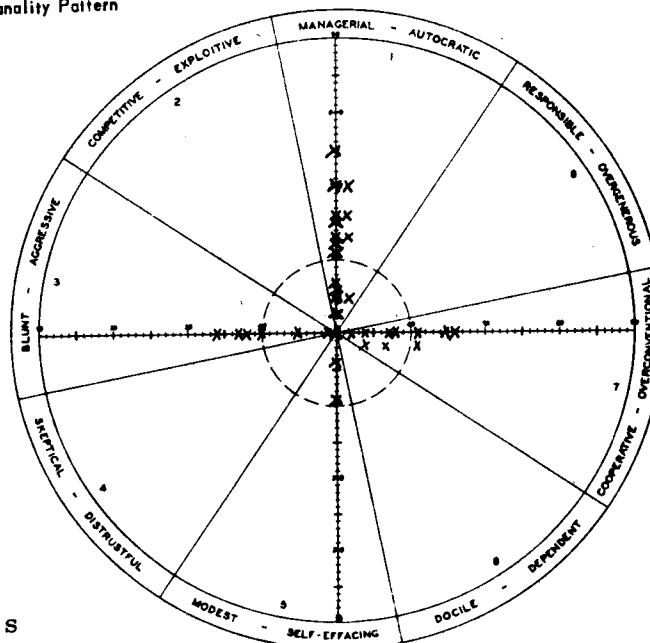
The interpersonal behavior of subjects in the present study were further analyzed by combining the subjects dominance and love scores obtained on the ICL. The point at which these two scores intersect on the Interpersonal Diagnostic Grid is called the octant rating or summary point. Each summary point falls into one of eight octants containing two interpersonal variables. The further from the center (the normative population mean) an octant rating

Interpersonal Diagnosis  
Multi-Level Personality Pattern



Drug Abusers

Interpersonal Diagnosis  
Multi-Level Personality Pattern



- Drug Abusers
- x Drug Non-users

Drug Non-Users

Figure 2. A Summary of the Dominance and Love Scores of Male Drug Abusers and Non-users on the Interpersonal Check List. Level I.

or summary point falls, the more extreme or maladjustive the interpersonal behavior (Leary, 1956). The Interpersonal Diagnostic Grid which contains eight octants with characteristic behaviors is shown in Figure 3.

A summary of the octant ratings of subjects in the present study may be seen visually by referring to Figure 4. Octant rating for male drug abusers were found in the following octant: modest-self-effacing (one subject), skeptical-distrustful (six subjects), blunt-aggressive (four subjects), competitive-exploitive (three subjects), managerial-autocratic (two subjects) and docile-dependent (one subject). Octant ratings for male non-users were found in the following octants: skeptical-distrustful (one subject), blunt-aggressive (four subjects), competitive-exploitive (one subject), managerial-autocratic (eight subjects), responsible-overgenerous (two subjects), and docile-dependent (one subject). Table 5 presents a description of the octant ratings concerning the interpersonal behavior of male drug abusers and non-users.

### Hypothesis II

Hypothesis II: With respect to sex of parents, there will be no significant difference between the perceived parental behavior of male drug abusers and non-users.

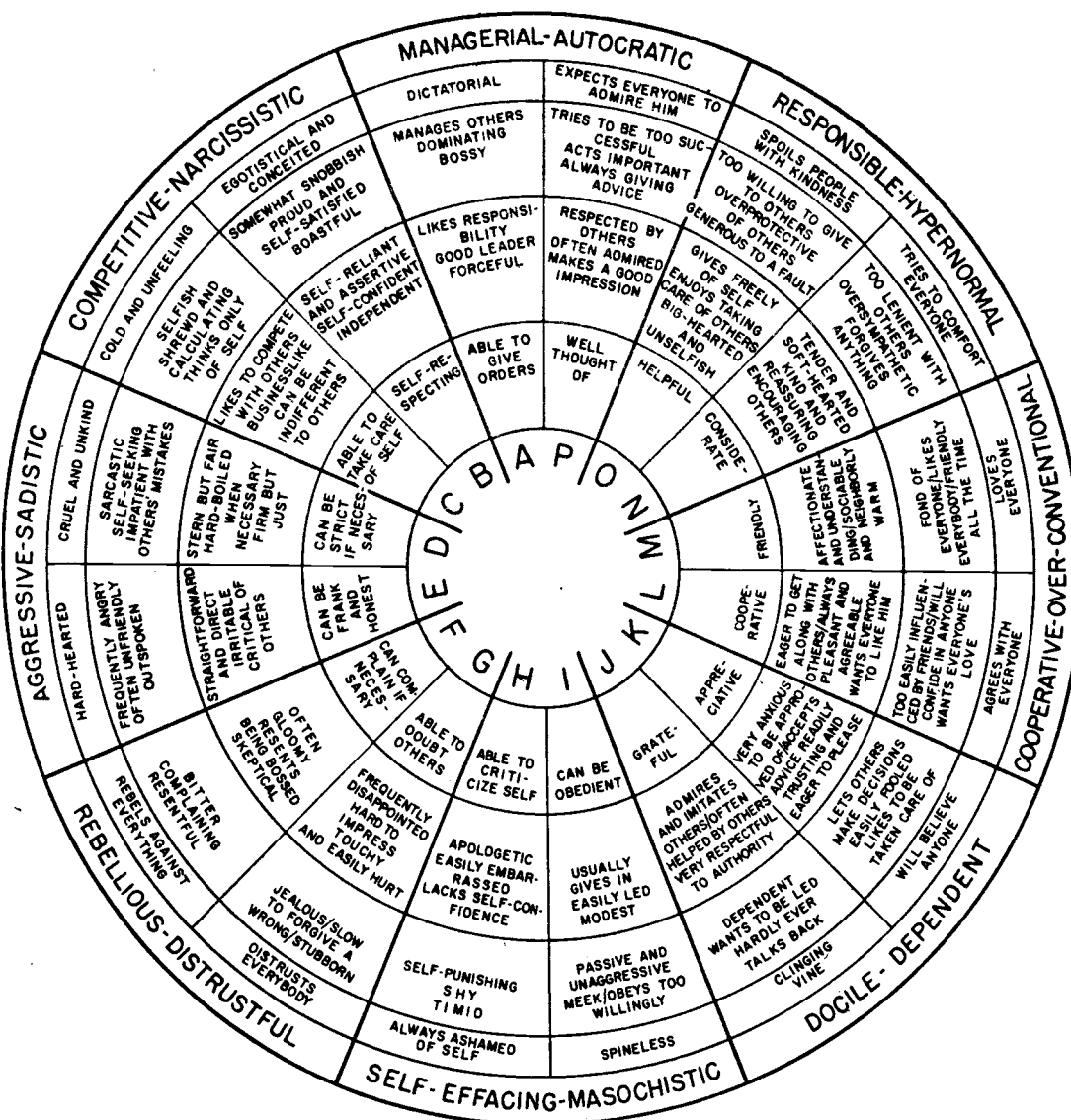


Figure 3. The Interpersonal Diagnostic Grid Containing Eight Octants and Characteristic Behaviors.

