A GUTTMAN FACET ANALYSIS OF ATTITUDE-BEHAVIORS TOWARD DRUG USERS BY HEROIN ADDICTS AND MENTAL HEALTH THERAPISTS

Thesis for the Degree of Ph. D.
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This is to certify that the

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A GUTTMAN FACET ANALYSIS OF ATTITUDE-BEHAVIORS
TOWARD DRUG USERS BY HEROIN ADDICTS
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presented by

William N. Nicholson

has been accepted towards fulfillment
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John E Jordan
Major professor

Date November 5, 1971

ABSTRACT

A GUTTMAN FACET ANALYSIS OF ATTITUDE-BEHAVIORS TOWARD ILLEGAL DRUG USERS BY HEROIN ADDICTS AND MENTAL HEALTH THERAPISTS

By

William N. Nicholson

Statement of the Problem

The growing abuse of drugs and the need to more fully understand the illegal drug user prompted the interest in researching attitude-behaviors toward illegal drug users. This study constituted part of a comprehensive effort[1] to research attitude-behaviors toward the illegal drug user and to search for causes, determinants and/or correlates of drug abuse and dependency in the United States.

This particular study was concerned with two principal groups, the heroin dependent person, with his attitude-behaviors toward himself, others, and fellow drug users, and mental health therapists, both professional and paraprofessional. Heroin addicts were selected because

[1]The larger international study of attitude-behaviors toward drug use and drug users is under the direction of Dr. John E. Jordan, College of Education, Michigan State University, East Lansing, Michigan, 48823.

they represented individuals with the most serious illegal drug problem. Mental health therapists were selected because they have been given the responsibility of treating the illegal drug user and attempting to change his behavior.

Methodology

The Attitude Behavior Scale: Drug Users (ABS:DU) was constructed according to considerations of Guttman's facet theory of attitude-behavior structure which specifies that an attitude-behavior universe can be sub-structured into attitude-behavior Levels which are systematically related according to the number of identical conceptual elements they hold in common. Attitude was operationally defined as "a delimited totality of behavior with respect to something" (Guttman, 1950).

Utilizing the Guttman-Jordan (1968) paradigm of a five facet--six Level structure, the ABS:DU was developed to measure six Levels of attitude-behavior: Societal Stereotype, Societal Norm, Personal Moral Evaluation, Personal Hypothetical Action, Personal Feeling, and Personal Action. The ABS:DU scales according to a specific statistical structure which provides not only multidimensional measurement, but also a means of assessing construct validity.

The content of the ABS:DU was also selected according to facet theory resulting in five additional facets:

(a) causes of illegal drug use, (b) characteristics of illegal drug use, (c) reasons for treatment, (d) types of treatment, and (e) consequences of illegal drug use. The scale consisted of 240 items plus a "personal data questionnaire" of 40 items to gather data in four areas: demographic, sociopsychological, political activism, and contact with illegal drug users.

The ABS:DU was administered to a total of 254 subjects, of which 177 were heroin dependent persons and 77 were mental health therapists. The heroin addicts were selected according to four categories: heroin addicts incarcerated--no treatment, heroin addicts on methadone maintenance, heroin addicts in NARA II treatment, and heroin addicts in NARA I and III treatment. Subjects were obtained from county jails, methadone maintenance clinics, a federal prison, and the NIMH Clinical Research Center at Lexington, Kentucky. Therapists were selected according to two categories: professional and paraprofessional.

Results

The results indicated that the ABS:DU did provide six measures as hypothesized (i.e., simplex approximation) with internal consistency reliability figures in the .80's and .90's. Significant differences were found between the six research categories on the six Levels. Predictor

variables (demographic, sociopsychological, political activism, and contact) taken independently were not found to be significantly related to the six measures of attitude-behavior, indicating that perhaps groups of variables are operative in determining attitude-behaviors toward illegal drug users.

Incarcerated heroin addicts who were receiving no treatment were consistently different from the other addict categories on all six Levels, while the addicts in the NARA programs had very similar attitude-behaviors to those of their therapists. Paraprofessionals scored very similar to professionals when they were working together, but closer to the addicts when they were not associated with professionals.

Certain content items were analyzed to demonstrate the varied use of the ABS:DU and to offer clinical data to the therapist and program developer. For example, it was found that 72-90 per cent of the addicts reported that ex-addict therapists were the best help for the addicts, while only 51 per cent of the professionals agreed with this, and a surprising 35 per cent of the paraprofessionals, many of whom were ex-addicts, agreed with this.

The multidimensional nature of the ABS:DU was repeatedly demonstrated. Recommendations for future research and clinical use are listed.

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By

William N. Nicholson

A THESIS

Submitted to
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DOCTOR OF PHILOSOPHY

Department of Counseling, Personnel Services,
and Educational Psychology

College of Education

1972

The drug world serves as a barometer of human society--an indicator of underlying social illness and a warning of existing and approaching social storm. The storm is mounting.

Joel Fort
(in R. H. Blum, Society and Drugs, 1969)

DEDICATION

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PREFACE

This study is one in a series, jointly designed by several investigators, as an example of the "project" approach to graduate research. A common use of instrumentation and theoretical material, as well as technical and analyses procedures, was both necessary and desirable.

The authors, therefore, collaborated in many aspects although the data and certain design, procedural, and analysis methods were different in each study (Kaple, 1971). The interpretations of the data in each study are those of the author.

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ACKNOWLEDGMENTS

I am deeply grateful to many people for their invaluable assistance not only in collecting and processing the data, but also in conceptualizing and designing this research project. I am especially grateful to Dr. John E. Jordan, my major advisor, whose constant encouragement and assistance were a tremendous source of help.

I am grateful to Dr. William Hinds, Dr. Dale Alam, and Dr. Ronald Jordan for their assistance as members of my doctoral committee. I am also grateful to Dr. Arnold Werner of the MSU Department of Psychiatry for his contribution to this study.

I am indebted to Mr. R. E. Kious of the Detroit-Wayne County Department of Health, Dr. Robert Jones of the NIMH Clinical Research Center at Lexington, Kentucky, Mr. Thomas Updike and Dr. Eugene Friesen of Eaton-Ingham-Clinton Community Mental Health Services, Mr. Arnie Swartz of the Federal Correctional Institution at Milan, Michigan, and Mr. Robert Townley, formerly of the methadone maintenance program in Detroit, for their assistance in obtaining the sample.

I am particularly grateful to my fellow student, James Kaple, for his insight into the application of

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Guttman scaling and his assistance in many aspects of the study. My thanks also goes to Geoffery Yager who served as statistical consultant and Daniel Seyb who served as computer programmer.

My greatest thanks goes to my wife Nancy for her constant love and encouragement and her patience during the years of my doctoral study.

This research was supported in part by training grant number 20-T-69-70 from the Rehabilitation Services Administration, Department of Health, Education, and Welfare, Washington, D.C.

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CHAPTER I

INTRODUCTION

The growing abuse of drugs is one of the major challenges facing society today. Countless books and articles have been written in the last few years describing detrimental effects that drugs and drug abusers are having on our society. The public is now gripped with a sense of alarm concerning the epidemic proportions of illegal drug use particularly by the youth of this country. Why are young people turning to drugs in such alarming proportions? How dangerous are the various drugs? Can drug users be helped once they are hooked? What can be done to prevent further spread of this drug-using epidemic?

Extent of Drug Abuse

International efforts to curb the non-medical uses of opium, its derivatives, and more recently, synthetic opiods, began with the Hague International Opium Convention of 1912, which was followed by the Geneva Convention of 1925 and subsequent conventions and protocols in 1931, 1936, and 1948. These international agreements, monitored by various bodies provide for limitation of production, importation, and exportation of opium, coca leaves, and

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cannabis products, and control of the manufacture, sale, and dispensation of opiods with significant physical dependence-producing properties. The various international bodies include the Permanent Central Opium Board, the Drug Supervisory Body, the Commission on Narcotic Drugs of the United Nations Economic and Social Council, the Expert Committee on Addiction-Producing Drugs of the World Health Organization, and the Division of Narcotic Drugs of the United Nations.

In 1962 a White House Conference on Narcotic and Drug Abuse was convened in recognition of the fact that drug traffic and abuse were growing and critical national concerns. Following this the President's Advisory Commission on Narcotic and Drug Abuse was created in 1963, and in 1967 the Task Force Report: Narcotics and Drug Abuse was published focusing on the most recent information on the problem of drug abuse and the recommendations of the presidential commission.

In Michigan a House Special Committee on Narcotics was created in 1967 by the state legislature. New proposals were made in 1969 calling for a critical health problem education program, flexibility to judges in sentencing those convicted of narcotics charges, and the establishment of a drug abuse and drug dependency program within the State Department of Public Health. In the spring of 1971, Governor William Milliken of Michigan

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called on the state legislature to enact new bills for the prevention, education, treatment, and control of drug abuse. Locally, the Ingham-Eaton-Clinton Counties Mental Health Board has initiated a new drug treatment program to combat the spread of heroin and rehabilitate current drug addicts.

The problem of drug use and abuse is not new, but in our nation it is becoming more and more widespread. It is present in large cities, small towns, and rural areas. It is not limited to people of any particular area, age group, environment, or level of income. "There is a growing body of evidence that children in elementary school, even as young as seven years old, are finding access to abusive substance" (A Teacher Resource Guide for Drug Use and Abuse for Michigan Schools, 1970).

Possibly the single most startling problem in this country is the rapid drop in age level of people experimenting with marijuana and other drugs. However, the declining age level is merely one part of the ever-increasing problem. According to several recent articles concerning the drug scene, one of every 200 Americans is taking, or has taken, illegal drugs--from marijuana to the hard narcotics such as heroin. Based on conservative estimates, Americans are paying from $300 million to $400 million a year for illegal drugs.

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In Detroit alone, heroin addicts spend more than $16 million a year for the drug, most of the money being obtained through constant criminal activities. The special publication of the Detroit Free Press (1969) estimated the number of heroin addicts there to be 100,000.

A recent Gallup poll (Dec., 1970) surveying college students on 61 campuses revealed that 42 per cent said they had tried marijuana (almost double the 1969 figure of 22 per cent and more than eight times the 5 per cent recorded in 1967). LSD was reported to be used by 14 per cent as compared to 4 per cent in 1969 and 1 per cent in 1967. Comparable figures were obtained for barbiturate and amphetamine use.

According to the 1970 Comprehensive Law Enforcement and Criminal Justice Plan of Michigan, one heroin addict on the street costs a city $10,500. Should the addict be arrested, additional estimated costs of $16,800 in jail, legal and court costs are introduced for a total of $27,300 per year, attributed to one heroin addict.

> More than one-half the known heroin addicts are in New York. Most of the others are in California, Illinois, Michigan, New Jersey, Maryland, Pennsylvania, Texas, and the District of Columbia. In the states where heroin addiction exists on a large scale, it is an urban problem. Within the cities it is largely found in areas with low average incomes, poor housing, and high delinquency. The addict himself is likely to be male, between the ages of 21 and 30, poorly educated and unskilled, and a member of a disadvantaged ethnic minority group (Task Force Report: Narcotics and Drug Abuse 1967).

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The United States Army is finding that an alarming 10 to 15 per cent of its troops in Viet Nam have developed a heroin habit. That represents from 26,000 to 39,000 American soldiers. Some estimates are even higher--20 per cent or more, which means upwards to 50,000 G.I. addicts. Representative Robert H. Steele of the House Foreign Affairs Committee made this chilling observation, "The soldier going to South Viet Nam today runs a far greater risk of becoming a heroin addict than a combat casualty" (Time, June 7, 1971). President Nixon declared on June 1, 1971, that a new government agency to combat the narcotics crisis in the military and to provide treatment programs for G.I. addicts returning home from Viet Nam would be established.

Heroin occupies a special place in the narcotics laws. It is an illegal drug in the sense that it may not be lawfully imported or manufactured under any circumstances, and it is not available for use in medical practice. All the heroin that reaches the American user is smuggled into the country from abroad, the Middle East being the reputed primary point of origin. All heroin transactions, and any possession of heroin, are therefore criminal. This is not because heroin has evil properties not shared by the other opiates. Indeed, while it is more potent and somewhat more rapid in its action, heroin does not differ in any significant pharmacological effect

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from morphine. It would appear that heroin is outlawed because of its special attractiveness to addicts and because it serves no known medical purpose not served as well or better by other drugs (Vaillant, 1966).

Drug Abuse and Crime

Addiction itself is not a crime (Task Force Report: Narcotics and Drug Abuse). It never has been under Federal law, and a state law making it one was struck down as unconstitutional by the 1962 decision of the Supreme Court in Robinson v. California. It does not follow, however, that a state of addiction can be maintained without running afoul of the criminal law. On the contrary, the involvement of an addict with the police is almost inevitable.

Thus, the addict lives in almost perpetual violation of one or several criminal laws, and this gives him a special status not shared by other criminal offenders. Together with the fact that he must have continuous contact with other people in order to obtain drugs, it also gives him a special exposure to police action and arrest, and, in areas where the addiction rate is high, a special place in police statistics and crime rate computation.

In the state of Michigan arrests for possession of narcotics and dangerous drugs were up 110 per cent in 1969 over 1968. This is particularly alarming when in 1968 the Federal Bureau of Narcotics and Dangerous Drugs ranked

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Michigan fifth in the United States for opiate drug arrests. Arrests for selling were up 48 per cent, with a 79-1/2 per cent increase in heroin cases. There was an increase of 98 per cent in arrests of persons under twenty-one years of age, and 111 per cent of persons over twenty-one.

Local statistics are similarly alarming. In 1969, 222 arrests were made in the Lansing area for sale of narcotics, 820 arrests for possession, and 66 arrests for use. With regard to sex, 972 were males and 121 females. Persons arrested in the age bracket of 17 to 21 totaled 603. Of those arrested for possession, sale or use, 490 were over 21. The Michigan State Police further estimate that approximately one-third of all the narcotics arrests in the state of Michigan take place in the Lansing area.

The Ingham County Sheriff's Department count an average of two new cases of heroin per week handled through their office. From September, 1969, to March, 1970, the Ingham County Sheriff's Department handled 148 cases of narcotics and dangerous drugs. Of this number, 107 were arrested in the county as opposed to 41 cases in Lansing and East Lansing. Approximately 65 per cent of these cases were marijuana oriented, 15 per cent heroin, two arrests for cocaine sale or use, and the remainder for dangerous drugs.

An additional barometer which indicates the seriousness of the drug problem in the Lansing community is

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the increase in hepatitis. The Ingham County Health Department has expressed concern about the rapid rise in instances of hepatitis. Three times as many cases have been reported in 1970 as compared to 1969, with the highest frequency among persons 17 to 23 years of age. Dr. Dean Tribby, acting public health director for Ingham County, stated that "approximately 50 per cent of the hepatitis cases are due to serum hepatitis following drug experimentation." A total of 53 cases of hepatitis were reported the first ten weeks of 1970 compared with 18 in 1969 and 7 in 1968.

Penalties and Treatment

Since early in the century our drug control policies have been built around the twin judgments that drug abuse was an evil to be suppressed and that this could most effectively be done by the application of criminal enforcement and penal sanctions. Since then, one traditional response to an increase in drug abuse has been to increase the penalties for drug offenses. The premise has been that the more certain and severe the punishment, the more it would serve as a deterrant. Typically, this response has taken the form of mandatory minimum terms of imprisonment, increasing in severity with repeated offenses, and provisions making the drug offender ineligible for suspension of sentence, probation, and parole.

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Compulsive drug users are a heterogeneous group. Ideally, treatment would permit them all to become law-abiding, productive, emotionally stable, and drug-independent members of society. With our present knowledge, there is no one treatment that reliably leads to this global goal. As a result, the treatment used will depend on which goal is given priority, the subgroups for which the treatment is intended, and the factors that are thought to be most significant in perpetuating the problem. Most commonly, treatment entails two overlapping phases: withdrawal of the drug and rehabilitation of the patient. Almost by definition the compulsive drug user has lost control over the use of the drug, and even the best-motivated patients are consciously or unconsciously ambivalent about withdrawal. Therefore, with few exceptions, withdrawal is usually successful only in a drug free environment (Jaffe, 1970).

In the last ten to fifteen years numerous new treatment programs have been developed by federal, state and local agencies for the treatment of addiction. Before that, treatment opportunities for opiate addicts were largely restricted to the two federal narcotic hospitals at Lexington, Kentucky, and Fort Worth, Texas.

Lexington, prior to 1966, had 1,042 patients and Fort Worth had 777 patients. Although there was some psychotherapeutic treatment, the care was mostly custodial

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in a prison environment. Vaillant (1966) found in a twelve-year follow-up study that 90 per cent had returned to periodic drug use. Significantly, the best outcomes were found among those who had undergone some formal compulsory supervision after discharge. The National Institute of Mental Health took over control of these two U.S. Public Health Service Hospitals in 1967, changing the prison milieu to a therapeutic milieu. The NIMH Clinical Research Center, as the Lexington hospital is now called, admits no prisoners, but only patients, under the provisions of the Narcotic Addict Rehabilitation Act of 1966. Presently there are 345 patients at Lexington, 250 of whom are NARA patients, 25 are prisoners who have volunteered for experiments at the Addiction Research Center, and 45 are chronic psychotic patients. With the development of drug treatment programs throughout the United States by local communities the need for the two federal hospitals is changing. The Fort Worth hospital is being phased out and transferred to the Justice Department in July, 1971. The Lexington center is an experimental research and training center, offering a variety of treatment approaches for the addict. Dr. Harold Conrad, clinical director at Lexington, has stated:

> The objective of the program is effective and humane treatment of drug-habituated individuals during the limited period between admission and return to the community of origin for aftercare. A co-equal objective is the conducting of applied research, with a

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> view to understanding and breaking the habituation pattern. Additional objectives are to develop social adjustment, improve citizenship, and encourage a sense of personal worth and well-being. The fact that residents are treated in a research setting does not mean that they are ever exploited for research purposes (1970).

Methadone

One of the most promising and at the same time controversial new methods of treatment is with methadone, an addicting drug which is given as a substitute for heroin. The principal sponsors were Drs. Vincent P. Dole and Marie Nyswander, who began their program in January, 1964, at the Rockefeller University Hospital in New York City.

It is based on the hypothesis that, as a result of repeated use of narcotics, the addict has sustained a metabolic alteration such that narcotics produce a euphoria not experienced by nonaddicts, and that for months or years after withdrawal the addict experiences a feeling of abnormality (narcotics hunger) relieved only by opiods (Dole et al., 1966). Although there have been variations on the theme (Jaffe et al., 1969), the treatment is basically that originally described by Dole and Nyswander.

The first phase of the treatment involves hospitalization and withdrawal from heroin. The patient is then started on daily doses of methadone, a synthetic opiate that is itself addicting. The daily doses are gradually increased and finally become stable. This phase of the

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program lasts about five weeks. It is followed by release to the outpatient phase of the treatment, which involves supportive contacts with the hospital staff. Administration of the methadone is given in a glass of fruit juice and taken orally under supervision. The outpatients are required to return daily for their doses and their urine tests.

According to the sponsors of the maintenance program, methadone given in adequate doses blocks the euphoric effects of heroin and does not itself produce euphoria, sedation, or distortion of behavior. The patients allegedly remain alert and function normally.

Explicitly emphasizing law-abiding and productive behavior rather than abstinence per se, the efficacy of this treatment in reaching its goals is well documented (Dole, et al., 1968, 1969). The remarkable success of this approach has had an impact of revolutionary proportions on the treatment of narcotics addiction in the United States (Jaffe, 1970).

Currently, six major methadone programs are being operated with grants from the National Institute of Mental Health (New York City, Philadelphia, Chicago, Albuquerque, St. Louis, and New Haven). The emphasis in the program apparently is to draw the patient out of the addict community and into new social attitudes and relationships. The social

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rehabilitation of the addict is seen as a more important goal than the cure of addiction itself.

State Supported Programs

Of fairly recent vintage are the new state-supported programs which have gone into effect, particularly in California and New York, where drug abuse is higher than the national average. Of wider scope, the state programs often provide both in-patient and outpatient care, vocational and academic training of a more or less traditional nature, half-way houses for those returning to society, and follow-up guidance or supervision. New York State has recently emparked on a program calling for the construction of 40 to 55 rehabilitation centers costing an estimated $230,000,000. Its supporters hope that this program will ultimately take most addicts off the street. A program similar to that of New York State went into effect in California several years ago.

Obviously the cost of drug use is extremely high when we include the monies allocated to research, rehabilitate, control, apprehend, prosecute, and incarcerate drug users. The President's Commission (1967) suggests that "while crime reduction is one result to be hoped for in eliminating drug abuse, its elimination and the treatment of its victims are humane and worthy social objects in themselves."

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Although many methods are currently being used to rehabilitate drug addicts and stop the spread of further addiction, no one method has emerged as the best form of treatment. Unfortunately, as Dr. Marie Nyswander, a prominent researcher in the field of methadone maintenance, stated in 1967, "Attempts to 'cure' narcotic drug addiction have had little success. . . ." Rehabilitation attempts have apparently had a minimal impact on drug use. As the Michigan Department of Education teacher's resource guide for drug and abuse (1970) states, "The need in drug abuse is prevention."

Attitude and Drug Behavior

The preceding description of the nature and extent of illicit drug use reveals that the curative, legal, and punitive measures employed to date for the prevention of drug abuse have been structurally inefficient and functionally ineffective. Implicit in this realization is the assumption that human behavior is the result of internal, as well as external motivations. Krech, Crutchfield and Ballachy (1967) state that actions of the individual are governed to a large extent by his attitude. Russo (1968) and O'Donnell (1966) have stated that it is necessary to become more cognizant of the relationship between "pro-or-antidrug attitudes" of individuals and their drug use behavior. Numerous researchers--Blum (1966), Borgotta (1966),

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Nowlis (1966), Keneston (1966), Jones, A. (Eric Ed. 035-909), Brehm, M. and Back, K. (1968), Middendorf (1969), Glick (1968), Pattison (1968), and Whitehead, P. (1969)--have demonstrated the significance of attitudes in determining an individual's drug use patterns. Similarly, the President's Commission on Law Enforcement and Administration of Justice (1967), the President's Advisory Commission on Narcotics and Drug Abuse (1963), the Michigan House Special Committee on Narcotics (1969), the Michigan Department of Education (1970), the Office of Criminal Justice (1970), and the Commission of Inquiry into the Non-Medical Use of Drugs (1970) have all recognized the importance of attitude and its relationship to drug use.

The current alarm over drug use has often been preoccupied with the drugs themselves and has failed to concern itself with the people who use the drugs and why Blum (1969) has stated:

> A public concern which focuses on social drug dangers or drug abuse without also focusing on the drug user himself is misdirected. It is a person who employs a drug and a person who suffers harm himself or visits harm on others. It is what people do to themselves and to each other with or without drugs which justly arouses public concern and horror. It is, therefore, the person that must be attended to and the reasons for and consequences of his drug use that need to be established.

Dale Warner, chairman of the Michigan House Special Committee on Narcotics (1969), has stated in even stronger words that:

> . . . the attitude of society and the governmental agencies through which society acts may be fairly

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> characterized as one of vengeance and vindictiveness toward the drug dependent person who is treated as an evil person. In the years to come, we will look back at the superstitions and cruel reaction of our society to drug dependence with the same horror and disgust we now reserve for the way another generation misunderstood and abused its mentally ill and, more recently, its victims of alcoholism.

Jerome Jaffe (1970), director of the new national drug treatment agency, states:

> Social attitudes and legal regulations have profound effects on both the patterns and the consequences of drug abuse and on the treatment of compulsive drug users. It is now obvious that every measure taken to regulate drug use has its social cost as well as its potential benefit. . . . Furthermore, prohibitions against specific classes of drugs and the social attitudes associated with such prohibitions create selective processes that determine the characteristics of users of prohibited drugs. For example, if the penalties and attitudes are such that a particular drug (e.g., heroin) is available only by interacting with a deviant and antisocial subculture, then only those willing to engage in such interaction are likely to persist in the use of that particular drug. The effects of subculture membership, the drug-using experience, and the initial selective process interact to produce many of the characteristics sometimes thought to be due to the drug experience alone.

Attitude Measurement

Social psychologists have employed numerous techniques to measure attitude toward various attitude objects, but the most widely used and most carefully tested and designed technique is the attitude scale.

As yet there is no complete agreement upon the definition of the concept of attitude. There does appear to be general agreement, however, that attitudes are relatively permanent, referential, shared, reflect evaluations,

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and that social environment is instrumental and decisive in their development (Duijker, 1955).

Frequently attitude is defined differently from one study to another, limiting the comparability of attitude scales and the resulting information derived from their administration.

For the purposes of this research the orientation of Guttman (1950) will be accepted and adopted. Guttman has defined attitude as a "delimited totality of behavior with respect to something." Thus, he has broken away from the common definition of attitude as a predisposition to behavior, and placed it in the category of behavior itself. Guttman's definition is therefore more easily operationalized and lends itself to facet theory analysis.

Guttman (1959) elaborated on four types or "Levels"[1] of interaction with a cognitive object that were proposed by Bastide and van den Berghe (1957) and expanded them into a structural theory of belief and action based on and defined by elements to produce each Level. Guttman defined four of these Levels or sub-universes: (a) Stereotypes, (b) Norms, (c) Hypothetical Interaction, and (d) Personal Interaction (See Tables 2 and 3 in Chapter II). Attitude-behaviors in this schema thus range from the stereotypic attitude Level to the subject's actual reported behavior.

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[1]See glossary of terms in Appendix 1.

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Jordan (1968) reviewed the literature on attitude studies and concluded that four classes of variables seemed to be important determinants, correlates, and/or predictors of attitude: (a) demographic factors such as age, sex, and income; (b) socio-psychological factors such as one's value orientation; (c) contact factors such as amount, nature, perceived voluntariness, and enjoyment of the contact; and (d) the knowledge factors, i.e., the amount of factual information one has about the attitude object.

Jordan found, however, that most of the research studies were inconclusive or contradictory about the predictor variables and suggested that the reason might very well be that the attitude scales were composed of items seemingly stemming from different structures, i.e., from different Levels of Guttman's sub-universe. Lack of control over which attitudinal Levels are being measured seems likely to continue to produce inconsistent, contradictory, and non-comparable findings in attitude research.

Jordan (1969) expanded on Guttman's (1959) original three facet-four Level paradigm and developed a more inclusive set of five facets-six Levels to delimit the totality of behavior. Several types of attitude-behavior scales have been developed using Jordan's six Level adaption of the Guttman facet theory: Attitude-Behavior Scale: Mental Retardation (Jordan, 1970); Attitude-Behavior Scale: Black-White (Hamersma, 1969); Attitude-Behavior Scale: Mental

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Illness (Whitman, 1970); and Attitude-Behavior Scale: Drug Users (Kaple, 1971).

Statement of the Problem

The present study is part of a comprehensive attempt to research attitude-behaviors toward the illegal drug user and to search for causes, determinates and/or correlates of drug abuse and dependency in the United States. This study is concerned with two principal groups, the heroin user who is considered drug dependent, with his attitude-behaviors toward himself, others, and fellow drug users, and mental health therapists, both professional and paraprofessional.

This study can therefore be described as being concerned with the following propositions:

1. To determine predominate attitude-behaviors that heroin dependent persons (addicts) have toward themselves, others, and fellow illegal drug users.
2. To investigate differences in attitude-behaviors between the following heroin dependent (addict) categories:
    a. heroin addicts incarcerated--no treatment
    b. heroin addicts in methadone maintenance
    c. heroin addicts in NARA I and III treatment
    d. heroin addicts in NARA II treatment
3. To investigate differences in attitude-behaviors between the following mental health categories:

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a. professional therapists (Ph.D., M.D., M.A., M.S.W., R.N.)

b. paraprofessional therapists (no academic degree).

4. To compare differences between addict categories and mental health treatment categories.

5. To assess the predictive validity of the following hypothesized determinants of attitude-behaviors toward illegal drug users:

   a. demographic

   b. contact

   c. social psychological

   d. political activism.

6. To seek for recommendations concerning the rehabilitative psychological treatment of heroin addicts.

Attitude-behaviors toward illegal drug users will be measured with the Attitude-Behavior Scale: Drug Users (ABS: DU). This scale was developed by Jordan (1971a, 1971b), Kaple (1971), and the present author. The ABS: DU was developed via the facet theory of the Jordan-Guttman paradigm (Table 7). Measurement of attitude-behaviors will, therefore, be done on six Levels of interaction with the attitude-behavioral object (see Chapter III and Appendix 4).

Since the Attitude-Behavior Scale: Drug Users (ABS: DU) has been recently developed, the results of this

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investigation will be added to the results of Kaple's study for the purposes of further establishing normative data.

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CHAPTER II

REVIEW OF RESEARCH AND THEORY

The literature on attitudes in the behavioral sciences is currently large and constantly growing. One area where this has not been true has been in relation to drug users, drug abusers, and drug addicts. Since this study is concerned with measuring attitude-behaviors toward illegal drug users, and more specifically, those of heroin dependent persons and therapists, the present review of literature will include theories of drug dependency as well as theories and methodologies of measuring attitudes.

Difficulties in Defining Addiction, Use, and Dependency

The drugs liable to abuse are popularly put into two classifications of "narcotics" and "dangerous drugs," and the people who abuse them are popularly called "addicts" and "users." In an attempt to arrive at a more precise set of definitions the World Health Organization's Expert Committee in 1952 and 1957 treated dependence upon various drugs as a single entity and distinguished at that time between addiction and habituation.

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"Addiction" they defined as 'a state of periodic or chronic intoxication produced by the repeated consumption of a drug. . . . Its characteristics include:

1. An overpowering desire or need (compulsion) to continue taking the drug and to obtain it by any means.
2. A tendency to increase the dose.
3. A psychic (psychological) dependence and generally also a physical dependence on the effects of the drug.
4. A detrimental effect on the individual and on society.'

"Habituation" was defined as 'a condition resulting from the repeated consumption of a drug. Its characteristics include:

1. A desire (but not a compulsion) to continue taking the drug for the sense of improved well-being which it engenders.
2. Little or no tendency to increase the dose.
3. Some degree of psychic dependence on the effect of the drug, but absence of physical dependence and hence of an abstinence syndrome.
4. Detrimental effects, if any, primarily on the individual.'

These terms were meant chiefly to separate physical from psychological dependence, a distinction which was found to be increasingly difficult to apply, as phases overlap and vary from drug to drug and patient to patient. The W.H.O. Expert Committee's report in 1964 introduced the single term "drug dependence" and stressed that the drug dependencies are a group of illnesses with many features in common and not a single disease (W.H.O., 1964). "Drug dependence" is defined as "a state arising from repeated administration of a drug on a periodic or continuous basis.

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Its characteristics will vary with the agent involved, and this must be made clear by designating the particular type of drug dependence in each specific case--for example, drug dependence of morphine type, of cocaine type, of cannabis type, of barbituate type, of amphetamine type, etc." (Wikler, 1967).

The term "drug abuse," when used in its broadest sense, refers to the use, usually by self-administration, of any drug in a manner that deviates from the approved medical or social patterns with a given culture. Thus, the term rightfully includes the "misuse" of a wide spectrum of drugs, ranging from agents with profound effects on the central nervous system to laxatives, headache remedies, antibiotics, and vitamins. Generally, though, drug abuse is directed to the abuse of drugs that produce changes in mood and behavior.

One of the hazards in the use of drugs to alter mood and feeling is that some individuals eventually consider that the effects produced by a drug, or the conditions associated with its use, are necessary to maintain an optimal state of well-being. Such individuals are said to have a "psychological dependence" on the drug (habituation). The intensity of this dependence may vary from a mild desire to a "craving" or "compulsion" to use the drug. This need or psychological dependence may then give rise to behavior (compulsive drug use) characterized by a preoccupation with

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the use and procurement of the drug. In extreme forms, the behavior exhibits the characteristics of a chronic relapsing disease. Since intense reliance on the effects of self-administered drugs per se is generally a deviation from approved and expected patterns of use, the terms "compulsive drug use" and "compulsive abuse" are often interchangeable. However, there are often striking inconsistencies. Currently, in Western society, the attitude toward the use of tobacco is so permissive that even chronic, heavy, compulsive use damaging to the user's health, and over which he may have little control, is rarely thought of as compulsive abuse (Jaffe, 1970). Whereas chronic heavy, compulsive use of alcohol, barbituates, amphetamines, hallucinogens, and opiods[1] would be considered compulsive drug abuse.

Jaffe (1970) remarks:

> Since the definition of drug abuse is largely a social one, it is not surprising that for any particular drug there is a great variation in what is considered abuse, not only from culture to culture but also from time to time and from one situation to another within the same culture.
>
> Compulsive drug use is commonly, but not necessarily, associated with the development of tolerance and physical dependence. Tolerance has developed when, after repeated administration, a given dose of a drug produces a decreasing effect or, conversely, when increasingly larger doses must be administered to obtain the effects observed with the original dose. Physical dependence refers to an altered physiological state produced by the repeated administration of a drug, which necessitates the continued administration

[1]The term "opiod" refers to any compound, natural or synthetic, with morphine-like properties.

> of the drug to prevent the appearance of a stereotyped syndrome, the withdrawal or abstinence syndrome, characteristic for the particular drug (Jaffe, 1970).

It is possible to describe all known patterns of drug use and abuse without employing the terms "addict" or "addiction." In many respects this would be advantageous, for the term addiction has been used in many different ways. Wikler (1967) comments that ". . . the most general appellation for persons who abuse opiods would be 'opioid habitues' (who may or may not also be 'addicted'). But the term 'opiod habitues' is not in general acceptance. . . ." Wickler therefore uses the terms "addiction" and "addicts" in the popular sense referring to abuses of opioids in general, with reliance on the context to clarify the particular issues discussed. The definition that Jerome Jaffe, the director of the new national agency on drug abuse, uses will be employed in this study.

> The term addiction will be used to mean a behavioral pattern of compulsive drug use, characterized by overwhelming involvement with the use of a drug, the securing of its supply, and a high tendency to relapse after withdrawal (Jaffe, 1970).

Addiction is thus viewed as an extreme on a continuum of involvement with drug use and refers in a quantitative rather than a qualitative sense to the degree to which drug use pervades the total life activity of the user. In most instances it will not be possible to state with precision at what point compulsive use should be considered addiction.

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Jaffe goes on to state that "addiction in this frame of reference cannot be used interchangeably with physical dependence. It is possible to be physically dependent on drugs without being addicted and to be addicted without being physically dependent."

Drugs that may be associated with addiction are: (a) opium, its derivatives (morphine, heroin, paregoric, codine, etc.), and the synthetic morphine-like drugs (meperidine, dilaudad, etc.), (b) barbituates (phenobarbital, pentobarbital, etc.), (c) sedative drugs (chloral hydrate, etc.), (d) antianxiety drugs (chlordiazepoxide, diazepam, meprobamate, etc.) and (e) alcohol.

Drugs that may be associated with habitual use are: (a) cocaine and other stimulants such as amphetamines, (b) marijuana and other derivatives of hemp (hashish, etc.), (c) antianxiety drugs, (d) alcohol, (e) nicotine, and (f) caffeine.

Theories of Drug Dependency

Psychoanalysis views drug addicts as individuals whose psychosexual development has been arrested or has undergone regression to infantile levels. Lack of a strong father figure and presence of an over-indulgent mother figure is stressed in this connection. As a consequence, the individual has been unable to learn that all his wants cannot be fulfilled in reality and comes to regard other

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persons, particularly the mother or substitutes for her, merely as objects to be used for self gratification (narcissism). Because of the arrested psychosexual maturation, oral cravings are most prominent and genital pleasures are devoid of interest. Since such wants can never really be satisfied, frustration results and the narcissistic, oral-dependent person reacts with hostility, which is often directed toward the mother or other women. Hostility may be turned inward on the addict, resulting in self-destructive wishes. In such individuals, frustration is supposed to be relieved by distortion of reality consequent to the pharmacological effects of drugs. Since the use of drugs is condemned by society, the act of drug use constitutes an expression of hostility. Furthermore, since abuse of drugs eventually results in serious consequence, it achieves a measure of self-destruction and expiates guilt simultaneously. Other psychodynamic processes are also regarded as playing a role. Self administration of drugs hypodermically is associated with erotic fantasies of various sorts--incest, castration. According to the psychoanalytic formulation, it is not the toxic agent but the impulse to use it that makes an addict of a given individual. The particular agent used is not regarded as of prime importance. The predisposition to use drugs is considered to exist prior to experience with the drugs, and repetitive use of drugs is ascribed to the psychological predisposition itself,

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and the contrast between the elated state produced by the drugs and the disillusionment which ensues when the drugs' effects are dissipated.

A second approach is that of Wikler and Rasor (1953). From a symptomatological point of view, addicts can be classified as having neurotic traits, psychopathic traits, psychoes or, infrequently, as having normal personalities. In this formulation, neurotics are presumed to use drugs to relieve anxiety (negative euphoria), while psychopaths use drugs in order to induce an elated state (positive euphoria). Normal individuals become addicted only in order to relieve pain, while psychotic individuals use the drug to alleviate feelings of depression. This particular nosological scheme implies that the choice of opiates by such patients is accidental and that other drugs would serve the same purpose. The development of physical dependence is regarded as merely a complicating process which is undesirable from the standpoint of the user but which is not an essential feature of drug addiction. With the development of physical dependence, the euphoric effects of opiates become more difficult to obtain and drugs are then used primarily to prevent distressing abstience phenomena.

A third formulation called "pharmacodynamic" has been developed by Wikler. This formulation, rather than presupposing that the kind of drug used is of no importance, states that specific drugs have specific effects which may

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be of specific importance to individuals with specific psychological needs. The opiates are known to reduce so called primary drives--hunger, pain, and sex; aggression, antisocial impulses are also inhibited. Thus it is believed that addicts are individuals in whom the chief sources of anxiety are related to pain, sexuality, and expression of aggression, regardless of the kind of personality classifications used in describing them and regardless of the theories advanced to explain such traits. The pharmacological effects of the addicting analgesies are directly valuable to such personalities.

In addition, as the addiction process proceeds the development of physical dependence creates a new biological need. The satisfaction of this need is relatively simple and is directly and intensely pleasurable, according to Wikler, rather than being merely a negative matter of preventing the appearance of distressing abstinence symptoms. As tolerance and dependence develop, motivation to obtain drugs becomes so strong that all other motivations are relegated to positions of minor importance. When this situation has arisen, anti-social, aggressive behavior may be displayed when opiates are not available. The distressing symptoms which occur on withdrawal of drugs also may serve a variety of psychological purposes. The suffering associated with discontinuation of drugs may serve the addict as a means of expiating guilt and leaves him free

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relapse, because he has "paid his debt to society." instantaneous relief of this suffering afforded by ates serves to heighten the addict's esteem for this ss of drugs and causes him to use the drug for the re- f of discomfort from any cause. In a sense, the addict comes conditioned and any unpleasant situation calls for injection.

Ausubel (1961) has delineated two types of addicts, immature and the reactive. The most serious, and prog- stically least hopeful, variety of drug addiction occurs ong individuals who fail to undergo adult personality turation, who fail to develop the long term drives and rresponding motivational traits characteristic of nor- ly mature adults in our society. Such motivationally nature persons are typically passive, dependent, irre- nsible, lacking in perseverance and self discipline, preoccupied with achieving immediate, pleasurable self tification. They are unconcerned about marriage, sing a family, socially useful employment, vocational ievement, etc.

The most common type of addiction found today in United States, according to Ausubel in 1961, is reactive iction. It is a transitory, developmental phenomenon, urring principally among slum-dwelling adolescents with entially normal personalities. The adjustment value of gs for these individuals is simply that they provide an

outlet both for the exaggerated rebelliousness and defiance of conventional norms, and for the particular aggressive attitudes associated with membership in an underprivileged and often ethnically stigmatized segment of the urban population. Ausubel's definition of the reactive addict does not agree with most of the more recent studies done on teenage addicts in slums (Bender, 1963; Vaillant, 1966; Rosenberg, 1968; Torda, 1968) and appears to be a simplistic position.

Feldman (1968) examined the life style of teenagers in the slums for major clues to the causal explanation for the spread of drug use in the slums. He concluded that the concept of the "stand-up cat" (the ideal type) helps to explain how a large minority of slum youth experiment with heroin both before and after the physical and social consequences of addiction are realized. Once the initial effects of heroin are defined as pleasurable the movement into a drug-consuming subculture depends on the degree of commitment of the drug user's former reference group to the "stand-up cat" ideology.

A much different approach to the theory of addiction is the one stated by Lindesmith (1963). Instead of viewing the motives of addicts as crucial to a general theory of addiction, he has rephrased the central problem to read: "What is the experience in which the characteristic craving of the addict for drugs is generated?" This question,

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ndesmith believes, cannot be answered in terms of motives be answered by saying that the craving is produced by e pleasurable effects or euphoria associated with the ug. He has suggested that the addict's craving for iates is born in his experience of relief of withdrawal stress which follows within a matter of five to ten nutes after an injection. The craving develops in this tuation only when the individual understands the with-awal symptoms and attributes them to the proper source. person who remains ignorant of the source of withdrawal mptoms and interprets them in some other way will not come addicted. The only organism that can become addicted the full human sense of that term is one to which the thdrawal distress can be explained. Hence, infants, wer animals, and most feebleminded and psychotic per-ns would be expected to be immune to addiction.

Lindesmith (1963) states that the various features addiction do not fit the older theories of addiction cause: (a) some addicts deny ever experiencing euphoria m the drug, (b) some persons may and do become addicts hout ever taking the drug voluntarily, (c) addicts can deceived about whether they are under the influence of drug or not, (d) the euphoria is associated primarily h the initial use of the drugs and virtually disappears addiction, (e) the addict maintains that his shots cause to feel "normal," and (f) marijuana and cocaine, which

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do not create tolerance and physical dependence, are regarded by Lindesmith as non-habit forming and that the habit forming propensity of various substances seems to be roughly proportional to the severity of withdrawal symptoms and not to the euphoria they produce.

The addict's craving--it is implied by this view--is not a rational assessment or choice of any sort, but basically an irrational compulsion arising from the repetition of a sequence of experiences in a process like those that lead to the behaviorist's conditioned response. The principal difference between the consequences of the conditioning process in human beings and lower animals is assumed to be that, in the case of human beings capable of conceptual thought and language, the craving is symbolically elaborated and responses arising from it are directed or controlled by higher cortical processes.

The attempt to explain addiction in terms of the motives which prompt people to try drugs has not been adequate. The motives which addicts report are numerous, and it seems impossible to make any simple kind of generalization about them that can be ascribed to all addicts. The situation is complicated by the necessity of noting that the motives for first use characteristically differ from those for continued use to the point of physical dependence, that motives for use after dependence is established are not the same as those at earlier stages, and that motives

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for relapse again have their own characteristics. Writers in this field commonly fail to distinguish between the various stages and the various social situations and often seize upon a single type of motive common at some point in the process among addicts of a particular group or type, project it into all phases, and state it as the essential motive of all addicts.

There is a growing consensus that there is no single reason for a person to begin using drugs, no single pattern of abuse, and no single inevitable outcome. In short, compulsive drug users are a heterogeneous group in which multiple factors interact to sustain drug use and predispose to repetitive relapse. These include the persistence of any physical illness and/or psychopathology that antedates drug use, and their interaction with strongly reinforced patterns of drug-seeking behavior as well as with conditioned abstinence symptoms that may intensify the craving for the drug. Abstinence on the part of the user, with its attendant changes in behavior and role, can also induce tension in other members of the family, and relapse to drugs sometimes represents a means to restore the previous (pathological) equilibrium.

Jaffe (1970) states:

> Cultural attitudes about addicts and alcoholics further increase the drug user's difficulties in obtaining realistic gratifications and simultaneously foster his return to an environment (the

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local bar or group of heroin addicts) where he is accepted. In such an environment the use of a drug is also acceptable, the drug is available, and its use has been repeatedly reinforced.

Attitudes Toward Drug Use and Illegal Drug Users

Social attitudes play an extremely important role since they determine which drugs are acceptable for relief of tension and which are prohibited, according to Jaffe (1970). Social attitudes also determine the meaning of drug use so that, for example, the excessive use of alcohol or opioids can be a gesture of hostility, whereas the taking of tranquilizers may mean weakness or a loss of masculinity.

Recently in the United States a shift in values has been occurring among young adults. Non-violence is extolled, and aggressiveness and masculinity as such seem less important. Sometimes a drug may become identified with acceptance of a group's values, and individuals may participate in drug-using behavior as a way of symbolizing their group affiliation. Group membership, even in highly deviant groups, in turn may represent attempted solutions to problems of personal identity. For such individuals, drug-using behavior may be sustained as much by the need to maintain this identity and obtain peer approval as by the pharmacological effects of the particular drug (Jaffe, 1970). Thus, the investigation of social attitudes in the

area of drugs and people who use drugs seem to be a particularly important need to the total understanding of drug use.

Social attitudes toward drugs and illegal drug users are most frequently measured by methods or instruments that are specifically designed for one study. If a scale is employed it rarely reflects rigorous techniques of scale construction and item selection. Frequently articles dealing with drug related attitudes are based solely on the author's subjective opinions.

One attempt to employ some objective measures in attitude study was done by Patterson, Bishop and Linsky (1968). They sampled popular magazine articles dealing with narcotic addiction which covered a time period of seven decades to focus on changes in public attitudes toward addiction. They assumed that magazine content is related to, although not identical with, general public attitudes of the period studied. The articles were analyzed for content in two main areas: (a) attitudes and beliefs about narcotic addiction and (b) recommendations for coping with narcotic addiction. Attitudes toward the addiction problem were rated on three separate dimensions: (a) the moral blame ascribed to the addict for his addiction; (b) the moral blame ascribed to drug suppliers for the addiction problem; and (c) the locus of causal factors in the etiology of drug addiction. They concluded in the area of moral blame ascribed to the individual addict that there was a

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definite shift from a high moral blame attitude to a low moral blame attitude in the first three decades of the 20th century, which has remained constant since then. In the second area, attitudes toward drug suppliers, they concluded that a high degree of moral blame had been constant until the 1960's when a marked shift toward low moral blame occurred. In the third area, etiology of addiction, they concluded that there was a shift from the 1920's to the present from the attitude that drug traffic and supply was the cause to the attitude that the individual personality factors are the cause. Although their study can be criticized in terms of methodology and valid measures, their following statements reflect the importance of attitudes on the treatment of addicts:

> Public views about behavior seem to lag several decades behind changes in professional views produced by research. Thus, psychodynamic explorations into the meaning of mental illness conducted in the 1930s resulted in changes in public attitudes in the 1940s. Research on alcoholism in the 1940s led to changes in public attitude in the 1950s. With research on addiction leading to meaningful explanations of addictive behavior in the 1960s we may anticipate changes in the public view of the narcotic addict in the 1970s.
>
> Psychiatrists have given up moralistic judgmental attitudes toward most psychotic and neurotic behavior. But when we look at the character disorders, such as the sociopath, homosexual, alcoholic, and drug addict, we find that psychiatrists, no less than the general public, have retained a much more judgmental moralistic attitude. It is not uncommon to hear psychiatrists speak of 'worthless sociopaths,' 'filthy alcoholics,' and 'no-account addicts.' As David Shapior has recently noted in his book, Neurotic Styles, the

> moralistic attitudes of psychotherapists have profoundly influenced their interpretation of characterological behavior.
>
> It is paradoxical that psychotherapists, along with the general public, ascribe a high capacity of choice and self-determination to character disorders. Yet such persons are exactly those who often feel most 'driven' to their behavior--the alcoholic who 'can't stop,' the sociopath who 'just felt like it,' the addict who 'had to have a fix.'
>
> Predictably, then, we find that psychotherapists tend to ascribe moral blame to persons with character disorders and recommend their isolation or punishment rather than recommending rehabilitative measures. Public attitudes can be seen to follow the images which psychiatry has presented to the public. Or perhaps more accurately, public views of the character disorders will not change until psychiatry changes its professional view.

Although these impressions are important in calling attention to discrepancies in attitudes and need for change, they are of little value in terms of attitude-behavior measurement. Bennet's (1968) discussion of public attitudes toward LSD use, Solnet's, et al. (1969) statement regarding motivation for drug use, Davis and Mainoz's (1968) article on patterns and meanings of drug use among hippies, and Feldman's (1968) paper on ideological supports to becoming and remaining a heroin addict are all examples of apparently subjective opinions regarding drug-related attitudes. They lack objective measures that can be replicated in future studies. None of these studies presented evidence of employing attitude questionnaires or scales.

Attitude Scales for Special Studies

Vincent (1968) constructed a Thurstone type differ-
ial scale to investigate the attitudes of 8th, 10th, and
h grade students toward smoking marijuana. This twenty
m scale consists exclusively of "personal feeling" items
identified in the Guttman-Jordan paradigm. Vincent
orts known group validity to be acceptable.

