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PSYCHOSOCIAL CHARACTERISTICS OF DRUG-ABUSING WOMEN

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PSYCHOSOCIAL CHARACTERISTICS OF DRUG-ABUSING WOMEN

BY

MARVIN R. BURT, PRINCIPAL INVESTIGATOR
THOMAS J. GLYNN
BARBARA J. SOWDER

BURT ASSOCIATES, INC.
BETHESDA, MARYLAND

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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FOREWORD

In recent years considerable attention has been given to the status of women as drug abusers and as clients in drug treatment programs. Studies have shown that women differ from men in their rates and patterns of drug use. Further, women of all ages are underrepresented in drug treatment systems supported by the Federal Government. The Client Oriented Data Acquisition Process (CODAP), the Federal reporting system, found that in 1976, of the 95,000 federally supported treatment slots, 25,000 (26 percent) were filled by women.

There has been much speculation on the meaning of these statistics. Some investigators have concluded that women have a lower incidence of opiate addiction. Others have claimed that the drug treatment programs are not organized or structured to serve female drug abusers since the programs tend to be dominated by male staff. There have been reports of overt and covert sexism in drug programs.

Treatment programs have acknowledged the importance of giving special attention to the needs of women. In developing a strategy to address female issues in the drug treatment field, the Services Research Branch of the National Institute on Drug Abuse (NIDA) initially elected to compile a comprehensive review of available information from studies and surveys, from existing data, and from the literature.

Often research endeavors are initiated and treatment programs designed without the benefit of exploring that which has gone before. This document on the characteristics of drug-abusing women attempts to meet that need.

This study, conducted by Burt Associates between June 1976 and December 1977, is a reference guide that provides information on the research that has been done on the characteristics of female drug abusers. An effort is made to identify, assess, integrate, and analyze all of the available data on the characteristics of women's reported drug use patterns, demographic characteristics, and personality attributes. This information is in turn contrasted with comparable data for males. In addition, discussion is made of the treatment implications of findings presented.

The report is divided into three major sections as follows:

- Prevalence of Drug Abuse: Household Surveys. The emphasis in this chapter is on national household surveys which were conducted in 1974-75 and 1975-76.
- Characteristics of Male and Female Drug Abusers as Reflected in Data Systems. Here large-scale, ongoing data systems which focus on clients who come to the attention of service components are surveyed. Also surveyed are selected, small-scale data sets which usually focused on individual programs.
- A Review of the Literature is divided into two parts: characteristics of male and female drug abusers as reflected in the literature and psychological characteristics of female drug abusers. Both published and unpublished literature are surveyed.

Margruetta B. Hall
Project Officer
National Institute on Drug Abuse

CONTENTS

Tables and Figure

Tables and Figure (Continued)

1. Prevalence of Drug Abuse: Household Surveys

The data reported in this section are from household surveys. Like all such surveys, they have some limitations. For example, the sample sizes are limited and subject to sampling variability; the household surveys exclude persons not living in household units, such as persons living in dormitories, transients, or persons with no fixed address; and the national surveys reported response rates of slightly less than 80 percent.

This study excludes consideration of drug use surveys conducted in schools. Several surveys of school populations have been conducted recently employing varying methodologies (Butler 1975; Harrison 1974; Hays 1974; Linder et al. 1974; Michigan Department of Public Health 1975; San Mateo County 1974). The results were summarized by Glenn and Richards (1976) who observed that differences in nonmedical drug use by school age males and females appear to be negligible.

The emphasis in this chapter is upon national household surveys of drug use which were conducted in 1974-75 (Abelson and Atkinson 1975) and 1975-76 (Abelson and Fishburne 1976) by the George Washington University Social Research Group and Response Analysis Corporation. The results of those surveys may be divided into two categories: use of illicit drugs and nonmedical use of psychotherapeutic drugs.[1]

Use of Illicit Drugs

Table 1 depicts use of certain illicit drugs, by sex. Among adults in 1975-76, there were no statistically significant[2] differences in "current use" between females and males, except for marihuana (male prevalence was higher). However, male prevalence ("ever used") is significantly higher for all the drugs indicated.