Interpersonal Diagnosis  
Multi-Level Personality Pattern

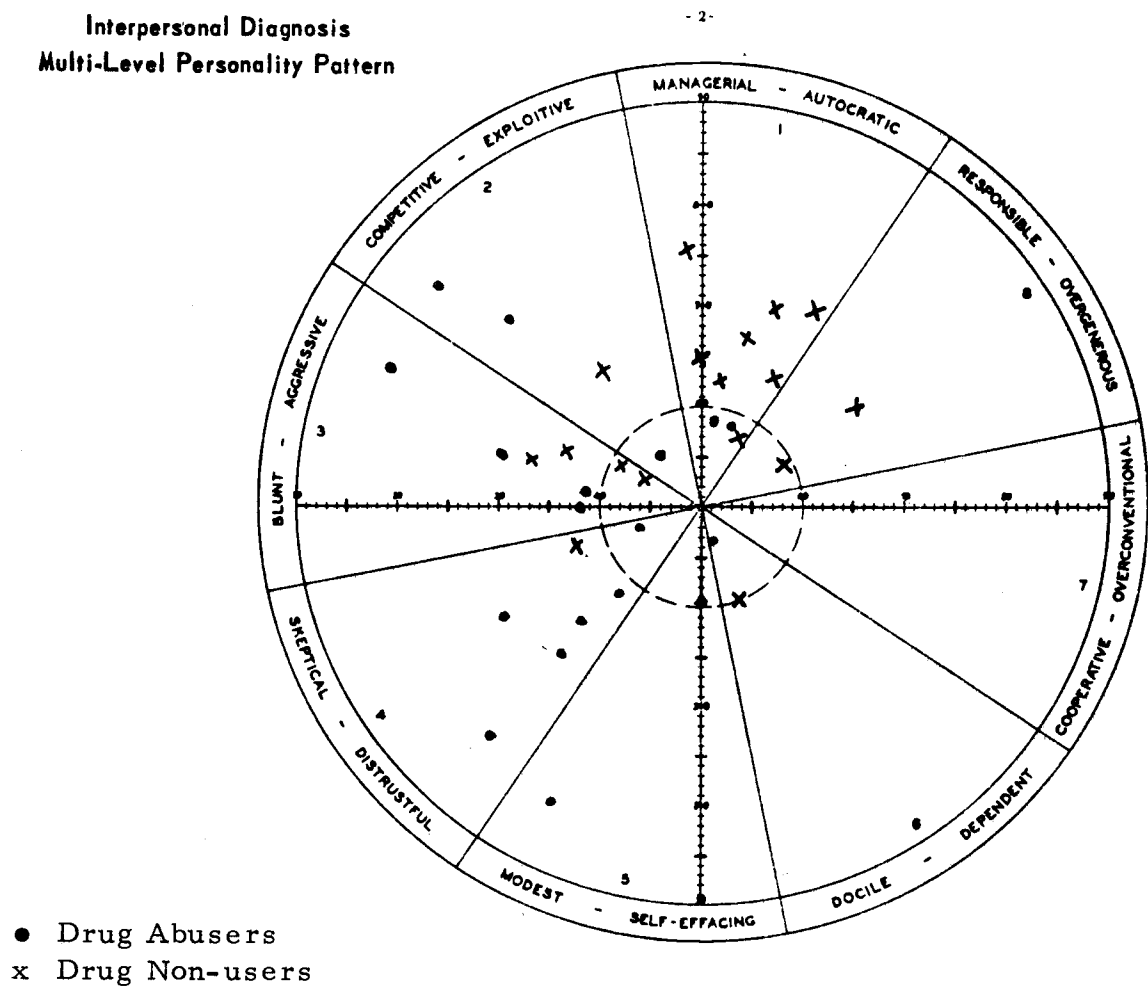


Figure 4. A Summary of the Octant Ratings Concerning the Interpersonal Behavior of Male Drug Abusers and Non-users as Measured by the Interpersonal Check List Level I.

Table 5. A Description of the Octant Ratings Concerning the Interpersonal Behavior of Male Drug Abusers and Non-users as Measured by the Interpersonal Check List Level I.

Octant	Drug Abusers N = 17	Drug Non-users N = 17	Descriptive Interpersonal Behavior
Modest-self effacing	1		Always ashamed of self.
Skeptical-distrustful	1		Can complain if necessary.
	3		Hard to impress, touchy, disappointed
		1	Skeptical, gloomy, resent bossing.
	1		Bitter, resentful, complaining.
	1		Distrusts everyone.
Blunt-aggressive		2	Can be stern if necessary.
	2		Straightforward, critical of others, irritable.
	1	2	Hard boiled when necessary, stern but fair, firm but just.
	1		Cruel and unkind
Competitive-exploitive		1	Can be indifferent, likes to compete, businesslike.
	1		Shrewd and calculating, thinks only of self.
	1		Cold and unfeeling.
Managerial-autocratic	1	1	Well thought of.
	1		Able to give orders.
		2	Likes responsibility, good leader.
		5	Makes a good impression, admired, respected.
		1	Manages others, dominating, bossy.



Table 5. Continued.

Octant	Drug Abusers N = 17	Drug Non-users N = 17	Descriptive Interpersonal Behavior
Responsible-over generous		1	Helpful, considerate
		1	Encourages, kind, soft-hearted
Cooperative-over Conventional	0	0	
Docile-dependent	1	1	Grateful.

A summary of the findings regarding the difference between male drug abusers and non-users in their perceived parental behavior is presented in Table 6. Findings revealed that there was no significant difference between drug abusers and non-users in their perceived mother behavior. Therefore, the null hypothesis related to this analysis cannot be rejected. With respect to fathers, there was a significant difference between drug abusers and non-users on the perceived father behavior variable of parental presence ( $p < .05$ ). The null hypothesis, therefore, can be rejected only for this perceived father behavior variable.

#### Exploratory Analysis

The purpose of this section of the results is to present an exploratory analysis of the relationship between the interpersonal behavior and perceived parental behavior of male drug abusers and non-users. It is hoped that on the basis of this analysis, a more precise research problem may be formulated or hypotheses developed.

To do this exploratory analysis, the Pearson Product Moment Method was used to determine the degree of relationship that exists between interpersonal behavior and perceived parental behavior among male drug abusers and non-users. The Student's  $t$ -statistic was then applied to test the significance of these relationships. The formula for the Student's  $t$ -statistic is:

Table 6. A Summary of the Differences Between Male Drug Abusers and Non-Users in Their Perceived Parental Behavior. (Means, Mean Differences, and Confidence Intervals)

Parental Behavior	Drug Abusers N = 17		Drug Non-users N = 17		Mean Differences Mother      Father		.05 Confidence Interval of Mean Differences			
	Means		Means				Mother		Father	
	Mother	Father	Mother	Father			Lower	Upper	Lower	Upper
Parental absence	4.29	5.76	2.06	3.41	-2.23	-2.35	-6.02	6.02	-7.04	7.04
Parental presence	10.65	5.70	15.76	9.71	5.11	4.00	-.01	10.23	.08	7.92**
Affection	8.88	7.53	10.24	8.00	1.36	.47	-4.44	7.16	-4.16	6.10
Nurturance	9.82	6.06	11.88	8.00	2.02	1.94	-2.00	6.04	-2.60	6.48
Affiliative companionship	7.71	6.00	9.82	9.35	2.12	3.35	-3.51	7.75	-2.37	9.07
Affective reward	9.00	7.65	13.41	10.71	4.40	3.05	-1.16	9.96	-2.25	8.35
Material reward	5.94	5.35	6.53	5.35	.59	0	-4.24	4.24	0	0
Principled discipline	9.8	9.59	12.24	11.53	2.41	1.94	-1.80	4.20	-3.26	7.14
Instrumental companionship	7.29	8.12	9.00	10.76	1.71	2.64	-3.94	7.36	-3.90	8.27
Physical punishment	8.47	11.82	5.18	5.35	-3.30	-6.47	-8.74	8.74	-11.75	11.75
Social isolation	6.29	6.94	2.70	2.53	-4.29	-4.41	-8.97	8.97	-9.80	9.80
Deprivation of privileges	7.18	7.82	4.35	5.59	-2.82	-2.23	-8.00	8.00	-3.07	7.53

Table 6. Continued.

Parental Behavior	Drug Abusers N = 17		Drug Non-users N = 17		Mean Differences Mother      Father		.05 Confidence Interval of Mean Differences			
	Means		Means				Mother		Father	
	Mother	Father	Mother	Father	Lower	Upper	Lower	Upper		
Affective punishment	7.71	6.76	4.88	4.47	-2.83	-2.28	-7.74	7.74	-8.10	8.10
Achievement demands	8.94	9.94	7.06	7.53	-1.88	-2.41	-6.28	6.28	-8.36	8.36
Power	9.59	9.24	5.65	5.29	-3.94	-3.95	-9.68	9.68	-8.95	8.95
Indulgence	4.59	3.24	4.29	2.94	-.30	-.30	-3.89	3.89	-3.25	3.25
Intercession	7.00	4.59	4.18	4.24	-1.35	-.35	-5.83	5.83	-4.26	4.26
Protectiveness	7.82	5.88	5.65	3.88	-2.29	-2.00	-7.28	7.28	-5.64	5.64
Expressive rejection	8.64	8.24	4.17	4.59	-4.47	-3.65	-9.16	9.16	-8.95	8.95
Neglect	3.94	4.70	1.59	1.65	-2.35	-3.06	-5.14	5.14	-6.60	6.60

\*\* = significant at the .05 level

$$t = r / \sqrt{\frac{N-2}{1-r^2}} \quad t_{\alpha/2}, N_2$$

where  $r$  represents the sample correlation,  $N$  represents the sample size and  $t_{\alpha/2}$  represents the critical value of  $t$ .

Relationship Between Interpersonal Behavior  
and Perceived Parental Behavior  
Among Male Drug Abusers

A summary of the findings regarding the relationship between interpersonal behavior and the perceived mother behavior variables among male drug abusers is found in Table 7. With respect to the relationship between the interpersonal behavior dimension of dominance and perceived mother behavior variables, 16 out of 20 correlations obtained were significant. Significant positive relationships were found between the interpersonal behavior dimension of dominance and the perceived mother behavior variables of affection ( $p < .01$ ), nurturance ( $p < .05$ ), affiliative companionship ( $p < .05$ ), affective reward ( $p < .05$ ), material reward ( $p < .01$ ), instrumental companionship ( $p < .01$ ), physical punishment ( $p < .05$ ), social isolation ( $p < .01$ ), deprivation of privileges ( $p < .01$ ), affective punishment ( $p < .01$ ), achievement demands ( $p < .05$ ), power ( $p < .05$ ), indulgence ( $p < .01$ ), intercession ( $p < .01$ ), protectiveness ( $p < .01$ ), and expressive rejection ( $p < .01$ ). In reference to the relationship between the

interpersonal behavior dimension of love and perceived mother behavior variables, only five out of the 20 correlations were significant. Significant positive relationships were found between the interpersonal behavior dimension of love and the perceived mother behavior variables of affective reward ( $p < .01$ ) and protectiveness ( $p < .05$ ). Significant negative relationships, however, were found between the interpersonal behavior dimension of love and the perceived mother behavior variables of parental absence ( $p < .05$ ), physical punishment ( $p < .05$ ), and neglect ( $p < .01$ ).