When a subject takes a Thurstone type attitude
le, he is instructed to check statements with which he
ees or disagrees. The median of the scale values of
items checked by a given individual is reported to
icate his position on a scale of favorable-unfavorable
itude toward the object in question. Differential or
rstone type scales have received widespread criticism
several counts. As Selltiz, et al. (1966) indicates,
se scales are laborious and cumbersome to construct and
re. Since an individual's score is the median of the
le values of several items, similar scores may express
ferent attitudinal patterns. Thus, identical scores do
necessarily mean identical patterns of attitude re-
nses.

Schur (1964) conducted a small-scale study of
dent attitudes on various controversial issues including
g addiction. The scale consisted of 38 items ranging
m addiction to abortion. The five possible responses

were that the behavior in question: (a) should not be publicly condemned; (b) should be condemned but not punished; (c) undecided; (d) should be punished but not severely; (e) should be severely punished. Whereas the item "being an importer and distributor of black market narcotics" was reacted to with more punitiveness than any other item (including forcible rape, armed robbery, tax evasion, perjury, and selling pronography), the item "being a drug addict" was viewed more punitively than only 12 of the 38 types of behavior. The condition of addiction was condemned less than statutory rape, abortion, being a prostitute, euthonasia, draft evasion, exhibitionism, and voyeurism. Twenty-six per cent of the sample said that being an addict should be punished and an additional five per cent called for severe punishment; on the importer-drug-distributor item the corresponding figures were ten per cent (punished) and ninety per cent (severely punished).

Schur's scale is a Likert-type scale. In a Likert scale items are employed that are chosen as "definitely favorable" and "definitely unfavorable." These items are administered to subjects representative of the population of interest. Rather than checking only the items with which the respondent agrees as in a Thurstone scale, the respondent indicates his degree of agreement or disagreement with every statement, i.e.; (a) strongly agree,

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(b) agree, (c) undecided, (d) disagree, (e) strongly disagree. Scoring simply involves the summation of the scores of the individual responses made to each item. This results in a total score which is interpreted as the individual's position on a scale of favorable-unfavorable attitude toward the object in question. Individual responses are then analyzed to determine which items best discriminate between high and low total scores. Frequently the responses of the upper and lower quartile are used as criterion groups. Items which do not show substantial correlation with the total scores, or those that do not elicit different responses from the criterion groups are eliminated. These procedures insure internal consistency.

Likert type scales are easier to construct than Thurstone type scales and are likely to be more reliable (Selltiz, Jahoda, Deutsch and Cook, 1965). A disadvantage of the Likert technique is that the total score of a given individual often has little clear meaning, since many patterns of response to the various items may produce the same score (Jahoda and Warren, 1966).

King (1970) employed a Likert type scale and a survey of behavior to compare users and non-users of marijuana. No reliability or validity data are presented.

King's scale was designed to measure five general attitudes. The attitude items seem to include Personal

ypothetical Action, Personal Feeling, and Personal Action
n the Guttman-Jordan paradigm. King does not define
ttitude in his study although the title of his paper
'Users and Non-Users of Marijuana: Some Attitudinal and
ehavioral Correlates," 1970) suggests that he views atti-
ude as a predisposition to behavior rather than a "de-
imited totality of behavior." He found that marijuana
sers tend to be more opposed to external control and see
arijuana as a specific agent for inducing tension relief
nd relaxation more frequently than do non-users. Positive
ttitudes toward marijuana usage correlated highly with
ontact with marijuana users and with perceived knowledge
f both physiological and psychological effects of the
rug.

Brehm and Back (1968) studied attitudes toward
aking medication, typical response to illness and concern
.th such factors as personal control. They developed a
item Likert type scale to evaluate usage of specific
rugs from "definitely" to "not at all" for ten agents
nging from aspirin to opiates. The attitude items di-
ded in five groups: insecurity, fear of loss of control,
.ck role, denial of effects, and curiosity. They conclude
at the combination of doubt about and wish to change the
lf plus a general confidence in the effectiveness of
rugs is related to using any type of physical agent,

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whereas a combination of curiosity about one's potentialities and an absence of fear of loss of control relate more specifically to using that complex of agents known as "releasers."

Robbins, et al. (1970) developed a Likert type scale to assess medicinal (amphetamines and barbiturates) and drug use (marijuana, LSD, and heroin) patterns among college students. Responses were obtained from 286 students representing 20 schools in the New York area. The typical marijuana user was found to be a liberal arts student, who reported somewhat looser religious ties than his non-drug-using classmates. Half the marijuana smokers expressed dissatisfaction with their school, in contrast to 20 per cent of the nonusers.

Drug users described themselves as usually anxious, bored, disgusted, impulsive, moody, rebellious, and restless significantly more often than did nonusers. The nonusers were much more positive in their self-reports, selecting ambitious, contented, decisive, and secure as traits that usually depicted them.

Doctor and Sieveking (1970) set out to assess public attitudes about drug addiction, addicts, and treatment. Four reference groups were sampled: (a) law enforcement representatives; (b) college student non-users; (c) student users of marijuana; and (d) post-withdrawal narcotic addicts. They developed a questionnaire consisting of

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35 bipolar descriptive statements, to which subjects were to assign a rating from one to five, indicating their agreement, neutrality or non-agreement with each of the statements. An additional 11 items assess the potential helpfulness of different classes of people to the drug addict. The descriptive statements were selected from prominent topics in the clinical and research literature relevant to the general area of mental health and dealt with questions concerning etiology, treatment, and a range of personal evaluative attitudes and reactions (e.g., can be trusted, harmful, repulsive, etc.). The student sample came from Vanderbilt University, the police sample from Nashville, Tennessee, and the addicts from the NIMH Clinical Research Center of Lexington, Kentucky.

The Doctor and Sieveking study comes the closest to this dissertation in terms of researching attitudes and behaviors of mental health therapists and drug addicts toward illegal drug users. Although their attitude scale is designed on a different theoretical basis, their findings seem to be most pertinent and are included here in some detail.

> In general, Ss tended to view the drug addict as socially distant and interpersonally aversive. The addict was characterized by respondents as responsible for his condition, potentially harmful and frightening, provoking, somewhat repulsive, untrustworthy, and unpredictable. This combination of attributes would seem to match stereotypes of the antisocial or criminal individual (Sieveking and Doctor, 1969).

In part, these reactions probably reflect a publically held stereotype of addicts that is reinforced by criminal role expectancy and hostile police attitudes (Schur, 1964, Grennan, 1962) rather than representing impressions gained from direct personal contact with addicted individuals. For example, it is well documented that addicts, if forced to resort to criminal activities, are typically nonviolent and nonassaultive (Task Force Report, 1967) and that interpersonally they appear quite nonaggressive, passive, dependent, conservative, inhibited, fearful and tend to rely on fantasy as an adjustive technique (Campbell, 1962; Ausabel, 1958). Furthermore, field studies find the social and physical communities of addicts are not transient and ill-formed, as might be expected with strictly criminal individuals, but have a high degree of structure, interdependence, and residential stability (Schumann, Caffrey, & Hughes, 1970).

While respondents tended to identify and react to addicts as criminals, they also expressed the view that the crucial determinants of addiction were socio-psychological (rather than medical, physical or hereditary) and that through long-term direction by a mental health professional, the addict had potential for improvement. This emphasis on 'psychological' determinants and the clearly non-punitive view of appropriate treatment is congruent with current campaigns to educate professionals and to temper public opinion (Schur, 1964, Pattison, Bishop and Linksy, 1968). While the necessity for a lengthy and intensive program of reshaping behavior has been recognized by self-help lay groups such as Synanon (see Yablonsky, 1965) and Addicts Anonymous, most state and federal programs still adhere to essentially a detention model. In this regard, it is interesting to note that addicts themselves tended to minimize the seriousness of their problem in terms of duration and extent of treatment required. This tendency to deny illness and to adopt unrealistic and unwarranted optimism has also been noted by Blachly, et al. (1961), in their survey of addict attitudes after three months of hospitalization. Undoubtedly, the conflict of addict and professional views hampers if not undermines treatment efforts.

Addicts themselves agreed with the negative reactions expressed by members of other groups and also indicated no desire to have fellow addicts as close friends. This apparent dislike and distrust

of members of the same subculture would seem to raise some interesting questions. For example, is the perceived aversiveness and rejection of other addicts an indirect result of the addict's plight, i.e., being hunted and exploited, thus serving as a protective reaction against associating with individuals who might be arrested or turn them in? Or are these reactions expressions of socially immature individuals who are intolerant of others? In any event, the addict's reactions to other addicts have important implications for identifying behavioral targets for treatment and for developing effective treatment programs.

Psychologists, psychiatrists and physicians were rated as most helpful to the addict followed by friends, family members, and ministers. Policement and politicians were uniformly seen as not very helpful in spite of the fact that these two organizations have had the greatest effect on public and professional attitudes about addicts and treatment for addiction. While American medical opinion has come to view the physician in an ancilary treatment role (Chapman, 1962), medical personnel have been very successful as prime treatment agents in Britain (Schur, 1964) and most informed professionals agree that physicians and mental health workers should have prime responsibility and complete freedom in treating problems of addiction. Likewise, while there is recognition of the potential helpfulness of ministers, family members, and friends, public support has favored medical and psychiatric intervention rather than more socially broad-based programs. If the history of treatment models for alcoholism and mental illness is indicative of where public policy and support will be directed and strengthened (Pattison, Bishop and Linsky, 1968), the role of the non-professional in the treatment of drug addiction should become more prominent.

Carney (1970) investigated attitudes toward the risk gain of a number of behaviors including drug use. Six dred and fifty subjects cooperated in the study of which were adults concerned with drug use among the youth, were junior and senior high school students, and 200

ere college students. The Risk Taking Attitude Question-
aire were developed to measure attitudes and behaviors.
he questionnaire was revised four times during the year
ong study therefore making any validity and reliability
easures impossible. The study focused more on reported
se of marijuana, alcohol, and tobacco than on attitudes
oward users. They did find a significant correlation
etween the use of these three drugs and theft and sexual
elations.

There have been a number of recent studies that
ave investigated drug use mostly among college students
sing marijuana or LSD. The questionnaires employed
ypically are not developed according to any theoretical
ramework and replication is virtually impossible in most
nstances due to meager methodological descriptions.
xamples of specific studies that do not adhere to any
pecific scaling may be found in Murphy, Leventhol, and
alter (1969), Groscia (1969), Pearlmen (1968), Klein and
hillips (1968), Suchman (1968), Rossenberg (1968), Patterson,
ishop, and Linsky (1968), Jones (1969), and Bogg (1969).

Summary of Attitudes Toward Drug Users and Measurement Scales

Although there have been a number of studies investi-
ating the amount of illegal drug use, these studies have
een limited mostly to college samples. Studies focusing
n heroin use and attitudes toward addicts are very few.

The most pertinent investigations are those of Patterson, Bishop, and Linsky (1968), Feldman (1968), Schur (1964) and Doctor and Sieveking (1970). No reported research on attitudes toward illegal drug use or drug users has employed a comprehensive facet attitude-behavior approach. It, therefore, is difficult to determine what levels or sub-universes in the Guttman-Jordan paradigm would compare with the previous research. Conflicts regarding determinants and/or correlates of attitudes toward illegal drug users are evident in the literature.

Few studies present an operational definition of attitude and most neglect a theoretical paradigm for relating determinants and/or predictors of attitudes toward drug users.

Past studies of attitudes toward illegal drug users have not been replicated, and most of the measurement scales have been prepared for only one investigation.

Thus, there is a need for a comprehensive study of attitude-behaviors toward illegal drug users that employs a measurement scale based on a workable theoretical framework.

Theory and Methodology

Among the better known names in attitude theory are those of Allport, Thurstone, and Likert. Allport's discussion of the nature of attitudes (1935) is perhaps the

classic in the field. The Likert technique (1932) is widely used in scales designed to measure "attitudes," "opinions," and "beliefs." Thurstone (1928) was among the first to suggest a specific scale construction technique.

Both theory and measurement continue to receive extensive treatment. Although the term "attitude" remains ambiguous, some trend toward precision may be noted. In 1928 Symonds noted that the term could mean drive, muscular adjustment, generalized conduct, readiness, emotional response, feelings, or verbal responses (Symonds, 1928). By 1966, much of attitude theory (excluding the work of Guttman, to be discussed in a following section) agreed with the Kerlinger notion of a predisposition to perceive, think, feel, and behave (Kerlinger, 1966).

Guttman's Four Level Theory

Guttman has defined attitude as "a delimited totality of behavior with respect to something" (1950). Within the limits of such a definition, both verbal responses and overt behaviors can be construed as attitudes.

This provides a conceptual framework which forms a continuum from the common definition of attitude (predisposition to perceive, think, feel, and behave) to the common definition of behavior (overt behavior). Attitudes and behaviors are, thus, not dichotomized but are viewed together as the totality of human behavior. All attitude is behavior.

With the range of human behavior being this inclusive, it is possible then to think of points along this continuum which could then be measured. The points along the continuum become the "Levels" in the Guttman-Jordan paradigm of attitude-behaviors (see Table 1).

TABLE 1.--Continuum of Attitude-Behaviors.

predisposition to perceive, think, feel, and behave	overt behavior

range of human behavior
(attitude-behavior universe)

Once attitude or attitude-behavior is viewed as a continuum from a verbal-cognitive orientation to overt action, then significant points can be determined as measurement points and a method of measurement developed. The significant points at which measurement should take place are called "Levels" and measurement points are based on "facets" and "elements."

Commenting on the work of Bastide and van den Berghe, Guttman (1959) distinguished three "facets" involved in a particular attitude response: the subject's behavior (belief or overt action), the referent (the subject's group or the subject himself), and the referent's

intergroup behavior (comparative or interactive). Jordan has defined it in this manner:

> Facet design makes it possible to construct items by a systematic a priori method instead of by the method of intuition or by the use of judges. Facet theory (Guttman, 1959, 1961, 1970) specifies that the attitude universe represented by the content can be substructed into sematic profiles which are systematically related according to the number of identical conceptual elements they hold in common. The substructuring of an attitude universe into profiles facilitates a sampling of items within each of the derived profiles, and also enables the prediction of relationships between various profiles of the attitude universe (Jordan, 1970).

What is sought then by facet design and analysis according to Harrelson (1970), is to be able to construct the content of a scale by a semantic, logical a priori technique and to be able to predict the order structure which would result from the empirical data. What would happen then would be the reverse of what in reality factor analysis accomplishes. Factor analysis tries to make sense out of what already has been done by a mathematical process of forming correlational clusters and then naming them, i.e., calling them factors. As opposed to this approach, facet design, in essence, names the facets before one begins.

The three facets (Table 2) proposed by Guttman are combined according to definite procedures to determine the semantic component structure of four important sub-universes or Levels of the attitude-behavior universe.

TABLE 2.--Basic Facets Used to Determine Component Structure of an Attitude-Behavior Universe.

Facets	(A) Subject's Behavior		(B) Referent		(C) Referent's Intergroup Behavior	
Elements	a_1	belief	b_1	subject's group	c_1	comparative
	a_2	overt action	b_2	subject himself	c_2	interactive

One element from each and every facet must be represented in any given statement. These statements can be grouped into profiles of the attitude-behavior universe by multiplication of the facets A x B x C, yielding a 2 x 2 x 2 combination of elements or eight semantic profiles in all, i.e., (1) $a_1b_1c_1$, (2) $a_1b_1c_2$, . . . (8) $a_2b_2c_2$. It can be seen that combinations 1 and 2 have two elements in common (a_1b_1) and one different (c_1 and c_2), whereas profiles 1 and 8 have no elements in common.

Guttman facetized the semantic structure of the attitude behavior items into the four sub-universes or Levels as shown in Table 3. He reasoned that if an attitude-behavior item can be distinguished semantically by the three facets ABC outlined in Table 2, then an individual item could have one, two, or three subscript "2" elements for a total of four attitude-behavior Levels. Logically, if the elements are correctly ordered within facets, and if

the facets are correctly ordered with respect to each other, a semantic analysis of attitude-behavior items will reveal n+1 types or Levels of attitude-behavior items. While a total of eight combinations are possible on the four Levels (one each on Levels 1 and 4 and three each on Levels 2 and 3) only the four combinations shown in Table 3 were studied by Bastide and van den Berghe (1957).

TABLE 3.--Facet Profiles and Descriptive Labels of Attitude-Behavior Levels.

Level	Profile	Descriptive Label
1	$a_1b_1c_1$	Stereotype
2	$a_1b_1c_2$	Norm
3	$a_1b_2c_2$	Hypothetical Interaction
4	$a_2b_2c_2$	Personal Interaction

The model in Table 3 depicts the attitude-behavior Levels and the descriptive labels for each Level defined by Guttman (1959). An attitude-behavior item corresponding to Level 1 would deal with the belief of the subject (a_1) that his group (b_1) compared itself (c_1) favorably or unfavorably with the object in question, in this case members of a different racial group. Similarly, an item corresponding to Level 4 would deal with the subject's own (b_2) reported overt behavior (a_2) in interacting (c_2) with the object.

A common meaning for the orderings was suggested by Guttman, i.e., they show in each case a progression from a weak to a strong form of behavior of the subject toward the object. That is, the more subscript "2" elements a set contains, the greater the strength of the attitude-behavior.

Facet analysis of the semantic structure of attitude items provides a social psychological theoretical basis for predicting the structure of the empirical intercorrelation matrix of Guttman's four Levels: if items are written to correspond to each of the four Levels, then Levels closest to each other should be more similar and thus should correlate more highly with each other than with more distant Levels.

> One cannot propose to predict the exact size of each correlation coefficient from knowledge only of the semantics of universe ABC, but we do propose to predict a pattern or structure for relative sizes of the statistical coefficients from purely semantic considerations (Guttman, 1959, p. 324).

Guttman (1959) referred to this as the contiguity hypothesis which states that sub-universes or Levels closer to each other in the semantic scale of their definitions will also be closer statistically. In other words, the responses at any given Level would be most closely related to the most similar Levels--the Levels having the largest number of common facets--and less related to less-similar Levels. Thus Level 1 responses would be more similar to Level 2 responses than to responses of any other level.

If such similarities were expressed in correlation ratios, the matrix of Level-by-Level correlations would have a distinctive appearance. Table 4 indicates what such a hypothetical matrix might approximate. Such a matrix Guttman labeled a "simplex."

TABLE 4.--Hypothetical Matrix of Level-by-Level Correlations Illustrating Simplex Characteristics.

Level	1	2	3	4
1	1.00			
2	.90	1.00		
3	.80	.90	1.00	
4	.70	.80	.90	1.00

It is important to point out that one does not attempt to predict the magnitudes of each correlation coefficient. The simplex requirement does not necessitate either identical correlations in diagonals or identical differences between diagonals: the case given is sometimes called a "perfect simplex." The fundamental requirement in any simplex is that correlations decrease or "order" as they are farther from the main diagonal.

Slight reversals in the ascending or descending order are not considered a contradiction to the contiguity hypothesis, since sampling bias or other idiosyncracies in

selection or administration might be the cause of such reversals.

Jordan (1968) employed Kaiser's (1962) procedure to sort and rearrange all possible arrangements of adjacent pairs of correlation coefficients so as to generate the best empirically possible simplex approximation and assign a descriptive statistic, Q^2, to the original and rearranged matrices. Q^2 is a descriptive statistic with a range of 0.00 to 1.00. Hamersma (1969) found a value of at least .70 should optimally be used to accept a matrix of attitude-behavior Level correlations as having approximated a simplex and a Q^2 of .60 to be considered a minimal criteria. These figures were obtained by applying practices followed by Jordan for ascertaining the "goodness of fit" of an obtained simplex (Hamersma, 1969).

According to Guttman, if attitude-behavior items are correctly written, i.e., to correspond to each of the hypothesized levels, then the matrix of Level-by-Level correlations should approximate the simplex. If, on the other hand, a simplex did not appear, the items were incorrectly or ambiguously assigned to Levels.

Jordan's Six Level Adaption

Guttman's (1959) paradigm of facet design and analysis for attitude-behavior items allows for three facets and hence four Levels of attitude-behaviors. Theorizing

that there might be other pertinent facets, but accepting those identified by Guttman as appropriate, Jordan (1968) expanded facet analysis for attitude items dealing with specific groups to include five facets and hence six Levels. This expanded and more inclusive set of facets and their elements is shown in Table 5. A comparison of Guttman's facets and Jordan's facets are illustrated in Table 6.

TABLE 5.--Jordan's Expanded Facets Used to Determine Joint[a] Structure of an Attitude-Behavior Universe.

(A)	(B)	(C)	(D)	(E)
Referent	Referent Behavior	Actor	Actor's Intergroup Behavior	Domain of Actor's Behavior
a_1 others	b_1 belief	c_1 others	d_1 comparison	e_1 symbolic
a_2 self	b_2 overt action	c_2 self	d_2 inter-action	e_2 opera-tional

[a]Joint struction is operationally defined as the ordered sets of the five facets from low to high (subscript 1's are low) across all five facets simultaneously.

Joint Struction

Guttman's three facets and two elements resulted in eight possible combinations or profiles. Jordan's five facets and two elements results in 32 combinations. Jordan (1968) states that not all combinations are logical due to semantic considerations. However, the selection of a "best"

Author	A	B	C	D	E
Jordan	Referent	Referent behavior	Actor	Actor's intergroup behavior	Domain of actor's behavior
	a_1 others	b_1 belief	c_1 others	d_1 comparison	e_1 symbolic
	a_2 self	b_2 overt action	c_2 self	d_2 interaction	e_2 operational
Guttman	--	Subject's behavior	Referent	Referent's intergroup behavior	--
	--	b_1 belief	c_1 subject's group	d_1 comparative	--
	--	b_2 overt action	c_2 subject himself	d_2 interactive	--

[a]Table adapted from Jordan (1970, p. 10).

set of profiles from the 32 possible combinations was still made partly as a matter of judgment. Maierle (1969) later extended research in this area by providing a set of logical rules for the selection of combinations and found that 12 of the possible 32 combinations were semantically consistent. The six profiles were chosen as psychologically relevant and potentially capable of instrumentation (see Table 7).

TABLE 7.--Joint Level, Profile Composition,[a] and Labels for Six Types of Attitude Struction.

Subscale Type-Level	Struction Profile	Descriptive Joint Term
1	$a_1b_1c_1d_1e_1$	Societal Stereotype
2	$a_1b_1c_1d_2e_1$	Societal Norm
3	$a_2b_1c_1d_2e_1$	Personal Moral Evaluation
4	$a_2b_1c_2d_2e_1$	Personal Hypothetical Action
5	$a_2b_2c_2d_2e_1$	Personal Feeling
6	$a_2b_2c_2d_2e_2$	Personal Action

[a]See Table 8 for rationale by which these 6 profiles were chosen.

Maierle's research showed that only 12 of these profiles (Table 8) were logically and semantically consistent--Jordan's six and an additional six.

Table 9 presents the definitional statements of the 12 possible profiles and Table 10 depicts the set of combinations corresponding to Jordan's (1968) paradigm. This

TABLE 8.--Combinations of Five Two-element Facets[a] and Basis of Elimination.

Combinations			Facets and Subscripts					Basis of Elimination[c]
No.[b]	In Table 9	In Table 7	A	B	C	D	E	
1	1	Level 1	o	b	o	c	s	
2	2	Level 2	o	b	o	i	s	
3	3	--	i	b	o	c	s	
4	4	Level 3	i	b	o	i	s	
5	5	--	o	b	i	c	s	
6	6	--	o	b	i	i	s	
7	7	--	i	b	i	c	s	
8	8	Level 4	i	b	i	i	s	
9	--	--	o	a	o	c	s	2
10	9	--	o	a	o	i	s	
11	--	--	i	a	o	c	s	1 2
12	--	--	i	a	o	i	s	1
13	--	--	o	a	i	c	s	1 2
14	--	--	o	a	i	i	s	1
15	--	--	i	a	i	c	s	2
16	10	Level 5	i	a	i	i	s	
17	--	--	o	b	o	c	p	3 4
18	--	--	o	b	o	i	p	4
19	--	--	i	b	o	c	p	3 4
20	--	--	i	b	o	i	p	4
21	--	--	o	b	i	c	p	3 4
22	--	--	o	b	i	i	p	4
23	--	--	i	b	i	c	p	3 4
24	--	--	i	b	i	i	p	4
25	--	--	o	a	o	c	p	2 3
26	11	--	o	a	o	i	p	
27	--	--	i	a	o	c	p	1 2 3
28	--	--	i	a	o	i	p	1
29	--	--	o	a	i	c	p	1 2 3
30	--	--	o	a	i	i	p	1
31	--	--	i	a	i	c	p	2 3
32	12	Level 6	i	a	i	i	p	

[a]See Table 5 for facets.

[b]Numbering arbitrary, for identification only.

[c]Logical semantic analysis as follows: Basis 1: an "a" in facet B must be preceded and followed by identical elements, both "o" or both "i." Basis 2: a "c" in facet D cannot be preceded by an "a" in facet B. Basis 3: a "c" in facet D cannot be followed by a "p" in facet E. Basis 4: a "p" in facet E cannot be preceded by a "b" in facet B. See text for explanation.

Definitional Statements for Twelve Combinations.

Level	Facet Profile[a]	No[b]	Definitional Statements[c]	Descriptive Name[d]
1	o b o c s $a_1 b_1 c_1 d_1 e_1$	0	Others believe others compare symbolically[e]	Societal Stereotype (group assigned group status)[e]
	i b o c s		I believe others compare symbolically	Personally-assigned group status
2	o b o i s $a_1 b_1 c_1 d_2 e_1$	1	Others believe others interact symbolically[e]	Societal Norm[e]
	o b i c s		Others believe I compare symbolically	Group-assigned personal status
	i b o i s $a_2 b_1 c_1 d_2 e_1$		I believe others interact symbolically[e]	Personal Moral Evaluation[e] (perceived values)
	i b i c s		I believe I compare symbolically	Self-concept (personally-assigned personal status)
3		2		
	o b i i s		Others believe I interact symbolically	Proclaimed Laws (group expectations)
	o a o i s		(Others act) others interact symbolically	Group identity (actual group feelings)
	i b i i s $a_2 b_1 c_2 d_2 e_1$		I believe I interact symbolically[e]	Personal Hypothetical Action[e]
4		3		
	o a o i p		(Others act) others interact operationally	Actual group behavior
5	i a i i s $a_2 b_2 c_2 d_2 e_1$	4	(I act) I interact symbolically[e]	Personal Feeling[e]
6	i a i i p $a_2 b_2 c_2 d_2 e_2$	5	(I act) I interact operationally[e]	Personal Action[e]

[a] Cf. Tables 7 and 8.

[b] No.--number of strong elements.

[c] Words in parentheses are part of redundant but consistent statements.

[d] Alternate names in parentheses indicate relationships of various level members.

[e] Combinations used in the ABS-MR.

TABLE 10.--Semantic Path "C" for a Five-Facet Attitude Universe.[a]

Level	Profile by Def. State.	Profile by Facet Change	Descriptive Names
	A B C D E	E B C A D	
1	o b o c s	s b o o c	Societal stereotype
2	o b o i s	s b o o i	Societal norm
3	i b o i s	s b o i i	Personal moral evaluation
4	i b i i s	s b i i i	Personal hypothetical action
5	i a i i s	s a i i i	Personal feeling
6	i a i i p	p a i i i	Personal action

[a]The set of combinations comprised in this semantic path are those according to which the ABS:DU scale was constructed. Table 7 presents the same set of combinations, with each facet assigned a subscript 1 (weak element) or 2 (strong element).

semantic path (Table 10) corresponds to the underlined facet profiles in Table 9. The definitional statements facilitate the writing of appropriate attitude-behavior items for each Level member while the listing of profiles by facet change (Table 10) makes possible a clearer graphic representation of the successive changes from weak to strong elements.

Summary

Guttman proposed a four-Level system of attitude-behavior items. Within the system, Levels were hypothesized to be related to each other according to the principal of contiguity, so that a matrix of Level-by-Level correlations would approximate a simplex. Jordan proposed a five-facet, six Level adaption of the system and has data within and across cultures on a research instrument (Jordan, 1970). Jordan's data has given support to Guttman's hypothesis.

CHAPTER III

INSTRUMENTATION AND RESEARCH DESIGN

Past research has presented inconsistent results regarding the structure and correlates of attitudes toward illegal drug users. The instruments used in these studies were mostly developed for one investigation and lacked a theoretical base for scale construction. Facet theory and analysis seems to offer not only a theoretical basis for a comprehensive understanding of attitude and behavior but also provides a system of instrumentation and measurement that specifies which attitude-behaviors are being measured.

The Attitude-Behavior Scale: Drug Users (ABS: DU)[1] (Kaple, 1971) was developed according to the Guttman-Jordan paradigm of facet theory (multidimensional scaling) to measure the universe of attitude-behaviors toward illegal drug users across six Levels. The purpose of this study is to use this scale with samples from two populations, heroin addicts and mental health therapists.

The Attitude-Behavior Scale: Drug Users

The ABS: DU is the product of two sources: (a) the Guttman-Jordan paradigm of facet theory and analysis, and

[1] Hereafter referred to as the ABS: DU.

(b) written research on illegal drug users, as well as personal interviews with illegal drug users, therapists, law enforcement agencies, clergy, students, and parents.

Facet theory was used to evolve both "joint and lateral" struction. Joint struction refers to the object-subject relationship: the six different Levels. The knowledge gained from and about drug users was used in the development of the items. The item content and its arrangement is noted as "lateral struction."

Joint Struction (Object-Subject Relationship)

Jordan's five facet-two element-six Level design served as the structure upon which the ABS: DU was developed. The following definitions of the six-Level paradigm (Table 7) were employed:

1. Societal Stereotype--what you believe others believe about illegal drug users as compared to what they believe about non-drug users;
2. Societal Norm--what you believe others generally believe about interacting with illegal drug users;
3. Personal Moral Evaluation--in respect to illegal drug users do you yourself believe that others believe it is usually right or usually wrong that the following occur;

4. Personal Hypothetical Action--in respect to illegal drug users would you yourself;
5. Personal Feeling--how do you actually feel toward illegal drug users; and
6. Personal Action--actual experiences or contacts with illegal drug users that you have or have had.

These six profiles (Table 7) are ordered such that Level 1 < 2 < 3 < 4 < 5 < 6 or Societal Stereotype < Societal Norm < Personal Moral Evaluation < Personal Hypothetical Action < Personal Feeling < Personal Action. Guttman (1959, p. 320) states that "according to scale theory, ordering the profiles (our six subscales) also implies a formal ordering of the categories within each facet." The ordering of Level 1 < 2 < 3 < 4 < 5 < 6 implies formally the following simultaneous orderings: $a_1 < a_2, < b_1 < b_2 \ldots x_1 < x_2$.

Guttman suggests a common semantic meaning: a progression from a weak to a strong form of behavior of the subject vis-a-vis the attitude-behavior object--in this case illegal drug users. Examination of Table 5 indicates the rationale of this ordering system.

Facet A--the referent "other" is weaker than "self" in being less personal.

Facet B--"belief" is weaker than "action" is being "passive" rather than "active."

Facet C--referring to the behavior of one's "self" rather than that of "others" is stronger in that it implies personal involvement.

Facet D--"comparative" behavior is weaker than "interactive" behavior since it does not imply social contact; a comparison is more passive than interaction.

Facet E--"symbolic" behavior is weaker than "operational" in that it does not imply acting out behavior.

The semantic path (Table 10) used in the development of the drug scale was chosen for three reasons: (a) psychological rationale and/or usefulness in the six subscales, (b) the simplex order between the six subscales, and (c) they were judged to be potentially capable of instrumentation.

In conclusion, the six Levels or subscales of the ABS: DU were constructed to correspond to the facet design depicted in Tables 3, 7, 9, and 10.

Lateral Struction (Item Content)

Lateral struction deals with the item content of an attitude-behavior scale. Six additional facets--F through J--were added to differentiate item content within levels. The complete mapping sentence for the family of scales constructed, or to be constructed, on this a priori basis

is presented in Figure 1. The attitude-behavior object of interest, in this study, illegal drug users, is developed in the mapping sentence shown in Figure 2. Thus, every item on every Level of the ABS: DU corresponds to a combination of elements of each and every facet A through J of Figure 1. The rationale of facet theory enables the specification of object-subject relationships (joint dimension) as well as situation content (lateral dimension) in each attitude scale item.

Jordan and Hamersma (1969) were the first to create an instrument based on Guttman facet theory in which the content of each item was repeated across all six Levels or profiles; the only difference from Level to Level then being the alternation of the specified item content to fit the structure (joint struction) of the different Levels. This method affords easier assessment of the item content. This procedure was followed in the construction of the ABS: DU.

Guttman's facet theory implies a different approach to scale construction than the usual "item analysis, reliability, and validity" approach. The mapping sentence of Figure 1 imposes a semantic meaning on the content of the items, while the paradigms in Tables 5, 7, and 10 specifically impose a structioned ordered meaning system for the relationships between the six scale Levels.

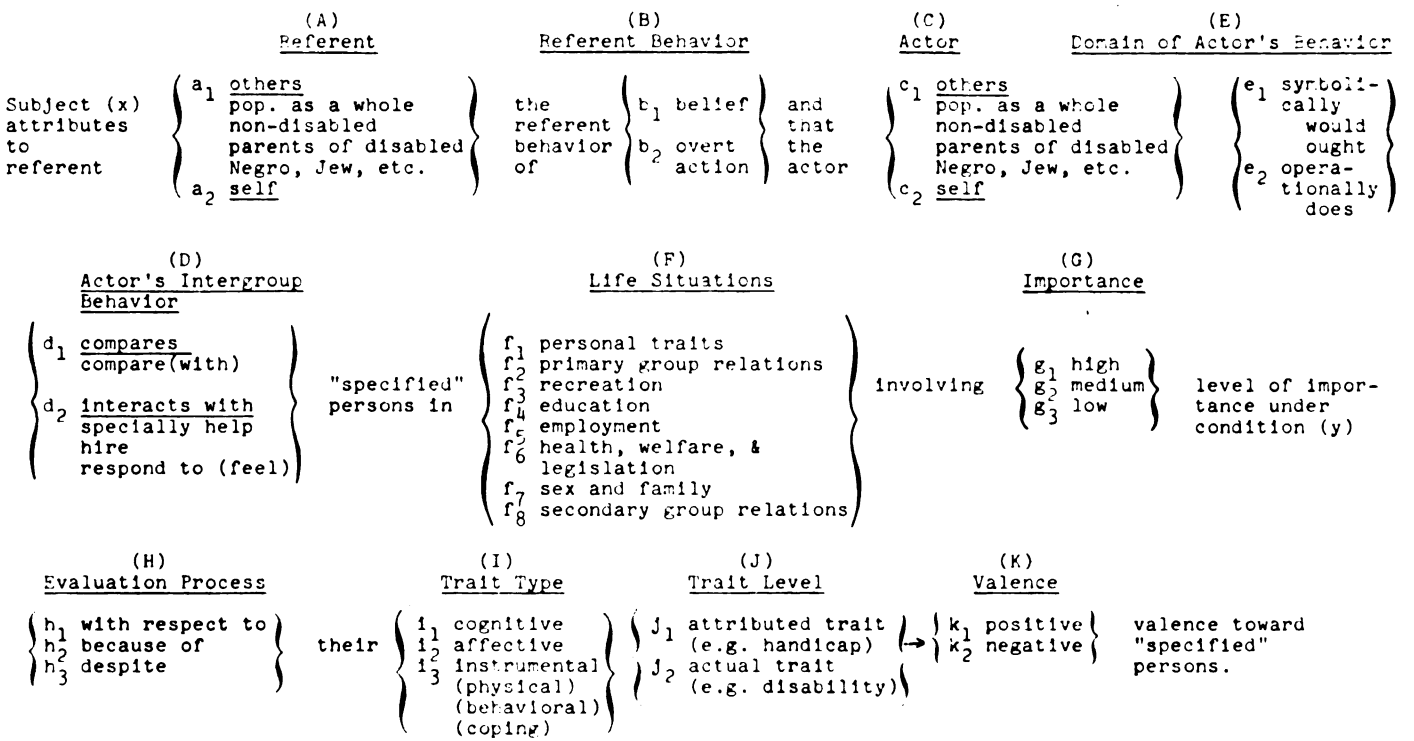

Figure 1.--A Mapping Sentence[a] for the Facet Analysis of Joint[b] and Lateral[c] Struction of Attitudes Toward Specified[d] Persons.

[a]Based on mapping sentence of March 7, 1968.

[b]Facets "A" through "E" denote Joint Struction or level.

[c]Facets "F" through "J" denote attitude content or Lateral Struction. The ordering system has not yet been developed for Lateral Struction as for Joint Struction.

[d]Any person or social group such as aged, blind, alcoholic, Negro, national or ethnic group may be substituted for the disabled.

John E. Jordan
Michigan State University
Louis Guttman
Israel Institute for Applied Social Research
August 10, 1966

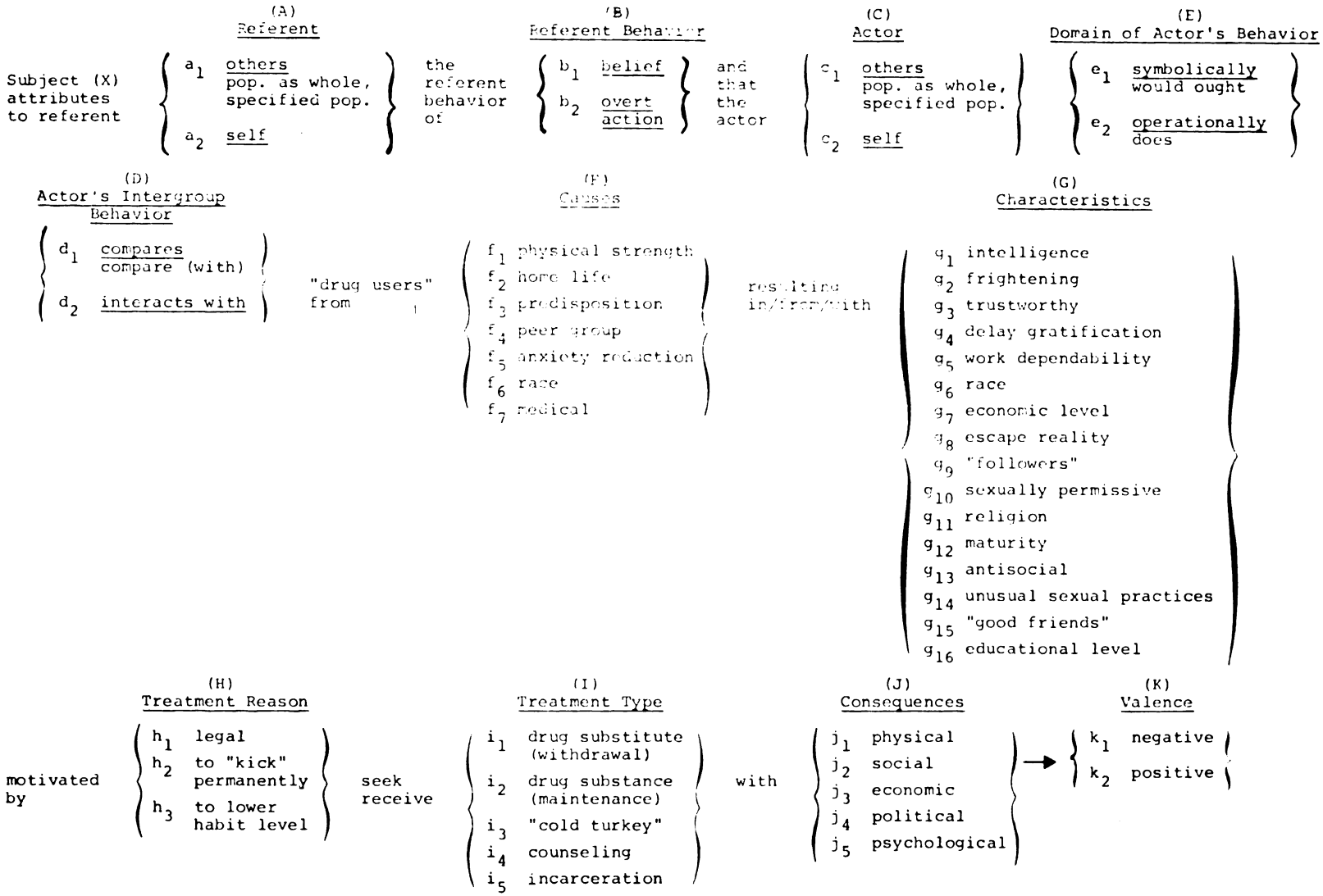

Figure 2.--A Mapping Sentence for the Facet Analysis of Joint[a] and Lateral[b] Struction of Attitudes Toward Drug Users.

[a]Facets A through E denote joint struction.

[b]Facets F through J denote lateral struction.

The five content facets specified in Figure 2 (i.e., facets F, G, H, I, and J) were repeatedly identified as pertinent aspects (facets) of attitude-behavior toward illegal drug users. These five facets include causes, characteristics, treatment reason, treatment type, and consequences.

Kaple (1971) states:

> The specific content for items used in each of the five attitude content areas was taken from various sources, including previous research, personal interviews with addicts and other specific interest groups, books on attitudes, clinical judgment of individuals who have experience with drug users, and past attitude scales.

From the complete facet design depicted in Figure 2, forty content items were selected for each of the six Levels of the ABS: DU so that the scale consisted of 240 items. Forty additional items of demographic, contact, sociopsychological, and political activism were added in a "Personal Data Questionnaire" which was included as part of the ABS:DU.

Validity

"The validation of attitude measures presents a difficult problem," states Anastasi (1961, p. 545). Harrelson (1970) commented, "In the years since Anastasi's statement the problem has apparently not been further resolved." One aspect of this problem involves the relationship between "public" and "private" attitudes: how do the

TABLE 11.--Item in the ABS: DU, Illustrating the Six Level Structure Including Directions and Foils.

Level 1	Directions:	Others believe the following things about illegal drug users as compared to non-drug users.
	Item:	Others believe drug users can be trusted (1) less than others, (2) same as others, (3) more than others.
Level 2	Directions:	Most people generally believe the following about interacting with illegal drug users.
	Item:	People generally believe that others would find that drug users can be trusted: (1) less than others; (2) same as others, (3) more than others.
Level 3	Directions:	In respect to illegal drug users, what do you, yourself believe others think is right or wrong.
	Item:	For others to expect drug users to be trustworthy is: (1) usually wrong, (2) undecided, (3) usually right.
Level 4	Directions:	In respect to illegal drug users would you, yourself.
	Item:	I believe I would trust drug users: (1) disagree, (2) uncertain, (3) agree.
Level 5	Directions:	How do you feel toward illegal drug users:
	Item:	I feel I can trust drug users: (1) disagree, (2) uncertain, (3) agree.
Level 6	Directions:	Experiences or contacts with drug users:
	Item:	I have trusted drug users: (1) No, (2) Uncertain, (3) Yes.

individual's publicly-expressed attitudes compare with the opinions he voices in conversation with intimate friends or with the stranger he never expects to see again? This aspect of the problem, it would seem, is largely insolvable beyond attempts to assure the subject that his responses will remain completely anonymous. This procedure was employed in the normative study (Kaple, 1971) as well as in this research study.

Another aspect of the validity problem, as outlined by Anastasi (1961), concerns the relationship between verbal and non-verbal overt behavior. Anastasi points out that disrepancies between verbally expressed attitudes and overt behavior have been noted in several studies.

Harrelson (1970) replies regarding the mental retardation scale:

> The attitude items in the ABS-MR scale, as in all attitude scales, are verbalizations of behavior; the advantage inherent in an attitude scale based on facet theory, however, is that the verbalizations refer to different Levels of behavior and go beyond the usual stereotype, comparative, abstract, and hypothetical Levels of most attitude scales to verbalizations about affective experiences and concrete, overt behavior. If the relationship between verbal attitudes and overt behavior is ever to be further specified, it may well be through a facet theory approach.

Anastasi (1961) has also pointed out that many attitude studies are conducted for the stated purpose of systematically exploring verbally reported attitudes. In such a case, she feels, the criterion itself should be defined in terms of verbally expressed attitudes.

Harrelson (1970) again replies:

> Given that this is a legitimate assumption, what too often happens is a resort to a superficial kind of content validity based upon a cursory examination and classification of topics to be covered. It would appear that the method of selecting item content on a systematic basis through the use of facet theory and a mapping sentence . . . is far superior to previous methods in assuring that a representative sample of the desired behavior domains is selected. Through this method it becomes a relatively simple matter to plot out the elements and facets one wishes to include and to construct scale items to meet this criterion, thus assuring that all desired elements are represented.

Commenting on content validity of the ABS: DU Kaple (1971) states, "Content validity will be assumed since facet theory will be employed . . . and since the content will be evolved through consultation with drug users, drug therapists, and law enforcement agencies, as well as a comprehensive review of the literature."

Construct validity will be ascertained in the drug scale by evaluation of the postulated simplex. "There will be a positive (correlational) relationship," remarks Kaple (1971), "between the conceptual theory (facet design) and the statistical structure; the size of the correlation coefficient will increase with the increase in number of contiguous facets in the variables."

Concurrent or predictive validity will be inferred by the "known group" method. In the normative study (Kaple, 1971) five groups were identified as possessing "known" attitude-behaviors toward illegal drug users at the personal action Level (Level 6) of the Guttman-Jordan paradigm.

Kaple states that these behaviors fall along a continuum from favorable to unfavorable toward drug users. The validity of this assumption (i.e., Level 6 attitude-behavior) can be ascertained via the self reported behavior obtained in the personal data questionnaire. There are also external criteria that can apply to those groups where known drug use is evident.

In the normative study five known groups were chosen: illegal drug users, police, high school students, college students, and members of a fundamentalist Kansas parish. "These groups," states Kaple (1971), "were chosen because of their 'known attitude-behaviors' toward drug users at Level 6 of the Guttman-Jordan paradigm." In terms of illegal drug users themselves, they have exhibited relatively favorable Level 6 behavior toward drug users since they form their peer group, have been trusted as buyers and sellers, and generally form the subculture to which they subscribe.

In the present study the differences between the designated heroin addict categories on the Level 6 behavior provides more of an empirical question than a known quantity. It is hypothesized that the addicts incarcerated (no treatment) will have the most positive behaviors toward illegal drug users; the rationale being that the addict who is incarcerated has been forcibly pulled out of his subculture and his resentment would be directed toward the

police (and society) and would still have very positive attitudes toward illegal drug users (including fellow addicts). The NARA I and III category, on the other hand, would be involved in a treatment program, would be receiving consultation and support from therapists, and would (hopefully) be establishing a new way of life.

Since many paraprofessional mental health therapists are ex-addicts themselves, and the trend today is to employ ex-addicts as therapists, it is postulated that they would have more positive behaviors toward illegal drug users than the professional therapists who might feel more of a distance between themselves and their patients. The "known" or postulated position of the addict and therapist's groups at Level 6 behavior is shown in Table 12.

TABLE 12.--Postulated Rank Order Position of Categories at Level 6 of the ABS:DU.

Postulated Position of Categories at Level 6						
Unfavorable						Favorable
F		E	D	C	B	A

A = Addicts incarcerated--no treatment
B = Addicts--methadone maintenance
C = Addicts--NARA II
D = Addicts--NARA I and III
E = Paraprofessional therapists
F = Professional therapists

Reliability

The method of estimating reliability of the ABS: DU was to compute a Kuder-Richardson type reliability coefficient for each scale Level. Hoyt (1967) has described a formula for estimating test reliability based on analysis of variance which gives precisely the same result as the formula described by Kuder and Richardson (1937).

It is postulated that the ABS: DU will compare favorably with the reliability results obtained on the mental retardation scale (ABS: MR). The reliabilities reported for the mental retardation scale (Jordan, 1970) compare favorably to those of many tests used for individual diagnosis, evaluation, and selection described by Anastasi (1961).

Independent Variables

A "Personal Data Questionnaire" consisting of 40 items was designed to measure independent variables that the literature suggested to be correlates and/or predictors of attitude-behaviors toward drug users.

Jordan (1968) identified four classes of variables that seem to be important determinants, correlates, and/or predictors of attitudes: (a) demographic (e.g., age, sex, and education), (b) sociopsychological (e.g., value orientation), (c) contact (e.g., amount, voluntariness, and enjoyment), and (d) knowledge about the attitude object.

The present review of the literature regarding attitudes toward illegal drug users revealed that three of the four categories of variables appear to be relevant. The knowledge variable was not well documented and is difficult to instrument. Another factor did appear in the literature, that of political activism. The "Personal Data Questionnaire" was therefore developed to measure four types of variables: demographic, sociopsychological, contact, and political activism.