Among youth, the only statistically significant male/female difference in "current use" is for hallucinogens (male prevalence is higher). Statistically significant male/female differences in "ever used" occur only for inhalants, marihuana, and hashish (male prevalence is higher).

Nonmedical Use of Psychotheraputic Drugs

A great deal of confusion exists in the literature with regard to the use and definition of such words as "psychotropic," "psychotherapeutic," and "prescription drugs." These terms are sometimes used interchangeably. Psychotropic drugs as defined by Cooperstock (1976) include all tranquilizing agents (antibarbiturates and the nonbarbiturate sedatives) and stimulants (largely amphetamines and other amphetaminelike anorexiants). Generally, this does not include analgesics although they do affect the central nervous system.

The distinction between licit and illicit use of psychotherapeutic drugs can cause confusion. One can differentiate the source as being medical vs. nonmedical, but the definition remains unclear because many physicians unknowingly become the source for illicitly used psychotropics (Prather and Fidell 1977). Abelson and Atkinson (1975) and Abelson and Fishburne (1976) defined "nonmedical use of psychotherapeutic drugs"" by an individual based on a "yes" response to any one (or more) of the following three items:

- Did you ever take any of these kinds of pills just to see what it was like and how it would work?
- Did you ever take any of these kinds of pills just to enjoy the feeling they give you?
- Did you ever take any of these pills for some other nonmedical reason, and not because you needed it?

Surveys of such drug use or combined medical/nonmedical drug use typically find prevalence substantially higher among females (Abelson and Atkinson 1975; Abelson and Fishburne 1976; Cooperstock 1976; Cooperstock

Table 1

USE OF CERTAIN ILLICIT DRUGS BY ADULTS AND YOUTHS--1975-76

(percentage)

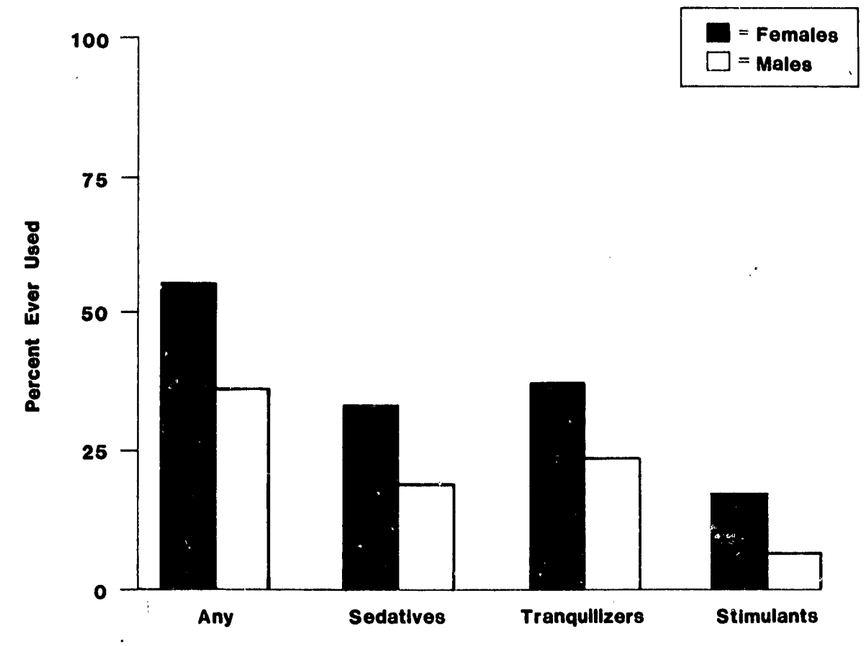
Use/Sex	Heroin	Other Opiates	Cocaine	Hallucinogens	Inhalants	Marihuana	Hashish
Adults (Age 18+)							
Current Use[a]							
Females (n=1,561)	0.1	0.4	0.4	0.1	0	5.1 S	0.9
Males (n=1,029)	*	0.5	0.9	0.5	0.2	11.1 S	2.0
Ever Used							
Females (n=1,561)	0.6 S	3.6 S	2.5 S	3.5 S	1.9 S	14.5 S	6.1 S
Males (n=1,029)	1.8 S	7.2 S	5.8 S	6.4 S	4.9 S	28.7 S	13.6 S
Youths (Age 12-17)							
Current Use							
Females (n=467)	0.1	(b)	0.8	0.1 S	0.5	10.6	2.9
Males (n=519)	0.5	(b)	1.2	1.6 S	1.2	14.1	2.7
Ever Used							
Females (n=467)	0.4	(b)	2.9	5.2	4.7 S	18.6 S	8.1 S
Males (n=519)	0.7	(b)	3.9	5.0	11.5 S	26.0 S	11.1 S