A summary of the findings regarding the relationship between interpersonal behavior and perceived father behavior variables among male drug abusers is also found in Table 7. With respect to the relationship between the interpersonal behavior dimension of dominance, 15 out of the 20 correlations obtained were significant. Significant positive relationships were found between the interpersonal behavior dimension of dominance and the perceived father behavior variables of affective reward ( $p < .05$ ), material reward ( $p < .01$ ), principled discipline ( $p < .01$ ), physical punishment ( $p < .01$ ), social isolation ( $p < .05$ ), deprivation of privileges ( $p < .01$ ), affective punishment ( $p < .05$ ), achievement demands ( $p < .01$ ), power ( $p < .05$ ), indulgence ( $p < .01$ ), intercession ( $p < .01$ ), protectiveness ( $p < .01$ ), expressive rejection ( $p < .01$ ), and neglect ( $p < .01$ ). A significant negative relationship, however, was found between the interpersonal behavior dimension of dominance and the perceived father behavior variable of nurturance ( $p < .05$ ). In reference to the relationship between the

Table 7. A Summary of Findings Regarding the Relationship Between Interpersonal Behavior and Perceived Parental Behavior Among Male Drug Abusers.

Parental Behavior Variables	Interpersonal Behavior			
	Mother		Father	
	N = 17		N = 17	
	Dominance	Love	Dominance	Love
Parental absence	.07	-.28**	.17	-.22
Parental presence	-.09	.17	-.13	.18
Affection	.43*	.03	.17	-.22
Nurturance	.29**	.05	-.34**	-.31**
Affiliative companionship	.33**	.03	.08	-.17
Affective reward	.27**	.76*	.28**	-.05
Material reward	.40*	.04	.37*	-.07
Principled discipline	-.09	-.20	.40*	-.34**
Instrumental companionship	.44*	.03	.01	-.10
Physical punishment	.36**	-.31**	.38*	-.22
Social isolation	.45*	.06	.30**	.17
Deprivation of privileges	.49*	-.17	.51*	-.20
Affective punishment	.37*	.14	.32**	.09
Achievement demands	.34**	.17	.44*	-.20
Power	.33**	-.17	.24**	-.22
Indulgence	.45*	.20	.53*	.28**
Intercession	.42*	.02	.43*	-.31**
Protectiveness	.51*	.24**	.61*	.12
Expressive rejection	.42*	.12	.48*	.14
Neglect	-.04	-.45*	.48*	-.15

\*  $r = .37$   $p = .01$

\*\*  $r = .23$   $p = .05$

interpersonal behavior dimension of love and perceived father behavior variables, only four out of 20 correlations were significant. A significant positive relationship was found between the interpersonal behavior dimension of love and the perceived father behavior variable of indulgence ( $p < .05$ ). Significant negative relationships, however, were found between the interpersonal behavior dimension of love and the perceived father behavior variables of nurturance ( $p < .05$ ), principled discipline ( $p < .05$ ), and intercession ( $p < .05$ ).

Relationship Between Interpersonal Behavior  
and Perceived Parental Behavior Among  
Male Drug Non-Users

A summary of the findings regarding the relationship between interpersonal behavior and perceived mother behavior variables among male drug non-users is found in Table 8. With respect to the relationship between the interpersonal behavior dimension of dominance and perceived mother behavior variables, eight out of 20 variables were significant. Significant positive relationships were found between the interpersonal behavior dimension of dominance and the perceived mother behavior variables of principled discipline ( $p < .05$ ) and indulgence ( $p < .01$ ). Significant negative relationships, however, were found between the interpersonal behavior dimension of dominance and the perceived mother behavior variables of parental presence ( $p < .05$ ), physical punishment ( $p < .05$ ), power ( $p < .05$ ), protectiveness ( $p < .05$ ), expressive rejection ( $p < .05$ ) and neglect



Table 8. A Summary of the Findings Regarding the Relationship Between Interpersonal Behavior and Perceived Parental Behavior Among Male Non-Users.

Parental Behavior Variables	Mother N = 17	Interpersonal Behavior		Father N = 17
		Dominance	Love	
Parental absence	-.19	-.44*	-.29**	-.32**
Parental presence	-.36**	-.03	-.05	.06
Affection	.16	-.28**	.35**	-.07
Nurturance	.18	-.14	.04	.15
Affiliative Companionship	-.03	-.01	.13	.04
Affective reward	.13	-.28**	.16	-.10
Material reward	.19	-.20	.32**	-.21
Principled discipline	.33**	.04	.24**	.03
Instrumental companionship	.06	-.11	-.06	-.03
Physical punishment	-.31**	-.48*	.07	-.54*
Social isolation	.19	-.22	.17	-.34**
Deprivation of privileges	.12	-.31**	-.04	-.60*
Affective punishment	-.23	-.62*	.003	-.50*
Achievement demands	-.19	-.42*	.11	-.17
Power	-.28**	-.16	-.24**	-.18
Indulgence	.45*	.23	.33**	-.02
Intercession	.11	-.49*	.12	-.29**
Protectiveness	-.29**	-.59*	-.49*	-.64*
Expressive rejection	-.25**	-.36**	-.36**	-.49*
Neglect	-.31**	-.45*	-.03	-.28**

\*  $r = .37$   $p = .01$

\*\*  $r = .23$   $p = .05$

( $p < .05$ ). In reference to the relationship between the interpersonal behavior dimension of love and perceived mother behavior variables, 11 out of 20 correlations were significant. Significant negative relationships were found between the interpersonal behavior dimension of love and the perceived mother behavior variables of parental absence ( $p < .01$ ), affection ( $p < .05$ ), affective reward ( $p < .05$ ), physical punishment ( $p < .01$ ), deprivation of privileges ( $p < .05$ ), affective punishment ( $p < .01$ ), achievement demands ( $p < .01$ ), intercession ( $p < .01$ ), protectiveness ( $p < .01$ ), expressive rejection ( $p < .05$ ) and neglect ( $p < .01$ ).

A summary of the findings regarding the relationship between interpersonal behavior and perceived father behavior variables among male drug non-users is also found in Table 8. With respect to the interpersonal behavior dimension of dominance, eight out of 20 correlations were significant. Significant positive correlations were found between the interpersonal behavior dimension of dominance and the perceived parental behavior variables of affection ( $p < .05$ ), material reward ( $p < .05$ ), principled discipline ( $p < .05$ ), and indulgence ( $p < .05$ ). Significant negative relationships, however, were found between the interpersonal behavior dimension of dominance and the perceived father behavior variables of parental absence ( $p < .05$ ), power ( $p < .05$ ), protectiveness ( $p < .01$ ), and expressive rejection ( $p < .05$ ). In reference to the relationship between the interpersonal behavior dimension

of love, nine out of 20 correlations were significant. Significant negative relationships were found between the interpersonal behavior dimension of love and the perceived father behavior variables of parental absence ( $p < .05$ ), physical punishment ( $p < .01$ ), social isolation ( $p < .05$ ), deprivation of privileges ( $p < .01$ ), affective punishment ( $p < .01$ ), intercession ( $p < .05$ ), protectiveness ( $p < .01$ ), expressive rejection ( $p < .01$ ), and neglect ( $p < .05$ ).

## SUMMARY AND DISCUSSION

### Summary

Of interest in the present study are those research studies which focus on the interpersonal behavior and parental behavior of drug abusers and non-users. A review of literature regarding the comparison of interpersonal behavior variables among drug abusers and non-users suggests that these variables are important in understanding the nature of drug abuse among individuals. Findings revealed interpersonal behavior variables among drug abusers cluster around the following characteristics: low self-esteem; withdrawal of relationships with others; aggressive, anti-social behavior toward others; difficulty in forming warm, lasting relationships with others; an intense need for acceptance and love from others; and isolation from peers and others. Findings also revealed that parental behavior variables among drug abusers cluster around three major characteristics: inadequate or inappropriate affection, inadequate or inappropriate interaction, and inadequate or inappropriate modeling of behavior for their children.

The primary purpose of the present study was to compare the interpersonal behavior and perceived parental behavior of male drug abusers and non-users.