Demographic Variables

Six demographic variables were included in the questionnaire as possible correlates and/or predictors of attitude-behaviors toward drug users: (a) age, (b) sex, (c) education, (d) marital status, (e) religious preference, and (f) political affiliation.

Contact with Illegal Drug Users

The contact variables were designed to measure: (a) the kinds of experiences the respondent has had with illegal drug users, (b) the amount of contact with illegal drug users, (c) ease of avoidance of contact, (d) material gain from contact, and (e) enjoyment of contact.

Sociopsychological Variables

Sociopsychological variables are concerned with a person's concept of change and the relationship between man

and his environment. The concept of change is assessed in the following areas: (a) self change, (b) child rearing methods, (c) birth control, (d) automation, and (e) rule adherence.

The life situations items were included to measure attitudes toward man and his environment. These items were adapted from a scale by Wolf (1967).

> The continuum underlying this scale range from a view that man is at the mercy of his environment and could only hope to secure some measure of adjustment to forces outside of himself, to a view that man could gain complete mastery of his physical and social environment and use it for his own purpose (Wolf, 1967, p. 113).

Political Activism

Political activism is measured by self reported participation in political rallies, marches or demonstrations, voting, and arrests for civil disturbance. Additional items relate to feeling for the need of a political and social revolution in this country.

Design and Analysis Procedures

A comprehensive international study of attitude-behaviors toward illegal drug users is being developed by Jordan to investigate the attitude-behaviors of known groups in different societies. The purpose is to search for causes, determinates and/or correlates of drug abuse and addiction in the United States and elsewhere, as well as to investigate the attitude-behaviors of the significant

groups who either come into contact with abusers and addicts or have a vested concern for them.

This present study focuses on two of these major groups, heroin dependent persons (addicts) and mental health therapists. Heroin addicts have been selected because they represent individuals with the most serious illegal drug problem, both in terms of the consequences of the addict's life and the difficulty of rehabilitating them. Mental health therapists have been selected because they have been given the responsibility of treating the illegal drug user and attempting to change his behavior.

Heroin Addict Sample

Four heroin addict categories were identified as being available for research. These include addicts who are incarcerated and receive no specific treatment to addicts involved in various treatment programs. Addicts who are currently using heroin and are involved in supporting their habit were not included in this study for two reasons. One, they are an extremely difficult population with which to establish the rapport needed to research them, and two, they are either "working" to gain the money needed for their drug, or they are under the influence of the drug to such an extent that they would be unable to respond to any written questionnaire.

The following four categories were selected because it is hypothesized that they reflect a continuum of attitude-behaviors:

1. Heroin addicts incarcerated--no treatment
2. Heroin addicts in methadone maintenance
3. Heroin addicts in NARA[1] II treatment
4. Heroin addicts in NARA I and III treatment

1. Heroin addicts incarcerated--no treatment. These addicts have been arrested on a drug or drug related offense (usually breaking and entering) and incarcerated in a city or county jail. Typically they are awaiting bond, trial, or are serving a short sentence. They have gone through the withdrawal period (usually five to seven days) and are not receiving methadone or any form of therapeutic treatment. It is presumed that their attitude-behaviors are the closest to the addict out in the street since they are in jail against their will and generally were not participating at the time of their arrest in an active treatment program.

2. Heroin addicts in methadone maintenance. This category of addicts have selected the methadone maintenance program as their desired form of the available treatment programs. They are participating in this treatment because of their own desire and are technically not under a court

---

[1]NARA refers to Narcotic Addict Rehabilitation Act of 1966 enacted by the U.S. Congress.

order. The addict receives his daily dosage of methadone at a clinic or hospital, has weekly urine tests to indicate any heroin use, and is involved in individual and group therapy. He still generally lives at home and is partially involved in his normal subculture. It is presumed that the attitude-behaviors of this group are slightly less positive toward illegal drug users than those of the incarcerated addicts.

3. Heroin addicts in NARA II treatment. These addicts have been convicted of a crime, have been committed to the custody of the Attorney General, have been examined and considered likely to be rehabilitated through treatment, and have been confined to a prison where they will receive treatment.

> 'Treatment' includes confinement and treatment in an institution and under supervised aftercare in the community and includes, but is not limited to, medical, educational, social, psychological, and vocational service, corrective and preventive guidance and training, and other rehabilitative services designed to protect the public and benefit the addict by correcting his antisocial tendencies and ending his dependence on addicting drugs and his susceptibility to addiction (Narcotic Addict Rehabilitation Act of 1966, Sec. 20, Title II, p. 5).

Since these addicts are not involved in their former subculture but are living in a protected community where they are receiving therapeutic treatment, it is postulated that their attitude-behaviors will be less positive than addicts in categories A and B.

4. Heroin addicts in NARA I and III treatment.

Addicts in the NARA I and III treatment program represent those who have civilly committed themselves in lieu of prosecution (Title I) and those who have civilly committed themselves for treatment and are not charged with any criminal offense. The NARA law states regarding Title I:

> If the United States district court believes that an eligible individual is an addict, the court may advise him at his first appearance or thereafter at the sole discretion of the court that the prosecution of the criminal charge will be held in abeyance if he elects to submit to an immediate examination to determine whether he is an addict and is likely to be rehabilitated through treatment. In offering an individual an election, the court shall advise him that if he elects to be examined, he will be confined during the examination for a period not to exceed sixty days; that if he is determined to be an addict who is likely to be rehabilitated, he will be civilly committed to the Surgeon General for treatment; that he may not voluntarily withdraw from the examination or any treatment which may follow; that the treatment may last for thirty-six months; that during treatment, he will be confined in an institution and, at the discretion of the Surgeon General, he may be conditionally released for supervised aftercare treatment in the community; and that if he successfully completes treatment the charge will be dismissed, but if he does not, prosecution on the charge will be resumed (NARA Act of 1966, Title I, p. 2).

Although the addict under Title III receives the same treatment as the addict under Title I, there is a difference in his type of commitment:

> . . . whenever any narcotic addict desires to obtain treatment for his addiction, or whenever a related individual has reason to believe that any person is a narcotic addict, such addict or related individual may file a petition with the United States attorney for the district in which such addict or person resides or is found requesting that such addict or

> person be admitted to a hospital of the Service for treatment of his addiction (Section 302a, Title III, NARA Act of 1966, p. 6).
>
> The court shall also advise such patient that if, after an examination and hearing as provided in this title, he is found to be a narcotic addict who is likely to be rehabilitated through treatment, he will be civilly committed to the Surgeon General for treatment; that he may not voluntarily withdraw from such treatment; that the treatment (including posthospitalization treatment and supervision) may last forty-two months; that during treatment he will be confined in an institution; that for a period of three years following his release from confinement he will be under the care and custody of the Surgeon General for treatment and supervision under a post-hospitalization program established by the Surgeon General; and that should he fail or refuse to cooperate in such posthospitalization program or be determined by the Surgeon General to have relapsed to the use of narcotic drugs, he may be recommitted for additional posthospitalization treatment and supervision (Section 303, Title III, NARA Act of 1966, p. 8).

It is postulated that the addicts in treatment under NARA I and III have exercised more self determination to recover from their addiction than those in addict categories A, B, and C, and would, therefore, evidence less positive attitude-behaviors than those categories.

Mental Health Therapist Sample

Two mental health therapist categories have been identified as being involved in the treatment and rehabilitation of illegal drug users. The professional therapists are those who have a professional and/or academic degree, viz., Ph.D., M.D., M.A., M.S.W., and R.N. The paraprofessional therapists are those who do not have a degree but

have experience and training so that they are equipped to treat narcotic patients.

5. Mental health therapists--paraprofessional. The paraprofessional category of therapists in the field of illegal drug use treatment are often ex-addicts themselves. The ex-addict therapists not only have the experience of what it means to be an addict and to go through rehabilitative treatment, but also to be committed to rehabilitating their fellow addict. It is postulated that this category will have a high degree of empathy, genuineness, positive regard, and concreteness toward the heroin addict as well as a personal dedication to rehabilitation. Thus it would be expected that the category of paraprofessionals will have more positive attitude-behaviors toward drug users than the professional category, but less than any of the heroin categories.

6. Mental health therapists--professional. This category of therapists are professionals by virtue of their academic degree and their employment for the purpose of treating and rehabilitating individuals who have maladies resulting from physiological and/or psychological bases.

The professional therapists in this study were selected from drug treatment hospitals or clinics, as well as general and psychiatric hospitals and clinics that include heroin addicts as part of their population of

treatment. It is postulated that the professional therapist group will have the least positive or the most negative attitude-behaviors toward illegal drug users. First of all, they are the most removed category from addict population of any sample included in this study, and secondly, professionals are reported in the research literature as sometimes having non-sympathetic behaviors toward narcotic addicts.

Sample Size

Attempts were made to identify at least 50 individulas in each of the six categories. Categories were obtained from the Michigan area (Detroit and Lansing), and from the National Institute of Mental Health Clinical Research Center at Lexington, Kentucky.

Since this study was dependent on volunteers, it was difficult to obtain a pure random sample. Selective procedures were as inclusive as possible and were coordinated with the participating NARA agencies. Since a pure random sample could not be obtained the results of this study are dependent on the Cornfield-Tucky argument of known groups.

Data collection was by group administration wherever possible. A standardized set of procedures has been developed for the administration of all instruments (ABS: DU and Personal Data Questionnaire). All interviewers

were instructed beforehand with the procedures to be followed. In all instances the ABS: DU was administered before the personal data questionnaire.

Major Research Hypotheses

The major emphasis of this study is substantive, regarding the attitude-behaviors of heroin dependent persons (addicts) and mental health therapists toward illegal drug users. The secondary emphasis of this study is to lend support to the methodological study conducted by Kaple (1971) on the development of the ABS: DU and the normative data.

Theoretical Hypotheses

H-1: The six Levels of the ABS: DU will form a simplex for each of the research groups, i.e., the obtained Q^2 values for each group shall equal or exceed .70.

H-2: The six research categories will rank order at Level six, as hypothesized in Table 12.

Substantive Hypotheses

H-3: There is a positive relationship between illegal drug use and favorable attitude-behavior toward illegal drug users on Levels, 3, 4, 5, and 6.

H-4: The four addict categories will have more unfavorable attitude-behaviors on Levels 1 and 2 than the two therapist categories.

Rationale.--The addicts will view others as being more opposed to illegal drug users than therapists who feel that society is now spending considerable effort to rehabilitate illegal drug users.

H-5: The addict categories (C and D) who are involved in the NARA treatments will have more unfavorable attitude-behaviors toward illegal drug users on Levels 3, 4, 5, and 6 than addict categories (A and B) who are just incarcerated or on methadone maintenance.

Rationale.--NARA treatments I, II, and III include a sheltered environment (institutionalization) away from the active illegal drug scene. Persons in these treatment programs have had to demonstrate a willingness to stop their addiction. Therefore, they would evidence less acceptance of illegal drug users than addicts who are incarcerated or in the methadone maintenance treatment.

H-6: The paraprofessional therapists who are ex-addicts (Category E_1) will have more positive attitude-behaviors on Levels 3, 4, 5, and 6 than the paraprofessional therapists who are not ex-addicts (Category E_2) and the professional therapists (Category F).

Rationale.--Paraprofessional therapists who are also ex-addicts have personal experience with the problem of addiction in their own lives and it is expected that they would have more empathy for illegal drug users than paraprofessionals who are not former addicts.

H-7: The addict categories (C and D) who are involved in the NARA treatments I, II, and III will have less favorable attitude-behaviors on Level 4 than on Level 6.

Rationale.--These two groups are institutionalized and therefore not in contact with active illegal drug users. Level 4 will indicate future behavior whereas Level 6 will indicate past behavior.

H-8: Importance of religion will be negatively related to favorable attitude-behaviors toward illegal drug users on Levels 3, 4, 5, and 6 for addicts (Categories A, B, C, and D).

Rationale.--Religion would generally be opposed to drug use and an individual who felt his religion was important to him would be morally opposed to drug users (Level 3), but his hypothetical behavior (Level 4), feelings (Level 5), and his overt behavior (Level 6) would be more positive toward drug users.

H-9: Amount of education will be negatively related to favorable attitude-behaviors toward illegal drug users on all six Levels.

Rationale.--The more education a person has the less favorable his attitude-behaviors will be toward illegal drug users.

H-10: Age will be negatively related to favorable attitude-behaviors toward illegal drug users on all six Levels.

Rationale.--The older a person is the less favorable his attitude-behaviors will be toward illegal drug users.

H-11: Addicts who score high on change orientation will have less favorable attitude-behaviors on Levels 3, 4, 5, and 6.

Rationale.--A high score on change orientation is an indicator that the individual believes he can change his behavior and is dissatisfied with his relationships with illegal drug users.

H-12: Addicts who score high on political activism will have less favorable attitude-behaviors on Levels 3, 4, 5, and 6.

Rationale.--A high score on political activism is an indicator that the individual believes society can change and that political action is a meaningful expression in his life.

H-13: Addicts who score high on Efficacy (environmental control) will have less favorable attitude-behaviors on Levels 3, 4, 5, and 6.

Rationale.--A high score on Efficacy (environmental control) is an indicator that the individual believes science and technology can change the world. The environment is therefore important to him.

H-14: Addicts define illegal drug users in the ABS:DU as heroin users.

Rationale.--Addicts will define illegal drug users from their own experience, which in this study will be experience with heroin users.

Analysis Procedures

The Control Data Corporation computers (CDC 3600 and 6500) at Michigan State University were used to analyze the data.

Correlational Statistics

In the CDC MD-STAT program (Ruble & Rafter, 1966), a great amount of data can be employed in one analysis. Separate analysis can be done for a total category and for any number of sub-groups or partitionings of the data. For each specified group, e.g., total, male, female, etc.,

a number of statistics can be requested. Those used for each partitioning in this research will be means and standard deviations for each variable and the matrix of simple correlations between all variables.

Partial and multiple correlations are also outputs of the general multiple regression model used in the CDC program at MSU (Ruble, Kiel & Rafter, 1966a). One advantage to the use of partial correlation is that a number of variables which are assumed to have some relationship to a criterion, or dependent variable, can be examined simultaneously.

The use of multiple regression analysis has been recommended by Ward (1962) because it "not only reduces the dangers in piecemeal research but also facilitates the investigation of broad problems never before considered 'researchable'" (p. 206). The multiple correlation program yields the following statistics: (a) the beta weights of all predictor variables, (b) a test of significance for each beta weight, and (c) the partial correlations between each predictor and the criterion.

Analysis of Variance and Multiple Means Statistics

The UNEQ1 routine (Ruble, Kiel, & Rafter, 1966b) was used to calculate the one-way analysis of variance statistics. This program is designed to handle unequal frequencies occurring in the various categories.

A two-way analysis of variance design for unequal N's is available to analyze group-item interaction (Ruble, Paulson & Rafter, 1966).

Multivariate Analysis of Variance

Multivariate analysis of variance were calculated by the Finn (1970) Univeriate and Multivariate Analysis of Variance and Covariance: A FORTRAN IV Program. The multivariate program will perform univariate and multivariate linear estimation and tests of hypotheses for any crossed and/or nested design, with or without concomitant variables. The number of observations in the subclasses may be equal, proportional, or disproportionate.

Simplex Approximation

Kaiser (1962) has suggested a procedure for testing a simplex approximation. Kaiser's approach may be seen as performing two functions: (a) the "sorting" and rearranging of all possible arrangements of adjacent pairs of correlation coefficients so as to generate the best empirically possible simplex approximation from adjacent pairs, and (b) the assignment of a statistic, Q^2, to the original and rearranged matrices. The index Q^2 is a descriptive one, with a range of 0.00 to 1.00.

A computer program has been developed at MSU which will (a) reorder the obtained Level member correlations of

each ABS: DU matrix by Kaiser's[1] procedure to generate the "best" empirically possible simplex approximation, and (b) will calculate the Q^2 for both the obtained and the empirically best ordering of each matrix.

Significance Level

The .05 level is proposed as constituting significance beyond chance for both correlational and analysis of variance statistics in the present research.

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[1] As documented elsewhere by Jordan (Harrelson, Jorday, Horn, 1972) Guttman has pointed out that the Kaiser procedure is limited to a simplex of the form $r_{j1s}=a_j/a_{1s}(j<1s)$ and alternate methods of simplex analysis are being explored by Jordan and Guttman.

CHAPTER IV

ANALYSIS OF THE DATA

The purpose of this study was to investigate differences of attitude-behaviors toward illegal drug users among two principal groups; heroin users and mental health therapists. This chapter presents the statistical analysis of the specific research hypotheses stated in Chapter III. Additional findings and implications for future research will be discussed in Chapter V.

Research Population

The 240 item scale (ABS:DU) plus the 40 item personal data questionnaire was administered to all the groups described below (depicted in Table 13). The respondents are divided into six main cateogries, A through F, shown in Table 13. Each category is then divided into "responding" groups (i.e., 1, 2, etc.). This terminology is depicted in Table 13 and will be employed throughout Chapter IV and V.

Category A: Heroin Addicts Incarcerated--No Treatment

Category A consists of inmates from two county jails from large metropolitan areas in Michigan. All were

TABLE 13.--Research Populations Employed.

Category	Group Designation	Group No.	N[a]	Males	Females	Type of Response
A						
Heroin Addicts Incarcerated--No Treatment	County Jail in Detroit Area	1	36	28	8	On Q'aire
	County Jail in Lansing Area	2	30	30	0	On Q'aire
B						
Heroin Addicts--Methadone Maintenance	Detroit Area Hospital	1	26	20	5	On Q'aire
C						
Heroin Addicts NARA II	Federal Prison, Milan	1	45	45	0	On Q'aire
D						
Heroin Addicts NARA I and III	NIMH Clinical Research Center, Lexington	1	40	26	11	IBM
E						
Mental Health Therapists--Para-professional	Detroit Area Hospital	1	11	7	4	On Q'aire
	NIMH Clinical Research Center	2	22	13	8	IBM
F						
Mental Health Therapists--Professional	NIMH Clinical Research Center	1	26	13	13	IBM
	Mental Health Center, Lansing	2	11	4	6	IBM
	Neuropsychiatric Clinic, Los Angeles	3	7	0	7	On Q'aire

[a]Note that male and female sums do not always equal total N due to failure of some subjects to respond to sex variable.

arrested on a drug or drug related offense (usually breaking and entering). All were identified by staff physicians when admitted as heroin users. Participants in both groups of category A constituted a comprehensive sample (i.e., all incarcerated heroin users in jail on the day of administration); however, all participation was on a voluntary basis. Only four of those inmates identified in groups 1 and 2 failed to complete the ABS:DU. Group 1 consists of 28 males and 8 females. All the females and 24 of the males were blacks. Group 2 consists of 30 males and no females. Approximately 50 per cent of this group were blacks. Approximately one-third of both groups had been sentenced and the other two-thirds were incarcerated while awaiting trial. Neither group was receiving any therapeutic treatment for drug abuse while in jail.

Category B: Heroin Addicts in Methadone Maintenance

This category consists of one group of 26 outpatients from a Detroit area hospital who were receiving methadone maintenance and a combination of group and individual therapy. The group was entirely black and consisted of 20 males and 5 females. They volunteered on the basis of their counselor's request.

Category C: Heroin Addicts in NARA II Treatment

Category C consists of one group of 45 males incarcerated in a federal prison in southern Michigan. All these subjects were confirmed addicts and were receiving treatment in a special unit under the direction of the Narcotic Addict Rehabilitation Act of 1966, Title II. Approximately 70 per cent of this group were blacks. The subjects had been in the program from 2 weeks to 9 months at the time of administration. All inmates in the NARA II program were asked to take the scale and none refused.

Category D: Heroin Addicts in NARA I and III Treatment

This category consists of one group of 40 patients from the National Institute of Mental Health Clinical Research Center at Lexington, Kentucky. All patients at this center were receiving treatment under Title I or III of the NARA program: 26 were males, 11 were females, and 3 failed to indicate sex on the questionnaire. Approximately 50 per cent were blacks.

Category E: Mental Health Therapists--Paraprofessional

Category E includes two groups of paraprofessional therapists. Group 1 consists of 11 therapists (7 male and 4 females) from the same Detroit area hospital from which the heroin addicts-methadone maintenance sample was obtained. All were blacks and former heroin addicts and

had received very little training in therapy. Group 2 consists of 22 therapists (13 males, 8 females, and 1 who failed to indicate sex on the questionnaire) from the NIMH Clinical Research Center at Lexington. Only 6 members of this group indicated that they were former addicts. All had received extensive training in therapy and had been screened before they were accepted on the staff. Approximately one-third were blacks.

Category F: Mental Health Therapists--Professional

Category F includes three groups of professional therapists. Group 1 contains 13 males and 13 females from the NIMH Clinical Research Center at Lexington. Two were blacks. Only one therapist had been a former heroin addict.

Group 2 consists of 11 therapists (4 males, 6 females, and 1 who failed to indicate sex on the questionnaire) from a community mental health center in central lower Michigan. None were blacks and none were former addicts. Although this group treated some drug abusers, the majority of their patients were treated for other emotional problems.

Group 3 of category F consists of 7 therapists (all females) from the neuropsychiatric clinic of a large southern California university. All were exclusively involved in treating drug abuse. One had been a former heroin addict. The racial make-up of this group was not stated.

All scales were group administered according to the instructions given in Appendix 2. The author administered all groups except the California professional therapists (Category F, group 3). That group was administered by the director of the clinic according to the directions in Appendix 2. In most cases respondents used IBM answer sheets. However, in instances where respondents were unlikely to have had experience, the instructions were to circle their answers on the questionnaire booklet (Appendix 2). All data were coded and punched according to the code book shown in Appendix 3.

Data Analysis

For purposes of reader clarity, none of the hypotheses in this report are stated in the null form. However, in the statistical analysis it is the null form which is used. As stated previously, the .05 level of statistical significance was established as necessary for an hypothesis to be accepted.

ABS:DU Reliability and Validity

Reliability estimates for the 10 groups and for the 6 categories were obtained at each level of the ABS:DU by the Hoyt (1941) method. This method uses analysis of variance to produce a reliability coefficient equivalent to the Kuder Richardson formula 20 (Mehrens and Ebel, 1967), measure of internal consistency. These results are

contained in Table 14. Reference to Table 14 reveals that the samples ranged from .72 to .96. The ABS:DU appears to be reliable in terms of internal consistency on the basis of both group and category data obtained.

Validity of the ABS:DU was assessed by the "known group" method and by the results of the simplex test described in Hypothesis 1. Examination of the data in Tables 15 to 18 indicates that all groups and categories score higher than the required Q^2 value of .70 for the best simplex matrix.

Research Hypotheses

H-1: The six Levels of the ABS:DU will form a simplex for each of the research groups, i.e., the obtained Q^2 values for each group shall equal or exceed .70.

Hypothesis 1 was tested by using the CDC MD-STAT computer program at Michigan State University Computer Center to produce Level to Level correlations for all groups and categories. The Level to Level correlations were then subjected to Kaiser's (1962) simplex approximation test as described in Chapter III. The obtained simplex was submitted to a procedure that "evaluates" the obtained correlation matrix resulting in a Q^2 value. The program also rearranged adjacent pairs of coefficients into the best possible simplex order and computed a "best approximation" Q^2. Tables 15 to 18 present the correlation matrices and Q^2 values for both the original matrix and

TABLE 14.--Group[a] Reliability Coefficients for ABS:DU by Level.

Category	Group	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
A (Addicts Incarcerated--No Treatment)	1	.89	.83	.76	.89	.89	.86
	2	.81	.82	.72	.89	.88	.83
B (Addicts--Methadone Maintenance)	1	.82	.81	.85	.91	.91	.89
C (Addicts--NARA II)	1	.93	.91	.91	.95	.95	.93
D (Addicts--NARA I and III)	1	.91	.91	.93	.94	.94	.88
E (Therapists--Paraprofessional)	1	.82	.86	.80	.88	.89	.88
	2	.81	.90	.88	.93	.93	.91
F (Therapists--Professional)	1	.90	.90	.92	.96	.96	.95
	2	.88	.88	.84	.89	.89	.78
	3	.77	.84	.85	.86	.88	.79

[a]See Table 13 for groups and categories.

TABLE 15.--Correlation Matrices and Q^2 Values for Original and Best Simplex Approximations, Category A.

Original Simplex Matrix: Category A, Group 1

SIMPLEX MATRIX

1.0000	0.0519	0.0590	0.1570	0.1290	
0.0519	1.0000	0.7700	0.4630	0.1830	0.0250
0.0590	0.7700	1.0000	0.5800	0.1520	0.0270
0.1570	0.4630	0.5800	1.0000	0.3060	0.3270
0.1290	0.1830	0.1520	0.3060	1.0000	0.9040
0.1570	0.0250	0.0270	0.3270	0.9040	1.0000

Q**2= 0.7310617869

Best Simplex Matrix: Category A, Group 1

SIMPLEX MATRIX

1.0000	0.0519	0.0590	0.1290	0.1570	
0.0519	1.0000	0.7710	0.1830	0.0250	
0.0590	0.7710	1.0000	0.1520	0.0270	
0.1290	0.1830	0.1520	1.0000	0.9040	
0.1570	0.0250	0.0270	0.9040	1.0000	

Q**2= 0.7390774793

TABLE 15.--Continued.

Original Simplex Matrix: Category A, Group 2

1.0000	0.5950	0.3810	0.3230	0.3050	0.3110
0.5850	1.0000	0.3550	0.4070	0.3990	0.3650
0.3810	0.3550	1.0000	0.4200	0.4510	0.5800
0.3230	0.4070	0.4200	1.0000	0.8560	0.4230
0.3050	0.3990	0.4510	0.8560	1.0000	0.5060
0.3110	0.3650	0.5800	0.4230	0.5060	1.0000

0**2= 0.8851412704

Best Simplex Matrix: Category A, Group 2

1.0000	0.5850	0.3810	0.3230	0.3050	0.3110
0.5850	1.0000	0.3550	0.4070	0.3990	0.3650
0.3810	0.3550	1.0000	0.4200	0.4510	0.5800
0.3230	0.4070	0.4200	1.0000	0.8560	0.4230
0.3050	0.3990	0.4510	0.8560	1.0000	0.5060
0.3110	0.3650	0.5800	0.4230	0.5060	1.0000

0**2= 0.8851412704

TABLE 15.--Continued.

Original Simplex Matrix: Category A, Totals

SIMPLEX MATRIX

1.0000	0.7220	0.4830	0.1250	0.0340	0.0880
0.7220	1.0000	0.5080	0.2330	0.1730	0.2050
0.4830	0.5080	1.0000	0.3520	0.3610	0.3940
0.1250	0.2330	0.3520	1.0000	0.8790	0.5770
0.0340	0.1730	0.3610	0.8790	1.0000	0.6270
0.0880	0.2050	0.3940	0.5770	0.6270	1.0000

Q**2= 0.9491580393

Best Simplex Matrix: Category A, Totals

SIMPLEX MATRIX

1.0000	0.7220	0.4830	0.1250	0.0880	0.0340
0.7220	1.0000	0.5080	0.2330	0.2050	0.1730
0.4830	0.5080	1.0000	0.3520	0.3940	0.3610
0.1250	0.2330	0.3520	1.0000	0.5770	0.8790
0.0880	0.2050	0.3940	0.5770	1.0000	0.6270
0.0340	0.1730	0.3610	0.8790	0.6270	1.0000

Q**2= 0.9563628359

TABLE 16.--Correlation Matrices and Q^2 Values for Original and Best Simplex Approximations, Category B, Category C, and Category D.

Original Simplex Matrix: Category B, Group 1

1.0000	0.5040	0.5640	0.6710	0.6670	0.6730
0.5040	1.0000	0.3640	0.2830	0.3890	0.3290
0.5640	0.3640	1.0000	0.7510	0.5500	0.6670
0.6710	0.2830	0.7510	1.0000	0.7530	0.8290
0.6670	0.3890	0.5500	0.7530	1.0000	0.8590
0.6730	0.3290	0.6670	0.8290	0.8590	1.0000

Q**2= 0.7635281283

Best Simplex Matrix: Category B, Group 1

SIMPLEX MATRIX

1.0000	0.5040	0.3640	0.2830	0.3290	0.3890
0.5040	1.0000	0.5640	0.6710	0.6730	0.6670
0.3640	0.5640	1.0000	0.7510	0.6670	0.5500
0.2830	0.6710	0.7510	1.0000	0.8290	0.7530
0.3290	0.6730	0.6670	0.8290	1.0000	0.8590
0.3890	0.6670	0.5500	0.7530	0.8590	1.0000

Q**2= 0.9381616906

TABLE 16.--Continued.

Original Simplex Matrix: Category C, Group 1

SIMPLEX MATRIX

1.0000	0.4572	0.3081	0.1360	0.0950	0.2190
0.4570	1.0000	0.2470	0.0980	0.1250	0.0510
0.3080	0.2470	1.0000	0.5820	0.5700	0.4040
0.1860	0.0980	0.5820	1.0000	0.6330	0.4990
0.0950	0.1250	0.5700	0.6330	1.0000	0.5370
0.2190	0.0510	0.4040	0.4990	0.5370	1.0000

R**2= 0.9364446784

Best Simplex Matrix: Category C, Group 1

1.0000	0.4570	0.2470	0.0980	0.1250	0.0510
0.4570	1.0000	0.3080	0.1860	0.0950	0.2190
0.2470	0.3080	1.0000	0.5820	0.5700	0.4040
0.0980	0.1860	0.5820	1.0000	0.6330	0.4990
0.1250	0.0950	0.5700	0.6330	1.0000	0.5370
0.0510	0.2190	0.4040	0.4990	0.5370	1.0000

R**2= 0.9663248710

TABLE 16.--Continued.

Original Simplex Matrix: Category D, Group 1

1.0000	0.6610	0.1910	0.0430	0.1420	0.1940
0.6610	1.0000	0.3240	0.1520	0.1330	0.3040
0.1910	0.3240	1.0000	0.3830	0.3110	0.2400
0.0430	0.1520	0.3830	1.0000	0.6490	0.5530
0.1420	0.1330	0.3110	0.6490	1.0000	0.7290
0.1940	0.3040	0.2400	0.5530	0.7290	1.0000

Q**2= 0.9197309529

Best Simplex Matrix: Category D, Group 1

1.0000	0.6610	0.1910	0.1940	0.1420	0.0430
0.6610	1.0000	0.3240	0.3040	0.1330	0.1520
0.1910	0.3240	1.0000	0.2400	0.3110	0.3830
0.1940	0.3040	0.2400	1.0000	0.7290	0.5530
0.1420	0.1330	0.3110	0.7290	1.0000	0.6490
0.0430	0.1520	0.3830	0.5530	0.6490	1.0000

Q**2= 0.9519858299

TABLE 17.--Correlation Matrices and Q^2 Values for Original and Best Simplex Approximations, Category E.

Original Simplex Matrix: Category E, Group 1

1.0000	0.3320	0.5190	0.0050	0.0180	0.1130
0.3320	1.0000	0.4240	0.1970	0.1600	0.2430
0.5190	0.4240	1.0000	0.0510	0.1550	0.1080
0.0050	0.1970	0.0510	1.0000	0.9600	0.9460
0.0180	0.1600	0.1550	0.9600	1.0000	0.9440
0.1130	0.2430	0.1080	0.9460	0.9440	1.0000

Q**2= 0.9100326596

Best Simplex Matrix: Category E, Group 1

1.0000	0.5190	0.3320	0.1130	0.0180	0.0050
0.5190	1.0000	0.4240	0.1080	0.1550	0.0510
0.3320	0.4240	1.0000	0.2430	0.1600	0.1970
0.1130	0.1080	0.2430	1.0000	0.9440	0.9460
0.0180	0.1550	0.1600	0.9440	1.0000	0.9600
0.0050	0.0510	0.1970	0.9460	0.9600	1.0000

Q**2= 0.9334371487

TABLE 17.--Continued.

Original Simplex Matrix: Category E, Group 2

1.0000	0.6130	0.5090	0.3830	0.4990	0.3530
0.6130	1.0000	0.8060	0.5020	0.6110	0.4960
0.5090	0.8060	1.0000	0.4430	0.5110	0.4410
0.3830	0.5020	0.4430	1.0000	0.8840	0.7480
0.4990	0.6110	0.5110	0.8840	1.0000	0.7890
0.3530	0.4960	0.4410	0.7480	0.7890	1.0000

D**2= 0.9477908067

Best Simplex Matrix: Category E, Group 2

1.0000	0.5090	0.6130	0.4990	0.3830	0.3530
0.5090	1.0000	0.8060	0.5110	0.4430	0.4410
0.6130	0.8060	1.0000	0.6110	0.5020	0.4960
0.4990	0.5110	0.6110	1.0000	0.8840	0.7890
0.3830	0.4430	0.5020	0.8840	1.0000	0.7480
0.3530	0.4410	0.4960	0.7890	0.7480	1.0000

D**2= 0.9601976834

TABLE 17.--Continued.

Original Simplex Matrix: Category E, Totals

SIMPLEX MATRIX

1.0000	0.5000	0.3940	0.1990	0.3170	0.1290
0.5000	1.0000	0.5410	0.3630	0.4390	0.3540
0.3940	0.5410	1.0000	0.1680	0.1670	0.1340
0.1990	0.3630	0.1680	1.0000	0.9130	0.8460
0.3170	0.4390	0.1670	0.9130	1.0000	0.8450
0.1290	0.3540	0.1340	0.8460	0.8450	1.0000

Q**2= 0.9074594923

Best Simplex Matrix: Category E, Totals

SIMPLEX MATRIX

1.0000	0.3940	0.5410	0.1670	0.1680	0.1340
0.3940	1.0000	0.5000	0.3170	0.1990	0.1290
0.5410	0.5000	1.0000	0.4390	0.3630	0.3540
0.1670	0.3170	0.4390	1.0000	0.9130	0.8450
0.1680	0.1990	0.3630	0.9130	1.0000	0.8460
0.1340	0.1290	0.3540	0.8450	0.8460	1.0000

Q**2= 0.9715526321

TABLE 18.--Correlation Matrices and Q^2 Values for Original and Best Simplex Approximations, Category F.

Original Simplex Matrix: Category F, Group 1

1.0000	0.6990	0.0980	0.1190	0.2410	0.2490
0.6990	1.0000	0.0400	0.2810	0.4130	0.3710
0.0980	0.0400	1.0000	0.0870	0.0540	0.0700
0.1190	0.2810	0.0870	1.0000	0.9440	0.8520
0.2410	0.4130	0.0540	0.9440	1.0000	0.8690
0.2490	0.3710	0.0700	0.8520	0.8690	1.0000

Q**2= 0.6312280427

Best Simplex Matrix: Category G, Group 1

1.0000	0.0980	0.0400	0.0700	0.0540	0.0870
0.0980	1.0000	0.6990	0.2490	0.2410	0.1190
0.0400	0.6990	1.0000	0.3710	0.4130	0.2810
0.0700	0.2490	0.3710	1.0000	0.8690	0.8520
0.0540	0.2410	0.4130	0.8690	1.0000	0.9440
0.0870	0.1190	0.2810	0.8520	0.9440	1.0000

Q**2= 0.9466534654

TABLE 18.--Continued.

Original Simple Matrix: Category F, Group 2

SIMPLEX MATRIX

1,0000	0,7840	0,0910	0,4910	0,2090	0,1520
0,7840	1,0000	0,4430	0,2660	0,1750	0,0490
0,0910	0,4430	1,0000	0,2430	0,0900	0,2070
0,4910	0,2660	0,2430	1,0000	0,9120	0,8370
0,2090	0,1750	0,0900	0,9120	1,0000	0,9190
0,1520	0,0490	0,2070	0,8370	0,9190	1,0000

Q**2= 0,8227470566

Best Simplex Matrix: Category F, Group 2

SIMPLEX MATRIX

1,0000	0,4430	0,0910	0,2430	0,0900	0,2070
0,4430	1,0000	0,7840	0,2660	0,1750	0,0490
0,0910	0,7840	1,0000	0,4910	0,2090	0,1520
0,2430	0,2660	0,4910	1,0000	0,9120	0,8370
0,0900	0,1750	0,2090	0,9120	1,0000	0,9190
0,2070	0,0490	0,1520	0,8370	0,9190	1,0000

Q**2= 0,8742847706

TABLE 18.--Continued.

Original Simplex Matrix: Category F, Group 3

SIMPLEX MATRIX

1.0000	0.0870	0.2730	0.1490	0.1290	0.0930
0.0870	1.0000	0.6230	0.0990	0.3610	0.2010
0.2730	0.6230	1.0000	0.6330	0.6610	0.7340
0.1490	0.0990	0.6330	1.0000	0.8970	0.9570
0.1290	0.3610	0.6610	0.8970	1.0000	0.8890
0.0930	0.2010	0.7340	0.9570	0.8890	1.0000

0**2= 0.8810561186

Best Simplex Matrix: Category F, Group 3

SIMPLEX MATRIX

1.0000	0.0870	0.2730	0.1290	0.0930	0.1490
0.0870	1.0000	0.6230	0.3610	0.2010	0.0990
0.2730	0.6230	1.0000	0.6610	0.7340	0.6330
0.1290	0.3610	0.6610	1.0000	0.8890	0.8970
0.0930	0.2010	0.7340	0.8890	1.0000	0.9570
0.1490	0.0990	0.6330	0.8970	0.9570	1.0000

0**2= 0.8843942259

TABLE 18.--Continued.

Original Simplex Matrix: Category F, Totals

SIMPLEX MATRIX

1,0000	0,6300	0,0310	0,0520	0,0840	0,0820
0,6300	1,0000	0,0730	0,1960	0,2670	0,2430
0,0310	0,0730	1,0000	0,1490	0,1480	0,0930
0,0520	0,1960	0,1490	1,0000	0,9390	0,8460
0,0840	0,2670	0,1480	0,9390	1,0000	0,8750
0,0820	0,2430	0,0930	0,8460	0,8750	1,0000

Q**2= 0,8324848653

Best Simplex Matrix: Category F, Totals

SIMPLEX MATRIX

1,0000	0,6300	0,0310	0,0840	0,0820	0,0520
0,6300	1,0000	0,0730	0,2670	0,2430	0,1960
0,0310	0,0730	1,0000	0,1480	0,0930	0,1490
0,0840	0,2670	0,1480	1,0000	0,8750	0,9390
0,0820	0,2430	0,0930	0,8750	1,0000	0,8460
0,0520	0,1960	0,1490	0,9390	0,8460	1,0000

Q**2= 0,8332516429

for the "best approximation" for every group and for every category. Although Kaiser's (1962) simplex approximation test does not take into account the occurrence of negative correlations, few of the groups or categories had any negative correlations in their simplexes.

Chapter III stated that a Q^2 value of .70 is accepted as reflecting a satisfactory simplex approximation according to the Jordan-Hamersma 6 reversal criteria (Hamersma, 1969). Only one correlation matrix failed to exceed this criteria (Category F, group 1). It is not known why this group failed to achieve the Q^2 value of .70. When the adjacent pairs were reordered to form the "best simplex" this group Q^2 value rose to .94. When the category totals were analyzed all of them exceeded the required Q^2 value of .70.

The data of Tables 15 to 18 therefore support Hypothesis 1: that the ABS:DU does form a simplex. The simplex structure obtained here is also viewed as a measure of construct validity.

H-2: The six research categories will rank order at Level 6, as hypothesized in Table 12.

Hypothesis 2 was analyzed by rank ordering the means of Level 6 for the six categories. Table 12 rank ordered the categories so that F<E<D<C<B<A, or in other words category F (professional therapists) would have

TABLE 19.--Category and Rank Ordered Means by Level.

Level	Category Means					
	A (Addicts Incarcerated-- No Treatment)	B (Addicts-- Methadone Maintenance)	C (Addicts-- NARA II)	D (Addicts NARA I and III)	E (Therapists-- Para-Professional)	F (Therapists-- Professional)
1	69.91	66.15	66.16	58.85	58.70	59.50
2	68.04	62.00	62.77	58.93	58.30	60.41
3	76.44	72.39	73.30	72.38	65.97	69.34
4	81.52	72.50	71.45	73.30	70.21	71.71
5	82.03	75.84	73.50	73.55	70.88	71.41
6	79.75	76.36	71.81	71.46	70.27	69.32

	Rank Ordered Means					
	Low					High
1	58.70 (E)	58.85 (D)	59.50 (F)	66.15 (B)	66.16 (C)	69.91 (A)
2	58.30 (E)	58.93 (D)	60.41 (F)	62.00 (B)	62.77 (C)	68.04 (A)
3	65.97 (E)	69.34 (F)	72.38 (D)	72.39 (B)	73.30 (C)	76.44 (A)
4	70.21 (E)	71.45 (C)	71.71 (F)	72.50 (B)	73.30 (D)	81.52 (A)
5	70.88 (E)	71.41 (F)	73.50 (C)	73.55 (D)	75.84 (B)	82.03 (A)
6	69.32 (F)	70.27 (E)	71.46 (D)	71.81 (C)	76.36 (B)	79.75 (A)

TABLE 20.--Discriptive Rank Order of Category[a] Means[b] Obtained on ABS:DU by Level.

	Unfavorable						Favorable
	55	60	65	70	75	80	85 90
Level 1 Stereotypic	EDF		BC	A			
Level 2 Normative	ED	F BC		A			
Level 3 Moral			E	F	DBC	A	
Level 4 Hypothetical				ECFBD		A	
Level 5 Actual Feeling				EFCD	B	A	
Level 6 Actual Action				FEDC	B	A	

[a]A. Heroin Addicts Incarcerated--No Treatment
B. Heroin Addicts--Methadone Maintenance
C. Heroin Addicts--NARA II Treatment
D. Heroin Addicts--NARA I and III Treatment
E. Mental Health Therapists--Paraprofessional
F. Mental Health Therapists--Professional

[b]Mean scores range from 40 to 120 on <u>each</u> level of the ABS:DU.

the least positive attitude-behavior and category A (heroin addicts incarcerated--no treatment) would have the most positive attitude-behavior. Inspection of Table 19 indicates that this is exactly the way the six categories rank ordered on Level 6: F<E<D<C<B<A. It is apparent that categories C, D, E, and F are within 2.49 difference of each other, indicating that their actions toward illegal drug users are very similar. There is a jump of 4.55 points from category C to category B and a jump of 3.39 points from category B to category A. The results indicate that Hypothesis 2 is confirmed.

H-3: There is a positive relationship between illegal drug use and favorable attitude-behaviors toward illegal drug users on Levels 3, 4, 5, and 6.

Hypothesis 3 was tested by correlating variable 32 (amount of drug use) to Levels 3, 4, 5, and 6. Variable 32 measures whether an individual uses or has used illegal drugs and the amount of use. The resulting correlations are contained in Table 21. No significant correlations occurred for categories A, B, and C. Category D had one significant correlation of -.37 on Level 4. Category E had three significant correlations: .60 on Level 4, .53 on Level 5, and .47 on Level 6. Category F had only one significant correlation of -.53 on Level 3. Thus, the only pattern occurring is for category E (paraprofessional therapists). The correlations are high, indicating that for paraprofessional

TABLE 21.--Correlations and Significance Levels[a] of Illegal Drug Use to the 6 Levels of ABS:DU, by Category.

Level	A (Addicts Incarcerated-- No Treatment)	B (Addicts-- Methadone Maintenance)	C (Addicts-- NARA II)	D (Addicts NARA I and III)	E (Therapists-- Para-Professional)	F (Therapists-- Professional)
Level 1	-.13 (.30)	-.17 (.40)	-.19 (.23)	-.29 (.08)	.05 (.85)	-.11 (.67)
Level 2	-.11 (.35)	.12 (.56)	-.27 (.08)	-.06 (.71)	-.12 (.65)	-.20 (.41)
Level 3	.04 (.75)	-.01 (.95)	-.16 (.30)	-.29 (.19)	.36 (.17)	-.53 (.02)
Level 4	.23 (.06)	.31 (.19)	.02 (.90)	-.37 (.02)	.60 (.01)	-.20 (.24)
Level 5	.19 (.12)	.16 (.45)	.16 (.29)	.09 (.58)	.53 (.03)	-.21 (.39)
Level 6	.00 (.99)	.16 (.45)	-.17 (.28)	-.06 (.73)	.47 (.06)	-.12 (.63)

[a]Significance levels in parentheses.

therapists who are ex-addicts there is a significant relationship between illegal drug use and attitude-behaviors toward illegal drug users on Levels 4, 5, and 6. Since only one of the six categories showed a significant relationship, Hypothesis 3 is not accepted.

H-4: The four addict categories will have more unfavorable attitude-behaviors on Levels 1 and 2 than the two therapist categories.

Hypothesis 4 was analyzed by the multivariate analysis of variance program (Finn, 1970), a FORTRAN IV program. This program provides a multivariate analysis of variance on all groups as well as univariate analysis of variance between selected groups. The multivariate test was significant at less than $P < .0001$, as shown in Table 22. In examining the univariate tests it was found that Level 1 (significant at $P < .0001$) appeared to be the major contributor to the significance found in the multivariate test. Because of the lack of independence of the two univariate tests the overall required α level (.05) of the multivariate test was divided by two resulting in a required α level of .025 for each univariate test. Employing the α level of .025 it was found that there were significant differences between categories in Level 1.

The Scheffe' (1959) post-hoc comparison test was used to determine significant differences between categories. The first Scheffe' test was performed between the four addict categories (A, B, C, and D) and the two

TABLE 22.--Multivariate Analysis of Variance, Comparison of Categories, A, B, C, D, (Addicts) to Categories E, F (Therapists) on Levels 1 and 2.

Cell Means--Rows are Cells Columns are Variables

	Level 1	Level 2
1	69.91429	63.18571
2	66.15385	62.00000
3	66.15556	62.17778
4	58.85000	58.92500
5	58.69697	58.30303
6	59.50000	60.40909

Variable	Variance	Standard Deviation
1 Level 1	93.253377	9.6568
2 Level 2	205.641050	14.3402

F-Ratio for Multivariate Test of Equality of Mean Vectors = 6.0023
D, F, = 10 and 502.0000 P less than 0.0001

Variable	Between Mean Sq.	Univariate F	P Less Than	Step Down F	P Less Than
1 Level 1	1131.5181	12.1338	0.0001	12.1338	0.0001
2 Level 2	169.1950	0.8228	0.5345	0.5132	0.7663

Degrees of Freedom for Hypothesis = 5
Degrees of Freedom for Error = 252

therapist categories (E and F) and found to be significantly different at the .025 level. The estimate of comparison was ¼A+¼B+¼C+¼D-½E=½F=24.66 and the confidence internal was ± 17.65 (α=.025).

A second Scheffe' test was performed between the federal prison addicts (Category C) and the professional therapists (Category F) and found to be significantly different. The estimate of comparison was C-F=6.65 and the confidence internal was ± 6.58 (α=.025).

A third Scheffe' test was performed between categories A, B, and C and categories D, E, and F and found to be significantly different. The estimate of comparison was (A+B+C)-(D+E+F)=24.26 and the confidence internal was ±13.0. Thus, it is apparent that categories A, B, and C do not differ significantly from each other, and that categories D, E, and F do not significantly differ from each other either, but that categories A, B, and C do significantly differ from categories D, E, and F.

To summarize, it can be stated that the therapist's categories differ significantly from the addict categories on Level 1, but not on Level 2. It must also be stated that the direction of the difference is opposite from what was hypothesized. Hypothesis 4 stated that the addicts would have more unfavorable attitude-behaviors (lower mean scores) than the therapists. What occurred was that the addicts had more favorable (higher mean scores) than the

therapists. The rationale for the directionality of the hypothesis was that addicts would view others as being more opposed to illegal drug users than therapists who would feel that society is now spending considerable effort to rehabilitate illegal drug users. What the research showed was that the therapists view society's attitude toward the illegal drug user as being more negative than the addicts' view of society's attitudes. Implications of what this means will be discussed in Chapter V. Thus, it must be stated that although there was a significant difference between therapists and addicts on Level 1, the directionality was the opposite of the hypothesis, and therefore the hypothesis as it was stated was not accepted.

H-5: The addict categories (C and D) who are involved in the NARA treatments will have more unfavorable attitude-behaviors toward illegal drug users on Levels 3, 4, 5, and 6 than addict categories (A and B) who are just incarcerated or on methadone maintenance.

Hypothesis 5 was tested by the Finn (1970) multivariate analysis of variance program, the same program used for testing Hypothesis 4. The data (Table 23) indicate there was not a significant difference between categories A, B, and categories C, D, on Levels 3, 4, 5, and 6. Examination of Tables 19 and 20 indicate that categories B, C, and D are clustered together on Levels 3 and 4. Category A is separated from the other categories on all Levels. In terms of mean scores categories C and

TABLE 23.--Multivariate Analysis of Variance, Comparison of Categories A, B to Categories C, D on Levels 3, 4, 5, and 6.

Cell Means--Rows are Cells Columns are Variables

	Level 3	Level 4	Level 5	Level 6
1	69.88571	75.70000	76.17143	72.91429
2	72.38462	72.50000	72.92308	73.42308
3	73.02222	68.80000	67.40000	66.77778
4	72.37500	73.30000	73.55000	69.67500

Variable	Variance	Standard Deviation
1 Level 3	322.054194	17.9459
2 Level 4	347.292655	18.6358
3 Level 5	421.505587	20.5306
4 Level 6	444.386354	21.0805

F-Ratio for Multivariate Test of Equality of Mean Vectors = 1.2316
D, F, = 12 and 460.6522 P less than 0.2581

Variable	Between Mean Sq.	Univariate F	P Less Than	Step Down F	P Less Than
1 Level 3	112.2169	0.3484	0.7904	0.3484	0.7904
2 Level 4	438.0648	1.2614	0.2892	3.6739	0.0134
3 Level 5	708.9862	1.6820	0.1726	0.4823	0.6951
4 Level 6	423.3082	0.9526	0.4165	0.5061	0.6786

Degrees of Freedom for Hypothesis = 3 Degrees of Freedom for Error = 177

D have more unfavorable attitude-behaviors on Levels 3, 4, 5, and 6 than category A, and almost identical scores to category B on Levels 3 and 4. Thus, the directionality of Hypothesis 5 is confirmed on Levels 5 and 6, but the differences are not statistically significant.

H-6: The paraprofessional therapists who are ex-addicts (Category E_1) will have more positive attitude-behaviors on Levels 4, 5, and 6 than the paraprofessional therapists who are not ex-addicts (Category E_2) and the professional therapists (Category F).

Hypothesis 6 was tested by the Finn (1970) multivariate analysis of variance program, the same program used for testing Hypotheses 4 and 5. The data (Table 24) indicate there was not a significant difference between category E_1 (paraprofessional therapists--ex-addicts) and category E_2 (paraprofessional therapists--non-addicts) and category F (professional therapists). Examination of the means in Table 24 indicates that the ex-addict paraprofessionals (E_1) and the professionals (F) had almost identical scores on Level 4 and the non-addict paraprofessionals (E_2) scored 2.6 points lower. On Level 5 the ex-addict paraprofessionals (E_1) scored the highest, the professionals (F) scored 1 point lower, and the non-addict paraprofessionals (E_2) scored 3 points lower than E_1. On Level 6 the ex-addict paraprofessionals (E_1) again scored the highest, the professionals (F) scored

TABLE 24.--Multivariate Analysis of Variance, Comparison of Categories E_1[a] to Categories E_2 and F, on Levels 4, 5, and 6.

Cell Means--Rows are Cells Columns are Variables

	Level 4	Level 5	Level 6
1	71.60000	72.53333	73.06667
2	69.05556	69.50000	67.94444
3	71.70455	71.40909	69.31818

Variable	Variance	Standard Deviation
1 Level 4	96.023021	9.7991
2 Level 5	103.795536	10.1880
3 Level 6	90.451665	9.5106

F-Ratio for Multivariate Test of Equality of Mean Vectors = 1.2076
D, F, = 6 and 144.0000 P less than 0.3058

Variable	Between Mean Sq.	Univariate F	P Less Than	Step Down F	P Less Than
1 Level 4	47.4859	0.4945	0.6119	0.4945	0.6119
2 Level 5	40.2924	0.3882	0.6797	0.5937	0.5550
3 Level 6	115.9247	1.2816	0.2837	2.5630	0.0841

Degrees of Freedom for Hypothesis = 2 Degrees of Freedom for Error = 74

[a]E1 = Drug users, E2 = Non-users, F = M H Professionals

3.7 points lower, and the non-addict paraprofessionals (E_2) scored 5.1 points lower than E_1. Thus, the directionality of Hypothesis 6 is confirmed on Levels 5 and 6, but the differences are not statistically significant.

H-7: The addict categories (C and D) who are involved in the NARA treatments I, II, and III will have less favorable attitude-behaviors on Level 4 than on Level 6.

Hypothesis 7 was tested by the Finn (1970) multivariate analysis of variance program, the same program used for testing Hypotheses 4, 5, and 6. The data (Table 25) indicate there was not a significant difference between Level 4 and Level 6 for the addict categories C and D. Examination of the means in Table 25 indicate that category C was 2.1 points higher on Level 4 than on Level 6, and category D was 3.6 points higher on Level 4 than on Level 6. This is the opposite of what was hypothesized. Level 4 measures hypothetical action or postulated future behavior, whereas Level 6 measures actual action or past behavior. One would hope that addicts in treatment would have less positive attitude-behaviors toward illegal drug users than they had prior to treatment. Since both categories of addicts had been in treatment only a short time, this may explain why there is no significant difference between Levels 4 and 6. Thus, Hypothesis 7 is not confirmed.

TABLE 25.--Multivariate Analysis of Variance, Comparison of Level 4 to Level 6 for Categories C and D.

Cell Means--Rows are Cells Columns are Variables

	Level 4	Level 6
1	68.80000	66.77778
2	73.30000	69.67500

Variable	Variance	Standard Deviation
1 Level 4	225.971084	15.0323
2 Level 6	299.163286	17.2963

F-Ratio for Multivariate Test of Equality of Mean Vectors = 1.0525
D, F, = 2 and 82.0000 P less than 0.3538

Variable	Between Mean Sq.	Univariate F	P Less Than	Step Down F	P Less Than
1 Level 4	428.8235	1.8977	0.1721	1.8977	0.1721
2 Level 6	177.7531	0.5942	0.4431	0.2250	0.6365

Degrees of Freedom for Hypothesis = 1
Degrees of Freedom for Error = 83

H-8: Importance of religion will be negatively related to favorable attitude-behaviors toward illegal drug users on Levels 3, 4, 5, and 6 for addicts (Categories A, B, C, and D).

Hypothesis 8 was tested by correlating variable 11 (importance of religion) to Levels 3, 4, 5, and 6. Variable 11 asks the subject to rate the importance to him of his religion in his daily life. Table 26 shows the resulting correlations for the four addict categories by Level. Category C was the only addict category having a significant correlation, and that was for Level 6 (.33). The correlations for the therapist's categories E and F were also analyzed and a significant pattern of negative correlations appeared for the professionals (Category F) on Levels 4 and 6 and very close on Level 5. The professionals had consistently high scores for importance of religion and low scores for attitude-behaviors toward illegal drug users. Therefore, although none of the addict categories had a pattern of significant correlations, causing Hypothesis 8 to be rejected, the professional therapists (Category F) did have a significant pattern of correlations, indicating that Hypothesis 8 may apply to professional therapists, but not to any other category.

H-9: Amount of education will be negatively related to favorable attitude-behaviors toward illegal drug users on all six Levels.

Hypothesis 9 was tested by correlating variable 12 (amount of education) to all six Levels. Variable 12 asks

TABLE 26.--Correlations and Significance Levels[a] of Importance of Religion to the 6 Levels of ABS:DU for Categories A, B, C, and D.

Level	A (Addicts Incarcerated--No Treatment)	B (Addicts--Methadone Maintenance)	C (Addicts--NARA II)	D (Addicts NARA I and III)
Level 1	.09 (.44)	.11 (.57)	.02 (.88)	.06 (.68)
Level 2	.02 (.86)	-.19 (.34)	.00 (.99)	-.13 (.41)
Level 3	.23 (.06)	-.10 (.61)	.13 (.40)	-.28 (.07)
Level 4	-.02 (.86)	-.24 (.22)	.14 (.37)	-.06 (.69)
Level 5	-.08 (.49)	-.14 (.47)	.08 (.60)	.06 (.67)
Level 6	-.008(.95)	-.06 (.75)	.33 (.03)	-.06 (.70)

[a]Significance levels in parentheses.

the subject to indicate the amount of education he has had. Table 27 shows the resulting correlations for the six categories by Level. There were no significant correlations between variable 12 and six Levels for the four addict categories, indicating that this variable is not predictive of attitude-behaviors for addicts. A definite pattern of significant correlations appeared for both the therapist categories (E and F) on Levels 4, 5, and 6. The paraprofessionals (E) had correlations of .42, .50, and .53 for Levels 4, 5, and 6. The professionals (F) had correlations of .30 and .32 for Levels 4 and 6 respectively. Thus, there is a strong relationship between the amount of education for therapists and their attitude-behaviors toward illegal drug users on Levels 4, 5, and 6. Since the data only partially supports Hypothesis 9, the hypothesis cannot be accepted.

H-10: Age will be negatively related to favorable attitude-behaviors toward illegal drug users on all six Levels.

Hypothesis 10 was tested by correlating variable 8 (age) to all six Levels. There were no significant correlations (Table 28) occurring for any category or Level, indicating that the age variable by itself is not significantly related to attitude-behaviors toward illegal drug users. Thus, Hypothesis 10 is not accepted. This may indicate that attitude-behaviors toward illegal drug

TABLE 27.--Correlations and Significance Levels[a] of Amount of Education to the 6 Levels of ABS:DU, by Categories.

Level	A (Addicts Incarcerated-- No Treatment)	B (Addicts-- Methadone Maintenance)	C (Addicts-- NARA II)	D (Addicts NARA I and III)	E (Therapists-- Para-Professional)	F (Therapists-- Professional)
Level 1	-.03 (.82)	-.31 (.12)	-.16 (.31)	-.30 (.05)	-.19 (.28)	.22 (.15)
Level 2	.19 (.11)	-.18 (.36)	-.13 (.40)	-.25 (.11)	-.06 (.73)	-.12 (.42)
Level 3	.21 (.09)	-.007(.97)	-.23 (.15)	-.27 (.08)	-.18 (.31)	.12 (.41)
Level 4	.17 (.17)	-.12 (.54)	-.002(.99)	-.13 (.40)	.42 (.01)	.30 (.04)
Level 5	.16 (.20)	-.09 (.66)	-.07 (.64)	.07 (.63)	.50 (.003)	.27 (.07)
Level 6	.007(.95)	.08 (.70)	-.09 (.59)	.15 (.37)	.53 (.001)	.32 (.03)

[a]Significance levels in parentheses.

TABLE 28.--Correlations and Significance Levels[a] of Age to the 6 Levels of ABS:DU, by Categories.

Level	A (Addicts Incarcerated-- No Treatment)	B (Addicts-- Methadone Maintenance)	C (Addicts-- NARA II)	D (Addicts NARA I and III)	E (Therapists-- Para-Professional)	F (Therapists-- Professional)
Level 1	-.01 (.91)	-.17 (.40)	-.14 (.36)	.004(.98)	.41 (.02)	.08 (.59)
Level 2	-.08 (.51)	-.26 (.18)	-.13 (.40)	-.004(.98)	.28 (.10)	.12 (.41)
Level 3	-.03 (.82)	-.12 (.54)	-.02 (.88)	-.06 (.71)	.23 (.18)	-.09 (.55)
Level 4	-.10 (.43)	.01 (.94)	-.01 (.94)	.03 (.86)	.04 (.79)	-.09 (.55)
Level 5	-.21 (.08)	-.30 (.12)	-.02 (.90)	-.07 (.66)	.10 (.58)	-.08 (.59)
Level 6	-.02 (.86)	-.23 (.24)	-.02 (.91)	-.11 (.50)	-.15 (.38)	-.11 (.45)

[a]Significance levels in parentheses.

users is correlated with groups of variables and not single variables by themselves.

H-11: Addicts who score high on change orientation will have less favorable attitude-behaviors on Levels 3, 4, 5, and 6.

Hypothesis 11 was tested by a multiple correlation program which produced a multiple correlation between responses to the six change orientation questions and Levels 3, 4, 5, and 6 for the four addict categories (A, B, C, and D). The multiple and partial correlations for these variables, by category, are presented in Table 29. Examination of these variables indicates that the combined variance of these variables are statistically significant on Levels 3, 4, 5, and 6 for each of the four categories.

Partial correlations permit simultaneous examination of a number of variables with the dependent variable (in this case, Level scores of the ABS:DU). When a series of Pearson product moment correlations are examined between predictor variables and a dependent variable, spurious conclusions might be drawn if the predictor variables are themselves interrelated. However, partial correlations take into consideration the relationships among the predictor variables and partial out the "unique" correlation of each variable with the dependent variable. This permits examination of the relationship between two variables while holding the others constant.

TABLE 29.--Partial and Multiple Correlations and Significance[a] Levels Between Levels 3, 4, 5 and 6 of ABS:DU and Change Orientation Variables for Categories A, B, C, and D.

Category	Variable	Level 3	Level 4	Level 5	Level 6
Category A (Addicts Incarcerated-- No Treatment)	13 Set in Ways	.11 (.40	.27 (.03)	.27 (.03)	.20 (.11)
	14 Child Rearing	.06 (.63)	.34 (.005)	.35 (.004)	.11 (.36)
	15 Birth Control	.04 (.77)	.01 (.94)	.01 (.92)	-.14 (.26)
	16 Automation	.11 (.38)	.13 (.30)	.10 (.42)	.21 (.09
	17 Observe Rules	.19 (.13)	-.11 (.39)	-.11 (.35)	.18 (.15)
	18 Follow Rules	.91 (.01)	.33 (.007)	.30 (.01)	.16 (.21)
	Multiple R (70)[b]	.43 (.005)	.66 (.005)	.64 (.005)	.53 (.005)
Category B (Addicts-- Methadone Maintenance)	13 Set in Ways	.13 (.56)	.17 (.46)	-.25 (.27)	-.24 (.29)
	14 Child Rearing	.29 (.19)	.26 (.24)	.15 (.51)	.09 (.70)
	15 Birth Control	.41 (.06)	.16 (.48)	.27 (.23)	.24 (.28)
	16 Automation	.00 (.96)	.10 (.66)	.27 (.23)	.32 (.15)
	17 Observe Rules	-.08 (.72)	-.03 (.90)	-.13 (.58)	-.11 (.62)
	18 Follow Rules	.14 (.53)	-.26 (.26)	-.25 (.26)	-.11 (.63)
	Multiple R (26)[b]	.49 (.02)	.40 (.05)	.49 (.02)	.49 (.02)

Category C (Addicts--NARA II)	13 Set in Ways	.10	(.52)	.30	(.05)	.16	(.30)	.26	(.10)
	14 Child Rearing	-.06	(.70)	.04	(.81)	.04	(.80)	.03	(.82)
	15 Birth Control	.09	(.58)	.12	(.46)	.18	(.27)	.05	(.75)
	16 Automation	.11	(.51)	.04	(.81)	.00	(.99)	.05	(.73)
	17 Observe Rules	.05	(.73)	.14	(.38)	.07	(.67)	.27	(.08)
	18 Follow Rules	.27	(.08)	.36	(.02)	.38	(.01)	.34	(.03)
	Multiple R (45)[b]	.40	(.01)	.60	(.005)	.53	(.005)	.61	(.005)
Category D (Addicts--NARA I and III)	13 Set in Ways	.24	(.16	.19	(.27)	.10	(.58)	.16	(.36)
	14 Child Rearing	-.12	(.49)	-.00	(.98)	.33	(.05)	.06	(.71)
	15 Birth Control	-.04	(.82)	-.02	(.90)	-.21	(.22)	-.12	(.49)
	16 Automation	-.32	(.06)	-.25	(.14)	-.13	(.45)	-.15	(.38)
	17 Observe Rules	-.06	(.72)	.01	(.93)	-.08	(.65)	-.10	(.55)
	18 Follow Rules	.02	(.90)	.17	(.31)	-.14	(.42)	.19	(.25)
	Multiple R (40)[b]	.45	(.005)	.38	(.02)	.46	(.005)	.42	(.01)

[a]Significance levels in parentheses.

[b]N for Category.

Therefore, if significant multiple correlations exist for a given group, at a given Level, it is possible to examine both the partial and the zero order correlations to determine which variable(s) is contributing most to the variance at a given Level.

Examination of the partial correlations (Table 29) indicates that categories A and C both have patterns of significant correlations for variable 18 (following rules) for Levels 3, 4, and 5, and category A for Level 6. Variable 18 states "I find it easier to follow rules than to do things on my own." Four responses are available, from agree strongly to disagree strongly. Categories A and C both scored very high on the "disagree strongly" response, indicating that they do things on their own rather than follow rules. Variable 18, therefore, is the only partial correlation that has a pattern of significant correlations for categories A and C.

The fact that the multiple correlations do not vary widely across Levels for all categories suggests that the variables chosen for inclusion in the multiple correlations do not differentially correlate with different Levels of attitude-behaviors as measured by the ABS:DU.

In summary, the multiple correlation data indicate that the combination of change orientation variables do account for a significant portion of the variance,

therefore affirming Hypothesis 11 that the change orientation variables are significantly related to attitude-behaviors on Levels 3, 4, 5, and 6 for Categories A, B, C, and D.

H-12: Addicts who score high on political activism will have less favorable attitude-behaviors on Levels 3, 4, 5, and 6.

Hypothesis 12 was tested by the multiple correlation program which was used to test Hypothesis 11. Nine political activism variables (Variables 19 through 27) were correlated to Levels 3, 4, 5, and 6 for the four addict categories (A, B, C, and D). The multiple and partial correlations for these variables, by category, are presented in Table 30. Examination of these variables indicates that the combined variance of these variables are statistically significant on Levels 3, 4, 5, and 6 for each of the four categories.

Examination of the partial correlations (Table 30) indicates that there are no significant patterns on Levels across categories. The only significant pattern for category A was variable 26 (political change) on Levels 4 and 6. Category B had a significant pattern for variable 23 (civil disturbances) on Levels 4, 5, and 6. Category C had a significant pattern for variable 24 (political revolution) on Levels 3, 4, 5, and 6. Category D had a significant pattern for variable 23 (civil

TABLE 30.--Partial and Multiple Correlations and Significance[a] Levels Between Levels 3, 4, 5, and 6 of ABS:DU and Political Activism Variables for Categories A, B, C, and D.

Category	Variable	Level 3	Level 4	Level 5	Level 6
Category A (Addicts Incarcerated--No Treatment)	19 Political Preference	.07 (.56)	.20 (.12)	.20 (.12)	.09 (.48)
	20 Political Rallies	-.04 (.75)	-.06 (.63)	-.12 (.35)	.02 (.89)
	21 Political Demonstration	.09 (.47)	.11 (.40)	.07 (.57)	-.08 (.53)
	22 Voting	.09 (.47)	-.11 (.40)	-.01 (.90)	.02 (.88)
	23 Civil Disturbances	.04 (.74)	.11 (.36)	.11 (.39)	.09 (.45)
	24 Political Revolution	-.05 (.70)	.09 (.46)	.07 (.56)	.13 (.32)
	25 Social Revolution	-.02 (.87)	.00 (.99)	.06 (.65)	.05 (.71)
	26 Political Change	.14 (.26)	.33 (.008)	.38 (.002)	.07 (.56)
	27 Armed Service	.21 (.10)	.19 (.13)	.12 (.33)	.11 (.40)
	Multiple R (70)[b]	.43 (.005)	.64 (.005)	.65 (.005)	.46 (.005)
Category B (Addicts--Methadone Maintenance)	19 Political Preference	-.09 (.70)	-.39 (.11)	-.35 (.15)	-.19 (.44)
	20 Political Rallies	.03 (.90)	.00 (.99)	.02 (.91)	.18 (.46)
	21 Political Demonstration	-.20 (.42)	-.16 (.52)	-.28 (.25)	-.35 (.15)
	22 Voting	.12 (.63)	-.18 (.47)	-.51 (.03)	-.34 (.17)
	23 Civil Disturbances	-.23 (.36)	-.45 (.05)	-.61 (.007)	-.49 (.03)
	24 Political Revolution	-.01 (.96)	-.04 (.87)	.12 (.62)	-.05 (.82)
	25 Social Revolution	.22 (.38)	.19 (.45)	.44 (.06)	.47 (.04)
	26 Political Change	-.09 (.73	-.00 (.97)	.05 (.82)	.03 (.91)
	27 Armed Service	-.12 (.63)	.29 (.24)	.37 (.12)	.30 (.22)
	Multiple R (26)[b]	.45 (.05)	.60 (.01)	.80 (.005)	.76 (.005)

Category C (Addicts--NARA II)	19 Political Preference	.21	(.21)	.23	(.16)	.22	(.18)	.13	(.42)
	20 Political Rallies	-.16	(.34)	-.01	(.93)	-.05	(.73)	-.20	(.22)
	21 Political Demonstrations	.17	(.30)	.10	(.56)	-.01	(.92)	.20	(.22)
	22 Voting	.06	(.68)	.17	(.31)	.06	(.72)	.18	(.27)
	23 Civil Disturbances	-.20	(.22)	-.10	(.55)	.02	(.89)	.07	(.67)
	24 Political Revolution	.44	(.007)	.38	(.02)	.31	(.05)	.40	(.01)
	25 Social Revolution	.14	(.40)	.21	(.20)	.21	(.21)	.21	(.21)
	26 Political Change	-.14	(.41)	-.07	(.67)	-.07	(.68)	-.04	(.80)
	27 Armed Service	-.23	(.16)	-.17	(.29)	-.04	(.78)	-.04	(.78)
	Multiple R (70)[b]	.60	(.005)	.66	(.005)	.63	(.005)	.70	(.005)
Category D (Addicts--NARA I and III)	19 Political Preference	.20	(.26)	.14	(.43)	.34	(.05)	.20	(.27)
	20 Political Rallies	-.07	(.67)	.05	(.76)	.09	(.61)	.13	(.48)
	21 Political Demonstrations	.05	(.76)	-.07	(.70)	.12	(.49)	.07	(.68)
	22 Voting	.12	(.50)	.43	(.01)	.31	(.08)	.19	(.29)
	23 Civil Disturbances	.38	(.03)	.44	(.01)	.38	(.03)	.10	(.57)
	24 Political Revolution	-.13	(.45)	-.35	(.04)	-.27	(.13)	.11	(.54)
	25 Social Revolution	-.02	(.90)	.22	(.21)	.20	(.26)	.00	(.99)
	26 Political Change	-.21	(.24)	.00	(.98)	-.04	(.81)	-.01	(.93)
	27 Armed Service	.14	(.43)	.28	(.11)	.10	(.58)	.08	(.63)
	Multiple R (40)[b]	.47	(.005)	.57	(.005)	.57	(.005)	.43	(.01)

[a]Significance levels in parentheses.

[b]N for Category.

disturbances) on Levels 3, 4, and 5. These data indicate that future research may need to look for different predictors of drug related attitude-behaviors for different groups, as well as looking at the interaction of predictor variables.

The multiple correlation data indicate that the combination of political activism variables do account for a significant portion of the variance, therefore affirming Hypothesis 12 that the political activism variables are significantly related to attitude-behaviors on Levels 3, 4, 5, and 6 for categories A, B, C, and D.

H-13: Addicts who score high on Efficacy (environmental control) will have less favorable attitude-behaviors on Levels 3, 4, 5, and 6.

Hypothesis 13 was tested by correlating variable 38 (Efficacy) to Levels 3, 4, 5, and 6. Efficacy is measured by an adaptation of Wolf's (1967) Life Situations scale. Table 31 depicts the actual size and direction of the correlations obtained for this variable for Levels 3, 4, 5, and 6. No significant pattern of correlations appeared. Thus, Hypothesis 13 is not accepted.

H-14: Addicts define illegal drug users in the ABS:DU as heroin users.

Hypothesis 14 was tested by item 7 of the ABS:DU Definitional Supplement. This supplement was included so that respondents would indicate how they defined an illegal

TABLE 31.--Correlations and Significance Levels[a] of Efficacy to the 6 Levels of ABS:DU, by Categories.

Level	A (Addicts Incarcerated-- No Treatment)	B (Addicts-- Methadone Maintenance)	C (Addicts-- NARA II)	D (Addicts NARA I and III)	E (Therapists-- Para-Professional)	F (Therapists-- Professional)
Level 1	-.12 (.35)	.03 (.86)	-.30 (.05)	.18 (.25)	-.06 (.70)	-.09 (.56)
Level 2	.07 (.57)	-.10 (.63)	.03 (.84)	.10 (.52)	-.05 (.76)	-.16 (.26)
Level 3	.25 (.05)	.12 (.54)	-.18 (.25)	-.33 (.03)	.01 (.93)	-.09 (.56)
Level 4	-.03 (.83)	.04 (.85)	.16 (.31)	-.15 (.33)	-.11 (.52)	-.18 (.22)
Level 5	.01 (.94)	-.22 (.27)	-.14 (.37)	.00 (.99)	-.13 (.44)	-.12 (.44)
Level 6	.05 (.69)	-.08 (.68)	-.13 (.38)	.11 (.48)	-.31 (.07)	-.25 (.09)

[a]Significance levels in parentheses.

drug user. The supplement was administered two to five weeks after the administration of the ABS:DU to category B; category C; category D; category E, group 1; and category E, group 2. Category E, group 3, answered the supplement at the time of the ABS:DU administration. Groups 1 and 2 of category A were the only groups not available to answer the supplement. In all cases the attempt was to have the same persons answer the supplement who answered the original ABS:DU. Comparable individuals in the same jail for category A, group 2, provided the results for category A.

Item 7 of the ABS:DU definitional supplement asks the respondent, "In answering this questionnaire I have defined illegal drug users as:" Seven choices were presented. The instructions were to circle only one answer. Table 32 presents the results of this question for the two therapist categories as well as for the four addict categories. The first observation is that only 3 per cent of the total listed "soft drugs" (hallucinogens, amphetamines, and barbiturates). None listed marijuana users. Of the remaining sample, 1.8 per cent listed cocaine users, 11.1 per cent listed heroin users, 17.2 per cent listed multiple users, and 67.1 per cent listed any illegal drug user. Thus, 95 per cent of the addicts and therapists grouped together defined illegal drug users on the ABS:DU as heroin users, multiple users, or any illegal drug user.

TABLE 32.--Definitions of Illegal Drug Users.

Definitions	Illegal Drug Users								Mental Health Therapists				Totals	
	Category A		Category B		Category C		Category D		Category E		Category F			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1. Marijuana Users	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2. Hallucinogen Users	1	3.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.5
3. Amphetamine and/or Barbiturate Users	2	6.7	0	0.0	3	6.6	0	0.0	0	0.0	0	0.0	5	2.3
4. Cocaine Users	1	3.3	1	.38	2	4.5	0	0.0	0	0.0	0	0.0	4	1.8
5. Heroin Users	4	13.3	6	23.2	5	11.1	3	7.5	1	3.2	5	11.4	24	11.1
6. Multiple Users	8	26.7	1	3.8	11	24.5	8	20.0	1	3.2	8	18.1	37	17.2
7. Any Illegal Drug Users	14	46.7	18	69.2	24	53.3	29	72.5	29	93.6	31	70.5	145	67.1
TOTALS	30	100.0	26	100.0	45	100.0	40	100.0	31	100.0	44	100.0	216	100.0

The totals for the four addict categories resulted in the following responses: marijuana users, 0 per cent; hallucinogen users, .7 per cent; amphetamine and/or barbiturate users, 3.5 per cent; cocaine users, 2.8 per cent; heroin users, 12.8 per cent; multiple users, 19.8 per cent; and any illegal drug user, 60.5 per cent. What can be concluded is that neither the addicts nor the therapists included in this study selected use of "soft drugs" in their definition of the illegal drug user. The majority of addicts and therapists defined the illegal drug user in general terms (all illegal drug users). Therefore, although this data presents some interesting results, Hypothesis 14 is not accepted. Further research is needed to clarify the definition of the illegal drug user.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study was designed to gain insight into the attitude-behaviors of heroin addicts and mental health therapists. Chapter V will present a brief summary of the project, expand on the results of the data as it pertains to the various addict and therapist groups, and make recommendations for future research.

Summary

The growing abuse of drugs and the need to more fully understand the illegal drug user promoted the interest in researching attitude-behaviors toward illegal drug users. Social attitudes have profound effects on both the patterns and the consequences of drug abuse and on the treatment of compulsive drug users. A public concern which focuses on social drug dangers or drug abuse without also focusing on the drug user himself is incomplete if not misdirected. The attitudes of society and particularly of the psychotherapists committed to treating drug dependent persons have profound effects on the direction and quality of drug abuse treatment programs.

The present study was part of a comprehensive attempt to research attitude-behaviors toward the illegal drug user and to search for causes, determinants and/or correlates of drug abuse and dependency in the United States. Studies focusing on heroin users and attitudes toward illegal drug users are very few and have not generally employed measurement scales based on a workable theoretical framework.

This particular study was concerned with two principal groups, the heroin user who is considered drug dependent, with his attitude-behaviors toward himself, others, and fellow drug users; and mental health therapists, both professional and paraprofessional. Heroin addicts were selected because they represented individuals with the most serious illegal drug problem, both in terms of the consequences of the addict's life and the difficulty of rehabilitating them. Mental health therapists were selected because they have been given the responsibility of treating the illegal drug user and attempting to change his behavior.

Guttman facet theory and scaling offers the most comprehensive approach to measurement of attitude-behaviors. Guttman's definition of attitude as "a delimited totality of behavior with respect to something" extends the common definition of attitude as a predisposition to perceive, think, feel, and behave, thus making it possible to measure

a continuum of human behavior. The continuum extends from verbal-cognitive orientation to overt action. Attitudes and behaviors are therefore not dichotomized but are viewed together as a totality of human behavior.

Utilizing the Guttman-Jordan paradigm of a five facet-six Level structure, the Attitude-Behavior Scale: Drug Users (ABS:DU) was developed to measure six Levels of attitude-behavior: what society believes about illegal drug users (stereotypes), how society generally acts toward illegal drug users (norms), what is considered to be right or wrong behavior concerning illegal drug users (moral evaluation), how the person believes he would act toward illegal drug users (hypothetical action), how the person feels toward illegal drug users (feeling), and how the person has overtly acted toward illegal drug users (personal action). The ABS:DU scales according to a specific statistical structure (i.e., simplex joint struction) which provides not only multidimensional measurement, but also a means of assessing construct validity.

The content of the ABS:DU was designed around five content facets: causes of illegal drug users, characteristics of illegal drug users, reasons for treatment, types of treatment, and consequences of illegal drug use. Added to this was a "personal data questionnaire" which gathered information in four areas: demographic, sociopsychological, political activism, and contact with illegal drug users.

The ABS:DU was administered to a total of 254 subjects, of which 177 were heroin dependent persons and 77 were mental health therapists. The heroin addicts were selected on the basis of their present state of treatment: incarcerated addicts receiving no treatment; addicts living in the community who were involved in methadone maintenance and group therapy; addicts who were convicted of a federal crime and serving their sentence in a federal prison that included intensive psychological treatment; and addicts who civilly committed themselves to a treatment hospital in lieu of prosecution, as well as addicts who civilly committed themselves but were not charged with any criminal offense. The mental health therapists were selected on the basis that they were involved in the treatment and rehabilitation of illegal drug users and were separated on the basis of being professional and paraprofessional therapists.

Various statistical measures were applied to the data which indicated a high degree of construct validity and reliability of the scale.

Interpretation of the Results

The following results of the research study are outlined according to each category of the research population and each Level of measurement of the ABS:DU. This will provide a framework for understanding the total results as well as the specific research hypotheses that

were tested. Table 20 which appeared in Chapter IV is duplicated here as Table 20.1 because it illustrates how each category relates to another on a given Level, as well as seeing how a given category scored on each of the six measurement Levels. Additional data from analyzing particular items of the scale will also be included throughout this section to illustrate where the categories differ and agree.

Since the ABS:DU measured attitude-behaviors on six Levels (Stereotypic, Normative, Moral Evaluation, Hypothetical, Actual Feeling, and Actual Action), the most appropriate means of analyzing differences between categories was multivariate analysis of variance. The multivariate program provides an analysis of variance of all categories as well as univariate analysis of variance between selected categories.

Stereotypic (Level 1)

The purpose of the first Level is to provide a measure of how each category views society's stereotypes toward illegal drug users. The higher the score, the more favorable the attitude toward illegal drug users. According to Table 20.1 the addicts who were incarcerated and receiving no treatment rated society's stereotypes as being more positive, while the paraprofessional and professional therapists and the addicts in a residential

TABLE 20.1.--Discriptive Rank Order of Category[a] Means[b] Obtained on ABS:DU by Level.[c]

	Unfavorable							Favorable
	55	60	65	70	75	80	85	90
Level 1 Stereotypic	EDF		BC	A				
Level 2 Normative	ED	F	BC	A				
Level 3 Moral			E	F	DBC	A		
Level 4 Hypothetical				ECFBD		A		
Level 5 Actual Feeling				EFCD	B	A		
Level 6 Actual Action				FEDC	B	A		

[a]A. Heroin Addicts Incarcerated--No Treatment
B. Heroin Addicts--Methadone Maintenance
C. Heroin Addicts--NARA II Treatment
D. Heroin Addicts--NARA I and III Treatment
E. Mental Health Therapists--Paraprofessional
F. Mental Health Therapists--Professional

[b]Mean scores range from 40 to 120 on each level of the ABS:DU.

[c]This table was Table 20 in Chapter IV.

hospital viewed society as being more negative. The fourth hypothesis in Chapter IV was formulated to ascertain if there were significant differences between the four addict categories and the two therapist categories on this Level. Significant differences were found between the addicts grouped together and the therapists grouped together. To determine exactly which categories were significantly different from other categories the Sheffe' post-hoc comparison test was employed. Referring to Table 20.1, one observes that the six categories clustered themselves into two groups. In the first cluster are the addicts incarcerated receiving no treatment, the addicts in methadone maintenance, and the addicts receiving treatment in a federal prison, all with very similar scores, i.e., no significant difference between these categories.

In the second cluster are the paraprofessional and professional therapists and the addicts who civilly committed themselves to a residential hospital, also with very similar scores, i.e., no significant difference between these categories. But the first cluster differed significantly from the second cluster. It was originally hypothesized that the addicts in the first cluster would see society's stereotypes as being more negative toward illegal drug users, a feeling that society rigidly categorizes the drug user, while the therapists in the second cluster would view society as being more positive, particularly because

of the recent efforts by society to rehabilitate drug users. What resulted was the exact opposite. Perhaps one explanation for this reversal might be the fact that the therapists and the addicts who civilly committed themselves have a more realistic understanding of society's stereotypes because they are in more contact with what society believes about the illegal drug user. The incarcerated addicts and the addicts on methadone maintenance may be naive about society's stereotypes, and consequently have a more simplistic view of society. Doctor and Sieveking (1970) stated in their assessment of attitudes about drug addiction, addicts, and treatment that addicts tend to minimize the seriousness of their own problem in terms of duration and extent of treatment required. What may have been found in the present study is that addicts also tend to minimize society's opposition to illegal drug users, and see society as being more favorable than it really is.

Normative (Level 2)

The purpose of the second Level is to provide a measure of how each category views society as generally acting toward the illegal drug user, i.e., society's normative behavior. Referring back to Table 20.1 one notices that three of the six categories have essentially the same score for society's norms (Level 2) as they had

for society's stereotypes (Level 1), viz., the incarcerated addicts receiving no treatment, the civilly committed addicts in a residential hospital, and the paraprofessional therapists. The professional therapists saw society's norms as being slightly more favorable toward the illegal drug user than society's stereotypes, whereas the addicts on methadone maintenance and the addicts in the federal prison saw society's norms as being less favorable than society's stereotypes. Thus, these three categories see a discrepancy between what society believes and how society generally acts.

The professional therapists may be reflecting here that although they see society's stereotype as being negative, some segments of society are acting more positively toward the drug user. As professionals they have consequently had more participation than the other categories in proposing and activating drug abuse treatment programs, and this may have contributed to their view of society's norms.

The methadone maintenance addicts and the federal prison addicts had identical shifts in rating society's norms as being less favorable than society's stereotypes. This shift toward a more negative view may be reflective of their experiences with certain segments of the society such as the police or the particular treatment program that they are involved in. They may be seeing their

particular treatment program as being forced upon them. The addicts in the federal prison were convicted of a federal crime and put into a treatment program against their will. It is possible that the addicts on methadone maintenance see methadone as the only form of treatment available in their community and one with which they are not in complete agreement. Thirty-seven per cent of the addicts in the methadone maintenance category indicated that drug users did not need a permanent drug substitute like methadone to permanently kick the habit (see Appendix 8 for analyses of specific items of the ABS:DU).

Hypothesis 4 in Chapter IV was devised to test to see if there were significant differences between the addicts grouped together and the therapists grouped together on society's norms (Level 2). The reason why addicts and therapists were not found to be significantly different on society's norms (Level 2) as they were on society's stereotypes (Level 1) is due to the shift of the professional therapists toward a more positive view and the methadone addicts and the federal prison addicts toward a more negative view, resulting in the fact that these three categories had very similar views of society's norms. There was still a significant difference between the positive view of the incarcerated addicts receiving no treatment and the negative view of the paraprofessionals and the civilly committed addicts in a residential hospital.

Moral Evaluation (Level 3)

The moral evaluation Level is a measure of how each category personally views society's perception of right or wrong behavior toward the illegal drug user. All six categories made significant shifts from their views of society's norms (Level 2) to their views of society's moral evaluation (Level 3); to a more favorable relationship toward illegal drug users. This says in general terms that all the subjects see society's moral stance toward illegal drug users as being significantly more positive than they see either society's stereotypes or society's normative behavior. This follows the general pattern established in previous attitude-behavior research that persons who had contact with the object under study saw society's moral evaluation being more positive than it's stereotypes and norms. What is particularly significant here is the extent of the shift on this Level (See Table 20.1) in comparison to the other Levels.

The moral evaluation Level is a transitional Level between the negative view of society's stereotypes (Level 1) and norms (Level 2) and the more positive relationship indicated in personal hypothetical behavior (Level 4), personal feelings (Level 5), and personal actual actions (Level 6). This implies that individuals generally regard society as more conservative (negative) in comparison to

their own position of what society "ought" to do, saying that their personal feelings and personal overt behavior is a little more liberal (positive) than their moral stance.

The incarcerated addicts receiving no treatment again stand out from the other categories as seeing society's moral position as being the most positive or accepting stance toward illegal drug users. The other three addict categories are clustered together with almost identical scores which are slightly less positive than the incarcerated addicts. The fifth research hypothesis in Chapter IV utilized multivariate analysis of variance to see if there were significant differences between the addict categories on the moral Level and found no significant differences. Since the differences between the addict categories are not statistically significant, one could generalize by stating that the addicts studied here all observe very similar moral positions in society's relationships toward illegal drug users.

The therapists see society as reflecting the least favorable moral position toward illegal drug users. The professionals are half-way between the cluster of addicts and the paraprofessionals. It is interesting to note that the paraprofessionals, many of whom are ex-addicts, see society as having the least favorable moral stance. This may be a reflection of a common attitude seen in both ex-addicts and ex-alcoholics of an extremely negative

stance toward drugs and alcohol and those who use them. This also raises the question of how facilitative paraprofessional therapists are in treating addicts since their own moral positions are significantly different. In response to the statement "I have seen that drug users can best be helped by ex-drug addicts" 35 per cent of the paraprofessionals answered "yes," 40 per cent were "uncertain," and 25 per cent answered "no," indicating considerable variation among the paraprofessionals (see Appendix 8 for analyses of specific items of the ABS:DU).

Personal Hypothetical Action (Level 4)

The purpose of the fourth Level is to provide a measure of how each category would act toward the illegal drug user, or an indicator of future behavior. The results on the hypothetical Level are particularly interesting because it is the only Level where there was virtual agreement among five of the six categories. All the categories clustered together with similar scores except the incarcerated addicts receiving no treatment, who were again evidencing significantly more favorable attitudes on how they would act toward illegal drug users. The fifth and sixth research hypotheses in Chapter IV, designed to test for differences between the categories, were therefore not confirmed since there was no difference between five of the six categories. There was significant difference,

though, between the incarcerated addicts receiving no treatment and all the other categories combined as one group. The incarcerated addicts receiving no treatment consistently stand apart from the other categories on all the six measurement Levels, reflecting perhaps attitude-behaviors most similar to the addicts who are "shooting-up" on the street. Since these addicts are not in any treatment program there is no group attempting to change their life style except the police by incarcerating them. Incarceration alone has proved to be ineffective in changing the lives of addicts. Most of them have been arrested frequently for breaking and entering and larceny, and simply serve their short prison terms and immediately return to drugs once they are released.

The addicts who are receiving some form of treatment, whether it is methadone maintenance, treatment in a federal prison, or in a resident hospital are reflecting similar scores to those of the therapists, indicating that all these treatment modalities are having an "effect" on how they will act toward illegal drug users in the future. It seems probable that this is a reflection of the fact that these addicts have therapists who are making an impact on their attitudes and that the addicts are modeling after their therapists, regardless of the type of treatment program they are in: thus the importance of therapists attitudes.

One of the most controversial issues today concerns the use of paraprofessional therapists for treating drug addicts, particularly if the paraprofessionals are former addicts. Hypothesis six in Chapter IV was designed to test for differences between ex-addict paraprofessionals, non ex-addict paraprofessionals, and professionals. The paraprofessionals were divided on the basis of whether or not they had been ex-addicts and the multivariate analysis of variance was used to test for significant differences. No significant differences were found between them on the hypothetical Level (Level 4), the feeling Level (Level 5), and the actual action Level (Level 6). Thus, it did not make a difference if a person was an ex-addict paraprofessional, a non ex-addict paraprofessional, or a professional in terms of how he would act, how he feels, or how he has acted toward illegal drug users, according to the responses given to the ABS:DU.

Personal Feeling (Level 5)

The fifth Level measures how each category report they "actually feel" toward illegal drug users. The incarcerated addicts receiving no treatment were again set apart from the other categories with essentially the same score for "feeling" that they had for "hypothetical" behavior. The methadone maintenance addicts shifted to a more favorable position with feeling, reflecting perhaps that

their feeling toward drug users is stronger than how they think they will act toward drug users in the future. The question arises if this is perhaps an indicator that the methadone maintenance addicts are making some progress in their therapy, as reflected on the hypothetical action Level, but are still evidencing strong feelings toward fellow drug users, due to the fact that they are living in their same environment and relating with their same friends and acquaintances. Although the methadone maintenance addicts are involved in a particular treatment modality, they are at the same time still experiencing the effects of drug subculture membership.

The remaining four categories are clustered together with essentially the same scores for feeling (Level 5) that they had for hypothetical action (Level 4). The two addict categories here are both involved in a controlled treatment environment (federal prison and residential hospital) and are consequently not in contact with either their familiar surroundings or the drug subculture. This undoubtedly contributes to the fact that their feelings toward illegal drug users are so similar to those of the paraprofessional and professional therapists, and quite different from the methadone maintenance addicts and the incarcerated addicts receiving no treatment.

Personal Actual Action (Level 6)

The purpose of this Level is to measure how the subject categories report they have actually acted toward illegal drug users. Referring to Table 20.1 one sees that the categories had very similar scores regarding how they acted (Level 6) to how they feel (Level 5). There are some slight but not statistically significant shifts by all the categories. Five of the six categories are consistent in how they would act, how they feel, and how they have acted toward illegal drug users.

Hypothesis seven in Chapter IV used multivariate analysis of variance to test for differences between future hypothetical action (Level 4) and past actual action (Level 6) for the two addict categories in residential treatment (federal prison and residential hospital). The rationale behind this hypothesis was that these two addict groups are institutionalized and not in contact with the drug subculture, and this would contribute to a difference between how they would act in the future (Level 4) and how they had acted in the past (Level 6). This difference was not found, indicating perhaps that the treatment modalities were not having an effect on changing attitudes, or that the ABS:DU was not detecting changes in attitudes due to treatment. Since these two addict categories had essentially the same attitude-behaviors as the two therapist categories for hypothetical action, personal

feeling, and past action, it may be that these addicts have already changed their attitudes and behaviors due to the type of treatment program they are in.

Having looked at the effects of each of the six measurement Levels, it may now be helpful to look at each of the six categories separately as they are reflected on each of the six Levels. This will provide a profile of attitude-behavior change or differences for each of the categories. The categories were originally selected because it was hypothesized that they would reflect a continuum of attitude-behaviors from favorable to unfavorable, and because this categorization is consistent with the current categorization of federal and local governments.

Heroin Addicts Incarcerated--No Treatment

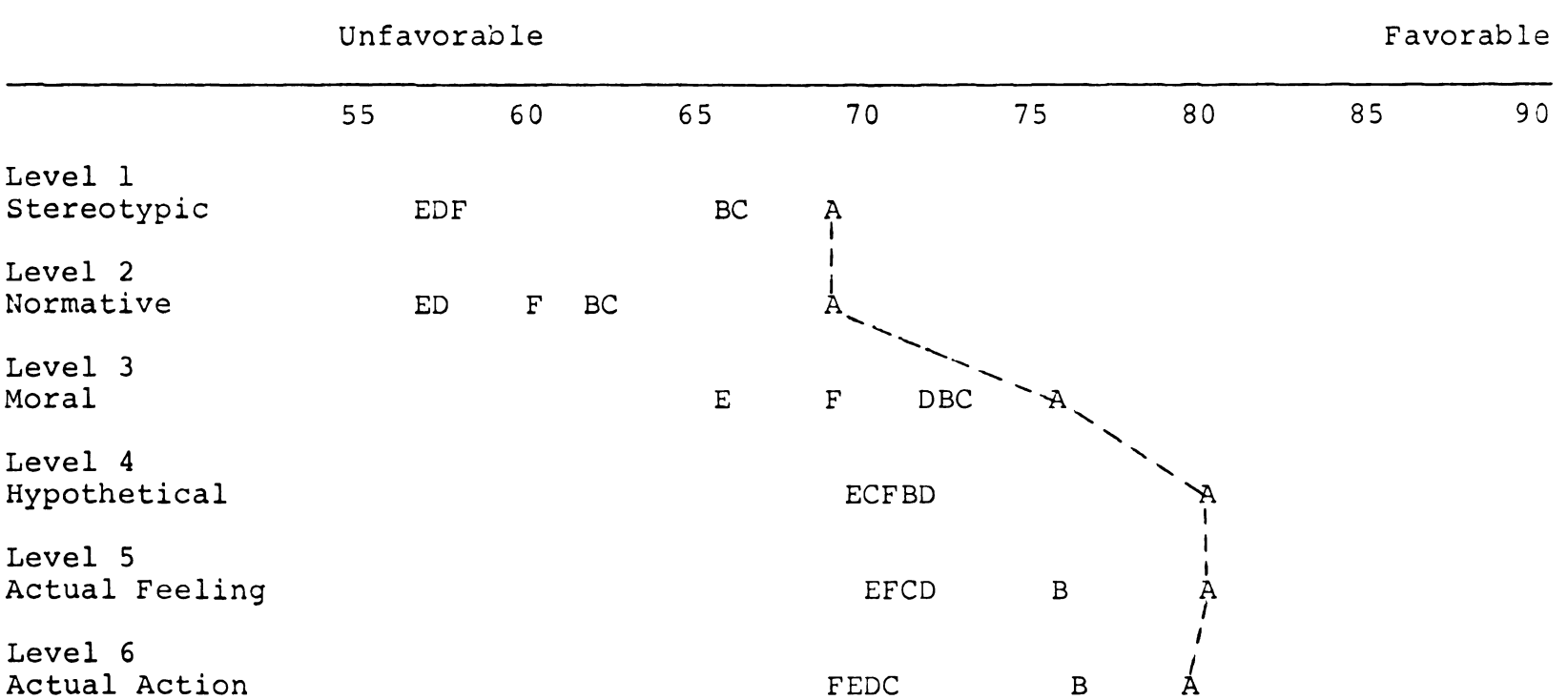
This category of addicts, as stated previously, had been arrested on a drug or drug related offense (usually breaking and entering) and were incarcerated in a county jail. Typically they were awaiting bond, trial, or were serving a short sentence. They had gone through detoxification and were not receiving methadone or any form of therapeutic treatment. It is presumed that their attitude-behaviors are the closest to the addict out in the street since they were in jail against their will and generally were not participating at the time of their

arrest in an active treatment program. Their profile of attitude-behaviors is presented in Table 20.2.

The most outstanding characteristic of these addicts is that they stand apart from all the other categories, reflecting the most positive attitude-behaviors toward illegal drug users. They see society's stereotypes and norms as being more favorable than any other category's rating of society's stereotypes and norms. Their view of society's stereotypes and norms are not as favorable as their views of society's moral position, or their own view of how they would act, how they presently feel, or how they have acted in the past. Their attitude-behaviors are statistically different on all six Levels from the two therapist categories as well as being statistically different from the two institutionalized addict categories (federal prison and residential hospital) on society's norms (Level 2), their personal hypothetical action (Level 4), their personal feelings (Level 5), and their past action (Level 6). This suggests that their incarceration without any treatment is ineffective in changing their attitude-behaviors toward illegal drug users, as compared with the other addict categories.