The subjects of the present study were 34 males. Seventeen

subjects were drug abusers receiving treatment at the Drug Treatment Clinic, Alcohol and Drug Section, Oregon State Department of Mental Health, Portland, Oregon, while 17 subjects were drug non-users and students attending Portland State University, Portland, Oregon, Clackamas Community College, Oregon City, Oregon; and Oregon State University, Corvallis, Oregon. Drug abusers and non-users in the present study were matched according to the variables of sex, age, and socioeconomic background as determined by Warner's (1960) Revised Scale for Rating Occupations.

The Minnesota Multiphasic Personality Inventory (MMPI) was administered to all subjects to obtain eight scale scores that were utilized by Leary's Interpersonal Check List (ICL) Level I to obtain a measure of interpersonal behavior according to the dimensions of dominance and love. Bronfenbrenner's Parental Behavior Questionnaire (BPBQ) was used to measure the perceived parental behavior variables.

### Data Analysis

Analysis of data for this study consisted of: (1) a descriptive analysis of MMPI profiles, (2) tests of hypotheses which included:

Hypothesis I: There will be no significant difference between the interpersonal behavior of male drug abusers and non-users.

Hypothesis II: With respect to sex of parents, there will be no significant difference between perceived parental behavior of male drug abusers and non-users;

and (3) an exploratory analysis.

The t-statistic was used to analyze MMPI profiles of subjects; the multivariate two-sample analysis of variance approach and Hotelling's  $T^2$  statistic was used to test Hypotheses I and II; and the Pearson Product Moment Correlation Method and the Student's t-statistic was used to conduct an exploratory analysis of the relationship between interpersonal behavior and perceived parental behavior among male drug abusers and non-users. The probability level of .05 and beyond was used as the significance level for all statistical analyses in this study.

## Findings

### Descriptive Analysis of MMPI Profiles

Significant differences were found between male drug abusers and non-users on the MMPI Validity (F), Hypochondriasis (Hy), Depression (D), Psychasthenia (Pt), and Schizophrenia (Sc) scales but not on the Mania (Ma) and Correction Factor (K) scales.

## Tests of Hypotheses

### Hypothesis I

While there was no significant difference between male drug abusers and non-users on the interpersonal behavior dimension of dominance, there was a significant difference between male drug abusers and non-users on the interpersonal behavior dimension of love. In regards to this difference on the interpersonal behavior dimension of love, drug abusers scored significantly lower.

From a descriptive analysis in which the interpersonal behavior dimensions of dominance and love were plotted on the Interpersonal Diagnostic Grid to obtain octant ratings, drug abusers fell largely into Octant three (blunt-aggressive) and four (skeptical-distrustful), while male non-users fell largely into Octant one (managerial-automatic).

### Hypothesis II

There were no significant differences between male drug abusers and non-users on any of the perceived mother behavior variables.

Only one significant difference between male drug abusers and non-users on the perceived father behavior variables was found. This significant difference between male drug abusers and non-users was found on the perceived father behavior variable of parental presence.

### Exploratory Analysis

An exploratory analysis of the relationship between interpersonal behavior and perceived parental behavior among male drug abusers and non-users indicated a number of significant correlations. Among male drug abusers, significant positive correlations were found between the interpersonal behavior dimension of dominance and the perceived mother behavior variables of affection, nurturance, affiliative companionship, affective reward, material reward, instrumental companionship, physical punishment, social isolation, deprivation of privileges, affective punishment, achievement demands, power, indulgence, intercession, protectiveness, and expressive rejection. Significant positive correlations were also found between the interpersonal behavior dimension of love and the perceived mother behavior variables of affective reward and protectiveness. Significant negative correlations, however, were found between the interpersonal behavior dimension of love and the perceived mother behavior variables of parental absence, physical punishment, and neglect.

In reference to the relationship between interpersonal behavior and perceived father behavior variables among male drug abusers, significant positive correlations were found between the interpersonal behavior dimension of dominance and the perceived father behavior variables of affective reward, material reward, principled discipline, physical punishment, social isolation, deprivation of privileges, affective punishment, achievement demands, power, indulgence, intercession, protectiveness, expressive rejection, and neglect.



A significant negative correlation, however, was found between the interpersonal behavior dimension of dominance and the perceived father behavior variable of nurturance. A significant, positive correlation was also found between the interpersonal behavior dimension of love and the perceived father behavior variable of indulgence. Significant negative correlations, however, were found between the interpersonal behavior dimension of love and the father behavior variables of nurturance, principled discipline, and intercession.

Among male drug non-users, significant positive correlations were found between the interpersonal behavior dimension of dominance and the perceived mother behavior variables of principled discipline and indulgence. Significant negative correlations, however, were found between the interpersonal behavior dimension of dominance and the perceived mother behavior variables of parental presence, physical punishment, power, protectiveness, expressive rejection, and neglect. Significant negative correlations were also found between the interpersonal behavior dimension of love and the perceived mother behavior variables of parental absence, affection, affective reward, physical punishment, deprivation of privileges, affective punishment, achievement demands, intercession, protectiveness, expressive rejection, and neglect. In reference to the relationship between the interpersonal behavior and perceived father behavior variables among male drug non-users, significant positive correlations were found between the interpersonal dimension of dominance and the perceived father behavior variables of affection,

material reward, principled discipline, and indulgence. Significant negative correlations, however, were found between the interpersonal behavior dimension of dominance and the perceived father behavior variables of parental absence, power, protectiveness, and expressive rejection. Significant negative correlations were also found between the interpersonal behavior dimension of love and the father behavior variables of parental absence, physical punishment, social isolation, deprivation of privileges, affective punishment, intercession, protectiveness, expressive rejection and neglect.

### Discussion

Discussion of the results obtained in this study focuses on the relationship of findings to previous research on the interpersonal behavior and perceived parental behavior of male drug abusers and non-users. This discussion is presented under the subheadings: descriptive analysis of MMPI profiles, Hypothesis I, Hypothesis II, and exploratory analysis.

#### Descriptive Analysis of MMPI Profiles

Findings resulting from a descriptive analysis of the MMPI (F, K, D, Hy, Sc, and Ma scales) profiles of male drug abusers and non-users in the present study revealed that male drug abusers had significantly higher scores on the F, Hs, D, Pt, and Sc scales than

did a matched group of male non-users. This finding is consistent with the findings of previous research. The Validity (F) scale which measures an individual's attitude of self-criticism and his deliberate or unconscious desire to appear in an unfavorable light was found by Cohen, White and Schoolar (1972) to be significantly higher among drug abusers than among a control group of non-users. In another study, Gilbert and Lombardi (1967) found a group of male narcotic addicts scored significantly higher on the Hypochondriasis (Hs) scale which determines whether one worries about his health or complains about pains and discomforts that appear to have an organic base, than did a group of non-addicted males. In the same study Gilbert and Lombardi (1967) also found male drug addicts scored significantly higher than non-addicted males on the Depression (D) scale which determines whether one has poor morale, feelings of uselessness or an inability to be normally optimistic regarding the future. Furthermore, Kendall and Pittel (1971) in a comparison of the MMPI profiles of past and current hippies in Haight-Asbury with MMPI profiles of young patients hospitalized in the same neighborhood for psychiatric problems associated with drug abuse; and Greaves (1971) in a comparison of the MMPI profiles of hospitalized adolescent drug abusers with MMPI profiles of adolescent non-users found drug abusers scored significantly higher on the Depression (D) scale than non-users. The Psychasthenia (Pt) scale which determines

whether one has phobias or compulsive behavior was also found by Gilbert and Lombardi (1967) to be significantly higher among addicted than among non-addicted males. With regard to the Schizophrenia (Sc) scale which determines whether one has bizarre and unusual thoughts, the above mentioned studies by Pittel and Kendall (1967) and Cohen, White, and Schoolar (1972) as well as a study of LSD abusers and non-users by Smart and Fejer (1969) found drug abusers scored higher on this scale than non-users. Thus, the findings of the present study are in accord with previous findings suggesting that personality problems may be related to drug abuse.

In addition to the significant differences found between male drug abusers and non-users on various MMPI scales, a further finding of this study regarding the Correction Factor (K scale) was also important. Not only was this scale within the normal range ( $\leq 70$ ) for both groups, but they were not significantly different from each other. This means that both groups did not distort their responses in deliberate attempts to make either good or bad impressions.

### Tests of Hypotheses

#### Hypothesis I

Findings under Hypothesis I indicated that there was no significant difference in the scores of male drug abusers and non-users on

the interpersonal behavior dimension of dominance. According to Leary (1957), this interpersonal behavior dimension determines the degree to which a person is assertive and confident in himself as a person. This finding of no difference appears to be in contradiction to previous research studies related to this area. For example, previous research studies indicate that drug abusers have less confidence in themselves as persons (i. e. low self-esteem) than non-users (Rado, 1933; Zimmering et al., 1951; Gerard and Kornetsky, 1954a, b; Ausubel, 1958; Laskowitz, 1961; Bowden, 1971; Paulson, 1969; Davis and Brehm, 1971). Perhaps this finding is in contradiction to previous research findings because the sample size of the present study was too small to obtain an adequate measurement of the differences between the interpersonal behavior dimension of dominance among drug abusers and non-users. Perhaps, also, the Interpersonal Check List is not an effective instrument for measuring the interpersonal behavior dimension of dominance among drug abusers.