This raises the question of reevaluating the current practice of incarceration without treatment in county jails across the country. The National Institute of Mental Health has recently funded some experimental treatment programs

TABLE 20.2.--Profile Across Levels of Category A--Incarcerated Heroin Addicts--No Treatment.



[a]A. Heroin Addicts Incarcerated--No Treatment
B. Heroin Addicts--Methadone Maintenance
C. Heroin Addicts--NARA II Treatment
D. Heroin Addicts--NARA I and III Treatment
E. Mental Health Therapists--Paraprofessional
F. Mental Health Therapists--Professional

[b]Mean scores range from 40 to 120 on each level of the ABS:DU.

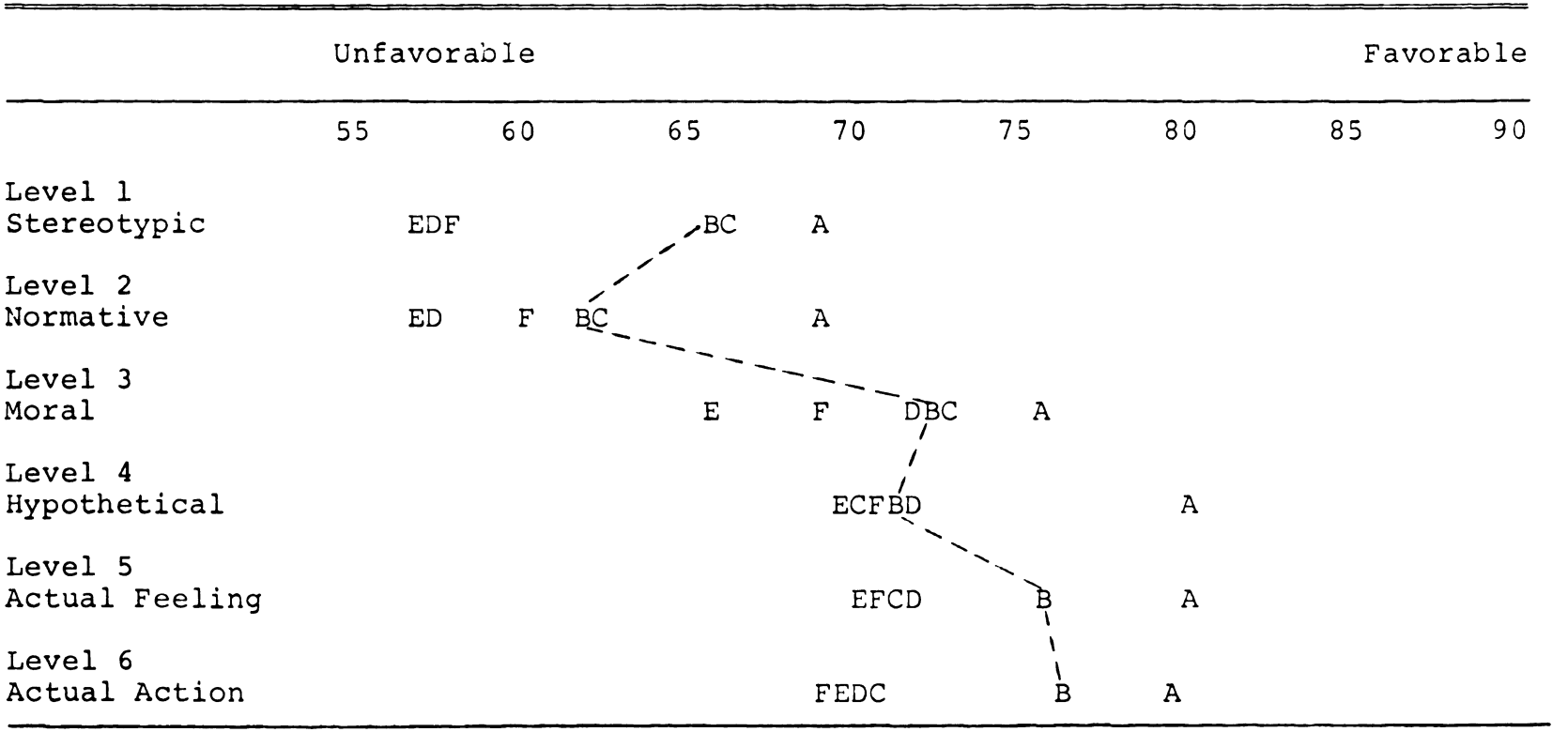
in county jails to see if this will cut down on the degree of recidivism of drug use and incarceration. Since one of these experimental treatment programs happens to have recently been initiated in one of the county jails that participated in this study, it will be interesting to see if the addicts in this jail who are currently receiving treatment will have different attitude-behaviors from the group who received no treatment.

Heroin Addicts--Methadone Maintenance

This group of addicts were actively involved in a methadone maintenance program in a large metropolitan hospital as well as receiving individual or group psychotherapy. They were still living in their regular place of residence and were consequently still in varying forms of contact with the drug subculture. Many of them had previous arrests for drug or drug related charges.

Their profile (see Table 20.3) of attitude-behaviors forms a zig-zag pattern which is similar to the federal prison addicts, but quite different from the other two addict categories and the two therapist categories. They begin on the stereotypic Level as seeing society's stereotypes toward the illegal drug user to be slightly less positive (but not significantly different) in relation to how the incarcerated--no treatment addicts viewed stereotypes. Their view of society's stereotypes were significantly

TABLE 20.3.--Profile Across Levels of Category B--Heroin Addicts--Methadone Maintenance.



[a]A. Heroin Addicts Incarcerated--No Treatment
B. Heroin Addicts--Methadone Maintenance
C. Heroin Addicts--NARA II Treatment
D. Heroin Addicts--NARA I and III Treatment
E. Mental Health Therapists--Paraprofessional
F. Mental Health Therapists--Professional

[b]Mean scores range from 40 to 120 on each level of the ABS:DU.

different from the more negative view scored by the residential hospital addicts, the paraprofessionals, and the professional therapists. This may be due to unrealistic views of society, or a personal expression that society is not as hostile in its beliefs as the other categories think. There is a significant shift to a more negative position for their rating of how society generally acts (norms) toward the drug user, perhaps reflecting some of their personal experiences with the police and the methadone clinic staff. There was definite dissatisfaction expressed by many of these addicts toward the administration of the methadone clinic as well as a considerable degree of agitation in the neighborhood due to black militant efforts. These addicts again make another significant shift, this time in the positive direction in their rating of society's perception of right and wrong behavior (moral evaluation). For hypothetical action they shift slightly in the negative direction, and then to their most positive position for their own personal feeling and past actual action. This zig-zag or inconsistent profile is different from four of the five other categories and is perhaps reflective of the confusion and mixed motives that are found in many methadone maintenance programs.

Heroin Addicts--Federal Prison Treatment Program

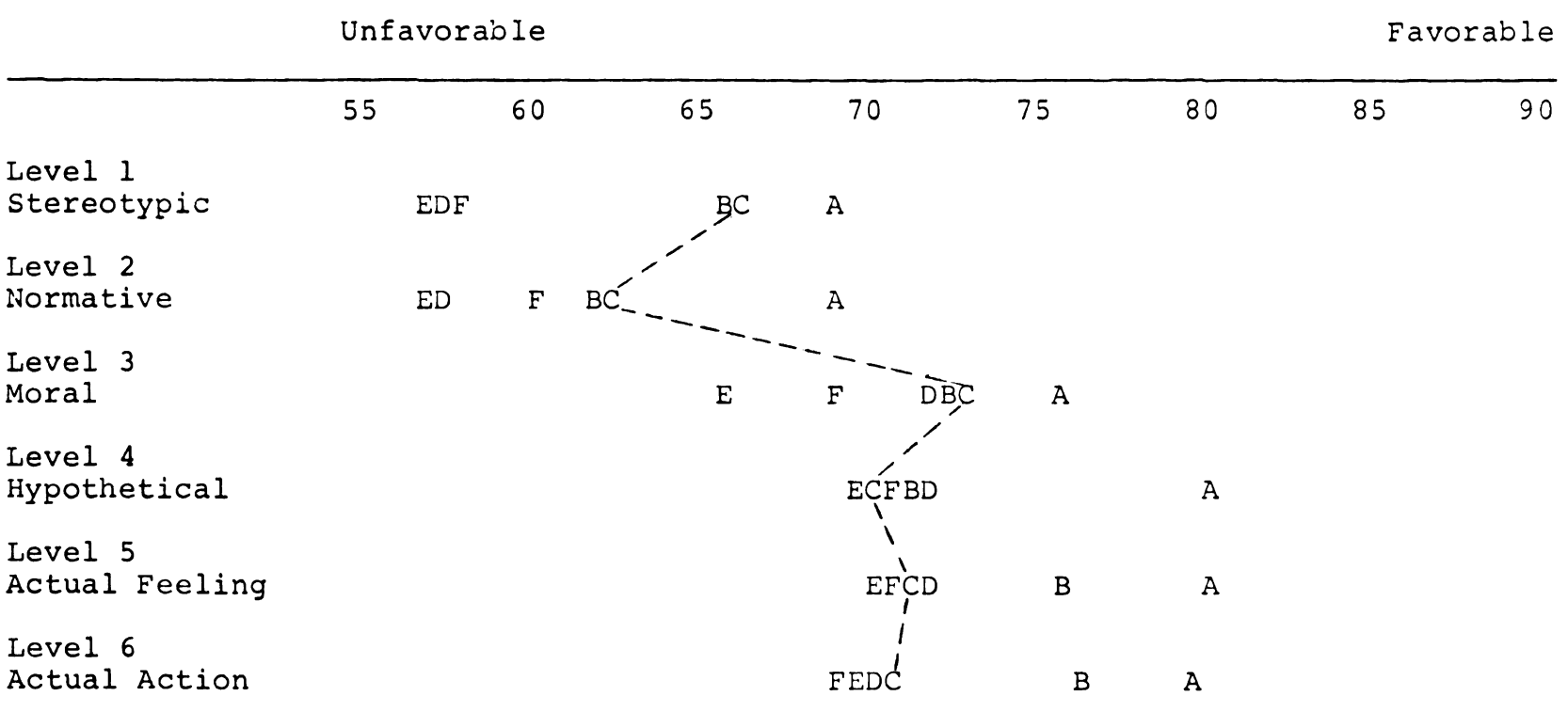
This category of addicts had been convicted of a crime, had been confirmed addicts, and were examined and considered likely to be rehabilitated through treatment. They had been confined to a federal prison to receive intensive treatment under the guidelines established by the Narcotic Addict Rehabilitation Act of 1966, Title II.

Since these addicts were living in a protected community away from the drug subculture, it was postulated that their attitude-behaviors would be less positive than the incarcerated addicts receiving no treatment and the methadone maintenance addicts. What resulted in the study was a zig-zag profile (see Table 20.4) very similar to that of the methadone maintenance addicts except less positive toward drug users on the personal feeling Level and the actual action Level. This may be an indication that their intensive treatment is having a beneficial effect on their own personal feelings and their actual action. There is a general consistency with these addicts on their perception of society's moral view, their own hypothetical action, their own personal feelings, and their reported past action.

Heroin Addicts--Residential Hospital Treatment

This group of addicts were receiving treatment at the National Institute of Mental Health Clinical Research

TABLE 20.4.--Profile Across Levels of Category C--Heroin Addicts--NARA II Treatment.

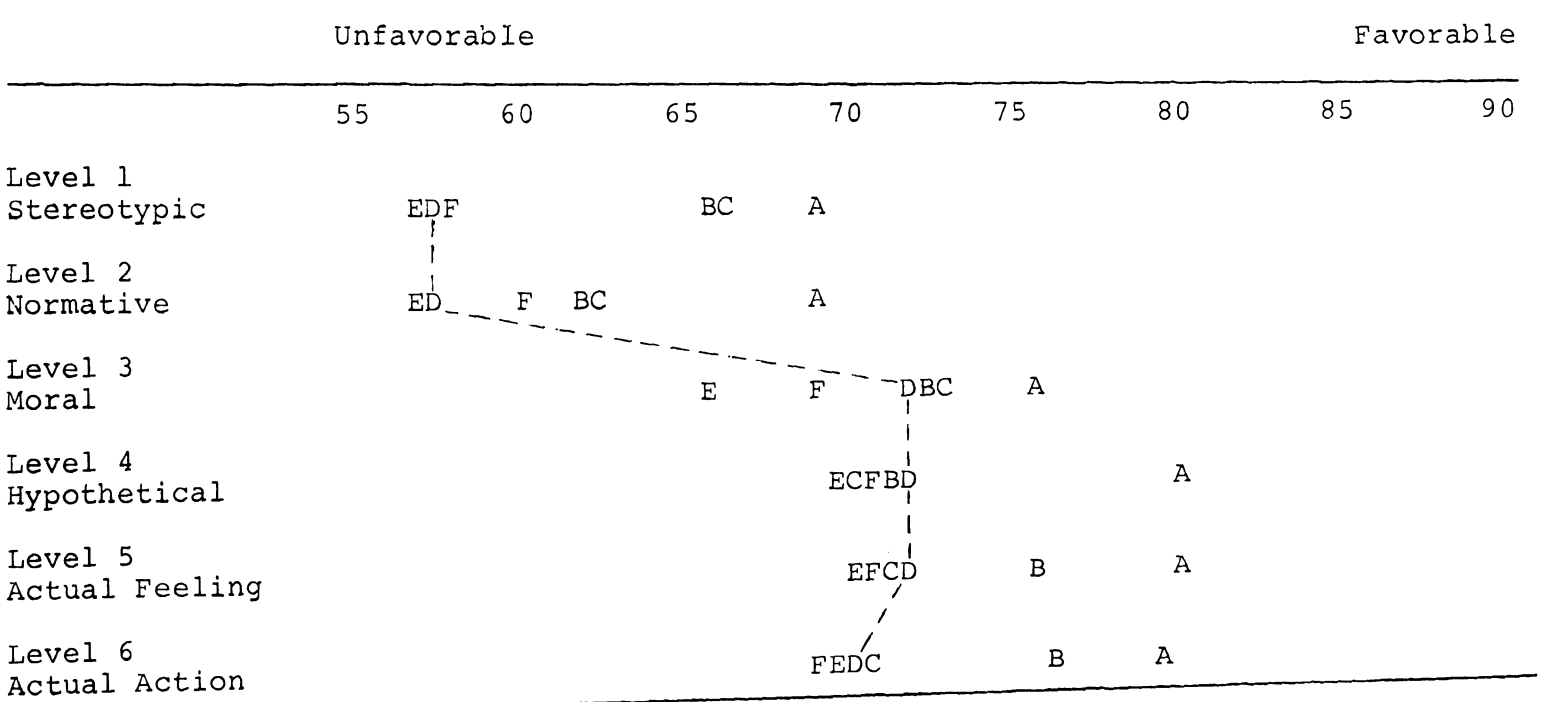


[a]A. Heroin Addicts Incarcerated--No Treatment
B. Heroin Addicts--Methadone Maintenance
C. Heroin Addicts--NARA II Treatment
D. Heroin Addicts--NARA I and III Treatment
E. Mental Health Therapists--Paraprofessional
F. Mental Health Therapists--Professional

[b]Mean scores range from 40 to 120 on each level of the ABS:DU.

Center at Lexington, Kentucky. They had been accepted into treatment through their own civil commitment, either on their own will or in lieu of persceution, and were considered by the hospital to be likely candidates for rehabilitation. This treatment program is also outlined by the Narcotic Addict Rehabilitation Act of 1966, Titles I and III. It was postulated that these addicts had exercised more self determination to recover from their addiction than those in the other addict categories, and that this would be reflected in less positive attitude-behaviors toward illegal drug users. The profile in Table 20.5 indicates that this occurred, that their attitude-behaviors on all six measurement Levels were less favorable than the other addict categories. Their view of society's stereotypes was essentially the same as that of the paraprofessional and professional therapists. This similarity also occurred for society's norms, their hypothetical action, their personal feelings, and their past actions. Their pattern did take a more positive shift on the moral evaluation Level which made them significantly different on that Level from the paraprofessional therapists. This shift, though, brought their moral perceptions of society in line with their hypothetical action, their personal feelings, and their past actions. The goals of the NIMH Clinical Research Center are that their patients remain drug free, and become productive in their personal lives. These

TABLE 20.5.--Profile Across Levels of Category D--Heroin Addicts--NARA I and III Treatments.



[a]A. Heroin Addicts Incarcerated--No Treatment
B. Heroin Addicts--Methadone Maintenance
C. Heroin Addicts--NARA II Treatment
D. Heroin Addicts--NARA I and III Treatment
E. Mental Health Therapists--Paraprofessional
F. Mental Health Therapists--Professional

[b]Mean scores range from 40 to 120 on <u>each</u> level of the ABS:DU.

addicts are evidencing significantly different attitude-behaviors from the incarcerated addicts (no treatment) on the stereotypic, normative, hypothetical, feeling, and actual action Levels, and significantly different attitude-behaviors from the methadone maintenance addicts on the stereotypic, feeling, and actual action Levels.

The ABS:DU has consequently picked up some subtle and significant differences among all the addict categories, which indicates that the heroin addicts that were sampled did not evidence the same attitude-behaviors toward illegal drug users. Are these differences a reflection of different kinds of addicts or are they a reflection of different treatment modalities? Examination of the demographic data collected for all the addicts indicates there were no significant differences among categories in age, education, religion, marital status, political preference, or military service. Thus the variation within a category is carried across the other categories, providing a sample of typical heroin addicts.

It seems likely, then, that the differences occurring on the Levels and on the profiles of each of the categories are a reflection of the specific treatment modalities. If this is found to be true, then attitude-behavior needs to be correlated with success of treatment to see if high attitude-behavior scores suggest a poorer chance of rehabilitation while lower scores suggest a greater chance of

rehabilitation while lower scores suggest a greater chance of rehabilitation. A further step would be to measure attitude-behavior change in addicts as they are moved from a no treatment situation to an intense treatment program in a controlled environment. If the chances of rehabilitating an addict were greatly increased by a particular treatment modality, then increasing opportunities for that treatment modality should be made available to addicts.

It is only recently that comprehensive drug abuse programs have been developed and funded that employ a variety of new treatment modalities, such as half-way houses, multilodges, work action programs, community crises centers, and treatment clinics in local jails. The findings of this study suggest that those addicts who are treated in a controlled environment away from the drug subculture had the least positive attitude-behaviors toward illegal drug users, and that their attitude-behaviors were very similar to those of their therapists. Perhaps it is only in a controlled environment where addicts are in daily contact with their therapists that they can make significant changes in their lives.

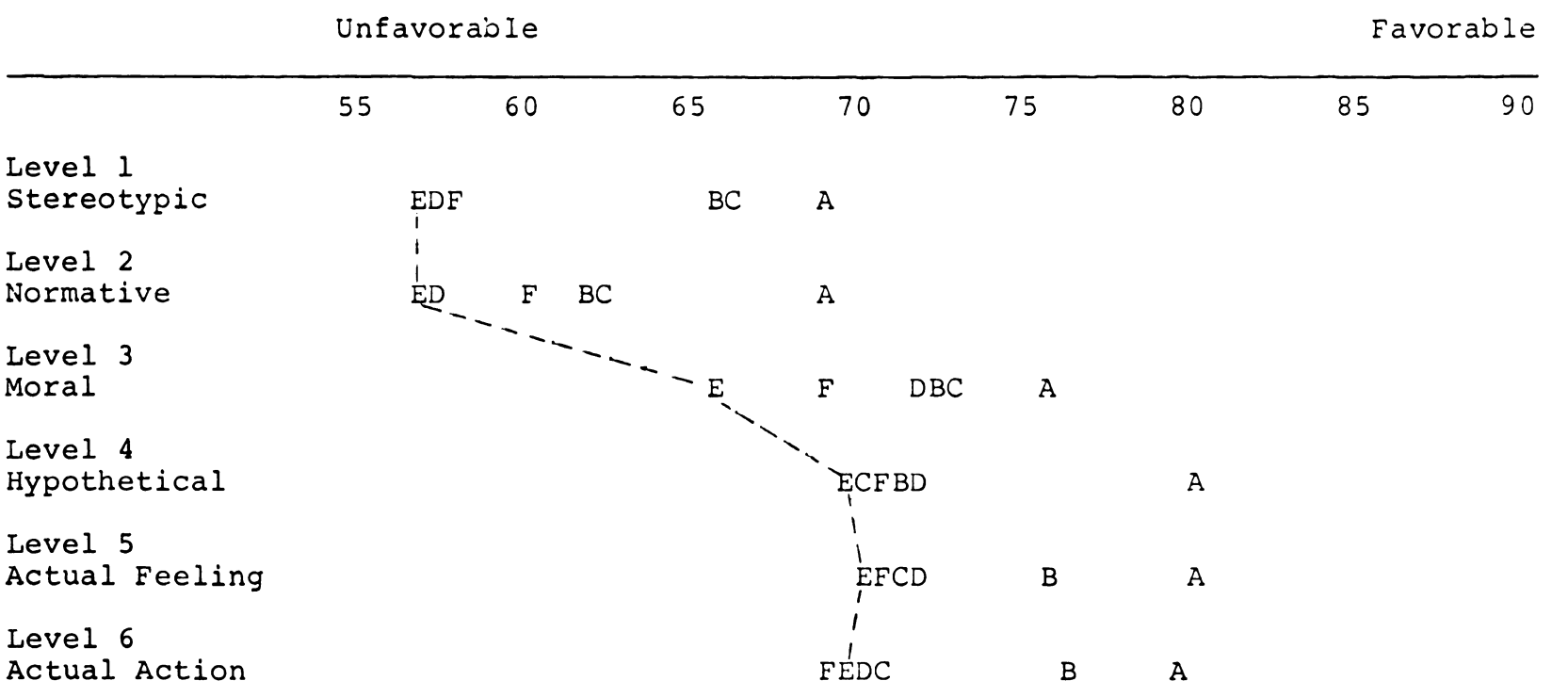
Paraprofessional and Professional Therapists

The paraprofessional therapists were therapists without academic degrees, but all selected specifically to treat heroin addicts. Half the paraprofessionals

sampled were ex-addicts and two-thirds of them had received extensive training for their positions. It was postulated that their attitude-behaviors would be less positive than the addict categories, but more positive than the professional therapists. Their profile in Table 20.6 shows that this did not occur, but that on most measurement Levels the paraprofessionals had less positive (but not significantly different) attitude-behaviors than the professionals (see profile in Table 20.7).

Even when the paraprofessionals were split into those who were ex-addicts and those who were not, there were not significant differences in their attitude-behaviors. Since the ABS:DU is designed to measure attitude-behaviors and not therapist effectiveness, one cannot say that these results suggest that paraprofessional therapists are more or less effective than professional therapists. What is suggested is that they are approaching the addicts with essentially the same attitude-behaviors as those of the professionals. What may be significant in terms of training therapists is to point out that both the paraprofessional and professional therapists have very similar attitude-behaviors to those of the residential treatment addicts, but quite different attitude-behaviors from those of the no treatment incarcerated addicts and the methadone maintenance addicts. What effect similar and different attitude-behaviors have on the therapist-patient

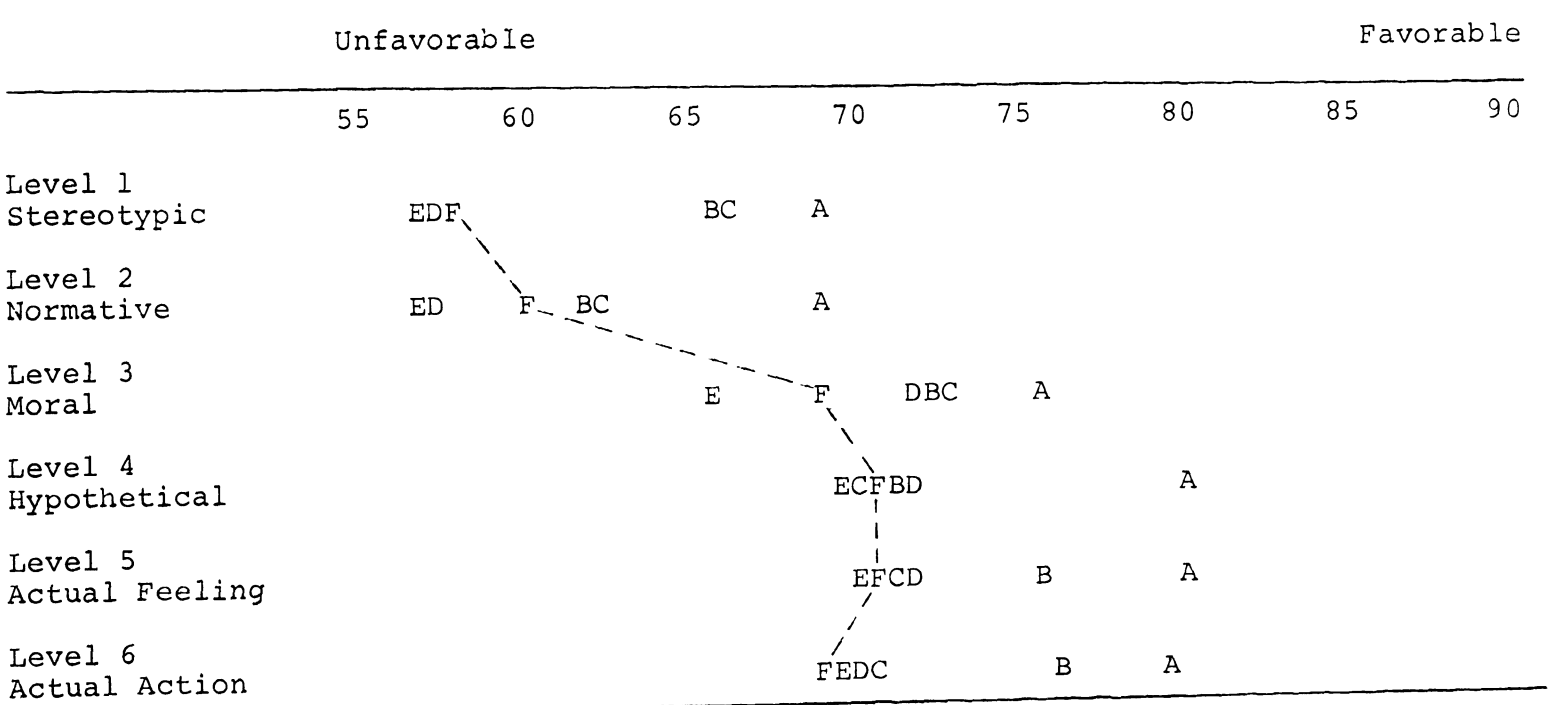
TABLE 20.6.--Profile Across Levels of Category E--Paraprofessional Therapists.



[a]A. Heroin Addicts Incarcerated--No Treatment
B. Heroin Addicts--Methadone Maintenance
C. Heroin Addicts--NARA II Treatment
D. Heroin Addicts--NARA I and III Treatment
E. Mental Health Therapists--Paraprofessional
F. Mental Health Therapists--Professional

[b]Mean scores range from 40 to 120 on each level of the ABS:DU.

TABLE 20.7.--Profile Across Levels of Category F--Professional Therapists.



[a]A. Heroin Addicts Incarcerated--No Treatment
B. Heroin Addicts--Methadone Maintenance
C. Heroin Addicts--NARA II Treatment
D. Heroin Addicts--NARA I and III Treatment
E. Mental Health Therapists--Paraprofessional
F. Mental Health Therapists--Professional

[b]Mean scores range from 40 to 120 on <u>each</u> level of the ABS:DU.

relationship or effectiveness of treatment is an open question and one that needs to be explored in future studies. It may be that a therapist with too negative or too positive attitude-behaviors would not be as effective as the therapist who is somewhat in the middle. These are questions that ought to be explored along with therapist effectiveness.

Predictor Variables

Another part of this research study was to study the relationship of other variables to attitude-behaviors in an attempt to isolate certain variables that may be determinants or causes of drug use. Forty variables were selected for the "Personal Data Questionnaire" that inquired into demographic areas, contact areas, political activism areas, and sociopsychological areas. Where a single variable was being correlated with another single variable, such as age to personal feeling (Level 5), a simple product moment correlation was calculated. When more than one variable was being correlated to another variable, such as political activism to personal feeling, a multiple correlation was calculated as well as individual correlations. Six possible relationships between variables were selected for hypothesis testing on the basis of being characteristic of the four areas of predictor variables (demographic, contact, political activism, and

sociopsychological) and on the basis of significant relationships found in previous attitude-behavior research. These six research hypotheses measured the relationship between importance of religion and the attitude-behavior Levels, amount of education to attitude-behavior Levels, age to attitude-behavior Levels, change orientation to attitude-behavior Levels, political activism to attitude-behavior Levels, and efficacy (environmental control) to attitude-behavior Levels.

Consistent significant relationships were not generally found between any single variable and any single attitude-behavior Level, indicating that single variables by themselves were not predictive of attitude-behaviors. For example, hypothesis 3 in Chapter IV investigated the relationship between personal illegal drug use and attitude-behaviors toward illegal drug users. It was hypothesized that personal illegal drug use would be highly related to positive attitude-behaviors toward illegal drug users. No relationship was found between the amount of illegal drug use and the attitude-behaviors of the addict categories, although a very definite relationship was found for the paraprofessional therapists on the hypothetical, feeling, and past action Levels. Why this occurred for the paraprofessionals and not for the other categories is not known. Before any conclusions are made concerning this relationship, further research should be conducted.

It was postulated in hypothesis 8 that the greater the stated importance of religion the more negative the attitude-behaviors would be for the addict categories. The data indicated that importance of religion was not significantly correlated with attitude-behaviors. Similar results occurred for amount of education (hypothesis 9), age (hypothesis 10), and efficacy (environmental control) (hypothesis 13).

Two of the hypotheses measured the relationship of a number of variables to the attitude-behavior Levels. It was postulated in hypothesis 11 that a high score on change orientation would be related to less favorable attitude-behaviors toward illegal drug users. The rationale for this was that a high score on change orientation would be an indicator that the individual believes he can change his behavior and would consequently be dissatisfied with his relationships with illegal drug users. The data indicated that the change orientation variables taken together had a significant relationship, but no one variable stook out as the contributing variable. In other words, it was impossible to establish whether this relationship resulted from their flexibility or their need to follow rules or be self directing.

Similar results were found when the variables that composed the environmental control (efficacy) questions were related to the attitude-behavior Levels. High

correlations were found for the variables when grouped together, but not when taken individually. This indicates that the variables in the "Personal Data Questionnaire" did not produce significant patterns of relationship as was expected, and that the "Personal Data Questionnaire" failed to uncover correlates or predictors of attitude-behaviors toward illegal drug users. Although this was disappointing, it may be pointing out that attitude-behaviors toward illegal drug users are extremely complex and that single variables such as age, amount of education, and personal use of illegal drugs, taken separately, are not predictive of attitude-behaviors.

It is suggested that the "Personal Data Questionnaire" be revised and that future correlational testing employ multiple correlations to the multiple measurement Levels. This would provide a means of testing to see if a variety of variables are related to a variety of measurement Levels, while at the same time measuring to see if single variables are related to single Levels of attitude-behavior.

The lack of significant correlations at least indicates that for the populations sampled their age, education, drug use, and ability to change did not predict what their attitude-behaviors would be toward illegal drug users. Since the "Personal Data Questionnaire" is a separate entity and not part of the ABS:DU, the failure of the

"Personal Data Questionnaire" to isolate predictors does not in any way diminish the fact that the ABS:DU differentiated between populations of addicts and therapists. A next step is to pursue the area of predictor variables, attempting to isolate specific variables or groups of variables that are highly related to illegal drug use and attitude-behaviors toward illegal drug users.

Content Item Analysis

One aspect of the ABS:DU, not previously mentioned, is that it offers a great amount of clinical data that is pertinent not only to the researcher, but also to the therapist in his understanding and treatment of the heroin addict. Twenty-three of the 40 content items have been analyzed according to responses to demonstrate how individual categories responded to specific items. These items are presented in Appendix 8 with the hope that the results may be helpful to therapists and program directors in understanding the past experiences of addicts and therapists.

Recommendations and Limitations

The data of this study indicate that the ABS:DU is a valid and reliable instrument for the measurement of attitude-behaviors toward illegal drug users. One of the next steps in the refinement of this study is further

research for predictor variables that will relate to different Levels of attitude-behavior and to differential attitude content.

The ABS:DU should also be used in conjunction with other psychological tests and measures in a clinical setting. This would provide an opportunity to see how the results of the ABS:DU compare with observable behavioral measures as well as providing a correlation between the ABS:DU and other psychological tests.

Preparations are being made at the present time to utilize the ABS:DU as a measure of attitude-behavioral change in a training setting for college physicians and nurses. Subjects will be given the ABS:DU immediately prior to training, and then be given it again 4 to 6 weeks later to see if there has been a significant change in attitude-behaviors toward illegal drug users, due to the special training. Preparations are also underway to use the ABS:DU with addicts before and after a treatment program for heroin addicts.

Consideration should be given to the possibility of using the ABS:DU as a prognostic instrument for addicts prior to treatment. The measures on Levels 4, 5, and 6 are giving an indication of a person's future hypothetical behavior, his present feelings, and his reported personal action toward illegal drug users. If those measures are extremely positive toward the illegal drug user, it seems

that it may be an indication that this person will not be a good candidate for therapy. If, on the other hand, the measures are negative toward the illegal drug user, particularly on the hypothetical action Level (Level 4) and the feeling Level (Level 5), this person may be expressing a dissatisfaction with the drug culture or his drug using peer group, and consequently be a good candidate for therapy.

The results of this particular research project give impetus to studying more addict and therapist groups. It is the desire of this author that this study be replicated in other areas of the country to increase the generalizability of the results.

It is the hope of this author that this research project has contributed in some way to the body of knowledge needed to understand and effectively treat the illegal drug user. The incidence of drug abuse is still on the rise in this country. We look forward to the day of its decline.

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APPENDICES

APPENDIX 1

GLOSSARY

GLOSSARY[1]

Approximation--see "simplex approximation."

Attitude--"Delimited totality of behavior with respect to something" (Guttman, 1950, p. 51).

Attitude-behavior--the hyphenated term denotes that attitude is a subclass of behavior rather than an intervening variable or a "predisposition" to behavior.

Content--situation (action, feeling, comparison, circumstances) indicated in an attitude item; generally corresponds to "lateral struction."

Definitional statement--specification of characteristics proper to an item of a given Level member, typically stated in phrase or clause form.

Definitional system--ordered group of definitional statements or of the corresponding Level members; typically either the group constituting a "semantic path" or the complete group of 12 Level members in the "semantic map."

Directionality--characteristic of an item, sometimes called positive or negative, determining agreement with the item as indicating favorableness or unfavorableness toward the attitude object.

Element--one of two or more ways in which a facet may be expressed; in the present system, all joint facets are dichotomous, expressed in one of two ordered elements.

Facet--one of several semantic units distinguishable in the verbal expression of an attitude; in the present system, five dichotomous facets are noted within the joint struction.

Facet profile--see "struction profile."

Joint struction--see also "struction," "lateral struction"--"operationally defined as the ordered sets of . . . five facets from low to high across all five facets simultaneously" (Jordan, 1968, p. 76); that part of the semantic structure of attitude items which can be determined independently of specific response situations.

Lateral struction--see also "struction," "joint struction"--that part of the semantic structure of attitude items which is directly dependent on specification of situation and object; a more precise term than "content."

Level--degree of attitude strength specified by the number of strong and weak facets in the member(s) of that Level; in the present system, six ordered Levels are identified: Level 1 is characterized by the unique member having five weak facets; Level 2, by members having four weak and one strong facet . . . Level 6, by the unique member having five strong facets.

Level member--one of one or more permutations(s) of strong and weak facets which are common to a given Level; in the present system, 12 Level members have been identified: three on Level 2, four on Level 3, two on Level 4, and one each on Levels 1, 5, and 6.

Map--see "semantic map."

Member--see "Level member."

Path--see "semantic path."

Profile--see "struction profile."

Reversal--change in a specified order of Levels or of correlations, involving only the two indicated Levels or correlations.

Semantic--pertaining to or arising from the varying meanings, grammatical forms, or stylistic emphasis of words, phrases, or clauses.

Semantic map--two-dimensional representation of hypothesized relationships among six Levels and among 12 Level members.

Semantic path--ordered set of Level members, typically six, such that each member has one more strong facet than the immediately preceding member and one less strong facet then the immediately following member.

Semantic possibility analysis--linguistic discussion of the implications of the five dichotomous joint facets identified in the present system; of 32 permutations, only 12 are considered logically consistent.

Simplex--specific form of (correlation) matrix, diagonally dominated and decreasing in magnitude away from the main diagonal.

Simplex approximation--matrix which approaches more or less perfectly the simplex form; existing tests (Kaiser, 1962; Mukherjee, 1966) reflect both ordering of individual entries and sizes of differences between entries and between diagonals.

Strong(er)--opposite of weak(er)--term functionally assigned to one of two elements, to a facet expressed by its strong element, or to a Level member characterized by more strong facets than another Level member; the strong-weak continuum is presently examined as unidimensional.

Struction--see also "joint struction," "lateral struction"--semantic pattern identifiable in any attitude item, or the system of such identifications.

Struction profile--specification, typically indicated by small letters and numerical subscripts, of the permutation(s) of weak and strong elements or facets in a Level member or a set of Level members; or of permutations of lateral elements or facets.

Transposition--change in a specified order of Levels or of correlations involving a change in position

of one level or correlation and the corresponding one-place shift in the position of following or preceding levels or correlations.

Weak--opposite of "strong" (which see).

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[1]Credit is given to Maierle (1969) for most of the work in developing this glossary.

APPENDIX 2

DIRECTIONS FOR ADMINISTRATION

DIRECTIONS

RE: Administration of ABS-DU with respondents circling answers in the questionnaire booklets.

NOTE: It is recommended that respondents circle their answers on the answer sheet when they are not likely to have had previous contact with IBM answer forms. It is also recommended that respondents circle their answers when group administration is impossible.

Materials needed - Sufficient questionnaire booklets and pencils for each respondent and a desk, table, or suitable surface for each respondent.

Procedure - Say: "Do not write on these yet."

Hand out one ABS-DU questionnaire to each respondent.

Read the following after each respondent has received the questionnaire. (If the questionnaires are not being group administered - e.g., mailed and personal contact is impossible, dispense appropriate written instructions with each booklet).

"This booklet contains statements of how people behave in certain situations or feel about certain things. You, yourself, or other persons often behave in the same way toward illegal drug users. You also have some general ideas about yourself, about other persons like you and about illegal drug users. Sometimes you feel or behave the same way toward everyone and sometimes you feel or behave differently toward illegal drug users.

This questionnaire has statements about ideas and about behavior. Each statement in this questionnaire is different from every other statement, although some of the statements in each section are similar. Your answers, in one section, therefore, may be the same as answers in another section, or your answers may differ from section to section. Here is a sample statement:"

Sample I

Others believe the following things about drug users as compared to themselves:

1. Chance of drug users being sick more often

    1. less chance
    2. about the same
    3. more chance

If others believe that illegal drug users have less chance of being sick more often circle the number one as shown on the cover of your booklet. Use a soft lead pencil and circle what you believe to be the correct answer for each question. There are no "right" or "wrong" answers and it is suggested that you respond with your first thought about each question. It is important that you read the directions at the top of each page carefully, since questions in this booklet range from what <u>others</u> think to the way <u>you</u> think, feel and act about various things. Please answer every question. Do not put your name or any identifying marks on these questionnaires. Are there any question?"

After any questions have been answered say:

"When you have completed the entire questionnaire, place your booklets here (designate)."

If the questionnaires are not being group administered, make other suitable arrangements for collecting the questionnaires.

"Who needs a pencil?"

Dispense the pencils to those who need them and say:

"There is no time limit. Place your completed booklets here (designate) when you have finished. Be sure to follow the directions at the top of each page carefully. You may begin."

After all the questionnaires have been turned in, clearly label the group that has responded and the date and location of administration. (e.g., Clergy - April 15, 1971, Cobo Hall, Detroit, Michigan)

Place all the booklets, with answer sheets inside, in a box. Put a copy of the label inside the box and seal it. Also, label the outside of the box as to content (e.g., April 15, 1971, Cobo Hall, Detroit, Michigan) and mail to:

Dr. John E. Jordan
444 Erickson Hall
Michigan State University
East Lansing, Michigan 48823

Thank you for your co-operation.

DIRECTIONS

RE: Administration of ABS-DU employing IBM answer sheets.

NOTE: It is recommended that the IBM answer sheets be employed only when respondents are likely to have had previous contact with such answer forms. It is also recommended that the IBM answer sheets be employed with a captive audience that will take the scale under supervision.

Materials needed - Sufficient questionnaire booklets, answer sheets, and pencils for each respondent, (note - each respondent needs 2 answer sheets), a desk, table, or suitable surface for each respondent to write on.

Procedure - Say: "Do not write on these yet"

Hand out one ABS-DU questionnaire and two (2) IBM answer sheets to each respondent.

Read the following after each respondent has received the questionnaire and 2 answer sheets:

"This booklet contains statements of how people behave in certain situations or feel about certain things. You, yourself, or other persons often behave in the same way toward illegal drug users. You also have some general ideas about yourself, about other persons like you and about illegal drug users. Sometimes you feel or behave the same way toward everyone and sometimes you feel or behave differently toward illegal drug users.

This questionnaire has statements about ideas and about behavior. Each statement in this questionnaire is different from every other statement, although some of the statements in each section are similar. Your answers, in one section, therefore, may be the same as answers in another section, or your answers may differ from section to section. Here is a sample statement:"

Sample I

Others believe the following things about drug users as compared to themselves:

1. Chance of drug users being sick more often

    1. less chance
    2. about the same
    3. more chance

If others believe that illegal drug users have less chance of being sick more often make a heavy dark line on the answer sheet between the two lines after the number as shown on the cover of your booklet. Use a soft lead pencil and completely fill in what you believe to be the correct answer for each question. There are no "right" or "wrong" answers and it is suggested that you respond with your first thought about each question. It is important that you read the directions at the top of each page carefully, since questions in this booklet range from what <u>others</u> think to the way <u>you</u> think, feel and act about various things. Please answer every question. Do not put your name or any identifying marks on these questionnaires or answer sheets. Do <u>not</u> write on the questionnaire booklets. Are there any questions?"

After any questions have been answered say:

"Notice that the questions start on page two (2) and go from number 1 to number one hundred and sixty (160) on page 24. Put the answers to these first 160 questions opposite the appropriate number on one IBM sheet. Notice that page 25 starts over again with the number one (1). When you reach this point start on the second IBM sheet at number one and continue to the end of the booklet, marking your responses on the second answer sheet. Since two answer sheets are used, it is necessary to keep the responses to each person together. To do this we will start here (designate a person at the front of a row or some other convenient starting point) and number off. (Have each individual state his number, e.g., 1, 2, 3, etc., until all respondents have an identification number). Now, right the number you received on BOTH of the IBM answer sheets. Put this number in the space for your name. Do <u>not</u> put any other identifying marks on the answer sheets. <u>Every</u> person should now have put his number on BOTH IBM answer sheets. The same number should be on both sheets for any given individual. When you turn in your answer sheets and booklets, place the answer sheets inside the questionnaire booklet and place the booklet with the answer sheets inside on a pile here (designate a place for the booklets and answer sheets to be placed). Are there any questions?"

After questions are answered ask:

"Who needs a pencil?"

Dispense the pencils to those who need them and say:

"There is no time limit. Place your answer sheets inside the questionnaire booklet and put them here (designate) when you have finished. Be sure to follow the directions at the top of each page carefully. You may begin."

After all the questionnaires AND answer sheets (two for each respondent) have been turned in, clearly label the group that has responded and the date and location of administration. (e.g., Clergy - April 15, 1971, Cobo Hall, Detroit, Michigan).

Place all the booklets, with answer sheets inside, in a box. Put a copy of the label inside the box and seal it. Also, label the outside of the box as to content (e.g., April 15, 1971, Cobo Hall, Detroit, Michigan) and mail to:

Dr. John E. Jordan
444 Erickson Hall
Michigan State University
East Lansing, Michigan 48823

Thank you for your co-operation.

APPENDIX 3

VARIABLE LIST--CODE BOOK

ABS-DU: Basic Variable List by IBM Card and Column

Type	Variable	Card	Column	Page	Item	Range
Attitude Content	1. Stereotype	1	11-50	2-7	1-40	40-120
	2. Normative	2	11-50	8-13	41-80	40-120
	3. Moral Eval.	3	11-50	14-19	81-120	40-120
	4. Hypothetical	4	11-50	20-24	121-160	40-120
	5. Personal Feeling	5	11-50	25-29	1-40	40-120
	6. Personal Action	6	11-50	30-34	41-80	40-120
Demographic	7. Sex[a]	1-7	52	35	81	1-2
	8. Age	1-7	53	35	82	1-5
	9. Marital	1-7	54	35	83	1-5
	10. Religion - type	1-7	55	35	84	1-5
	11. Religion - Import.	1-7	56	35	85	1-5
	12. Education - Amount	1-7	57	35	86	1-5
Change Orientation	13. Set in Ways	1-7	58	36	87	1-4
	14. Child Rearing	1-7	59	36	88	1-4
	15. Birth Control	1-7	60	36	89	1-4
	16. Automation	1-7	61	36	90	1-4
	17. Observe Rules (rel)	1-7	62	36	91	1-5
	18. Follow Rules	1-7	63	37	92	1-4
Political Activism	19. Political Pref.	1-7	64	37	93	1-4
	20. Political rallies	1-7	65	37	94	1-5
	21. Political demonst.	1-7	66	37	95	1-5
	22. Vote	1-7	67	37	96	1-3
	23. Civil Disturbances	1-7	68	37	97	1-2
	24. Political Revol.	1-7	69	37	98	1-2
	25. Social Revol.	1-7	70	37	99	1-2
	26. Political Change	1-7	71	38	100	1-4
	27. Armed Service	1-7	72	38	101	1-2
Contact	28. With (type)	7	11	38	102	1-5
	29. Amount	7	12	38	103	1-5
	30. Kind	7	13	38	104	1-4
	31. Use	7	14	39	105	1-5
	32. Amount of use	7	15	39	106	1-5
	33. Avoidance	7	16	39	107	1-5
	34. Gain	7	17	39	108	1-2
	35. Enjoyment	7	18	39	109	1-5
	36. Arrested	7	19	39	110	1-2
	37. Reason for use	7	20	39	111	1-5
Value	38. Efficacy	7	21-29	40-41	112-120	9-36
Identity	39. Nation	1-7	1-2	--	--	--
	40. Subject No.	1-7	3-5	--	--	--
	41. Administration Group[b]	1-7	6-7	--	--	--
	42. Interest Group[c]	1-7	8-9	--	--	--
	43. Card No.	1-7	80	--	--	--

[a]Sex: 1=female; 2=male

[b]Same as group numbers in Table 15.

[c]Same as category numbers in Table 15.

APPENDIX 4

ABS-DU (INITIAL VERSION)

ATTITUDE BEHAVIOR SCALE DU

DIRECTIONS

This booklet contains statements of how people behave in certain situations or feel about certain things. You, yourself, or other persons often behave in the same way toward illegal drug users. You also have some general ideas about yourself, about other persons like you and about illegal drug users. Sometimes you feel or behave the same way toward everyone and sometimes you feel or behave differently toward illegal drug users.

This questionnaire has statements about ideas and about behavior. Each statement in this questionnaire is different from every other statement, although some of the statements in each section are similar. Your answers in one section, therefore, may be the same as answers in another section, or your answers may differ from section to section. Here is a sample statement:

Sample I

Others believe the following things about drug users as compared to themselves:

1. Chance of drug users being sick more often

   (1.) less chance
   2. about the same
   3. more chance

If others believe that illegal drug users have less chance to be sick more often, should circle the number 1 as shown above or if you are using an IBM sheet, make a heavy dark line on the answer sheet between the two lines after the number as follows:

1. 1 ▬ 2 === 3 === 4 === 5 ===

Please mark only one response for each question. Although the answers to some questions may not exactly fit your opinion, choose a "best" answer.

********** DO NOT PUT YOUR NAME ON THE BOOKLET **********

by: John E. Jordan
James M. Kaple
William Nicholson
College of Education
Michigan State University

ABS-I-DU

Directions: Section I

This section contains statements about ideas which others have about illegal drug users. Circle or fill in the answer sheet number that indicates how others compare drug users with non drug users.