Findings under Hypothesis I also indicated that drug abusers scored significantly lower than male non-users on the interpersonal behavior dimension of love. According to Leary (1957) the interpersonal behavior dimension on the Interpersonal Check List determines the degree of affiliative behavior (i. e. friendly, outgoing) among individuals. Since male drug abusers scored significantly

lower on this interpersonal dimension than male non-users, this finding suggests that drug abusers appear to evidence more problems in relating to others than non-users. This finding is similar to findings of previous research which suggest that characteristics such as withdrawal of relationships from others, difficulty in forming warm lasting relationships with others, and isolation from peers and others are related to drug abuse (Knight and Prout, 1951; Zimmering et al., 1951; Gerard and Kornetsky, 1954a, b; Ausubel, 1961; Edwards et al., 1969; Hensala et al., 1967; Mauer, 1970; Sorenson, 1971; Rosenberg, 1971; Cohen et al., 1971; Chapel and Taylor, 1972; Schoolar et al., 1972; Shibuya, 1972).

In addition to the test of hypothesis, a descriptive analysis was undertaken regarding the difference between male drug abusers and non-users in their interpersonal behavior by plotting their dominance and love scores on the Interpersonal Diagnostic Grid of Leary's ICL. Findings resulting from this descriptive analysis indicated that male drug abusers fell largely into Octants three and four of the Diagnostic Grid. Behavior typically ascribed to male drug abusers who fall in Octant three is blunt-aggressive (i. e. sternness, straightforward, critical of others, irritable, hard boiled when necessary, stern but fair, firm but just, cruel and unkind); and the behavior typically ascribed to drug abusers who fall in Octant four is skeptical-distrustful (i. e. can complain, hard to impress, touchy, disappointed,

bitter, resentful, complaining, distrusts everyone). In contrast to male drug abusers, male non-users fell largely into Octant one. Behavior typically ascribed to male non-users who fall into Octant one is managerial-autocratic (i. e. well thought of, able to give orders, likes responsibility, good leader, makes a good impression, admired, respected, manages others, dominating, bossy). This finding suggests that drug abusers appear to evidence more problems in relating to others than non-users. This is similar to findings of previous research which suggest that the characteristic of aggressive, anti-social behavior is related to drug abuse (Gerard and Kornetsky, 1954a; Ausubel, 1961; Edwards et al., 1969; Hensala et al., 1967; Mauer, 1970; Sorenson, 1971; Rosenberg, 1971; Cohen et al., 1971; Chapel and Taylor, 1972; Schoolar et al., 1972; Shibuya, 1972).

## Hypothesis II

Findings obtained under Hypothesis II revealed only one significant difference between male drug abusers and non-users on the perceived parental behavior variables. This significant difference was related to the perceived father behavior variable of parental presence. Differences between male drug abusers and non-users on other perceived parental behavior variables were non-significant. These findings are similar to results obtained by Pittel et al. (1971) who used a questionnaire similar to Bronfenbrenner's Behavior

Questionnaire to study 250 drug abusers from the Haight-Ashbury Community in San Francisco. Pittel et al. (1971) interpreted their results as indicating that the "parental image" perceived by their group of drug abusers "was considerably more positive than might be expected."

The question remains, however, as to why there were no significant differences between male drug abusers and non-users on the perceived parental behavior variables when the literature on drug abuse leads one to the conclusion that the parental behavior of drug abusers is considerably different from the parental behavior of non-users. Perhaps, it is as Pittel et al.'s (1971) study suggests, that it is necessary to look beyond questionnaires and objective tests of perceived parental behavior to the more complex data of the clinical method which attempts to get at the actual parental behavior and attitudes of drug abusers.

### Exploratory Analysis

Due to the fact no significant differences in the interpersonal behavior dimension of dominance and a majority of the perceived parental behavior of male drug abusers and non-users were found in this study, an exploratory analysis was undertaken to illuminate further the differences that may exist between drug abusers and non-users. On the basis of previous research, one would have expected that such differences would exist, therefore the exploratory



analysis focuses upon studying the relationship between interpersonal behavior and perceived parental behavior of male drug abusers and non-users. Table 9 summarizes the significant correlations obtained between the interpersonal behavior and the perceived parental behavior variables of male drug abusers and non-users. Generally, these findings did reveal several differential patterns regarding the relationship between interpersonal behavior and perceived parental behavior among drug abusers and non-users. These differential patterns suggested that:

- (1) More significant correlations between interpersonal behavior and perceived parental behavior were found among male drug abusers than among non-users. Furthermore, a majority of the significant correlations were positive for male drug abusers, while a majority of the significant correlations were negative for non-users. These findings suggest that indeed, differences may exist between male drug abusers and non-users regarding the relationship between their interpersonal behavior and their perceived parental behavior. These findings also suggest that future studies on drug abuse should focus upon the relationships that may exist between interpersonal behavior and perceived parental behavior variables among drug abusers and non-users, rather than exploring these variables separately.
- (2) Among male drug abusers, the perceived parental behavior

Table 9. A Summary of the Significant Correlations Obtained Between the Interpersonal Behavior and Perceived Parental Behavior Among Male Drug Abusers and Non-Users.

Parental Behavior	Interpersonal Behavior					
	Drug Abusers N = 17				Drug Non-Users N = 17	
	Mother Dom.	Mother Love	Father Dom.	Father Love	Mother Dom.	Father Dom.
Parental absence		-.28**			-.44*	-.29**
Parental presence					-.36**	
Affection	.43*				-.28**	.35**
Nurturance	.29**		-.34**	-.31**		
Affiliative companionship	.33**					
Affective reward	.27**	.76*	.28**		-.28**	
Material reward	.40*		.37*			.32**
Principled discipline			.40*	.34**	.33**	.24**
Instrumental companionship	.44*					
Physical punishment	.36**	-.31**	.38*		-.31**	-.48*
Social isolation	.45*		.30**			-.34**
Deprivation of privileges	.49*		.51*		-.31**	-.60*
Affective punishment	.37*		.32**		-.62*	-.50*
Achievement demands	.34**		.44*		-.42*	
Power	.33**		.24**		-.28**	-.24**
Indulgence	.45*		.53*	.28**	.45*	.33**
Intercession	.42*		.43*	-.31**	-.49*	-.29**
Protectiveness	.51*	.24**	.61*		-.29**	-.59*
Expressive rejection	.42*		.48*		-.25**	-.36**
Neglect		-.45*	.48*		-.31**	-.45*

\*  $r = .37$   $p = .01$

\*\*  $r = .23$   $p = .05$

variables were more related to the interpersonal behavior dimension of dominance, rather than of love, while among male drug non-users, the perceived parental behavior variables were more related to the interpersonal behavior dimension of love, rather than of dominance. Since, as indicated previously, the interpersonal behavior dimension of dominance taps aspects of a person's assertiveness and confidence in himself (Leary, 1957), and that previous research studies suggest that low self-esteem is characteristic of the interpersonal behavior of drug abusers (Gerard and Kornetsky, 1954a, b; Ausubel, 1958; Laskowitz, 1961; Paulson, 1969; Bowden, 1971), it seems reasonable that the perceived parental behavior of drug abusers would be related to the interpersonal behavior dimension of dominance. In contrast, since the interpersonal behavior dimension of love taps aspects of affiliative behavior among individuals, and that previous research studies on the parent-child relationships of drug non-users, as compared with drug abusers, are much more affectionate, reveal less conflict, and include more frequent warm interactions between them (Chein, 1956; Chein et al., 1964; Valliant, 1969; Chamberlin, 1969; Gottschalk et al., 1970; Kuehn, 1970; Shetterly, 1971; Chapel and Taylor, 1972), it would seem reasonable that the perceived parental behavior of drug non-users would be

related to their interpersonal behavior dimension of love.

- (3) Among drug abusers the significant positive correlations between the perceived parental behavior variables and the interpersonal behavior dimension of dominance appeared inconsistent with one another. That is, in this relationship both perceived "negative" parental behavior (i. e. expressive rejection, deprivation of privileges, achievement demands, neglect, social isolation, intercession, protectiveness), and perceived "positive" parental behavior (i. e. nurturance, affective reward, affection, principled discipline, affiliative companionship) of male drug abusers were found to be positively related to the interpersonal dimension of dominance. This finding is in support of previous research regarding the parental behavior of drug abusers which has been characterized as ambivalent and inconsistent (Rees and Combs, 1932; Ausubel, 1958; Lawton and Malmquist, 1961; Hirsch, 1961; Valliant, 1969; Nobel and Barnes, 1971; Chapel and Taylor, 1972). This pattern of relationships is in contrast to the findings of male drug non-users, wherein the significant negative correlations between parental behavior variables and the interpersonal behavior dimension of love were more consistent. In this relationship, the significant correlations centered upon the negative relationship between the interpersonal behavior dimension of love and the perceived

"negative" parental behavior (i. e. neglect, expressive rejection, protectiveness, parental absence, social isolation, intercession, physical punishment, deprivation of privileges) of male drug non-users. This finding is in support of previous research findings in this area. As has been indicated in previous research studies, the parent-child relationships among drug non-users, as compared with drug abusers, are more affectionate, reveal less conflicts, and include more warm and frequent interactions between them (Chein et al., 1964; Chein, 1956; Chamberlin, 1969; Valliant, 1969; Kuehn, 1970; Gottschalk et al., 1970; Shetterley, 1971; Chapel and Taylor, 1972).

These significant correlations between interpersonal behavior and perceived parental behavior, as well as the differential patterns of relationships that emerged between these variables among drug abusers and non-users in this study, suggest that this relationship may be important in understanding problems related to drug abuse. These findings suggest that future investigations on drug abuse should consider the relationships that may exist between these variables. Furthermore, in future research studies, the variable of sex of parent should be considered in their analysis, since the findings of the present study while far too complex to organize fully at this time, suggest that both perceived father's and mother's parental behavior to be equally and significantly related to the interpersonal behavior

of drug abusers. This seems to be in contradiction to previous research findings which suggest that mothers of drug abusers are more assertive and dominating, while fathers are more passive and compliant (Ausubel, 1958; Welpton, 1968; Brill and Lieberman, 1969; Kuehn, 1970; Cohen et al., 1972).

### Limitations of the Study

Although steps were taken in the present study to overcome a number of limitations, a variety of problems were encountered which may have been operating individually or in combination to influence the results obtained. These limitations are briefly discussed under the subheadings of the sample, the instruments, and control of variables.

#### Sample

The major limitations encountered in reference to the sample of the present study include: (1) restriction of the sample to males only; (2) restriction of the sample to subjects mainly from the Caucasian race; (3) restriction of the sample to males from a localized area in the United States; and (4) the sample size.

The representation of only male subjects mainly from the Caucasian race and one localized area in the Northwestern United States considerably limits generalization of findings to a larger more

varied population. Furthermore, although subjects in the experimental and control group were matched according to age, sex, and socioeconomic background, inferences from the results must be drawn with caution due to the limited size of the two groups, and the fact that subjects were from a variety of socioeconomic backgrounds.

### Instruments

There are a number of limitations regarding the adequacy of the instruments used in the present study. The BPBQ has a few measures of validity and reliability, and is without the support of a variety of research studies. Furthermore, the BPBQ is a self-report questionnaire which provides a retrospective account of perceived parental behavior as viewed by the subject. The underlying assumption that all respondents were able to recall their childhoods and accurately report their parents' behavior toward them is questionable. The reliability and validity of the MMPI can also be questionable. Even though a considerably large number of reliability and validity tests have been conducted on the MMPI, many of the results of these studies have been contradictory. These limitations may have affected the results of this study, such that inferences drawn from them must be taken with caution.

In addition to these limitations, several problems were revealed during the administration of the MMPI and the BPBQ to the

control group subjects. Some of the individuals who agreed to participate in the study were unable to finish the test because it took longer than the suggested time. A number of subjects who completed the test also expressed the feeling that testing was too long. Others expressed that they felt a number of the statements in the MMPI were ambiguous and that it was difficult to respond to many of the statements as they applied only partially to their personality rather than being totally true or false statements about themselves. In light of these problems, the results of this study must be viewed with the recognition that the aspects discussed above could have affected the responses of subjects in varied unknown ways.

### Control of Variables

A variety of environmental variables that may have been pertinent to the present study were left uncontrolled. These include: ordinal position, sibling status, family structure, and family size. Studies found in the literature on drug abuse have not attempted to control for these variables, but there is considerable evidence throughout research in general that these variables may be related to interpersonal behavior and parental behavior.

Other variables pertinent to research on drug abuse that have been left uncontrolled include: drug abuse by family members, contributory socio-cultural factors, and an insurmountable number



of parental behavior variables that are beyond the scope of this study.

Furthermore, the fact that the subjects in this study were not all tested by the same administrator nor in the same setting may also have influenced their responses in the questionnaire. Also, the fact that in order to obtain a sample of drug non-users, it was necessary to rely on the subjects' willingness to fill out a checklist concerning their drug use. Perhaps, because of the fear some individuals may have about reporting their use of drugs, individuals included in this group may not be truly non-users.

All these problems, encountered in this research study, therefore, place severe limitations on the interpretations of the results obtained and the generalizations made.

### Suggestions for Further Research

On the basis of the results and limitations of this study, suggestions can be made for further research.

First, the exploratory study of the relationship between interpersonal behavior and parental behavior variables among male drug abusers and non-users conducted in this research strongly suggests that research problems should be formulated and hypotheses developed to further investigate the contribution of these factors to drug abuse.

Secondly, the research design of the present study could be

changed if the same hypotheses were again tested. The experimental group subjects could be selected from a variety of drug abuse treatment centers; and control group subjects could be selected from a greater variety of college populations as well as from non-college populations. In addition, both the Minnesota Multiphasic Personality Inventory and the entire Interpersonal Check List could be administered. The utilization of all the MMPI scales may contribute more to the understanding of the interpersonal behaviors of dominance and love on the ICL Level I than do just the eight scales required for measuring these two dimensions. The administration of the entire ICL would also provide a measure of the subject's view of himself and the world (conscious descriptions), his autistic projective fantasy productions (pre-conscious symbolizations), and his statements about his interpersonal ideas, standards, and conceptions of good and evil. Additional information regarding parental behavior either through interviews with parents and/or children, and observations of the family in a natural setting or a structured situation would provide a sounder basis upon which to evaluate parental behavior toward their children, rather than using only a self-report questionnaire.

In regards to the Background Information Sheet, a wealth of data collected on these sheets provides numerous opportunities for further exploration. Since a number of potential subjects that were tested indicated on their Background Information Sheets they are

or have used drugs according to how often they used them, further study could be done to determine whether there is any difference in the interpersonal behavior and parental behavior of heavy, moderate, or light users of drugs. An additional analysis of the effect of parental marital status on the interpersonal behavior and perceived parental behavior among drug abusers and non-users is another research possibility, since information regarding parental marital status was also obtained on the Background Information Sheet.

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## APPENDICES

APPENDIX A  
THE MMPI: A REVIEW

M MPI	Variable	Description
?	Cannot say category	Includes items which subject can answer neither true or false.
L	Lie factor	Falsify scores by choosing most socially acceptable responses.
F	Validity	Check on validity of test-rationale and pertinent responses, did subject understand test items.
K	Correction Factor	Acts as suppressor variable to increase discriminatory power of five clinical scales.
Hs	Hypochondriasis	Amount of abnormal concern about bodily functions.
D	Depression	Depth of clinically recognized symptom complex, depression.
Hy	Hysteria	Conversion-type hysteria symptoms.
Pd	Psychopathic Deviate	Absence of deep emotional response, inability to profit from experience, disregard of social mores.
Mf	Masculinity-Femininity	Tendency towards masculine or feminine interests.
Pa	Paranoia	Suspiciousness, over-sensitivity delusions of persecution.
Pt	Psychasthenia	Phobia of compulsive behavior.
Sc	Schizophrenia	Bizarre and unusual thoughts of behavior.
Ma	Hypomania	Marked over-productivity in thought and action.

From: William C. Cottle, The MMPI, a review.



## APPENDIX B

## Bronfenbrenner's Parental Behavior Questionnaire

## Parent Behavior Variables and Items Included in Them.

<u>Variable</u>	<u>Items Included</u>
Social isolation	1, 11, 21, 31, 41
Nurturance	2, 12, 22, 32, 42
Parental presence	3, 13, 23, 33, 43
Instrumental companionship	4, 14, 24, 34, 44
Protectiveness	5, 15, 25, 35, 45
Power	6, 16, 26, 36, 46
Expressive rejection	7, 17, 27, 37, 47
Intercession	8, 18, 28, 38, 48
Physical Punishment	9, 19, 29, 39, 49
Affective reward	10, 20, 30, 40, 50
Deprivation of privilege	51, 61, 71, 81, 91
Affection	52, 62, 72, 82, 92
Parental absence	53, 63, 73, 83, 93
Achievement demands	54, 64, 74, 84, 94
Indulgence	55, 65, 75, 85, 95
Principled discipline	56, 66, 76, 86, 96
Affective punishment	57, 67, 77, 87, 97
Affiliative companionship	58, 68, 78, 88, 98
Neglect	59, 69, 79, 89, 99
Material reward	60, 70, 80, 90, 100

## BRONFENBRENNER'S PARENTAL BEHAVIOR QUESTIONNAIRE

We are interested in how parents act toward their children. Read each item and then indicate to what extent it applies to each parent's treatment of you as you were growing up. Please use the following scale:

- 0 definitely does not apply, something this parent would never do.
- 1 applies only a little, happened only occasionally.
- 2 applies fairly well, happened fairly often but not regularly.
- 3 applies well, a usual thing with this parent.
- 4 applies strongly, outstanding in this parent.