Others believe the following things about illegal drug users as compared to non-drug users:

1. Drug users usually come from homes that are:

   1. less happy than others
   2. same as others
   3. happier than others

2. Drug users are genetically predisposed (born that way) to use drugs.

   1. less often than others
   2. the same
   3. more often than others

3. Drug users take drugs because it is "the thing to do."

   1. disagree
   2. undecided
   3. agree

4. As compared to others drug users deal with anxiety or worry:

   1. less well
   2. same
   3. better than non drug users

5. Others believe that minority racial groups are more likely to be drug users than whites.

   1. agree
   2. uncertain
   3. disagree

6. People who use drugs are:

   1. physically weaker than others
   2. same
   3. physically stronger than others

7. Others believe that drug users start taking drugs for medical reasons.

   1. very seldom
   2. undecided
   3. more often than not

ABS-I-DU

Others believe the following things about illegal drug users as compared to non-drug users:

8. Others believe drug users take drugs to "escape reality."

   1. agree
   2. uncertain
   3. disagree

9. Others believe drug users' intellectual ability is:

   1. less than others
   2. equal to others
   3. more than others

10. Others believe drug users can be trusted:

   1. less than others
   2. same as others
   3. more than others

11. As compared to non-drug users, others believe drug users are:

   1. more frightening
   2. same
   3. less frightening

12. As compared to non-drug users others believe that drug users plan for the future.

   1. less often
   2. same
   3. more often

13. With regard to work, drug users are:

   1. less dependable than others
   2. same as others
   3. more dependable than others

14. Others believe that drug users are usually "followers" rather than "leaders."

   1. agree
   2. uncertain
   3. disagree

15. With regard to sexual practices, others believe that drug users are:

   1. more sexually loose than non-drug users
   2. same
   3. less sexually loose than non-drug users

Others believe the following things about **illegal drug users** as compared to non-drug users:

16. Others believe that drug users lead religious lives:

    1. less often than non-users
    2. same as non-users
    3. more often than non-users

17. As compared to others, drug users act immature.

    1. agree
    2. uncertain
    3. disagree

18. Others believe that drug users are antisocial:

    1. more often than non-drug users
    2. same as non-drug users
    3. less often than non-drug users

19. Others believe that drug users make "good friends:"

    1. less often than non-drug users
    2. same as non-drug users
    3. more often than non-drug users

20. Others believe that drug users are interested in unusual sexual practices:

    1. more often than non-drug users
    2. same as non-drug users
    3. less often than non-drug users

21. Others believe that drug users go to universities:

    1. less often than non-users
    2. same as non-users
    3. more often than non-users

22. Others believe that drug users are faithful to their spouses:

    1. less often than non-users
    2. same as non-users
    3. more often than non-users

23. Others believe drug users are an economic threat to society.

    1. agree
    2. undecided
    3. disagree

ABS-I-DU

Others believe the following things about illegal drug users as compared to non-drug users:

24. Others believe that drug users are a threat to society.

1. agree
2. uncertain
3. disagree

25. As compared to non-drug users, others believe that drug users are:

1. less fun to date
2. the same
3. more fun to date

26. Others believe that drug users are beyond medical help.

1. agree
2. uncertain
3. disagree

27. Others believe that drug users should be isolated from the rest of society in jails.

1. agree
2. uncertain
3. disagree

28. Others believe that drug users should be isolated from society by hospitalization.

1. agree
2. uncertain
3. disagree

29. Others believe that drug users can best be helped by ex-drug addicts.

1. disagree
2. uncertain
3. agree

30. Others believe that drug users are beyond help by psychologists.

1. agree
2. uncertain
3. disagree

31. Others believe that the government should pay all costs associated with rehabilitating drug users.

1. disagree
2. uncertain
3. agree

Others believe the following things about illegal drug users as compared to non-drug users:

32. Others believe that all that drug users need is hospital detoxification (drying out).

1. agree
2. uncertain
3. disagree

33. Others believe that drug users respond better to group therapy than to other therapy types.

1. disagree
2. uncertain
3. agree

34. Others believe that legal restraints on drug users should be:

1. more strict
2. remain unchanged
3. less strict

35. Others believe that most drug users usually seek treatment only to lower the amount of daily drug intake.

1. agree
2. uncertain
3. disagree

36. Others believe that drug users need a permanent drug substitute, like methadone, to permanently "kick the habit."

1. agree
2. uncertain
3. disagree

37. Others believe drug use leads to permanent physical damage to the user.

1. agree
2. uncertain
3. disagree

38. Others believe drug users usually desire treatment because they are in legal difficulty.

1. agree
2. uncertain
3. disagree

Others believe the following things about illegal drug users as compared to non-drug users:

39. Drug users usually seek treatment to permanently "kick the habit."

1. disagree
2. uncertain
3. agree

40. Others believe that drug users need help with emotional problems more than non drug users

1. agree
2. uncertain
3. disagree

ABS-II-DU

Directions: Section II

This section contains statements which people generally believe others would experience when interacting with illegal drug users. Please choose the answer that indicates what you think most others believe about illegal drug users.

Most people generally believe the following about interacting with illegal drug users:

41. People generally believe that others would find that drug users come from homes that are:

    1. less happy than others
    2. same as others
    3. more happy than others

42. People generally believe that others would find that drug users are genetically predisposed (born that way) to use drugs.

    1. less than others
    2. same as others
    3. more than others

43. People generally believe that others would find that drug users take drugs because it is the thing to do.

    1. disagree
    2. uncertain
    3. agree

44. People generally believe that others would find drug users deal with anxiety or worry:

    1. less well than others
    2. same as others
    3. better than others

45. People generally believe that others would find that minority racial groups are more likely to be drug users than whites.

    1. agree
    2. uncertain
    3. disagree

46. People generally believe that others would find drug users to be:

    1. physically weaker
    2. same
    3. physically stronger

ABS-II-DU

Most people generally believe the following about interacting with illegal drug users:

47. People generally believe that others would find that drug users start to take drugs for medical reasons.

1. very seldom
2. undecided
3. more often than not

48. People generally believe that others would find that drug users take drugs to "escape reality."

1. agree
2. uncertain
3. disagree

49. People generally believe others would find drug users to be:

1. less intelligent than others
2. of equal intelligence
3. more intelligent than others

50. People generally believe that others would find that drug users can be trusted:

1. less than others
2. same as others
3. more than others

51. People generally believe that others would find drug users are:

1. more frightening than others
2. the same
3. less frightening than others

52. People generally believe that others would find that drug users plan for the future:

1. less often than others
2. same as others
3. more often than others

53. With regard to work, people generally believe that others would find drug users to be:

1. less dependable than others
2. same as others
3. more dependable than others

Most people generally believe the following about interacting with illegal drug users:

54. People generally believe that others would find that drug users are usually "followers" rather than "leaders."

    1. agree
    2. uncertain
    3. disagree

55. People generally believe that others would find drug users to be sexually loose.

    1. agree
    2. uncertain
    3. disagree

56. People generally believe that others would find that drug users lead religious lives:

    1. less often than non-users
    2. same as non-users
    3. more often than non-users

57. People generally believe that others would find that drug users act:

    1. less mature than others
    2. same as others
    3. more mature than others

58. People generally believe that others would find that drug users are antisocial.

    1. agree
    2. uncertain
    3. disagree

59. People generally believe that others would find that drug users make "good friends."

    1. disagree
    2. undecided
    3. agree

60. People generally believe that others would find that drug users are interested in unusual sexual practices:

    1. more often than non-users
    2. same as non-users
    3. less often than non-users

Most people generally believe the following about interacting with illegal drug users:

61. People generally believe that others would find drug users go to universities:

1. less often than non-users
2. same as non-users
3. more often than non-users

62. People generally believe that others would find drug users to be faithful to their spouses:

1. less often than non-users
2. same as non-users
3. more often than non-users

63. People generally believe others would find drug users to be an economic threat to society:

1. more than others
2. same as others
3. less than others

64. People generally believe that others would find drug users to be:

1. more of a threat to society than non-drug users
2. same threat to society
3. less of a threat to society than non-drug users

65. People generally believe that others would find that drug users are:

1. less fun to date than non-drug users
2. the same as non-drug users
3. more fun than non-drug users

66. People generally believe others would find that drug users are beyond medical help.

1. agree
2. uncertain
3. disagree

67. People generally believe that others would find that drug users should be isolated from the rest of society in jail.

1. agree
2. uncertain
3. disagree

Most people generally believe the following about interacting with illegal drug users:

68. People generally believe that others would find that drug users should be isolated from society by hospitalization.

    1. agree
    2. uncertain
    3. disagree

69. People generally believe others would find drug users can best be helped by ex-drug addicts.

    1. disagree
    2. uncertain
    3. agree

70. People generally believe others would find that drug users are beyond help by psychologists.

    1. agree
    2. uncertain
    3. disagree

71. People generally believe that others would find that all costs associated with rehabilitating drug users should be paid by the government.

    1. disagree
    2. uncertain
    3. agree

72. People generally believe that others would find that drug users only require hospital detoxification (drying out).

    1. agree
    2. uncertain
    3. disagree

73. People generally believe that others would find that drug users respond well to group therapy.

    1. disagree
    2. uncertain
    3. agree

74. People generally believe that others would find legal restraints on drug users should be:

    1. more strict
    2. remain unchanged
    3. less strict

Most people generally believe the following about interacting with illegal drug users:

75. People generally believe that others would find that drug users usually seek treatment only to lower the amount of daily drug intake.

1. agree
2. uncertain
3. disagree

76. People generally believe that others would find that drug users need a permanent drug substitute, like methadone, to permanently "kick the habit."

1. agree
2. uncertain
3. disagree

77. People generally believe that others would find that drug use leads to permanent physical damage to the user.

1. agree
2. uncertain
3. disagree

78. People generally believe that others would find drug users usually desire treatment because they are in legal difficulty.

1. agree
2. uncertain
3. disagree

79. People generally believe that others would find drug users seek treatment to permanently "kick the habit."

1. disagree
2. uncertain
3. agree

80. People generally believe that others would find that drug users need help with emotional problems:

1. more often than others
2. same
3. less often than others

ABS-III-DU

Directions: Section III

This section contains statements of the right or wrong way of behaving or acting toward illegal drug users. You are asked to indicate what you yourself believe others think should be done with respect to illegal drug users.

In respect to illegal drug users, what do you, yourself, believe others think is right or wrong:

81. For others to believe that drug users come from unhappy homes is:

1. usually right
2. undecided
3. usually wrong

82. For others to believe that drug users are genetically predisposed (born that way) to take drugs is:

1. usually wrong
2. undecided
3. usually right

83. For others to believe that drug users take drugs because it is the "thing to do" is:

1. usually wrong
2. undecided
3. usually right

84. For others to believe that drug users deal with anxiety well is:

1. usually wrong
2. undecided
3. usually right

85. For others to expect most drug users to be from a minority racial group is:

1. usually right
2. uncertain
3. usually wrong

86. For others to believe that drug users are physically weak is:

1. usually right
2. undecided
3. usually wrong

87. For others to expect that drug users usually start to take drugs for medical reasons is:

1. usually wrong
2. undecided
3. usually right

ABS-III-DU

In respect to illegal drug users, what do you, yourself, believe others think is right or wrong:

88. For others to expect that drug users take drugs to "escape reality" is:

1. usually right
2. uncertain
3. usually wrong

89. For others to expect drug users' intellectual ability to be the same as others is:

1. usually wrong
2. undecided
3. usually right

90. For others to expect drug users to be trustworthy is:

1. usually right
2. undecided
3. usually wrong

91. For others to expect drug users to be frightening is:

1. usually right
2. undecided
3. usually wrong

92. For others to expect drug users to plan for the future is:

1. usually wrong
2. undecided
3. usually right

93. For others to believe that drug users are less dependable workers is:

1. usually right
2. undecided
3. usually wrong

94. For others to expect drug users to be "followers" rather than "leaders" is:

1. usually right
2. uncertain
3. usually wrong

95. For others to expect drug users to be sexually loose is:

1. usually right
2. undecided
3. usually wrong

ABS-III-DU

In respect to illegal drug users, what do you, yourself, believe others think is right or wrong:

96. For others to expect drug users to lead religious lives is:

1. usually wrong
2. undecided
3. usually right

97. For others to expect drug users to be immature is:

1. usually right
2. uncertain
3. usually wrong

98. For others to expect drug users to be antisocial is:

1. usually right
2. undecided
3. usually wrong

99. For others to expect drug users to make "good friends" is:

1. usually wrong
2. undecided
3. usually right

100. For others to expect drug users to be interested in unusual sexual practices is:

1. usually right
2. undecided
3. usually wrong

101. For others to expect drug users to go to university is:

1. usually wrong
2. uncertain
3. usually right

102. For others to expect drug users to be faithful to their spouses is:

1. usually wrong
2. undecided
3. usually right

103. For others to expect drug users to be an economic threat to society is:

1. usually right
2. uncertain
3. usually wrong

ABS-III-DU

In respect to illegal drug users, what do you, yourself, believe others think is right or wrong:

104. For others to expect drug users to be a threat to society is:

1. usually right
2. uncertain
3. usually wrong

105. For others to expect drug users to be fun on a date is:

1. usually wrong
2. undecided
3. usually right

106. For others to expect that drug users are beyond medical help is:

1. usually right
2. uncertain
3. usually wrong

107. For others to expect drug users to be isolated from society by jail is:

1. usually right
2. uncertain
3. usually wrong

108. For others to expect drug users to be isolated from society by hospitalization is:

1. usually right
2. uncertain
3. usually wrong

109. For others to expect drug users to best be helped by ex-drug addicts is:

1. usually wrong
2. uncertain
3. usually right

110. For others to expect that drug users are beyond help by psychologists is:

1. usually right
2. uncertain
3. usually wrong

111. For others to expect the government to pay all costs associated with rehabilitating drug users is:

1. usually wrong
2. undecided
3. usually right

ABS-III-DU

In respect to illegal drug users, what do you, yourself, believe others think is right or wrong:

112. For others to believe that all that drug users need is hospital detoxification (drying out) is:

1. usually right
2. undecided
3. usually wrong

113. For others to expect drug users to respond well to group therapy is:

1. usually wrong
2. undecided
3. usually right

114. For others to expect legal restraints on drug users to be too strict is:

1. usually wrong
2. uncertain
3. usually right

115. For others to think drug users seek treatment only to lower the amount of daily drug intake is:

1. usually right
2. uncertain
3. usually wrong

116. For others to think that drug users need a permanent drug substitute, like methadone, to permanently "kick the habit" is:

1. usually right
2. uncertain
3. usually wrong

117. For others to think that drug use leads to physical damage to the user is:

1. usually right
2. uncertain
3. usually wrong

118. For others to believe that drug users usually desire treatment because they are in legal difficulty is:

1. usually right
2. undecided
3. usually wrong

ABS-III-DU

In respect to illegal drug users, what do you, yourself, believe others think is right or wrong:

119. For others to believe that drug users seek treatment to permanently "kick the habit" is:

1. usually wrong
2. uncertain
3. usually right

120. For others to believe that drug users need help with emotional problems is:

1. usually right
2. uncertain
3. usually wrong

ABS-IV-DU

Directions: Section IV

This section contains statements about how you think you would act toward illegal drug users. Choose the answer that indicates how you think you would act.

In respect to illegal drug users would you yourself:

121. I would expect that drug users come from:

1. unhappy homes
2. undecided
3. happy homes

122. I would expect that drug users are genetically predisposed (born that way) to be that way.

1. disagree
2. uncertain
3. agree

123. I would expect drug users to take drugs because it is "the thing to do."

1. no
2. undecided
3. yes

124. I would expect that drug users deal with anxiety:

1. poorly
2. uncertain
3. well

125. I would usually expect drug users to be from a minority racial group.

1. agree
2. uncertain
3. disagree

126. I would expect that drug users are:

1. physically weak
2. undecided
3. physically strong

127. I would expect that drug users usually start to take drugs for medical reasons.

1. disagree
2. uncertain
3. agree

In respect to illegal drug users would you yourself:

128. I would expect drug users to take drugs to "escape reality."

1. agree
2. uncertain
3. disagree

129. I would expect the intellectual ability of drug users to be:

1. less than mine
2. equal to mine
3. more than mine

130. I believe I would trust drug users:

1. disagree
2. uncertain
3. agree

131. I believe I would be frightened by a drug user.

1. agree
2. uncertain
3. disagree

132. I would expect that drug users plan for the future.

1. disagree
2. uncertain
3. agree

133. With regard to work, I would expect drug users to be:

1. less dependable than others
2. same
3. more dependable than others

134. I would expect to find that drug users are "followers" rather than leaders.

1. agree
2. uncertain
3. disagree

135. I would expect that drug users are sexually loose.

1. agree
2. uncertain
3. disagree

136. I would expect drug users to lead religious lives.

1. less often than non users.
2. same as non users
3. more than non users

ABS-IV-DU

In respect to illegal drug users would you yourself:

137. I would expect drug users to be immature.

1. agree
2. uncertain
3. disagree

138. I would expect drug users to be antisocial.

1. agree
2. uncertain
3. disagree

139. I would expect drug users to make good friends.

1. disagree
2. uncertain
3. agree

140. I would expect drug users to be interested in unusual sexual practices.

1. agree
2. uncertain
3. disagree

141. I would expect drug users to go to university.

1. disagree
2. uncertain
3. agree

142. I would expect that drug users are less faithful to their spouses than non drug users.

1. agree
2. uncertain
3. disagree

143. I would expect drug users to be an economic threat to society.

1. agree
2. uncertain
3. disagree

144. I would expect drug users to be a threat to society.

1. agree
2. uncertain
3. disagree

145. I would expect that drug users are fun on a date.

1. disagree
2. undecided
3. agree

In respect to illegal drug users would you yourself:

146. I would expect that drug users are beyond medical help.

1. agree
2. uncertain
3. disagree

147. I would expect drug users to be isolated from society by jail.

1. agree
2. uncertain
3. disagree

148. I would expect drug users to be isolated from society by hospitalization.

1. agree
2. uncertain
3. disagree

149. I would expect that drug users can best be helped by ex-drug addicts.

1. disagree
2. uncertain
3. agree

150. I would expect that drug users are beyond help by psychologists.

1. agree
2. uncertain
3. disagree

151. I would expect the government to pay all costs associated with rehabilitating drug users.

1. disagree
2. uncertain
3. agree

152. I would expect that all that drug users need is hospital detoxification (drying out).

1. agree
2. uncertain
3. disagree

153. I would expect drug users to respond well to group therapy.

1. disagree
2. uncertain
3. agree

In respect to illegal drug users would you yourself:

154. I would expect to find that legal restraints on drug users are:

1. not strict enough
2. undecided
3. too strict

155. I would expect drug users usually seek treatment only to lower the amount of daily intake.

1. agree
2. uncertain
3. disagree

156. I would expect that drug users need a permanent drug substitute like methodone to permanently "kick the habit."

1. agree
2. uncertain
3. disagree

157. I would expect that drug use leads to physical damage to the user.

1. agree
2. uncertain
3. disagree

158. I would expect that drug users usually desire treatment because they are in legal difficulty.

1. agree
2. uncertain
3. disagree

159. I would expect drug users to seek treatment primarily to "kick the habit."

1. disagree
2. uncertain
3. agree

160. I would expect that drug users need help with emotional problems.

1. agree
2. uncertain
3. disagree

ATTITUDE

This section concerns actual feelings that you yourself have about illegal drug users. You are asked to indicate how you feel about the following.

How do you feel toward illegal drug users:

1. I feel drug users come from:

   1. unhappy homes
   2. undecided
   3. happy homes

2. I feel drug users are genetically predisposed (born that way).

   1. disagree
   2. uncertain
   3. agree

3. I feel drug users take drugs because it is "the thing to do."

   1. disagree
   2. uncertain
   3. agree

4. I feel drug users deal with anxiety

   1. poorly
   2. uncertain
   3. well

5. I feel drug users usually belong to minority racial groups.

   1. agree
   2. uncertain
   3. disagree

6. I feel drug users are:

   1. physically weak
   2. undecided
   3. physically strong

7. I feel drug users usually start to take drugs for medical reasons.

   1. disagree
   2. uncertain
   3. agree

8. I feel drug users take drugs "to escape reality."

   1. agree
   2. uncertain
   3. disagree

ABS-V-DU

How do you feel toward illegal drug users:

9. I feel the intellectual ability of drug users is

   1. less than mine
   2. same as mine
   3. more than mine

10. I feel I can trust drug users:

   1. disagree
   2. uncertain
   3. agree

11. I feel frightened by drug users.

   1. agree
   2. uncertain
   3. disagree

12. I feel drug users plan for the future:

   1. less than others
   2. same as others
   3. more than others

13. With regard to work, I feel drug users are:

   1. undependable
   2. undecided
   3. dependable

14. I feel drug users are usually "follower" rather than "leaders".

   1. agree
   2. uncertain
   3. disagree

15. I feel drug users are sexually loose.

   1. agree
   2. uncertain
   3. disagree

16. I feel drug users lead religious lives.

   1. disagree
   2. uncertain
   3. agree

ABS-V-DU

How do you feel toward illegal drug users:

17. I feel drug users are immature.
    1. agree
    2. uncertain
    3. disagree

18. I feel drug users are usually anti-social.
    1. agree
    2. uncertain
    3. disagree

19. I feel drug users make "good friends".
    1. disagree
    2. uncertain
    3. agree

20. I feel that drug users are involved in unusual sexual practices.
    1. agree
    2. uncertain
    3. disagree

21. I feel drug users go to the university as often as others.
    1. disagree
    2. uncertain
    3. agree

22. I feel drug users are less faithful to their spouses than non-drug users.
    1. agree
    2. uncertain
    3. disagree

23. I feel drug users are an economic burden.
    1. agree
    2. uncertain
    3. disagree

24. I feel drug users are a threat to society.
    1. agree
    2. uncertain
    3. disagree

25. I feel that drug users are fun on a date.
    1. disagree
    2. uncertain
    3. agree

ABS-V-DU

How do you feel toward illegal drug users:

26. I feel drug users are beyond medical help.

1. agree
2. uncertain
3. disagree

27 I feel drug users need to be isolated from society by being put in jail.

1. agree
2. uncertain
3. disagree

28. I feel drug users need to be isolated from society by being hospitalized.

1. agree
2. uncertain
3. disagree

29. I feel drug users can best be helped by ex-drug addicts.

1. disagree
2. uncertain
3. agree

30. I feel drug users are beyond help by psychologists.

1. agree
2. uncertain
3. disagree

31. I feel the government should pay all costs associated with rehabilitating drug users.

1. disagree
2. uncertain
3. agree

32. I feel that all that drug users need is hospital detoxification (drying out).

1. agree
2. uncertain
3. disagree

33. I feel drug users respond well to group therapy.

1. disagree
2. uncertain
3. agree

ABS-V-DU

How do you feel toward illegal drug users:

34. I feel legal restraints on drug users are:

    1. too easy
    2. all right
    3. too strict

35. I feel drug users usually seek treatment only to lower the amount of daily intake.

    1. agree
    2. uncertain
    3. disagree

36. I feel drug users need a permanent drug substitute like methodone to permanently "kick the habit".

    1. agree
    2. uncertain
    3. disagree

37. I feel drug use leads to physical damage to the user.

    1. agree
    2. uncertain
    3. disagree

38. I feel drug users desire treatment because they are in legal difficulty.

    1. agree
    2. uncertain
    3. disagree

39. I feel that drug users seek treatment primarly to "kick the habit".

    1. disagree
    2. uncertain
    3. agree

40. I feel that drugusers need help with emotional problems.

    1. agree
    2. uncertain
    3. disagree

ABS-VI-DU

Directions: Section VI

This section concerns actual experiences you have had with illegal drug users. Try to answer the following questions from the knowledge of your own experiences. If you have had no experience or contact with illegal drug users, omit the next 40 questions and begin again at question on page 34. If you have had any experience or contact with illegal drug users answer all questions to the best of your ability.

Experiences or contacts with illegal drug users:

41. I have found that drug users come from:

    1. unhappy homes
    2. undecided
    3. happy homes

42. I have found that drug users are genetically predisposed to (born that way) use drugs.

    1. disagree
    2. undecided
    3. agree

43. I have found that drug users take drugs because it is the thing to do.

    1. no
    2. undecided
    3. yes

44. I have seen drug users deal well with anxiety.

    1. no
    2. uncertain
    3. yes

45. I have seen that drug users usually belong to a minority racial group.

    1. yes
    2. uncertain
    3. no

46. I have experienced that drug users are:

    1. physically weak
    2. undecided
    3. physically strong

47. I have seen that drug users usually start to take drugs for medical reasons.

    1. no
    2. uncertain
    3. yes

ABS-VI-DU

Experiences or contacts with illegal drug users:

48. I have seen drug users take drugs to escape "reality".

1. yes
2. uncertain
3. no

49. I have experienced that the intellectual ability of drug users is:

1. less than mine
2. equal to mine
3. more than mine

50. I have trusted drug users.

1. no
2. uncertain
3. yes

51. I have been frightened by drug users.

1. yes
2. uncertain
3. no

52. I have experienced that drug users plan for the future.

1. no
2. undecided
3. yes

53. I have found drug users to be:

1. undependable
2. undecided
3. dependable

54. I have seen that drug users are usually "followers" rather than "leaders".

1. yes
2. undecided
3. no

55. I have seen that drug users are sexually loose.

1. yes
2. undecided
3. no

56. I have seen that drug users lead "religious lives" more often than non users.

1. no
2. uncertain
3. yes

ABS-VI-DU

Experiences or contacts with illegal drug users:

57. I have seen that drug users are immature.

1. yes
2. uncertain
3. no

58. I have found that drug users are anti-social.

1. yes
2. uncertain
3. no

59. I have seen that drug users make "good friends".

1. no
2. uncertain
3. yes

60. I have seen that drug users are involved in unusual sexual practices.

1. agree
2. uncertain
3. disagree

61. I have experienced that drug users go to university less often than non users.

1. agree
2. uncertain
3. disagree

62. I have seen that drug users are unfaithful to their spouses more often than non drug users.

1. yes
2. uncertain
3. no

63. I have seen that drug users are an economic threat to society.

1. yes
2. uncertain
3. no

64. I have seen that drug users are a threat to society.

1. yes
2. uncertain
3. no

ABS-VI-DU

Experiences or contacts with illegal drug users:

65. I have had fun dating drug users.

1. no
2. uncertain
3. yes

66. I have seen that drug users are beyond medical help.

1. yes
2. uncertain
3. no

67. I have seen that drug users need to be isolated from society by jail.

1. yes
2. uncertain
3. no

68. I have seen that drug users need to be isolated from society by hospitalization.

1. yes
2. uncertain
3. no

69. I have seen that drug users can best be helped by ex-drug addicts.

1. no
2. uncertain
3. yes

70. I have seen that drug users are beyond help by Psychologists.

1. yes
2. uncertain
3. no

71. I have encouraged the government to pay all costs associated with rehabilitating drug users.

1. no
2. undecided
3. yes.

72. I have seen that all drug users need is hospital detoxification (drying out).

1. no
2. undecided
3. yes

ABS-VI-DU

Experiences or contacts with illegal drug users:

73. I have seen that drug users respond well to group therapy.

1. no
2. uncertain
3. yes

74. I have seen that legal restraints on drug users are:

1. too easy
2. all right
3. too strict

75. I have seen that drug users usually seek treatment only to lower their daily intake.

1. yes
2. uncertain
3. no

76. I have seen that drug users need a permanent drug substitute like methadone to permanently "kick the habit."

1. yes
2. uncertain
3. no

77. I have seen that drug use leads to physical damage to the user.

1. yes
2. undecided
3. no

78. I have experienced that drug users desire treatment because they are in legal difficulty.

1. yes
2. uncertain
3. no

79. I have experienced that drug users seek treatment primarily to "kick the habit."

1. no
2. uncertain
3. yes

80. I have seen that drug users need help with emotional problems.

1. yes
2. uncertain
3. no

ABS-VI-DU

This part of the booklet deals with many things. **For the purpose of this study, the answers of all persons are important.**

Part of the questionnaire has to do with personal information about you. Since the questionnaire is completely anonymous or confidential, you may answer all of the questions freely without any concern about being identified. It is important to the study to obtain your answer to every question.

Please read each question carefully and do not omit any questions. Please answer by circling the answer you choose.

81. Please indicate your sex.

1. Female
2. Male

82. Please indicate your age as follows:

1. Under 20 years of age
2. 21-30
3. 31-40
4. 41-50
5. 50 - over

83. What is your marital status?

1. Married
2. Single
3. Divorced
4. Widowed
5. Separated

84. What is your religion?

1. I prefer not to answer
2. Catholic
3. Protestant
4. Jewish
5. Other or none

85. About how important is your religion to you in your daily life?

1. I prefer not to answer
2. I have no religion
3. Not very important
4. Fairly important
5. Very important

86. About how much education do you have?

1. 6 years of school or less
2. 9 years of school or less
3. 12 years of school or less
4. Some college or university
5. A college or university degree

87. Some people are more set in their ways than others. How would you rate yourself?

1. I find it very difficult to change
2. I find it slightly difficult to change
3. I find it somewhat easy to change
4. I find it very easy to change my ways

88. Some people feel that in bringing up children, new ways and methods should be tried whenever possible. Others feel that trying out new methods is dangerous. What is your feeling about the following statement?

"New methods of raising children should be tried out whenever possible."

1. Strongly disagree
2. Slightly disagree
3. Slightly agree
4. Strongly agree

89. Family planning or birth control has been discussed by many people. What is your feeling about a married couple practicing birth control? Do you think they are doing something good or bad? If you had to decide, would you say that they are doing wrong, or that they are doing right?

1. It is always wrong
2. It is usually wrong
3. It is probably all right
4. It is always right

90. People have different ideas about what should be done concerning automation and other new ways of doing things. How do <u>you</u> <u>feel</u> about the following statement?

"Automation and similar new procedures should be encouraged (in government, business and industry) since eventually they create new jobs and raise the standard of living."

1. Strongly disagree
2. Slightly disagree
3. Slightly agree
4. Strongly agree

91. In respect to your religion, about to what extent do you observe the rules and regulations of your religion?

1. I prefer not to answer
2. I have no religion
3. Sometimes
4. Usually
5. Almost always

92. I find it easier to follow rules than to do things on my own.

1. Agree strongly
2. Agree slightly
3. Disagree slightly
4. Disagree strongly

93. What is your political preference?

1. Republican
2. Independent
3. Democrat
4. Other

94. How many political rallies have you attended?

1. None
2. One or two
3. Three to six
4. Seven to 15
5. More than 15

95. How many political demonstrations or marches have you taken part in?

1. None
2. One or two
3. Three to six
4. Seven to 15
5. More than 15

96. Did you vote in the 1968 Presidential election?

1. No
2. Was too young to vote or unable to vote
3. Yes

97. Have you ever been arrested or taken into custody for taking part in a civil disturbance?

1. No
2. Yes

98. Do you feel that a political revolution is needed in this country?

1. No
2. Yes

99. Do you believe that a social revolution is needed in this country?

1. No
2. Yes

100. Running a village, city, town or any governmental organization is an important job. What is your feeling on the following statement?

"Political leaders should be changed regularly, even if they are doing a good job."

1. Strongly disagree
2. Slightly disagree
3. Slightly agree
4. Strongly agree

101. Have you ever been in the armed services:

1. no
2. yes

QUESTIONNAIRE: PC

This part of the questionnaire deal with you experiences or contacts with illegal drug users. Perhaps you have had much contact with illegal drug users, or yoy may have read or studied about them. On the other hand, you may have had little or no contact with illegal drug users and may have never though much about them at all.

102. Some types of drug users are listed below. Indicate the type you have had the <u>most</u> contact with. Mark only one.

1. Marijuana users
2. Amphitamine and/or barbiturates
3. Heroine or opium users
4. Multiple users
5. No contact

103. How many times have you talked with, worked with or had personal contact with illegal drug users?

1. No contact
2. Less than five
3. Between five and 15
4. Between 15 and 50
5. More than 50

104. The following question deals with the kinds of experiences you have had with illegal drug users. If more than one categor applies, please <u>choose the answer with the highest number</u>.

1. I have read or heard lectures or seen movies about drug users
2. A friend or relative is, or was, a drug user
3. I have counseled, dated or worked intensively with drug users
4. I, myself, am or have been an illegal drug user

105. If you have ever used illegal drugs, circle the drug most frequently used. If you have never used illegal drugs, leave the answer blank.

1. Marijuana
2. LSD and/or hallucogens
3. Barbiturates and/or amphetamines
4. Heroine and/or opiates
5. Cocaine

106. How many times have you used the drug(s) circled above? If you have not used any illegal drugs, leave your answer blank.

1. Only once
2. Two to five times
3. Five to 10 times
4. 10 to 50 times
5. More than 50 times

107. When you have been in contact with drug users, how easy for you, in general, would it have been to avoid contact with these drug users?

1. I could not avoid contact
2. I could generally avoid the personal contact only at great difficulty
3. I could generally avoid this personal contact with considerable difficulty
4. I could generally avoid this personal contact with some difficulty
5. I could generally avoid this personal contac without any difficulty

108. During your contact with drug users did you gain materially in any way, such as being paid or gaining academic credit?

1. No
2. Yes

109. How have you generally felt about your experiences with drugh users?

1. No experience
2. I definitely disliked it
3. I did not like it very much
4. I liked it somewhat
5. I definitely enjoyed it

110. Have you ever been arrested or taken into custody for possession or use of illegal drugs?

1. No
2. Yes

111. Why do you (or might you) take illegal drugs?

1. Never have or would
2. To release anxiety
3. To feel good
4. Because it is the "thing to do"
5. to "escape"

LIFE SITUATIONS

This section of the booklet deals with how people feel about several aspects of life or life situations. Please indicate how you feel about each by marking the appropriate number on the answer sheet.

112. It should be possible to eliminate war once and for all.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

113. Success depends to a large part on luck and fate.

1. Strongly agree
2. agree
3. Disagree
4. Strongly disagree

114. Some day most of the mysteries of the world will be revealed by science.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

115. By improving industrial and agricultural methods, poverty can be eliminated in the world.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

116. With increased medical knowledge it should be possible to lengthen the average life span to 100 years or more.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

117. Some day the deserts will be converted into good farming land by the application of engineering and science.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

118. Education can only help people develop their natural abilities; it cannot change people in any fundamental way.

1. Strongly agree
2. Agree
3. Disagree
4. Strongly disagree

119. With hard work anyone can succeed.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

120. Almost every present human problem will be solved in the future.

1. Strongly disagree
2. Disagree
3. Agree
4. Strongly agree

APPENDIX 5

ABS:DU DEFINITIONAL SUPPLEMENT

Michigan State University
East Lansing, Michigan

John E. Jordan, Ph.D.
William N. Nicholson
College of Education

ATTITUDE BEHAVIOR SCALE: DRUG USERS

DIRECTIONS

This questionnaire is interested in how you define "illegal drug users." Each of the seven questions is somewhat different. Please read each question carefully. Circle only one response for each question. This is an anonymous questionnaire and you do not need to give your name. Thank you.

* * * *

1. Other people define illegal drug users as:

   1. different kinds of users depending on which illegal drug they primarily use
   2. anyone who takes any illegal drug
   3. people who are dependent, habituated or addicted to an illegal drug

2. Most people generally define illegal drug users as:

   1. different kinds of users depending on which illegal drug they primarily use
   2. anyone who takes any illegal drug
   3. people who are dependent, habituated or addicted to an illegal drug

3. People ought to define illegal drug users as:

   1. different kinds of users depending on which illegal drug they primarily use
   2. anyone who takes any illegal drug
   3. people who are dependent, habituated or addicted to an illegal drug

4. I would define illegal drug users as:

   1. different kinds of useres depending on which illegal drug they primarily use
   2. anyone who takes any illegal drug
   3. people who are dependent, habituated or addicted to an illegal drug

5. I personally feel that illegal drug users should be define as:

   1. different kinds of users depending on which illegal drug they primarily use
   2. anyone who takes any illegal drug
   3. people who are dependent, habituated or addicted to an illegal drug

6. I have personally defined illegal drug users as:

   1. different kinds of users depending on which illegal drug they primarily use
   2. anyone who takes any illegal drug
   3. people who are dependent, habituated or addicted to an illegal drug

SEE OTHER SIDE

7. In answering this questionnaire I have defined illegal drug users as:

CIRCLE ONLY ONE ANSWER

1. marijuana users
2. hallucinogens (LSD, mescaline) users
3. amphetamine and/or barbiturate users
4. cocaine users
5. heroin users
6. multiple users
7. any illegal drug user

8. Please indicate your position:

1. patient
2. paraprofessional staff (no academic degree)
3. professional staff (Ph.D., M.D., M.A., M.S.W., R.N.)

Return to: William N. Nicholson
Department of Counseling, Personnel Services
and Educational Psychology
444 Erickson Hall
Michigan State University
East Lansing, Michigan 48823

APPENDIX 6

N'S, MEANS, AND STANDARD DEVIATIONS BY CATEGORY AND GROUP FOR ALL VARIABLES

TABLE 33.--N's, Means, and Standard Deviations for Category A.

CATEGORY A: Heroin Addicts-Incarcerated, Group 1

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	36	53.972	9.028	VAR 2	42	68.833	12.396	VAR 3	37	65.757	12.294
VAR 4	36	73.778	14.533	VAR 5	36	80.833	10.732	VAR 6	36	81.194	11.774
VAR 7	37	1.784	0.417	VAR 8	37	2.216	0.787	VAR 9	37	2.459	1.386
VAR 10	37	3.108	1.390	VAR 11	37	3.135	1.549	VAR 12	37	2.919	0.862
VAR 13	37	2.514	1.044	VAR 14	37	2.919	1.140	VAR 15	37	2.676	1.029
VAR 16	37	2.838	1.167	VAR 17	37	2.784	1.397	VAR 18	37	2.730	1.146
VAR 19	35	2.714	0.825	VAR 20	37	1.919	1.382	VAR 21	36	1.556	0.998
VAR 22	37	1.459	0.691	VAR 23	37	1.108	0.315	VAR 24	35	1.829	0.382
VAR 25	34	1.794	0.410	VAR 26	37	2.351	1.184	VAR 27	37	1.243	0.435
VAR 28	34	1.912	0.830	VAR 29	36	1.194	0.401	VAR 30	35	1.743	0.886
VAR 31	35	1.971	0.822	VAR 32	36	2.056	0.924	VAR 33	36	1.750	0.770
VAR 34	36	1.528	0.774	VAR 35	36	1.389	0.728	VAR 36	33	1.818	0.584
VAR 37	35	2.257	0.919	VAR 38	36	17.694	4.091	VAR 41	42	1.000	0.000
VAR 42	42	1.952	0.216								

CATEGORY A: Heroin-Addicts--Incarcerated, Group 2

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	30	71.167	11.997	VAR 2	30	69.633	13.008	VAR 3	30	79.000	11.231
VAR 4	30	82.800	11.452	VAR 5	30	83.400	10.798	VAR 6	29	80.138	15.480
VAR 7	28	2.000	0.000	VAR 8	29	1.586	0.501	VAR 9	29	1.793	0.559
VAR 10	29	3.069	1.412	VAR 11	29	3.241	1.455	VAR 12	29	3.276	0.751
VAR 13	29	2.552	1.121	VAR 14	29	3.034	0.944	VAR 15	29	2.828	0.889
VAR 16	29	2.828	1.104	VAR 17	29	2.897	1.263	VAR 18	29	3.276	0.922
VAR 19	29	2.793	0.902	VAR 20	29	2.276	1.386	VAR 21	29	2.448	1.639
VAR 22	29	1.517	0.785	VAR 23	29	1.310	0.471	VAR 24	28	1.679	0.476
VAR 25	26	1.769	0.430	VAR 26	28	2.821	1.056	VAR 27	29	1.241	0.435
VAR 28	29	3.138	1.026	VAR 29	29	4.414	1.119	VAR 30	29	3.586	0.907
VAR 31	29	3.103	1.175	VAR 32	29	4.517	1.090	VAR 33	29	2.552	1.502
VAR 34	29	1.448	0.506	VAR 35	29	3.793	1.320	VAR 36	29	1.552	0.506
VAR 37	29	3.414	1.101	VAR 38	28	22.429	4.350	VAR 41	29	1.000	0.000
VAR 42	29	3.000	0.000								

CATEGORY A: Heroin Addicts-Incarcerated, Totals

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	70	69.914	12.103	VAR 2	65	68.046	12.448	VAR 3	64	76.438	11.465
VAR 4	65	81.523	10.982	VAR 5	65	82.031	11.315	VAR 6	64	79.750	12.954
VAR 7	64	1.875	0.333	VAR 8	65	1.938	0.747	VAR 9	65	2.185	1.144
VAR 10	65	3.123	1.375	VAR 11	65	3.215	1.484	VAR 12	65	3.077	0.835
VAR 13	65	2.554	1.061	VAR 14	65	2.969	1.060	VAR 15	65	2.723	0.960
VAR 16	65	2.862	1.116	VAR 17	65	2.862	1.321	VAR 18	65	2.954	1.082
VAR 19	63	2.730	0.846	VAR 20	65	2.062	1.391	VAR 21	64	1.953	1.396
VAR 22	65	1.492	0.732	VAR 23	65	1.200	0.403	VAR 24	62	1.758	0.432
VAR 25	59	1.780	0.418	VAR 26	64	2.563	1.153	VAR 27	65	1.246	0.434
VAR 28	62	3.177	0.915	VAR 29	63	4.349	1.194	VAR 30	62	3.629	0.834
VAR 31	63	3.429	1.073	VAR 32	63	4.603	0.959	VAR 33	62	2.790	1.431
VAR 34	63	1.397	0.493	VAR 35	61	3.557	1.259	VAR 36	62	1.452	0.502
VAR 37	60	3.450	1.241	VAR 38	62	21.935	4.912	VAR 41	70	1.000	0.000
VAR 42	70	2.429	0.498								

TABLE 34.--N's, Means, and Standard Deviations for Categories B, C, and D.

CATEGORY B: Heroin Addicts-Methadone Maitenance, Group 1

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	26	66,154	11,298	VAR 2	26	62,000	16,992	VAR 3	26	72,385	12,999
VAR 4	26	72,500	12,869	VAR 5	25	75,840	12,130	VAR 6	25	76,360	10,719
VAR 7	25	1,800	0,408	VAR 8	25	2,320	0,852	VAR 9	25	1,800	0,866
VAR 10	25	3,560	1,325	VAR 11	25	3,720	1,275	VAR 12	25	3,160	0,688
VAR 13	26	2,346	0,892	VAR 14	26	3,115	1,033	VAR 15	26	2,731	0,962
VAR 16	26	3,077	0,977	VAR 17	26	2,692	1,408	VAR 18	26	2,615	0,941
VAR 19	25	3,160	0,624	VAR 20	26	1,654	1,096	VAR 21	25	1,560	0,712
VAR 22	26	1,577	0,578	VAR 23	26	1,192	0,402	VAR 24	26	1,769	0,430
VAR 25	25	1,720	0,458	VAR 26	25	2,520	1,122	VAR 27	26	1,385	0,496
VAR 28	26	3,154	0,834	VAR 29	26	4,808	0,634	VAR 30	26	3,462	0,948
VAR 31	24	3,625	1,013	VAR 32	24	4,750	0,897	VAR 33	26	2,385	1,722
VAR 34	25	1,400	0,500	VAR 35	26	3,423	1,102	VAR 36	26	1,346	0,485
VAR 37	26	3,192	1,167	VAR 38	26	23,769	5,078	VAR 41	26	4,000	0,000
VAR 42	26	1,000	0,000								

CATEGORY C: Heron Addicts--NARA II, Group 1

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	43	66.163	7.474	VAR 2	43	62,767	10.472	VAR 3	43	73,302	11.484
VAR 4	42	71,452	10,172	VAR 5	40	73,500	6,377	VAR 6	41	71,805	7,215
VAR 7	40	2,000	0,000	VAR 8	40	1,825	0,446	VAR 9	40	2,075	0,997
VAR 10	40	3,900	1,392	VAR 11	40	3,125	1,285	VAR 12	40	2,825	0,781
VAR 13	40	2,650	0,893	VAR 14	40	3,000	1,109	VAR 15	40	2,400	0,955
VAR 16	40	3,625	1,097	VAR 17	40	2,725	1,219	VAR 18	41	2,976	0,961
VAR 19	41	2,976	0,851	VAR 20	41	1,805	1,269	VAR 21	41	1,829	1,181
VAR 22	41	1,195	0,558	VAR 23	41	1,171	0,381	VAR 24	41	1,829	0,381
VAR 25	41	1,659	0,480	VAR 26	40	2,400	1,236	VAR 27	41	1,146	0,358
VAR 28	39	3,103	0,502	VAR 29	41	4,707	0,814	VAR 30	39	3,769	0,742
VAR 31	39	4,000	0,397	VAR 32	41	4,951	0,218	VAR 33	41	2,585	1,703
VAR 34	41	1,488	0,506	VAR 35	41	3,488	1,247	VAR 36	41	1,634	0,488
VAR 37	41	4,024	1,193	VAR 38	41	25,341	4,265	VAR 41	42	1,000	0,000
VAR 42	42	1,000	0,000								

CATEGORY D: Heroin Addicts-NARA I and III, Group I

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	40	58,850	7,560	VAR 2	40	58,925	8,340	VAR 3	40	72,375	9,857
VAR 4	40	73,300	10,209	VAR 5	40	73,550	10,387	VAR 6	39	71,462	9,349
VAR 7	40	1,800	0,564	VAR 8	40	2,325	0,888	VAR 9	40	2,300	1,137
VAR 10	40	2,825	1,299	VAR 11	40	3,250	1,316	VAR 12	40	3,100	0,955
VAR 13	39	2,231	0,986	VAR 14	39	3,103	0,852	VAR 15	40	2,875	0,966
VAR 16	40	2,750	1,127	VAR 17	40	3,000	1,281	VAR 18	39	2,667	1,177
VAR 19	40	2,925	0,797	VAR 20	39	2,103	1,294	VAR 21	40	1,900	1,194
VAR 22	40	1,450	0,783	VAR 23	40	1,250	0,543	VAR 24	39	1,692	0,614
VAR 25	39	1,821	0,491	VAR 26	40	2,450	1,154	VAR 27	40	1,350	0,580
VAR 28	40	3,175	0,931	VAR 29	40	4,200	1,436	VAR 30	40	3,625	0,868
VAR 31	40	3,175	1,279	VAR 32	40	4,700	0,883	VAR 33	37	2,811	1,664
VAR 34	39	1,692	1,080	VAR 35	38	3,263	1,349	VAR 36	39	1,846	0,540
VAR 37	39	3,744	1,208	VAR 38	40	23,650	4,876	VAR 41	40	4,000	0,000
VAR 42	40	2,000	0,000								

TABLE 35.--N's, Means, and Standard Deviations for Category E.