Put a circle around the rating that applies to each parent. Notice that the father is rated first.

Do not give the same rating to each parent unless they are really both the same. We are particularly interested in how one parent differs from the other. Be sure to circle a rating for each parent on every item - first father, then mother.

FATHER	MOTHER	
0 1 2 3 4	0 1 2 3 4	1. Punished me by sending me out of the room.
0 1 2 3 4	0 1 2 3 4	2. Took care of me when I was sick.
0 1 2 3 4	0 1 2 3 4	3. Home for lunch.
0 1 2 3 4	0 1 2 3 4	4. Took part in activities and projects with me.
0 1 2 3 4	0 1 2 3 4	5. Wouldn't let me go places because something might happen to me.
0 1 2 3 4	0 1 2 3 4	6. Decided how late I could stay out.
0 1 2 3 4	0 1 2 3 4	7. Nagged, scolded, or yelled at me.
0 1 2 3 4	0 1 2 3 4	8. Got my punishments cut down or eliminated.
0 1 2 3 4	0 1 2 3 4	9. Slapped me.
0 1 2 3 4	0 1 2 3 4	10. Rewarded good behavior by hugging and kissing.
0 1 2 3 4	0 1 2 3 4	11. Punished me by not allowing me to be with my friends.
0 1 2 3 4	0 1 2 3 4	12. I felt free to talk to them about my problems.
0 1 2 3 4	0 1 2 3 4	13. Spent weekend with family and children.
0 1 2 3 4	0 1 2 3 4	14. Taught me skills I wanted to learn.
0 1 2 3 4	0 1 2 3 4	15. Wouldn't let me try things if there was any chance I would fail.
0 1 2 3 4	0 1 2 3 4	16. Decided how much spending money I could have.
0 1 2 3 4	0 1 2 3 4	17. Ridiculed and made fun of me.
0 1 2 3 4	0 1 2 3 4	18. Got other family members to give me what I wanted.

FATHER	MOTHER	
0 1 2 3 4	0 1 2 3 4	19. Spanked me.
0 1 2 3 4	0 1 2 3 4	20. Rewarded good behavior by praising me.
0 1 2 3 4	0 1 2 3 4	21. Punished me by locking me up.
0 1 2 3 4	0 1 2 3 4	22. Consolated me and helped me when I was in trouble.
0 1 2 3 4	0 1 2 3 4	23. Home all day with family and children.
0 1 2 3 4	0 1 2 3 4	24. Helped me make things.
0 1 2 3 4	0 1 2 3 4	25. Didn't want me to grow up.
0 1 2 3 4	0 1 2 3 4	26. Decided what friends I could go around with.
0 1 2 3 4	0 1 2 3 4	27. Complained about me.
0 1 2 3 4	0 1 2 3 4	28. Got the other parent to do things with me.
0 1 2 3 4	0 1 2 3 4	29. Threatened physical punishment.
0 1 2 3 4	0 1 2 3 4	30. Rewarded good behavior by doing special favors for me.
0 1 2 3 4	0 1 2 3 4	31. Punished me by ignoring me until I was good again.
0 1 2 3 4	0 1 2 3 4	32. Protected me from teasing or bullying by other children.
0 1 2 3 4	0 1 2 3 4	33. Home afternoons when children came home from school.
0 1 2 3 4	0 1 2 3 4	34. Competed with me in games or skills.
0 1 2 3 4	0 1 2 3 4	35. Worried that I couldn't take care of myself.
0 1 2 3 4	0 1 2 3 4	36. Decided what shows, movies, or parties I could go to.
0 1 2 3 4	0 1 2 3 4	37. Compared me unfavorably to other children.
0 1 2 3 4	0 1 2 3 4	38. Tried to make things easier for me by talking with my teachers.
0 1 2 3 4	0 1 2 3 4	39. Hit me with switch, stick, fist, or belt.
0 1 2 3 4	0 1 2 3 4	40. Used love to reward good behavior.
0 1 2 3 4	0 1 2 3 4	41. Punished me by sending me to bed.
0 1 2 3 4	0 1 2 3 4	42. Made me feel they would always be there.
0 1 2 3 4	0 1 2 3 4	43. Had breakfast with family and children.
0 1 2 3 4	0 1 2 3 4	44. Helped me with homework or lessons.
0 1 2 3 4	0 1 2 3 4	45. Went along with me to make sure that everything would be okay.
0 1 2 3 4	0 1 2 3 4	46. Decided on what music lessons, camp, or after-school activities I could have.
0 1 2 3 4	0 1 2 3 4	47. Went out of the way to hurt my feelings.
0 1 2 3 4	0 1 2 3 4	48. Stuck up for me in family arguments.
0 1 2 3 4	0 1 2 3 4	49. Cursed at me.

FATHER	MOTHER	
0 1 2 3 4	0 1 2 3 4	50. Was proud of me when I was good.
0 1 2 3 4	0 1 2 3 4	51. Punished me by taking away gold stars or allowance.
0 1 2 3 4	0 1 2 3 4	52. Hugged and kissed me.
0 1 2 3 4	0 1 2 3 4	53. Away from home and children for weeks and months at a time.
0 1 2 3 4	0 1 2 3 4	54. Pushed me to do well in school.
0 1 2 3 4	0 1 2 3 4	56. Always followed through when they said something.
0 1 2 3 4	0 1 2 3 4	57. Punished me by holding back affection or friendship.
0 1 2 3 4	0 1 2 3 4	58. Spent a lot of time with me, just being together.
0 1 2 3 4	0 1 2 3 4	59. Acted as if I didn't exist.
0 1 2 3 4	0 1 2 3 4	60. Rewarded me for doing well by giving me special privileges.
0 1 2 3 4	0 1 2 3 4	61. Punished me by taking away privileges.
0 1 2 3 4	0 1 2 3 4	62. Talked to me in a warm and affectionate way.
0 1 2 3 4	0 1 2 3 4	63. Away from home and children on weekends.
0 1 2 3 4	0 1 2 3 4	64. Pushed me to be best in everything I do.
0 1 2 3 4	0 1 2 3 4	65. Excused bad behavior on the grounds that I was too young.
0 1 2 3 4	0 1 2 3 4	66. Reasoned with me.
0 1 2 3 4	0 1 2 3 4	67. Punished me by trying to make me feel guilty or ashamed.
0 1 2 3 4	0 1 2 3 4	68. Went with me to movies, shows and other entertainment.
0 1 2 3 4	0 1 2 3 4	69. Avoided my company.
0 1 2 3 4	0 1 2 3 4	70. Rewarded me for doing well by giving me money.
0 1 2 3 4	0 1 2 3 4	71. Punished me by taking away my favorite possessions.
0 1 2 3 4	0 1 2 3 4	72. Called me pet names.
0 1 2 3 4	0 1 2 3 4	73. Out in the evening at least three times a week.
0 1 2 3 4	0 1 2 3 4	74. Pushed me to take part in competitions and contests.
0 1 2 3 4	0 1 2 3 4	75. Let me off easy when I did something wrong.
0 1 2 3 4	0 1 2 3 4	76. Apologized if they treated me unfairly.

FATHER	MOTHER	
0 1 2 3 4	0 1 2 3 4	77. Punished me by acting hurt or disappointed.
0 1 2 3 4	0 1 2 3 4	78. Read to me or told me stories.
0 1 2 3 4	0 1 2 3 4	79. Forgot my birthday.
0 1 2 3 4	0 1 2 3 4	80. Rewarded me for doing well by giving me gold stars or prizes.
0 1 2 3 4	0 1 2 3 4	81. Punished me by not allowing me to go out.
0 1 2 3 4	0 1 2 3 4	82. Kept doing nice things for me.
0 1 2 3 4	0 1 2 3 4	83. Missed supper with children at least two nights a week.
0 1 2 3 4	0 1 2 3 4	84. Pushed me to be a leader.
0 1 2 3 4	0 1 2 3 4	85. I could get anything I wanted out of them.
0 1 2 3 4	0 1 2 3 4	86. If they wanted me to do something, always explained why.
0 1 2 3 4	0 1 2 3 4	87. Got me to do things by saying or implying that I didn't love them.
0 1 2 3 4	0 1 2 3 4	88. Had regular playtimes with me.
0 1 2 3 4	0 1 2 3 4	89. Kept forgetting things they were supposed to do for me.
0 1 2 3 4	0 1 2 3 4	90. Rewarded me for doing well by giving me gifts.
0 1 2 3 4	0 1 2 3 4	91. Punished me by making me do work.
0 1 2 3 4	0 1 2 3 4	92. Said nice things about me.
0 1 2 3 4	0 1 2 3 4	93. Away from home for days at a time.
0 1 2 3 4	0 1 2 3 4	94. Pushed me to act like an adult.
0 1 2 3 4	0 1 2 3 4	95. Couldn't say NO to me.
0 1 2 3 4	0 1 2 3 4	96. Always fair in punishing me.
0 1 2 3 4	0 1 2 3 4	97. Punished me by making me feel like a baby.
0 1 2 3 4	0 1 2 3 4	98. Liked to have me around.
0 1 2 3 4	0 1 2 3 4	99. Paid no attention to me.
0 1 2 3 4	0 1 2 3 4	100. Rewarded me for doing well by letting me go to movies, shows, parties, or other special events.

## APPENDIX C

Staff Members  
Drug Treatment Center  
Alcohol and Drug Section  
Oregon State Department of Mental Health  
309 Northwest Fourth  
Portland, Oregon

Dear Staff Members:

Presently I am a candidate for a Master of Science degree in the Department of Family Life at Oregon State University, Corvallis, Oregon. For my thesis I have selected to compare the interpersonal behavior and perceived parental behavior variables among male drug abusers and non-users. The research hypotheses are as follows:

1. There will be no significant difference between the interpersonal behavior of male drug abusers and non-users.
2. With respect to sex of parents there will be no significant difference between the perceived parental behavior of male drug abusers and non-users.

Leary's Interpersonal Check List Level I utilizing eight scale scores of the Minnesota Multiphasic Personality Inventory and Bronfenbrenner's Parental Behavior Questionnaire will be used to collect the data. MMPI scores of the subjects will be obtained from the case files. Only Bronfenbrenner's Parental Behavior Questionnaire needs to be administered to the subjects.

Enclosed with this letter are procedures for administering Bronfenbrenner's Parental Behavior Questionnaire to the subjects.

Upon completion of the study, I will send to each of you a compilation of the data collected and an abstract of the study. A complete copy of the thesis will also be sent to the main office at the Drug Treatment Center.

If you have any questions regarding the study please feel free to contact me. My phone number is 644-3687.

Thank you for your cooperation.

Sincerely yours,

Mrs. Verne Melberg

Procedures for Administering the Bronfenbrenner Parental Behavior Questionnaire to the Subjects:

1. Bronfenbrenner Parental Behavior Questionnaires for your clients who are to participate in the study are placed in a manila folder.
2. Each client's code number is placed on a questionnaire.
3. Administer the Bronfenbrenner Parental Behavior Questionnaire at your convenience.
4. Instructions for administering the questionnaire are found on each copy of the questionnaire.
5. When all questionnaires are completed, please turn in the questionnaires and the manila folder to the office secretary.

APPENDIX D  
BACKGROUND INFORMATION  
Experimental Group

In order to obtain experimental and control group subjects for this study it will be necessary to attain from the case files of young people who were administered the MMPI upon admission to the clinic and who are still in therapy, the information below. It will be held in strictest confidence. In no way will names be connected to the information.

Code number \_\_\_\_\_.

Age \_\_\_\_\_ Sex \_\_\_\_\_

Marital Status \_\_\_\_\_

Occupation of father \_\_\_\_\_

Occupation of mother \_\_\_\_\_

Your ordinal position in the family (number of the position--first born, second, etc.) \_\_\_\_\_

Parent's marital status: Length of marriage \_\_\_\_\_

Currently married \_\_\_\_\_ Divorced \_\_\_\_\_

Separated \_\_\_\_\_ Remarried \_\_\_\_\_

Widowed \_\_\_\_\_ When? \_\_\_\_\_

Ethnic background: Caucasian \_\_\_\_\_ Mexican \_\_\_\_\_

American Indian \_\_\_\_\_ Black \_\_\_\_\_

Oriental \_\_\_\_\_



APPENDIX E  
BACKGROUND INFORMATION

Control Group

In order to obtain experimental and control group subjects that are matched in age, sex, ordinal position, family status, and socio-economic background, it will be necessary for you to fill out all the information below. It will be held in strictest confidence. In no way will your name be connected with the information. Please read and follow the directions carefully.

Code number \_\_\_\_\_

Age \_\_\_\_\_ Sex \_\_\_\_\_

Marital Status \_\_\_\_\_

Occupation of father \_\_\_\_\_

Occupation of mother \_\_\_\_\_

Your ordinal position in the family (number of the position--first born, second, etc.) \_\_\_\_\_

Parent's marital status: Length of marriage \_\_\_\_\_

Currently married \_\_\_\_\_ Divorced \_\_\_\_\_

Separated \_\_\_\_\_ Remarried \_\_\_\_\_

Widowed \_\_\_\_\_ When? \_\_\_\_\_

Ethnic background: Caucasian \_\_\_\_\_ Mexican \_\_\_\_\_

American Indian \_\_\_\_\_ Black \_\_\_\_\_

Oriental \_\_\_\_\_

In order to obtain a control group whose drug use differs substantially from the subjects in this study, it will also be necessary for you to fill out the information below. It will be held in strictest confidence, and in no way will your name be connected with the information. Drugs taken that are prescribed by a qualified physician should not be included in your response. Check (✓) the substances you now use according to how often you use them.

SUBSTANCE	NEVER	DAILY	WEEKLY	MONTHLY	RARELY
marihuana					
hashish					
hallucinogens (which)					
LSD					
_____					
_____					
amphetamines (which)					
_____					
_____					
opiates (which)					
heroin					
_____					
_____					
inhalants					
_____					
_____					
others (which)					
_____					
_____					

If you are not now using drugs but have done so in the past, indicate by an asterisk (\*) in the chart above the substances you used according to how often you used them.

# APPENDIX F

Revised scale for rating occupation.

Rating Assigned to Occupation	Professionals	Proprietors and Managers	Business Men	Clerks and Kindred Workers, etc.	Manual Workers	Protective and Service Workers	Farmers
1	Lawyers, doctors, dentists, engineers, judges, high-school superintendents, veterinarians, ministers (graduated from divinity school), chemists, etc. with post-graduate training, architects	Businesses valued at \$75,000 and over	Regional and divisional managers of large financial and industrial enterprises	Certified Public Accountants			Gentleman farmers
2	High-school teachers, trained nurses, chiropractists, chiropractors, undertakers, ministers (some training), newspaper editors, librarians (graduate)	Businesses valued at \$20,000 to \$75,000	Assistant managers and office and department managers of large businesses, assistants to executives, etc.	Accountants, salesmen of real estate, of insurance, postmasters			Large farm owners, farm owners
3	Social workers, grade-school teachers, optometrists, librarians (not graduate), undertaker's assistants, ministers (no training)	Businesses valued at \$5,000 to \$20,000	All minor officials of businesses	Auto salesmen, bank clerks and cashiers, postal clerks, secretaries to executives, supervisors of railroad, telephone, etc., justices of the peace	Contractors		
4		Businesses valued at \$2,000 to \$5,000		Stenographers, bookkeepers, rural mail clerks, railroad ticket agents, sales people in dry goods store, etc.	Factory foremen electricians ) plumbers ) own business carpenters ) watchmakers)	Dry cleaners, butchers, sheriffs, railroad engineers and conductors	
5		Businesses valued at \$500 to \$2,000		Dime store clerks, hardware salesmen, beauty operators, telephone operators	Carpenters, plumbers, electricians (apprentice), time-keepers, linemen, telephone or telegraph, radio repairmen, medium-skill workers	Barbers, firemen, butcher's apprentices, practical nurses, policemen, seamstresses, cooks in restaurant, bartenders	Tenant farmers
6		Businesses valued at less than \$500			Moulders, semi-skilled workers, assistants to carpenter, etc.	Baggage men, night policemen and watchmen, taxi and truck drivers, gas station attendants, waitresses in restaurant	Small tenant farmers
7					Heavy labor, migrant work, odd-job men, miners	Janitors, scrubwomen, newsboys	Migrant farm laborers

APPENDIX G  
Description of Subjects in the Total Sample by Age,  
Occupation and Socioeconomic Status

Experimental Group			Control Group		
Age	Occupation	SES	Age	Occupation	SES
25	teacher	2	25	pharmacist	2
23	corporation sales manager	2	23	plastics engineer and inventor	2
23	chef	4	23	bookkeeper	4
22	engineer	2	22	teacher	2
22	operator's coordinator (airport)	3	22	transportation	3
21	service technician	4	21	project delivery	4
21	sales clerk	4	21	orchardist bus driver	4
21	landscaping	6	21	auctioneer	6
20	computer business	2	20	teacher	2
20	salesman	3	20	farmer-nursery	3
20	asbestos worker	6	20	truck driver	6
19	real estate	2	19	teacher	2
19	construction foreman	4	19	alcoa extrusion	4
18	insurance agent	2	18	pharmacist	2
18	hotel manager	2	18	G. E. engineer	2
18	janitor	7	18	mill worker	7
17	on welfare	7	17	plywood worker	7