CATEGORY E: Mental Health Therapists-Paraprofessionals, Group 1

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	11	56.545	7.174	VAR 2	11	58.727	9.424	VAR 3	11	66.636	23.329
VAR 4	11	77.909	7.368	VAR 5	11	77.182	7.948	VAR 6	11	78.273	7.377
VAR 7	11	1.636	0.505	VAR 8	11	3.091	0.831	VAR 9	11	1.818	1.250
VAR 10	11	3.364	1.362	VAR 11	11	3.545	1.128	VAR 12	11	3.818	0.751
VAR 13	11	2.545	0.820	VAR 14	11	3.636	0.674	VAR 15	11	3.273	1.009
VAR 16	11	3.182	0.751	VAR 17	11	3.182	0.982	VAR 18	11	2.818	0.982
VAR 19	10	2.900	0.568	VAR 20	11	1.455	0.688	VAR 21	11	1.545	0.820
VAR 22	11	1.818	0.603	VAR 23	11	1.000	0.000	VAR 24	11	1.636	0.505
VAR 25	11	1.818	0.405	VAR 26	11	3.000	1.000	VAR 27	11	1.545	0.522
VAR 28	11	3.636	0.505	VAR 29	11	4.909	0.302	VAR 30	11	3.545	0.522
VAR 31	8	3.625	1.061	VAR 32	8	5.000	0.000	VAR 33	11	2.909	2.023
VAR 34	11	1.455	0.522	VAR 35	11	3.818	1.250	VAR 36	11	1.545	0.522
VAR 37	11	3.182	1.662	VAR 38	11	23.182	1.940	VAR 41	11	5.000	0.000
VAR 42	11	1.000	0.000								

CATEGORY E: Mental Health Therapists-Paraprofessionals, Group 2

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	22	59.773	11.936	VAR 2	22	58.091	7.502	VAR 3	22	65.636	9.027
VAR 4	22	66.364	10.621	VAR 5	22	67.727	11.622	VAR 6	22	66.273	8.881
VAR 7	21	1.619	0.498	VAR 8	21	3.571	0.870	VAR 9	21	1.714	1.189
VAR 10	21	2.714	1.102	VAR 11	21	3.952	1.396	VAR 12	21	3.381	0.498
VAR 13	21	2.524	0.750	VAR 14	21	3.095	0.700	VAR 15	20	3.200	0.768
VAR 16	20	3.150	0.875	VAR 17	20	3.200	1.281	VAR 18	20	2.900	0.912
VAR 19	19	2.579	0.838	VAR 20	20	1.650	1.268	VAR 21	20	1.000	0.000
VAR 22	20	2.000	0.562	VAR 23	21	1.190	0.873	VAR 24	21	1.333	0.577
VAR 25	20	1.400	0.503	VAR 26	20	2.400	0.995	VAR 27	20	1.450	0.510
VAR 28	21	3.381	0.805	VAR 29	19	4.895	0.459	VAR 30	20	2.550	1.099
VAR 31	7	1.571	0.976	VAR 32	6	2.333	1.751	VAR 33	19	2.526	1.954
VAR 34	18	1.778	0.647	VAR 35	19	3.842	0.958	VAR 36	20	1.100	0.308
VAR 37	21	1.381	0.973	VAR 38	22	22.318	5.177	VAR 41	22	5.000	0.000
VAR 42	22	3.000	0.000								

CATEGORY E: Mental Health Therapists-Paraprofessionals, Totals

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	33	58.697	10.581	VAR 2	33	58.303	8.049	VAR 3	33	65.970	14.959
VAR 4	33	70.212	11.025	VAR 5	33	70.879	11.352	VAR 6	33	70.273	10.088
VAR 7	32	1.625	0.492	VAR 8	32	3.406	0.875	VAR 9	32	1.750	1.191
VAR 10	32	2.938	1.216	VAR 11	32	3.813	1.306	VAR 12	32	3.531	0.621
VAR 13	32	2.531	0.761	VAR 14	32	3.281	0.729	VAR 15	31	3.226	0.845
VAR 16	31	3.161	0.820	VAR 17	31	3.194	1.167	VAR 18	31	2.871	0.922
VAR 19	29	2.690	0.761	VAR 20	31	1.581	1.089	VAR 21	31	1.194	0.543
VAR 22	31	1.935	0.574	VAR 23	32	1.125	0.707	VAR 24	32	1.438	0.564
VAR 25	31	1.548	0.506	VAR 26	31	2.613	1.022	VAR 27	31	1.484	0.508
VAR 28	32	3.469	0.718	VAR 29	30	4.900	0.403	VAR 30	31	2.903	1.044
VAR 31	15	2.667	1.447	VAR 32	14	3.857	1.748	VAR 33	30	2.667	1.953
VAR 34	29	1.655	0.614	VAR 35	30	3.833	1.053	VAR 36	31	1.258	0.445
VAR 37	32	2.000	1.503	VAR 38	33	22.606	4.351	VAR 41	33	5.000	0.000
VAR 42	33	2.333	0.957								

TABLE 36.--N's Means, and Standard Deviations for Category F.

CATEGORY F: Mental Health Therapists-Professionals, Group 1

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	26	58,885	7,039	VAR 2	26	61,308	10,244	VAR 3	26	67,808	8,773
VAR 4	26	69,923	8,485	VAR 5	26	70,038	9,198	VAR 6	26	68,615	7,935
VAR 7	26	1,500	0,510	VAR 8	26	2,885	0,766	VAR 9	26	1,577	0,857
VAR 10	26	3,038	0,774	VAR 11	26	4,231	0,815	VAR 12	26	4,654	0,485
VAR 13	26	2,538	0,647	VAR 14	26	2,808	0,749	VAR 15	26	3,615	0,496
VAR 16	26	3,385	0,804	VAR 17	26	3,654	1,018	VAR 18	25	3,120	0,726
VAR 19	26	2,077	0,796	VAR 20	26	1,423	0,902	VAR 21	26	1,038	0,196
VAR 22	26	1,923	0,392	VAR 23	26	1,000	0,000	VAR 24	26	1,077	0,272
VAR 25	26	1,462	0,508	VAR 26	26	2,846	1,120	VAR 27	26	1,192	0,402
VAR 28	26	3,577	0,578	VAR 29	26	4,885	0,431	VAR 30	26	2,962	0,445
VAR 31	5	1,400	0,894	VAR 32	5	1,800	1,789	VAR 33	24	2,042	1,681
VAR 34	24	1,875	0,338	VAR 35	24	4,458	0,721	VAR 36	24	1,000	0,000
VAR 37	24	1,750	1,294	VAR 38	26	23,846	3,094	VAR 41	0	0,000	0,000
VAR 42	0	0,000	0,000								

CATEGORY F: Mental Health Therapists-Professionals, Group 2

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	11	60,545	5,007	VAR 2	11	58,091	6,760	VAR 3	11	73,636	11,395
VAR 4	11	78,091	7,862	VAR 5	11	77,000	8,390	VAR 6	11	75,273	11,064
VAR 7	10	1,400	0,516	VAR 8	10	2,700	0,823	VAR 9	10	1,500	1,269
VAR 10	11	3,455	1,368	VAR 11	11	3,273	1,191	VAR 12	11	5,000	0,000
VAR 13	11	2,727	0,786	VAR 14	11	3,000	0,775	VAR 15	10	3,800	0,422
VAR 16	10	3,000	1,333	VAR 17	11	3,273	1,272	VAR 18	11	3,091	0,831
VAR 19	11	2,545	1,036	VAR 20	11	2,273	1,421	VAR 21	11	1,545	0,688
VAR 22	11	2,091	0,831	VAR 23	10	1,000	0,000	VAR 24	10	1,200	0,422
VAR 25	11	1,636	0,505	VAR 26	10	2,700	0,949	VAR 27	11	1,273	0,467
VAR 28	11	2,455	1,508	VAR 29	11	4,091	0,701	VAR 30	11	3,091	0,831
VAR 31	6	1,333	0,816	VAR 32	6	2,000	1,265	VAR 33	10	4,000	0,943
VAR 34	8	1,875	0,354	VAR 35	11	3,636	1,027	VAR 36	11	1,364	0,924
VAR 37	11	2,273	1,104	VAR 38	11	22,455	2,770	VAR 41	11	5,000	0,000
VAR 42	11	4,000	0,000								

CATEGORY F: Mental Health Therapists--Professionals, Group 3

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	7	60,143	4,776	VAR 2	7	60,714	6,921	VAR 3	7	68,286	6,047
VAR 4	7	68,286	7,204	VAR 5	7	67,714	7,365	VAR 6	7	62,571	4,685
VAR 7	7	1,000	0,000	VAR 8	7	2,857	1,215	VAR 9	7	2,286	1,604
VAR 10	7	2,429	1,397	VAR 11	7	3,429	1,512	VAR 12	7	4,571	0,535
VAR 13	7	2,429	0,535	VAR 14	7	3,000	0,816	VAR 15	7	3,000	1,000
VAR 16	7	3,857	0,378	VAR 17	7	3,143	1,345	VAR 18	7	3,286	0,756
VAR 19	7	2,000	0,816	VAR 20	7	2,571	1,397	VAR 21	7	1,429	1,134
VAR 22	7	2,143	0,378	VAR 23	7	1,000	0,000	VAR 24	6	1,333	0,516
VAR 25	6	1,500	0,548	VAR 26	7	2,429	1,272	VAR 27	7	1,000	0,000
VAR 28	7	3,286	1,113	VAR 29	7	4,857	0,378	VAR 30	7	3,143	0,378
VAR 31	5	1,400	0,894	VAR 32	5	3,400	0,894	VAR 33	7	3,000	2,000
VAR 34	7	1,714	0,488	VAR 35	7	3,714	0,488	VAR 36	7	1,000	0,000
VAR 37	6	2,333	1,506	VAR 38	7	25,571	5,442	VAR 41	0	0,000	0,000
VAR 42	0	0,000	0,000								

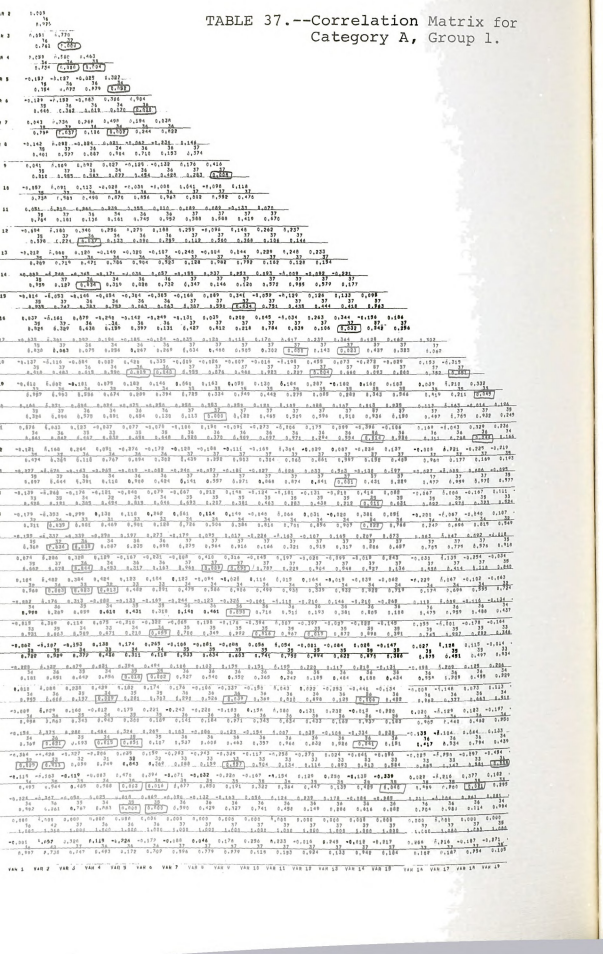
CATEGORY F: Mental Health Therapists--Professionals, Totals

NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV	NAME	N	MEAN	STD DEV
VAR 1	44	59,500	6,196	VAR 2	44	60,409	8,955	VAR 3	44	69,341	9,294
VAR 4	44	71,705	8,719	VAR 5	44	71,409	9,191	VAR 6	44	69,318	9,215
VAR 7	43	1,395	0,495	VAR 8	43	2,837	0,843	VAR 9	43	1,674	1,107
VAR 10	44	3,045	1,077	VAR 11	44	3,864	1,112	VAR 12	44	4,727	0,451
VAR 13	44	2,568	0,661	VAR 14	44	2,886	0,754	VAR 15	43	3,558	0,629
VAR 16	43	3,372	0,926	VAR 17	44	3,477	1,131	VAR 18	43	3,140	0,743
VAR 19	44	2,182	0,870	VAR 20	44	1,818	1,206	VAR 21	44	1,227	0,605
VAR 22	44	2,000	0,528	VAR 23	43	1,000	0,000	VAR 24	42	1,143	0,354
VAR 25	43	1,512	0,506	VAR 26	43	2,744	1,093	VAR 27	44	1,182	0,390
VAR 28	44	3,250	1,059	VAR 29	44	4,682	0,601	VAR 30	44	3,023	0,549
VAR 31	16	1,375	0,806	VAR 32	16	2,375	1,455	VAR 33	41	2,683	1,767
VAR 34	39	1,846	0,366	VAR 35	42	4,119	0,861	VAR 36	42	1,095	0,484
VAR 37	41	1,976	1,275	VAR 38	44	23,773	3,530	VAR 41	11	5,000	0,000
VAR 42	11	4,000	0,000								

APPENDIX 7

CORRELATION MATRICES BY CATEGORY AND GROUP

TABLE 37.--Correlation Matrix for Category A, Group 1.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance levels of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

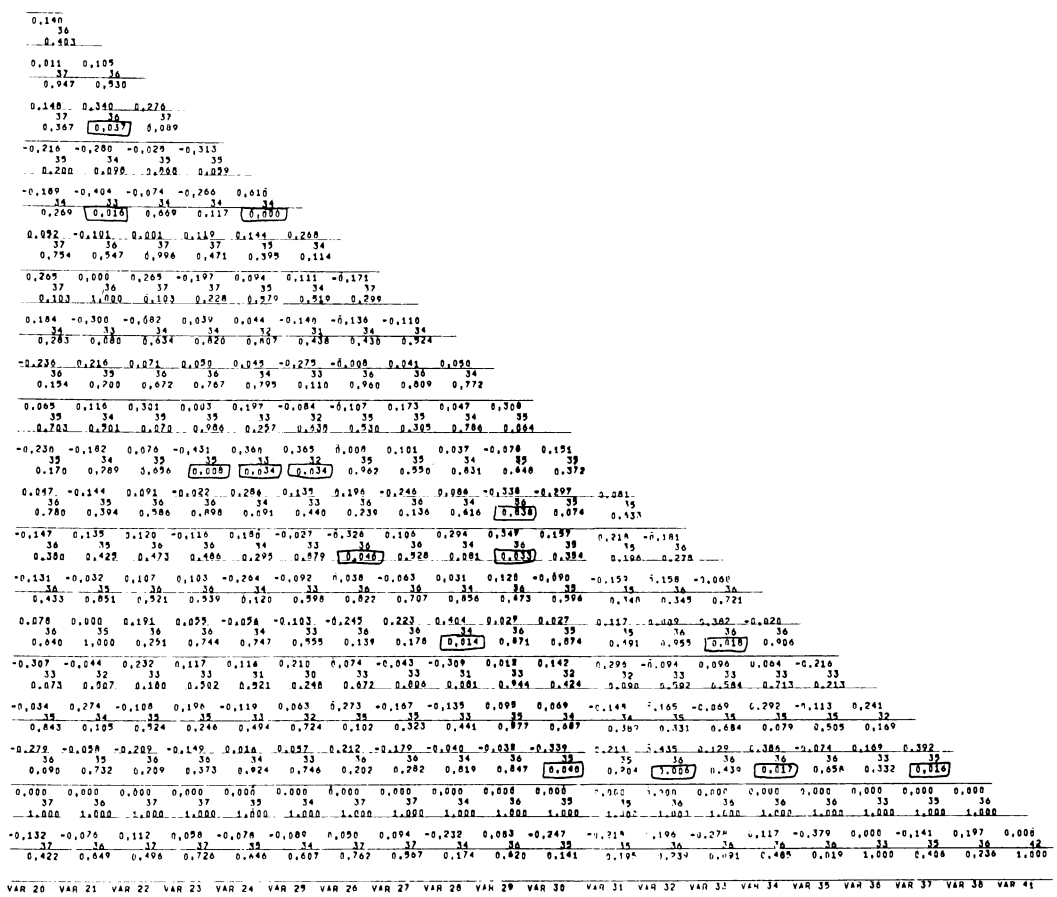
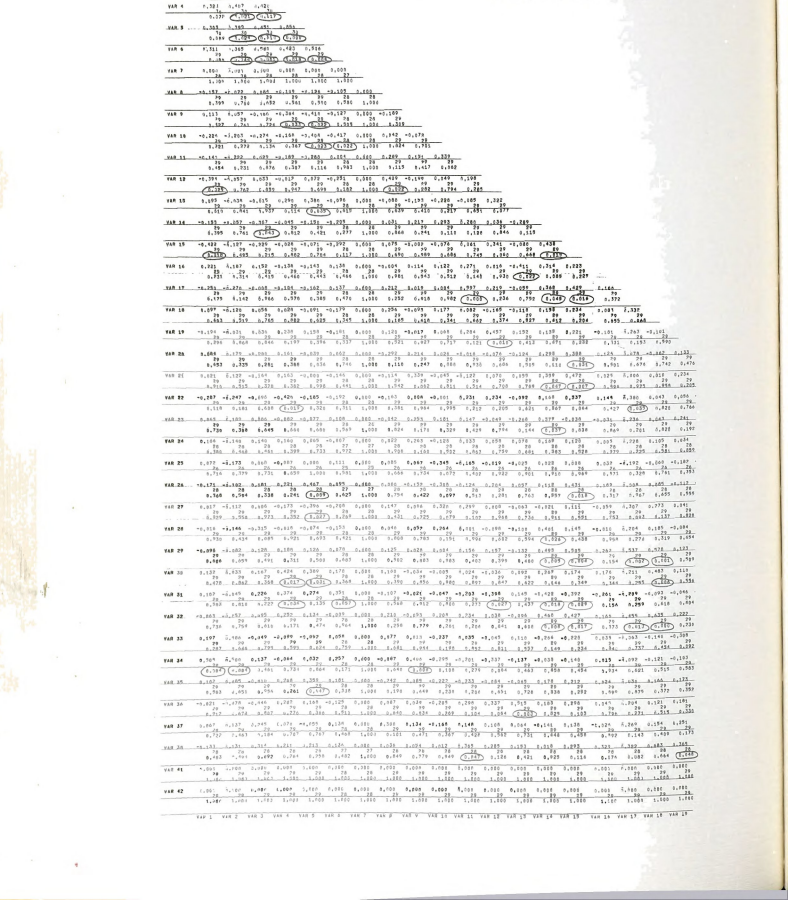


TABLE 38.--Correlation Matrix for Category A, Group 2.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance levels of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

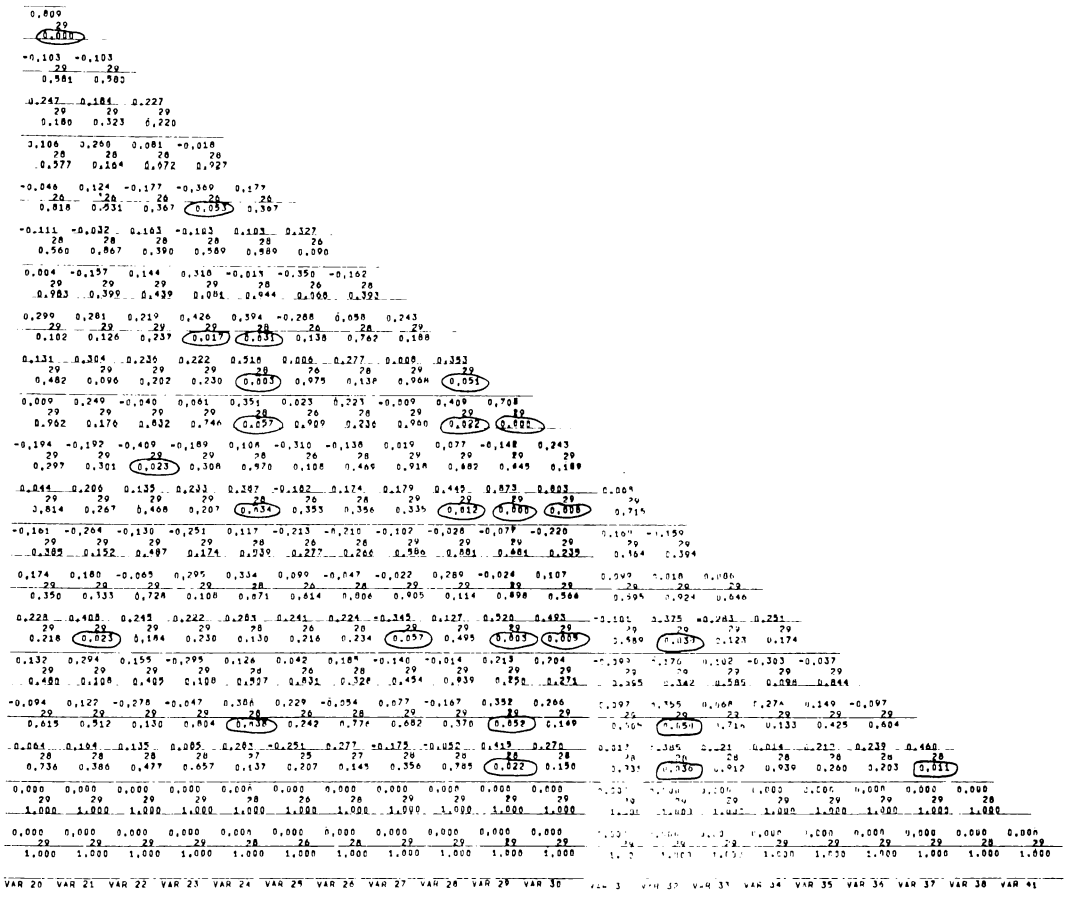
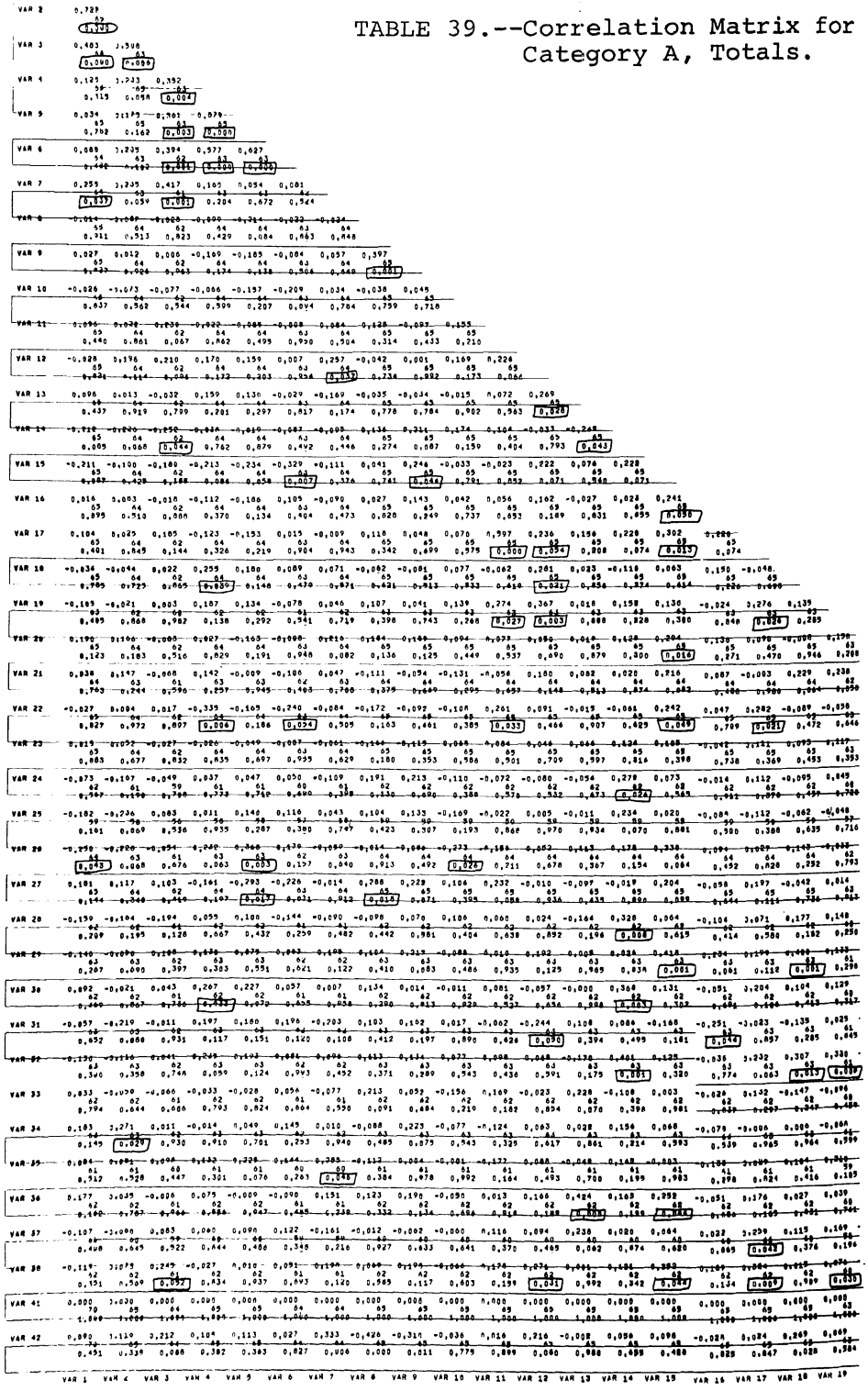


TABLE 39.--Correlation Matrix for Category A, Totals.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance levels of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

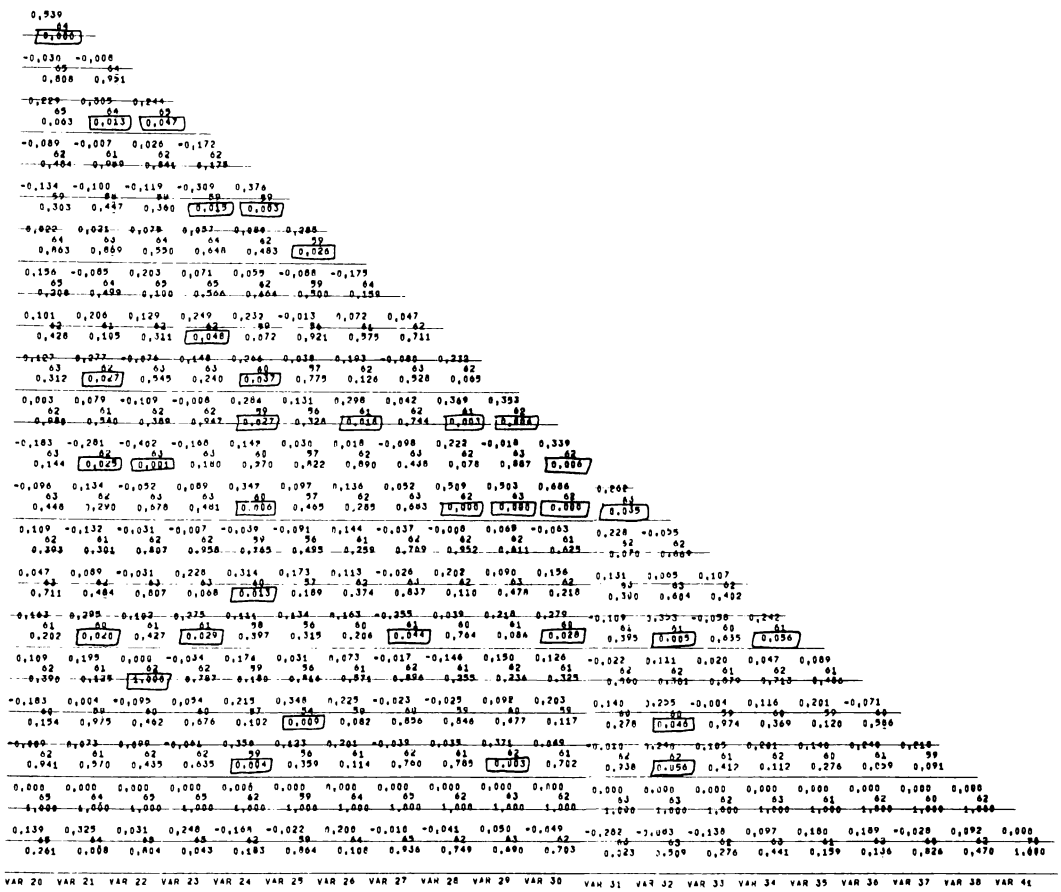
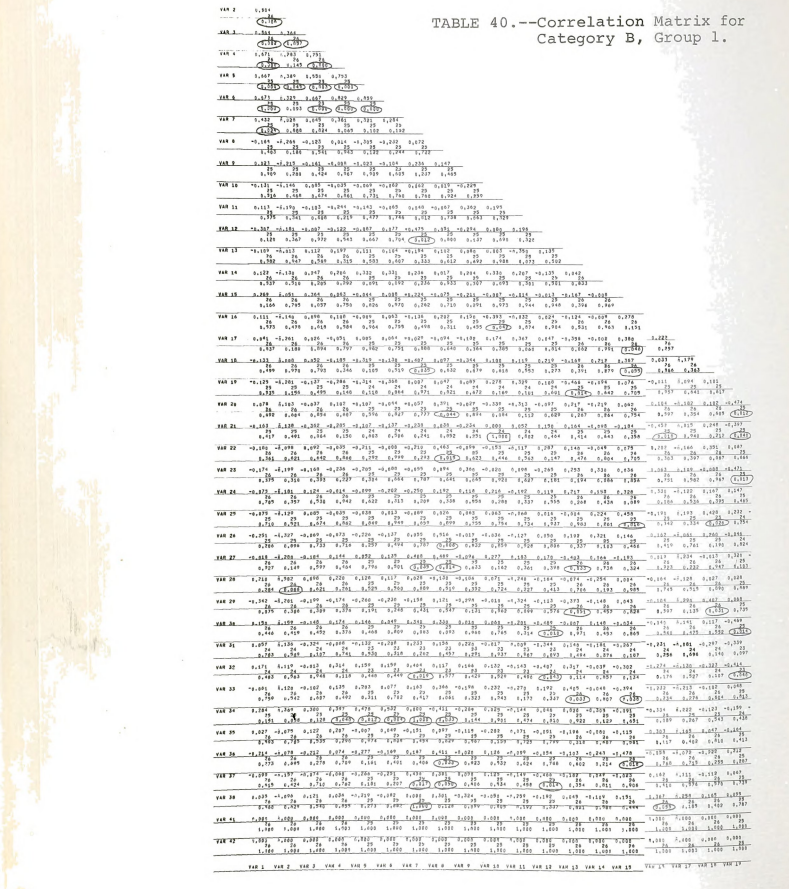


TABLE 40.--Correlation Matrix for Category B, Group 1.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance levels of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

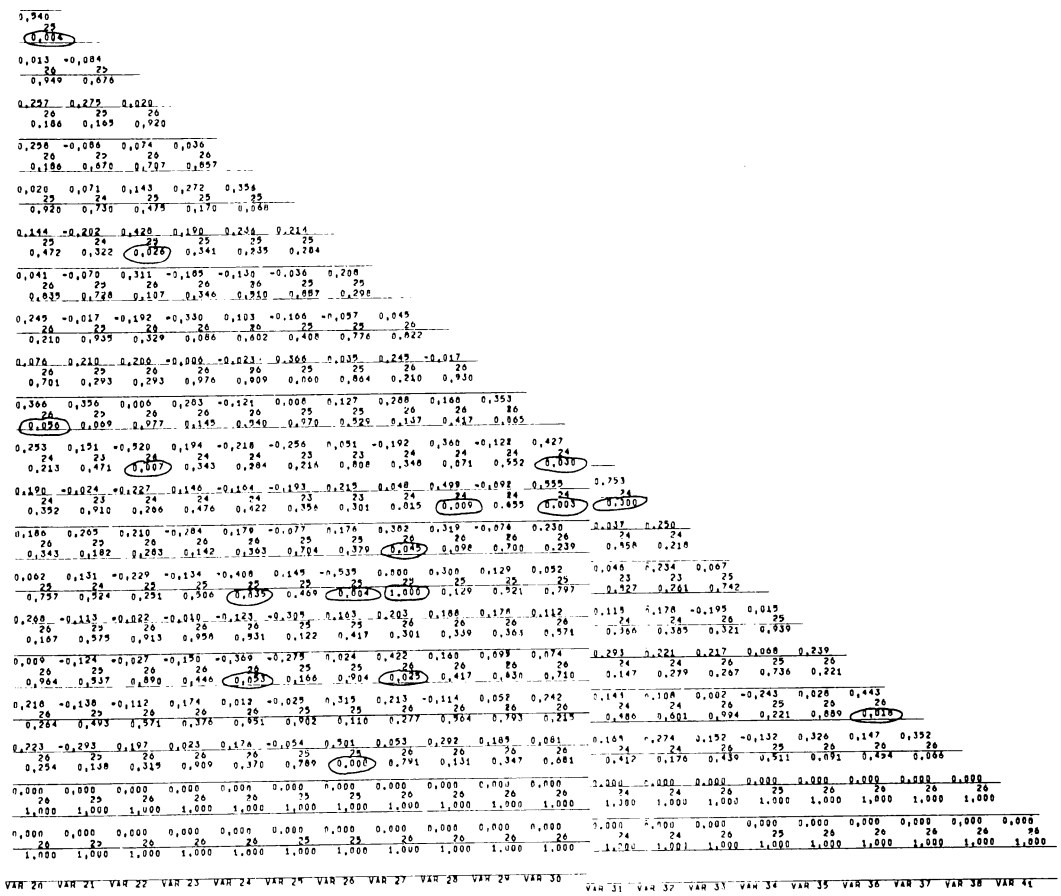
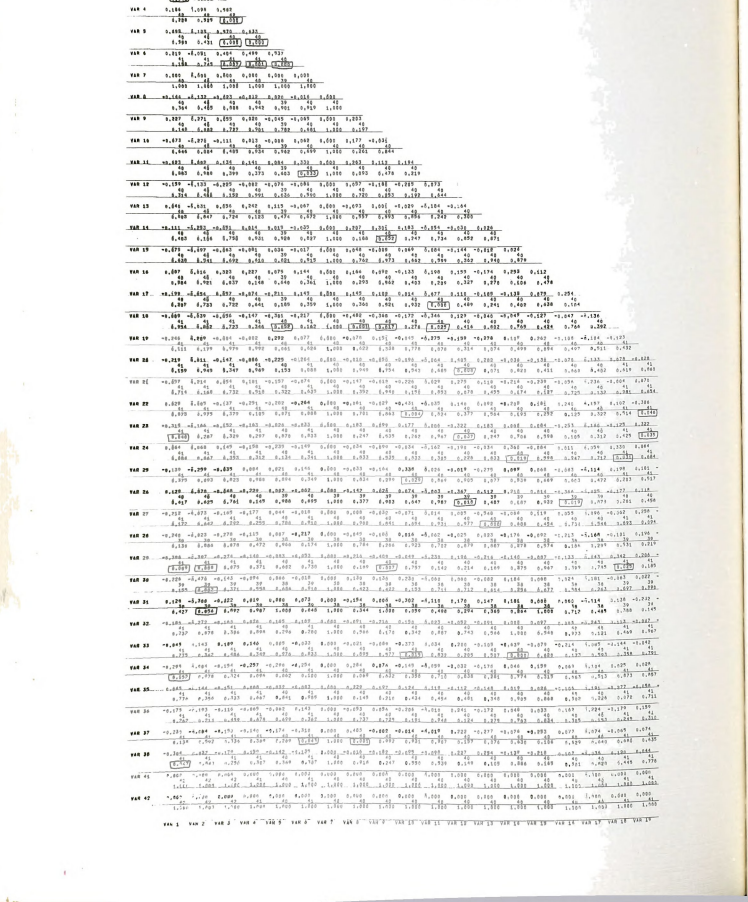


TABLE 41.--Correlation Matrix for Category C, Group 1.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance levels of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

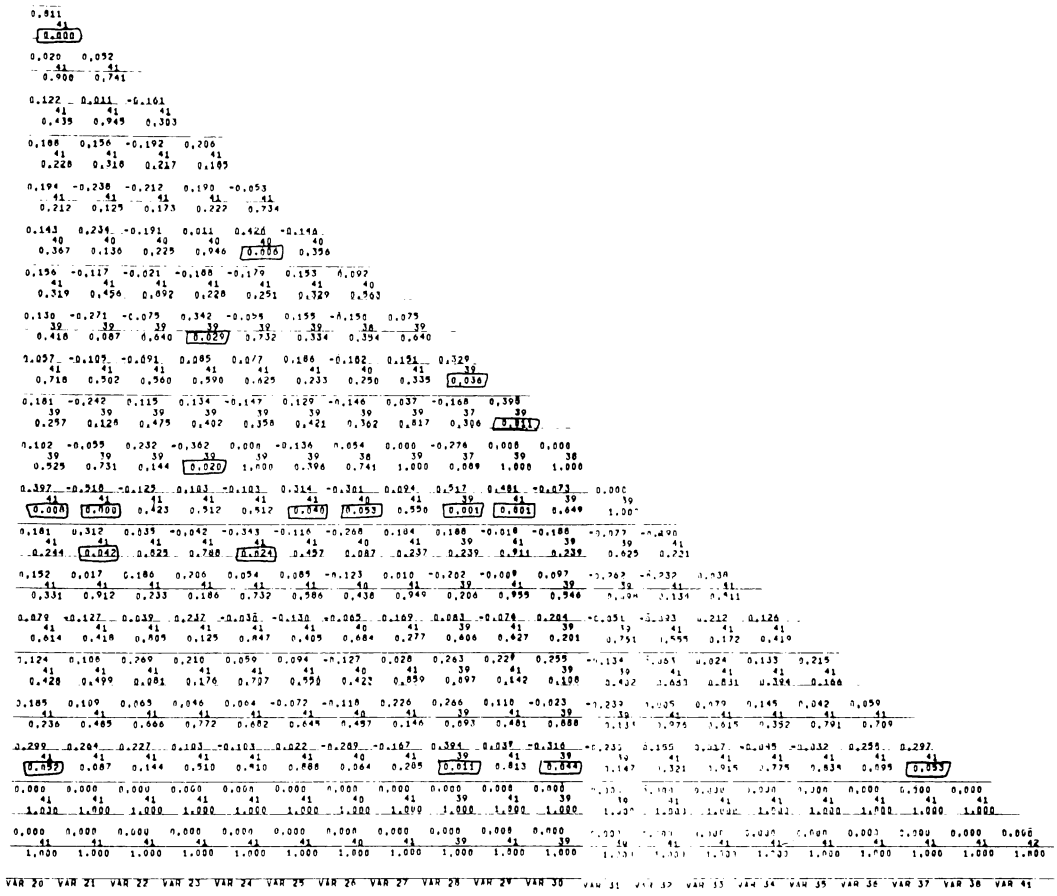
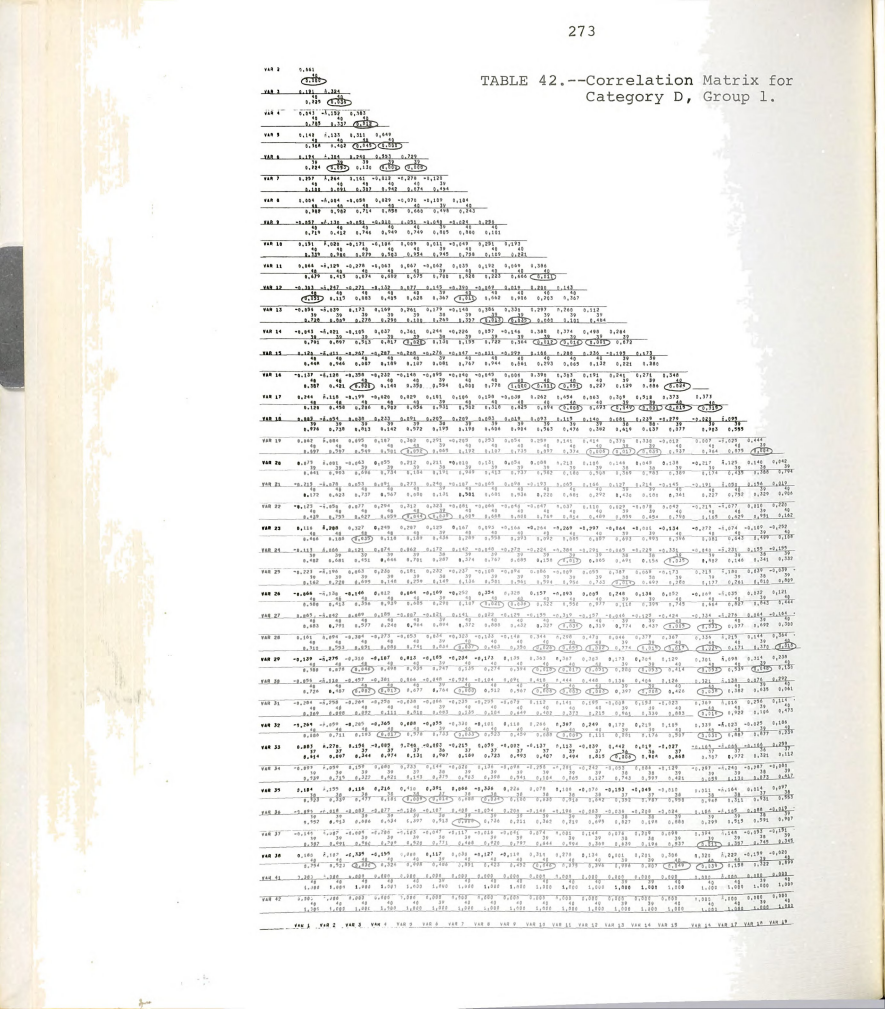


TABLE 42.--Correlation Matrix for Category D, Group 1.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance levels of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

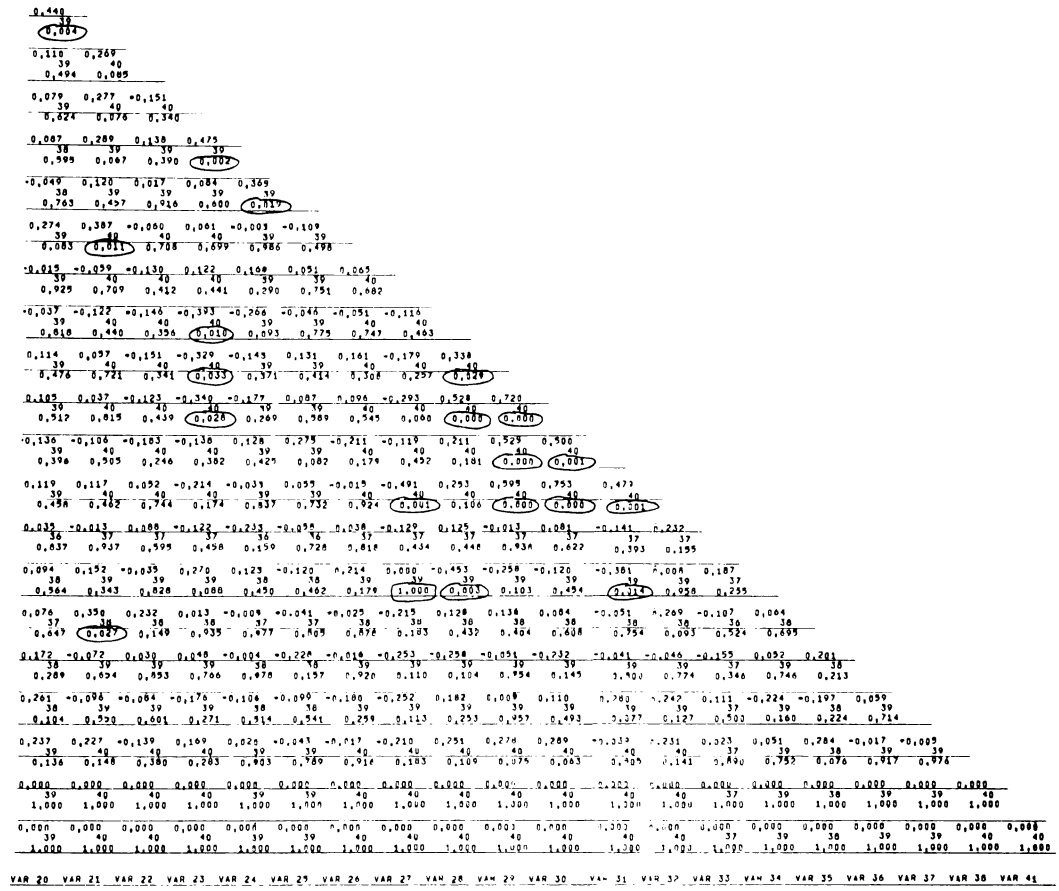
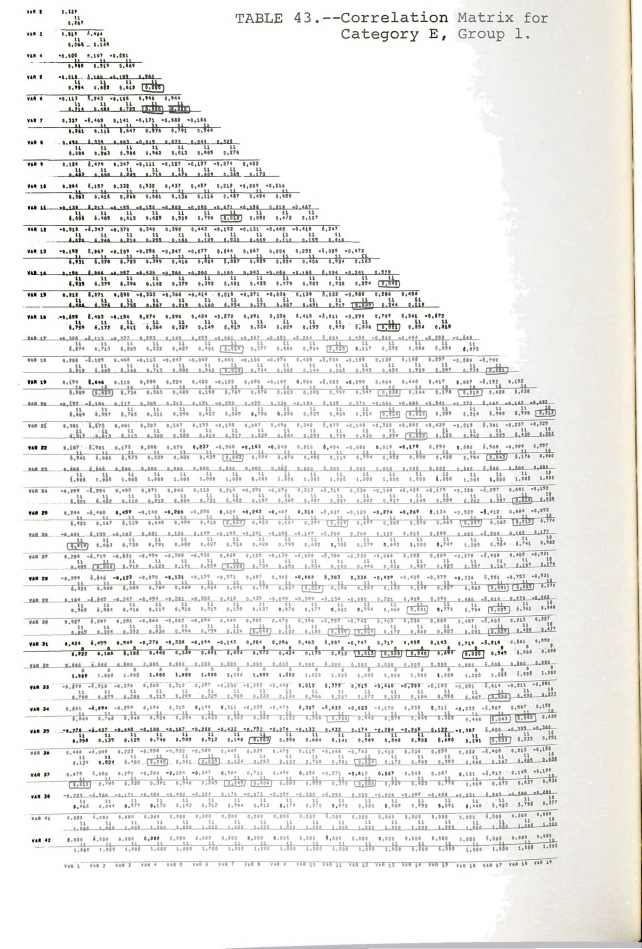


TABLE 43.--Correlation Matrix for Category E, Group 1.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance levels of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

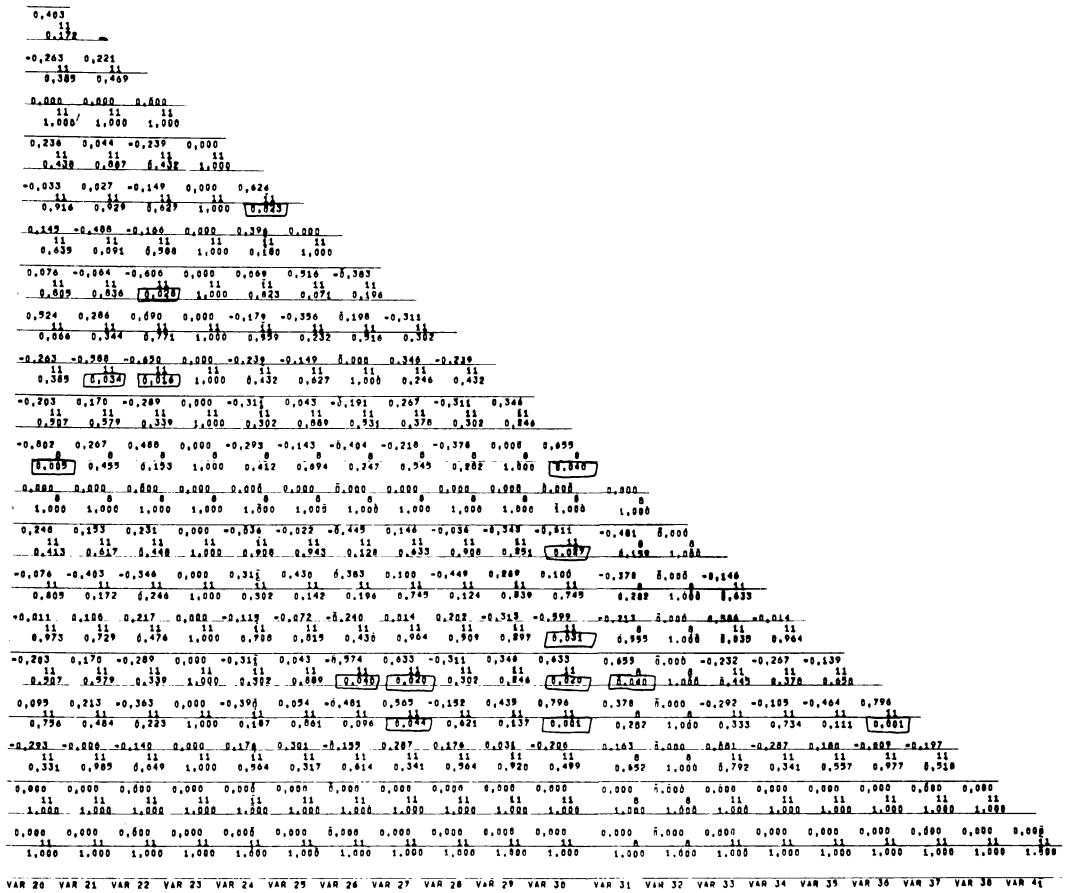
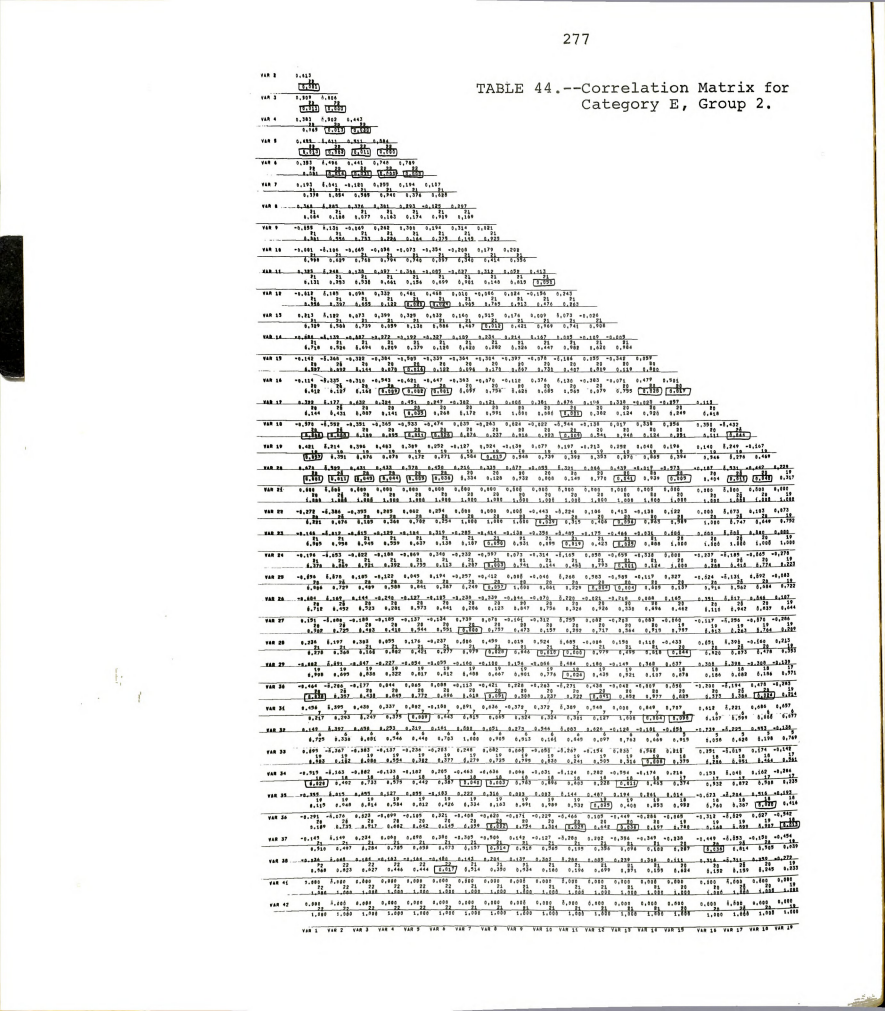


TABLE 44.--Correlation Matrix for Category E, Group 2.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance levels of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

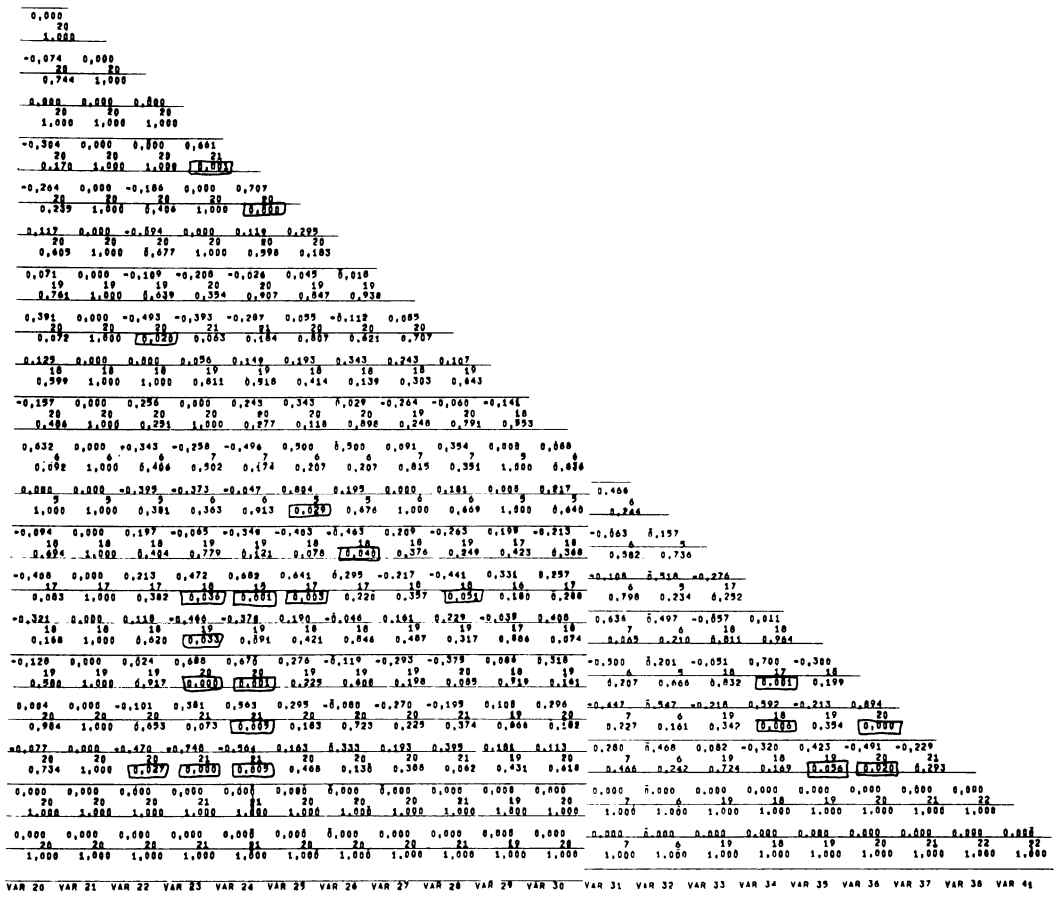
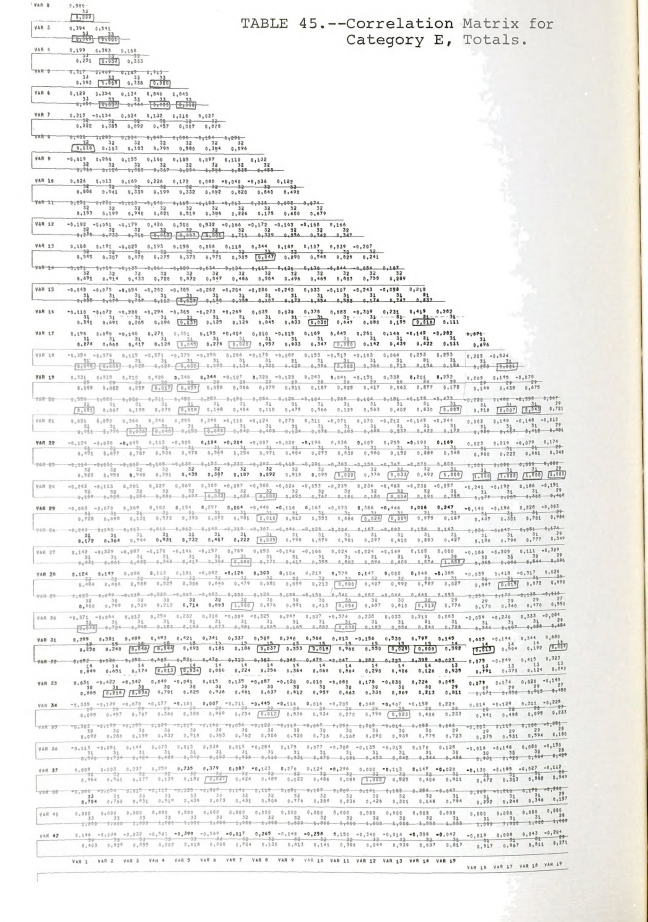


TABLE 45.--Correlation Matrix for Category E, Totals.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

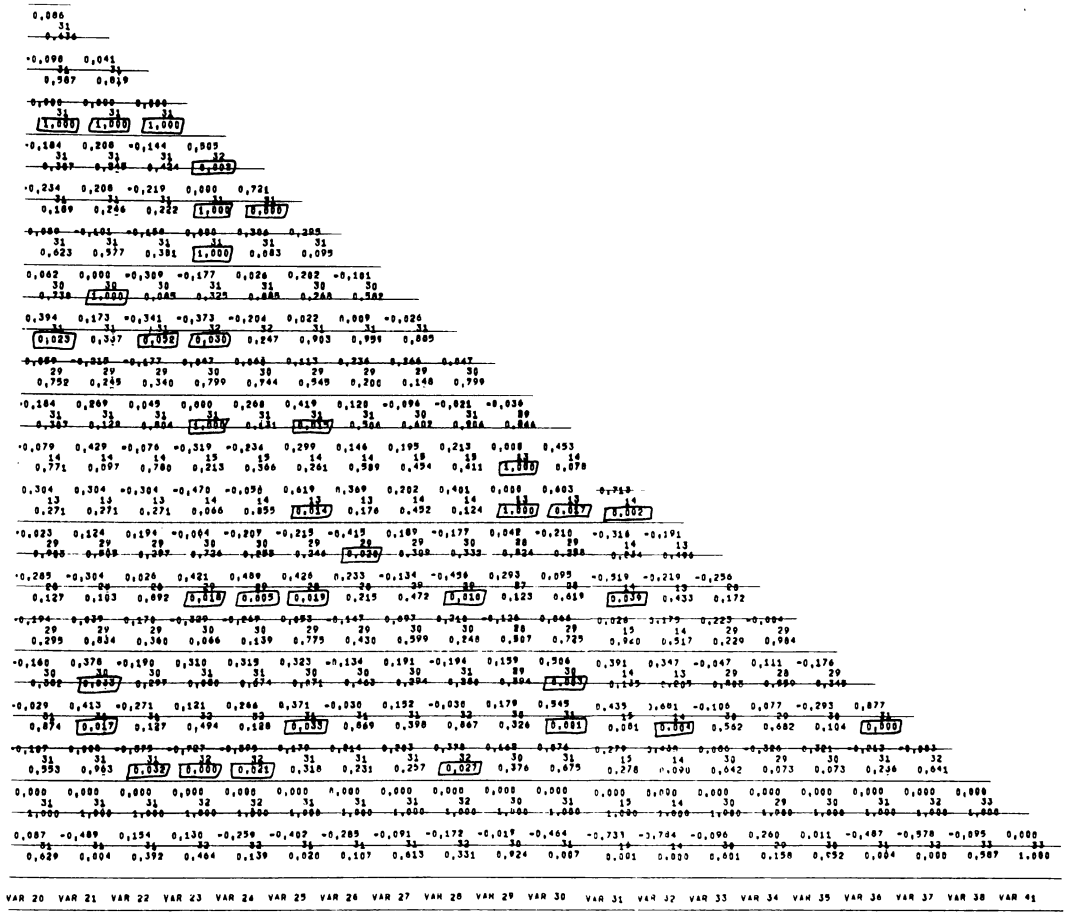
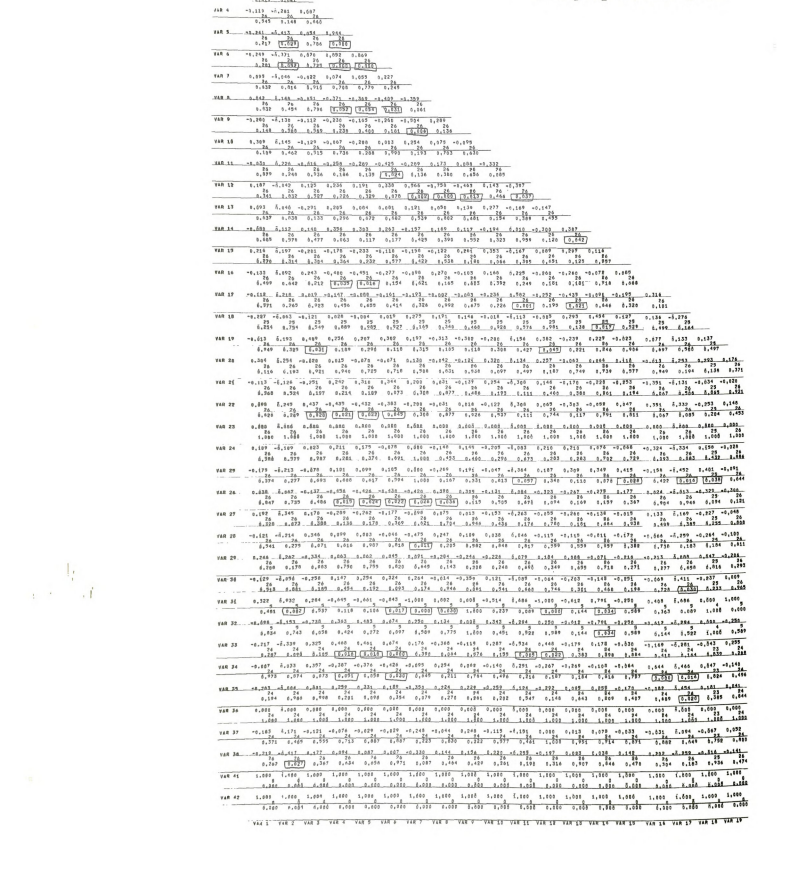


TABLE 46.--Correlation Matrix for Category F, Group 1.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance level of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

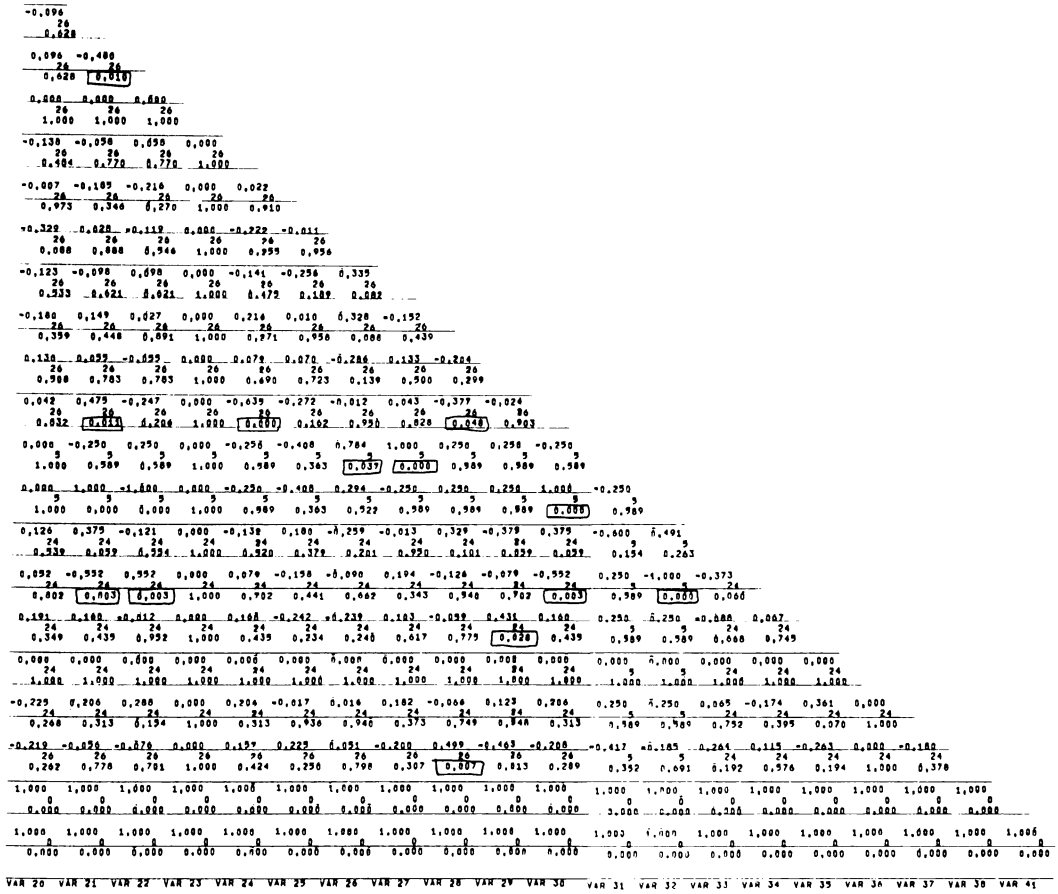
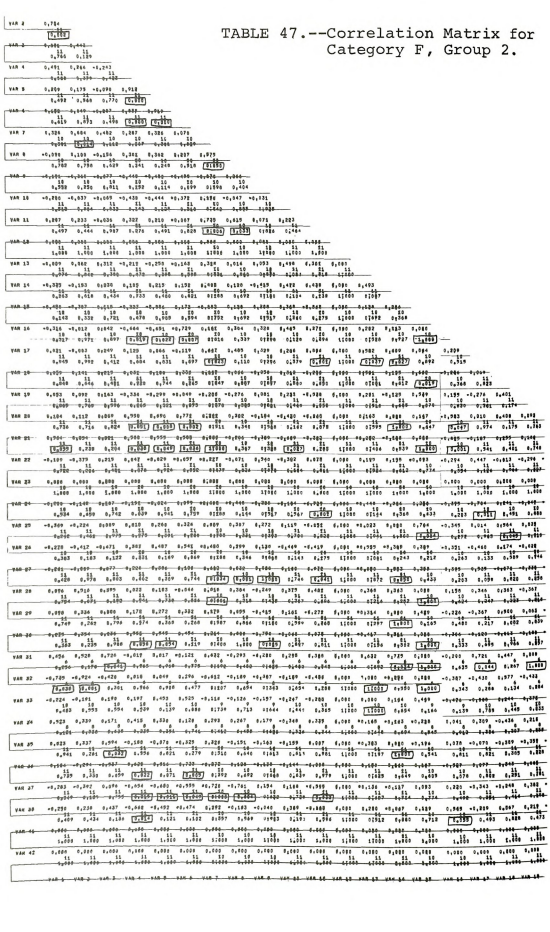


TABLE 47.--Correlation Matrix for Category F, Group 2.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance level of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

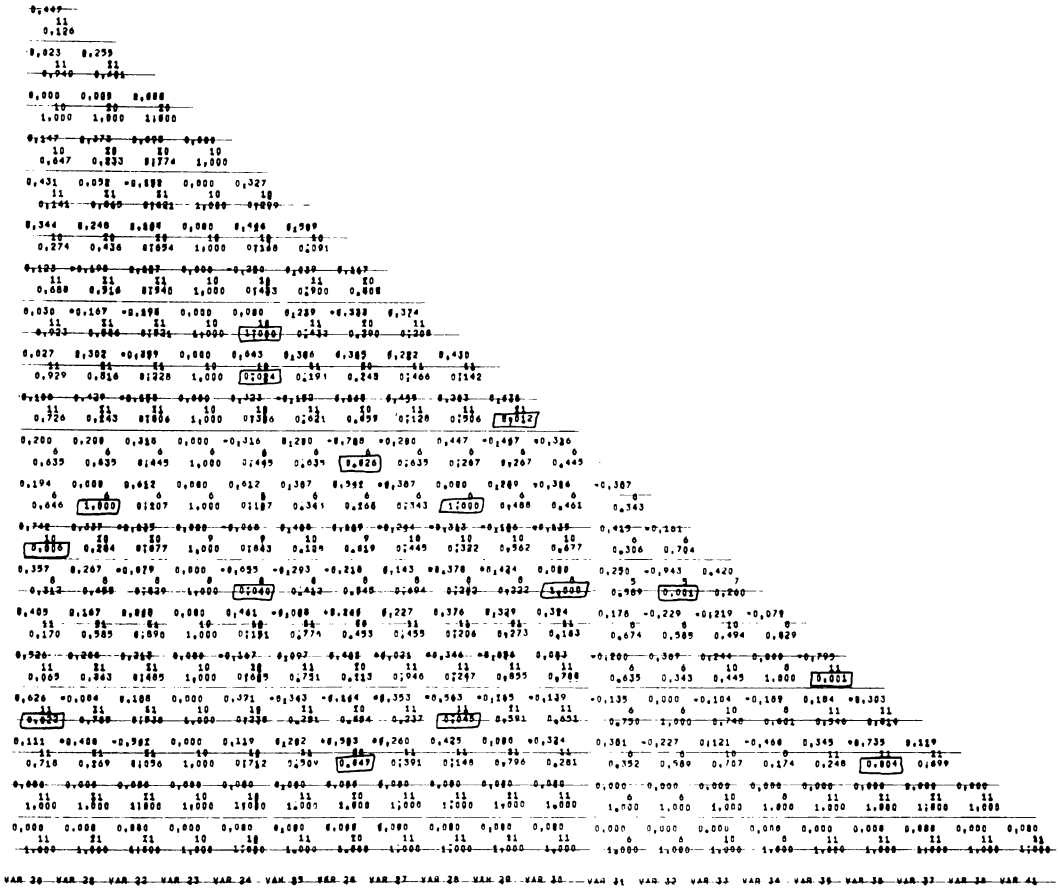
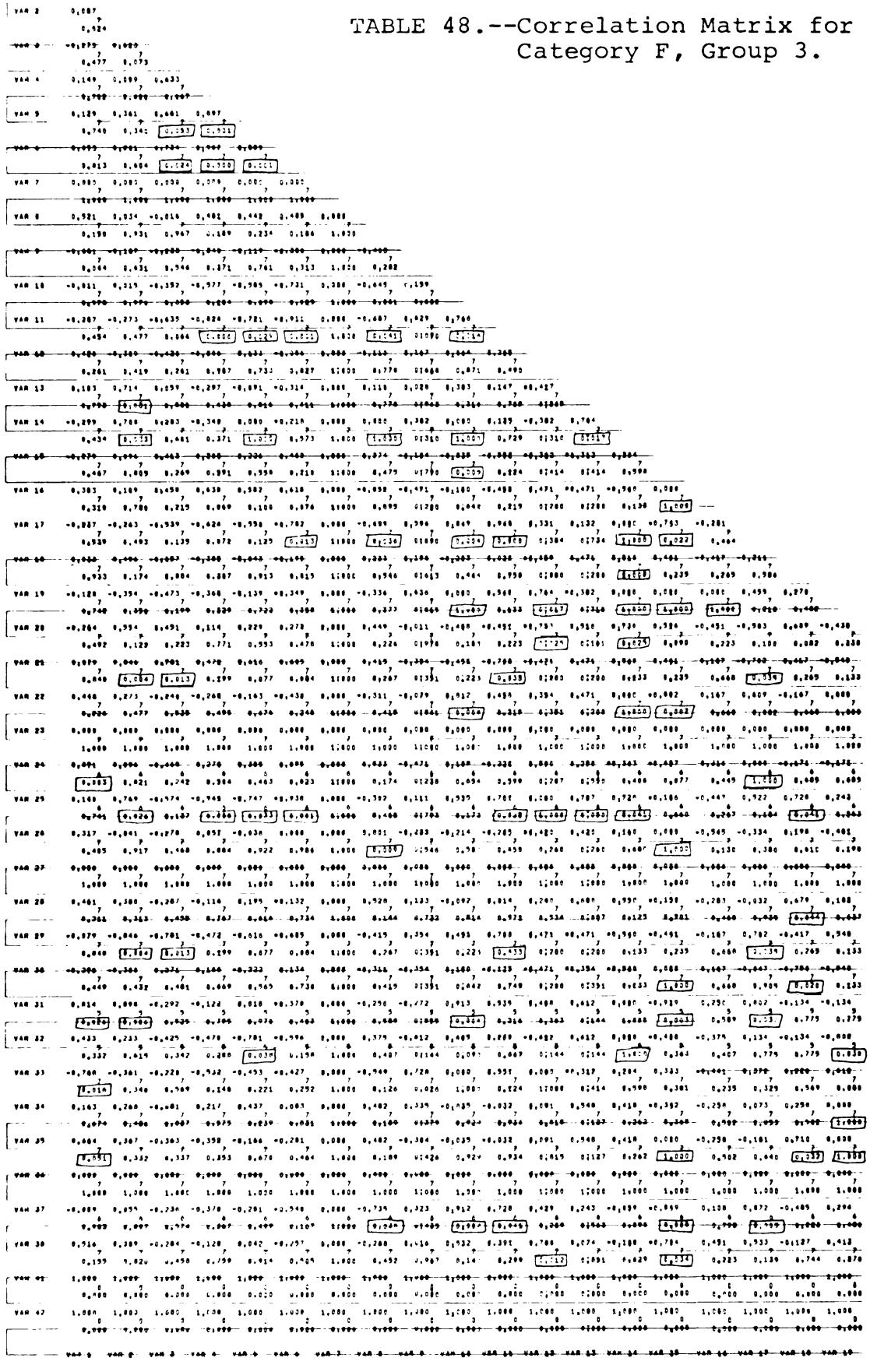


TABLE 48.--Correlation Matrix for Category F, Group 3.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

3. Significance level of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level

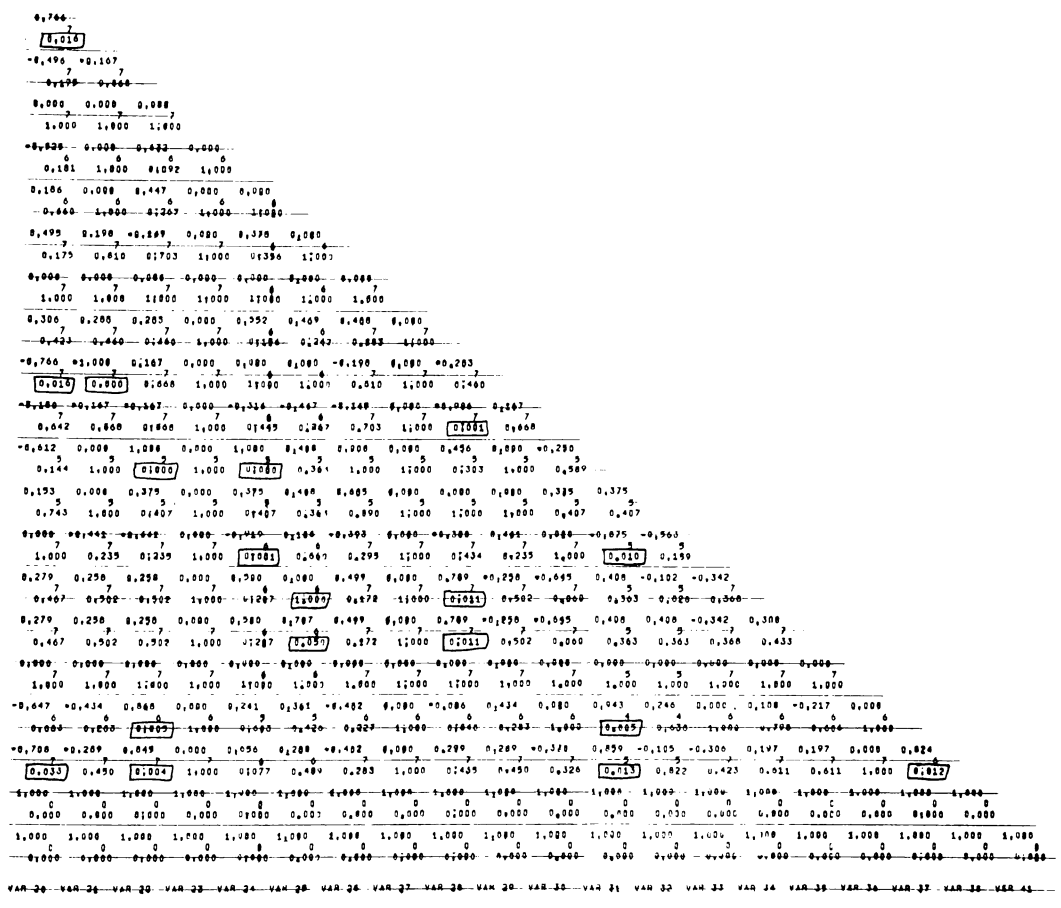
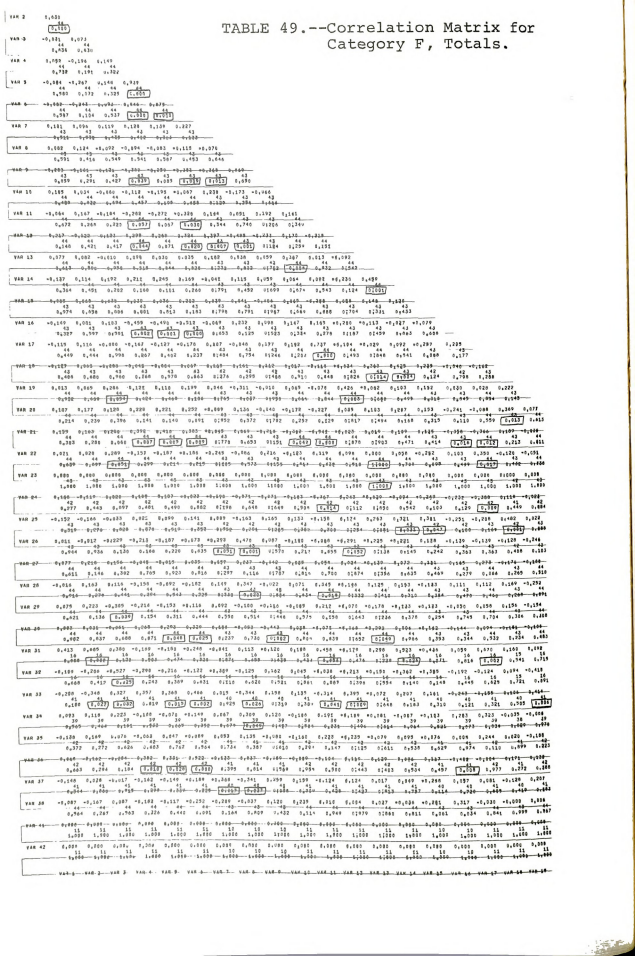


TABLE 49.--Correlation Matrix for Category F, Totals.



Notes:

1. See variable list (Appendix 3) for names of variables.

2. In variables where all responses were constant (i.e., same response category), the computer "print out" lists the correlation as 0.000 and the significance level as 1.000.

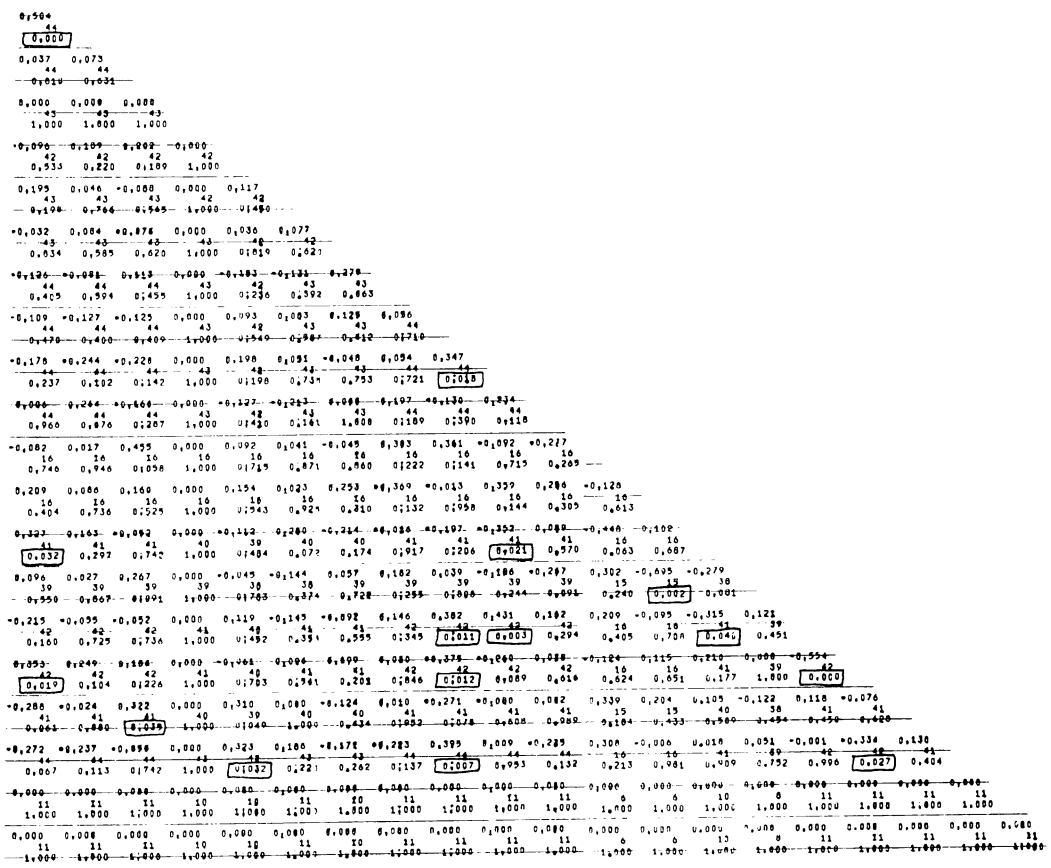
3. Significance level of .000 indicate .0005 or more.

4. Interpretation:

   0.443 = Correlation

   26 = Sample Size

   0.018 = Significance level



APPENDIX 8

CONTENT ANALYSES OF SPECIFIC ITEMS ON LEVEL 6

APPENDIX 8

One of the important aspects of the ABS:DU, is that it offers a great amount of clinical data that is pertinent, not only to the researcher, but to the therapist in his understanding and treatment of the heroin addict. Twenty-three of the 40 content items on Level 6 (personal action) have been selected by this author to demonstrate this dimension of the ABS:DU. Level 6 is the Level that measures actual experiences that persons have had with illegal drug users. If a person had no experience or contact with illegal drug users, he was instructed to omit the entire sixth Level. Therefore, the responses on Level 6 represent what persons have actually experienced.

The content items, as stated in Chapter III, were selected on the basis of an extensive review of the literature on drug abuse, as well as personal consultation with drug abusers, professional therapists, police officers, and other resource persons. The 40 content items were categorized into five facets: causes of illegal drug users, characteristics of illegal drug users, reasons for treatment, types of treatment, and consequences of illegal drug use. The responses of the six research categories to 23

of the 40 items of Level 6 are presented in Table 50 in percentages. Items 1, 4, and 5 relate to the "causes" facet; items 8, 10, 14, 17, and 18 relate to the "characteristics" facet; items 24, 37, and 40 relate to the "consequences" facet; items 26, 27, 28, 29, 30, 32, and 33 relate to the "treatment type" facet; and items 34, 35, 36, 38, and 39 relate to the "treatment reason" facet. Thus, one is able to look at an item, such as item 1, and see that incarcerated addicts who were not receiving treatment (category A) reported that 44 per cent of them felt from their experience that drug users come from unhappy homes, and 35 per cent were undecided. This varies considerably from the responses of categories B, C, E, and F.

The items that have the greatest differences (40 percentage points) between categories are items 1, 4, 17, 18, 24, 29, 33, 36, and 39. Both differences and similarities are important to look at and can be studied within a category as well as between categories. For example, while there is considerable agreement (63 per cent to 90 per cent) among categories that drug users take drugs to escape "reality" (item 8), there is considerable disagreement (22 per cent to 86 per cent) on the maturity of drug users (item 17). While there is considerable agreement among categories that drug users are not trusted (item 10), there is disagreement on how well they deal with anxiety (item 4).

While there is considerable agreement among categories that drug users are usually "followers" rather than "leaders" (item 14), there is disagreement on whether drug users are anti-social (item 18). While there is considerable agreement among categories that drug use leads to physical damage (item 37), there is disagreement as to whether drug users are a threat to society (item 24).

There was very strong agreement among categories that drug users do not need to be isolated from society by jail (item 27), but the categories were all split within on whether drug users need to be isolated from society by hospitalization (item 28). Most people in all the categories indicated that just hospital detoxification (item 32) was not enough, that drug users need help with emotional problems (item 40), and that drug users are not beyond the help of medicine (item 26) and psychology (item 30). There was considerable disagreement both within categories and between categories on the strictness of legal restraints (item 34), on the need for methadone to permanently "kick the habit" (item 36), and on drug users being helped by ex-drug addicts (item 29). The majority (approximately 60 per cent) of the addicts (categories A, B, C, and D) all felt that the legal restraints were too strict, but the remaining 40 per cent (approximately) either felt the legal restraints were all right or too easy. Are the remaining 40 per cent (approximately) indicating that the law is right and addiction is

wrong, or is this a way of "working" off their guilt? Perhaps part of the attraction of being an illegal drug user is that it is illegal, and that more tolerant laws may take some of the thrill away.

The item (36) concerning the need for a permanent drug substitute like methadone was answered most favorably (63 per cent) by the addicts on methadone maintenance (category B), but even 37 per cent of these responded "no" to this item. This may be an indication that this 37 per cent is not pleased with methadone maintenance and would prefer another type of treatment. A number of factors may be operative here. Category B was composed of only one methadone maintenance group. Methadone maintenance may have been the only treatment available to these individuals. Or as item 14 indicated, they may be more followers than leaders and simply going along with the majority of the addicts in their neighborhood.

The majority of the addicts in categories C and D indicated "no" to methadone. These addicts are institutionalized while they are receiving the NARA treatment which does not include methadone maintenance. How significant will this be when they leave the residential treatment program and return to their communities?

The issue of using ex-drug addicts to help current drug users is a hotly debated issue today among therapists

and program developers. In response to the statement "I have seen that drug users can best be helped by ex-drug addicts" (item 29), the vast majority of addicts (72 per cent to 90 per cent) in categories A, B, and C answered "yes," while 51 per cent of the professional therapists (F) answered "yes," and a surprising 35 per cent of the paraprofessional therapists (E) answered "yes." One would expect that the paraprofessionals would have had a higher percentage in agreement with this statement. Examining the two groups of paraprofessionals that made up category E, significant differences were found between them. The first paraprofessional group were all ex-addicts who had very little training for their jobs and had very few professionals working with them. They were 82 per cent in agreement that ex-addicts were the best help for the drug user. The second paraprofessional group had only 27 per cent who were ex-addicts, who had all been off drugs for over a year. This second group had received extensive training for their jobs; they worked together with the professionals, and were given constant supervision. Their responses were 35 per cent "yes," 40 per cent "uncertain," and 25 per cent "no." Although these two paraprofessional groups had very similar scores on most items, this is one item where they differed considerably. The professional therapists (F) scored between the addict categories and the

paraprofessional therapists (E) on the issue of ex-drug addict therapists. Their score was 51 per cent "yes," 30 per cent "uncertain," and 19 per cent "no." The issue of ex-drug addict therapists is, therefore, a very open issue for both the paraprofessionals (E) and the professionals (F).

The differences among all the categories on this item may also reflect differences in goals or expectations for treatment. The addict who wishes to get off heroin might consider this his primary goal. Although he acknowledged that drug users need help with emotional problems (item 40) and that drug use leads to physical damage (item 37), he was not willing to admit that drug users couldn't deal well with anxiety (item 4), or that drug users were immature (item 17). This may indicate a lack of understanding in the dynamics of human behavior and the effect these factors have on the addiction problem per se.

The ex-addict therapist may appear less demanding to the addict in terms of the need to completely change his whole life style, but maybe more demanding on the behavioral objective of no drug use.

There is a possibility that the differences between the paraprofessionals (E) and the professionals (F) and between the groups that make up these categories may be related to goals or expectations for treatment. The

professionals having the most education and supposedly the greatest understanding of human behavior may have goals and expectations for their patients that far exceed just the behavioral objective of no drug use. Consequently they may feel that professionals are better equipped than paraprofessionals in helping an addict arrive at a whole new life style. The one paraprofessional group that worked closely with professionals and had considerably more training and supervision than the other paraprofessional group had responses to item 29 that were very similar to those of the professionals.

In summary, it can be said that the vast majority of the addicts favored ex-drug addicts as helpers while the therapists were uncertain.

Group therapy as a treatment modality for drug users was considered effective for addicts of categories B and C (78 per cent and 88 per cent) and to a lesser extent for addicts in categories A and D (61 per cent and 59 per cent). Paraprofessionals (E) were the most favorable (75 per cent) and professionals (F) the least (44 per cent). Group therapy may be the primary form of treatment that the paraprofessionals provide, while the professionals use other treatment modalities.

Reasons for seeking treatment varied considerably. While there was general agreement among the categories

(45 per cent to 77 per cent) that drug users desire treatment because they are in legal difficulty (item 38), there was disagreement as to whether or not they seek treatment primarily to "kick the habit" (item 39), and disagreement as to whether or not they seek treatment only to lower their daily intake (item 35).

Legal difficulty as the reason for seeking treatment was considered very high among addicts in categories C and D (NARA programs) and among both professionals (F) and paraprofessionals (E), but addicts within categories A and B were split almost half and half on the "yes" and "no" responses. This may indicate that only half the addicts who are incarcerated and receiving no treatment (category A) are concerned about treatment, or it may mean that their primary concern at the present time is getting out of jail, and that treatment for their addiction is of secondary importance. The addicts in methadone maintenance (category B) were similarly split, indicating that legal difficulties are a primary motivating factor for half of them, while the other half were motivated for other reasons. The other reasons may be reflected in their responses to items 35 and 39.

The patterns of responses to item 35 (seek treatment only to lower daily intake) and item 39 (seek treatment primarily to "kick the habit") are very similar when compared

side by side. Half or more of the addicts in categories A, B, C, and D and the paraprofessionals (E) indicated that they have experienced drug users seeking treatment primarily to "kick the habit," while only 30 per cent of the professionals said they had. Half the addicts in NARA I and III treatment (category D) said they had seen that drug users usually seek treatment only to lower their daily intake (item 35), while 69 per cent of the addicts in NARA II (category C) said they had, but only 28 per cent to 30 per cent of the addicts in categories A and B said they had. It must be noted that these items are not asking for their personal motivation for treatment, but what they had experienced with drug users. Therefore, these responses may or may not reflect their own personal motivations. While 30 per cent of the professional therapists (F) said they had experienced drug users seeking treatment primarily to "kick the habit" (item 39), 40 per cent of them reported they had seen that drug users usually seek treatment only to lower their daily intake (item 35). It becomes apparent that reasons for seeking treatment are complex and varied and the one motive reported that received the most support was the legal difficulty motive.

This type of descriptive analysis of specific content items of one of the six Levels of the ABS:DU is an indication of the varied use of the ABS:DU. Additional

analyses can be performed on the remaining five Levels as well as on the 40 items that make up the Personal Data Questionnaire.

TABLE 50.--Responses to Selected Content Items on Level 6 of the ABS:DU.

Item	Responses			Category
	1	2	3	
	Unhappy Homes	Undecided	Happy Homes	
1. I have found that drug users come from:	44%	35%	21%	A
	70%	20%	10%	B
	69%	15%	16%	C
	54%	25%	21%	D
	66%	25%	9%	E
	86%	14%	0%	F
	No	Uncertain	Yes	
4. I have seen drug users deal well with anxiety.	33%	29%	38%	A
	52%	8%	40%	B
	50%	18%	32%	C
	61%	16%	23%	D
	74%	19%	7%	E
	75%	9%	16%	F
	Yes	Uncertain	No	
5. I have seen that drug users usually belong to a minority social group.	36%	20%	44%	A
	40%	5%	55%	B
	67%	5%	28%	C
	39%	8%	53%	D
	60%	6%	34%	E
	39%	4%	57%	F

TABLE 50.--Continued.

Item	Responses 1	2	3	Category
	Yes	Uncertain	No	
8. I have seen drug users take drugs to escape "reality."	74%	9%	17%	A
	63%	12%	25%	B
	90%	0%	10%	C
	81%	16%	3%	D
	88%	6%	6%	E
	89%	7%	4%	F
	Yes	Uncertain	No	
10. I have trusted drug users.	29%	13%	58%	A
	36%	0%	64%	B
	45%	5%	50%	C
	44%	20%	36%	D
	28%	16%	56%	E
	35%	11%	54%	F
	Yes	Undecided	No	
14. I have seen that drug users are usually "followers" rather than "leaders."	45%	19%	36%	A
	59%	12%	29%	B
	72%	10%	18%	C
	64%	24%	12%	D
	76%	21%	3%	E
	66%	20%	14%	F

TABLE 50.--Continued.

Item	Responses 1	2	3	Category
	Yes	Uncertain	No	
17. I have seen that drug users are immature.	22%	21%	57%	A
	36%	16%	48%	B
	53%	10%	37%	C
	69%	8%	23%	D
	79%	3%	18%	E
	86%	9%	5%	F
	Yes	Uncertain	No	
18. I have found that drug users are anti-social.	22%	9%	69%	A
	40%	8%	52%	B
	64%	7%	29%	C
	64%	13%	23%	D
	42%	21%	37%	E
	58%	14%	28%	F
	Yes	Uncertain	No	
24. I have seen that drug users are a threat to society.	30%	29%	41%	A
	79%	12%	9%	B
	71%	7%	22%	C
	66%	16%	18%	D
	58%	24%	18%	E
	66%	18%	16%	F

TABLE 50.--Continued.

Item	Responses 1	2	3	Category
	Yes	Undecided	No	
37. I have seen that drug use leads to physical damage to the user.	55%	18%	27%	A
	75%	9%	16%	B
	62%	7%	31%	C
	62%	17%	23%	D
	84%	0%	16%	E
	77%	7%	16%	F
	Yes	Uncertain	No	
40. I have seen that drug users need help with emotional problems.	65%	21%	14%	A
	92%	0%	8%	B
	91%	2%	7%	C
	88%	4%	8%	D
	91%	6%	3%	E
	89%	11%	0%	F
	Yes	Uncertain	No	
26. I have seen that drug users are beyond medical help.	11%	6%	83%	A
	17%	4%	79%	B
	17%	29%	81%	C
	21%	11%	68%	D
	18%	9%	73%	E
	7%	20%	73%	F

TABLE 50.--Continued.

Item	Responses			Category
	1	2	3	
	Yes	Uncertain	No	
27. I have seen that drug users need to be isolated from society by jail.	13%	5%	82%	A
	13%	0%	87%	B
	14%	0%	86%	C
	29%	8%	63%	D
	9%	6%	85%	E
	0%	16%	84%	F
	Yes	Uncertain	No	
28. I have seen that drug users need to be isolated from society by hospitalization.	45%	19%	36%	A
	40%	13%	47%	B
	53%	7%	40%	C
	54%	13%	33%	D
	56%	9%	35%	E
	41%	18%	41%	F
	No	Uncertain	Yes	
29. I have seen that drug users can best be helped by ex-drug addicts.	13%	15%	72%	A
	21%	0%	79%	B
	10%	0%	90%	C
	26%	8%	66%	D
	25%	40%	35%	E
	19%	30%	51%	F

TABLE 50.--Continued.

Item	Responses 1	2	3	Category
	Yes	Uncertain	No	
30. I have seen that drug users are beyond help by psychologists.	18%	13%	69%	A
	9%	9%	82%	B
	14%	14%	72%	C
	16%	18%	66%	D
	0%	19%	81%	E
	7%	19%	74%	F
	No	Undecided	Yes	
32. I have seen that all drug users need is hospital detoxification (drying out).	53%	21%	26%	A
	71%	9%	20%	B
	83%	2%	15%	C
	74%	8%	18%	D
	82%	6%	12%	E
	89%	9%	2%	F
	No	Uncertain	Yes	
33. I have seen that drug users respond well to group therapy.	11%	28%	61%	A
	13%	9%	78%	B
	10%	2%	88%	C
	16%	25%	59%	D
	6%	19%	75%	E
	26%	30%	44%	F

TABLE 50.--Continued.

Item	Responses 1	2	3	Category
	Too Easy	All Right	Too Strict	
34. I have seen that legal restraints on drug users are:	13%	21%	66%	A
	25%	12%	63%	B
	20%	17%	63%	C
	19%	23%	58%	D
	49%	21%	30%	E
	33%	31%	36%	F
	Yes	Uncertain	No	
35. I have seen that drug users usually seek treatment only to lower their daily intake.	30%	21%	49%	A
	28%	5%	67%	B
	69%	5%	26%	C
	51%	11%	38%	D
	36%	18%	46%	E
	40%	25%	35%	F
	Yes	Uncertain	No	
36. I have seen that drug users need a permanent drug substitute like methadone to permanently "kick the habit."	47%	20%	33%	A
	63%	0%	37%	B
	41%	5%	54%	C
	32%	13%	55%	D
	19%	16%	65%	E
	9%	35%	56%	F

TABLE 50.--Continued.

Item	Responses 1	2	3	Category
	Yes	Uncertain	No	
38. I have experienced that drug users desire treatment because they are in legal difficulty.	45%	18%	37%	A
	48%	9%	43%	B
	76%	2%	22%	C
	71%	8%	21%	D
	66%	3%	31%	E
	77%	11%	12%	F
	No	Uncertain	Yes	
39. I have experienced that drug users seek treatment primarily to "kick the habit."	20%	25%	55%	A
	32%	0%	68%	B
	26%	2%	72%	C
	33%	18%	49%	D
	25%	25%	50%	E
	42%	28%	30%	F