(a) Indicates use during the month preceding the interview.
(b) Data not available.
* Less than 0.05 percent.
S Indicates female/male difference is significant at .05 level.

Source: Special tabulations of the SRG/RAC survey data provided by Ira Cisin, Ph.D.

Figure 1

MEDICAL EXPERIENCE WITH TYPES OF PSYCHOTHERAPEUTIC DRUGS AMONG FEMALES AND MALES
(percent ever used)



Source: Abelson and Atkinson (1975).

Table 2

NONMEDICAL EXPERIENCE WITH TYPES OF PSYCHOTHERAPEUTIC DRUGS AMONG SUBGROUPS: PREVALANCE (EVER USED)--OVER THE COUNTER AND/OR PRESCRIPTION, 1975/76

(percentage)

Age/Sex	Any Psychotherapeutic	Any OTC	Any Rx Sedatives	Any Rx Tranquilizer	Any Rx Stimulants
All Youths: age 12-17					
Male (n=519)	9	6	2	3	4
Female (n=467)	12	5	3	4	4
All Adults: age 18+					
Male (n=1,029)	18 S	7	6 S	5 S	10 S
Female (n=1,561)	13	6	3	3	6
Young Adults: age 18-25					
Male (n=401)	29 S	14	14	11	21 S
Female (n=481)	22	10	10	7	13
Older Adults: age 26+					
Male (n=628)	14 S	5	3	3	8 S
Female (n=1,080)	10	5	2	2	4

S Indicates the difference between males and females is significant at the .05 level.

Source: Abelson and Fishburne (1976).

Table 3

NONMEDICAL EXPERIENCE WITH PSYCHOTHERAPEUTIC DRUGS AMONG SUBGROUPS: PREVALENCE (EVER USED) AND RECENCY OF USE (Over the Counter and/or Prescription), 1975/76

(percentage)

Age/Sex	Ever Used	Past Month	Past Year, Not Past Month	Not Past Year	Never Used
All Youths: age 12-17					
Male (n=519)	9	2	2	4	91
Female (n=467)	12	2	4	6	88
All Adults: age 18+					
Male (n=1,029)	18 S	4	3	11 S	82 S
Female (n=1,561)	13	3	3	7	87
Young Adults: age 18-25					
Male (n=401)	29	9	8	12	71
Female (n=481)	22	8	6	9	78
Older Adults: age 26+					
Male (n=628)	14 S	2	1	11 S	86 S
Female (n=1,080)	10	2	2	7	90

S Indicates the difference between males and females is significant at the .05 level.

Source: Abelson and Fishburne (1976).

Table 4

NONMEDICAL EXPERIENCE WITH PRESCRIPTION PSYCHOTHERAPEUTIC DRUGS AMONG SUBGROUPS: TRENDS IN PREVALENCE (EVER USED), 1972-76
(percentage)

Age/Sex	1972	1974	1975-76
All Youths: age 12-17			
Male	5	6	6
Female	8	7	9
All Adults: age 18+			
Male	10	9	14
Female	10	5	9

Source: Abelson and Fishburne (1976).

and Sims 1971; Fejer and Smart 1973; Levine 1969; Manheimer et al. 1968; Mellinger et al. 1971; Parry et al. 1973; Swanson et al. 1973). For example, a recent household survey of the U.S. population (figure 1) shows that psychotherapeutic drug use is significantly greater among females than males.

Table 2 depicts the percentage of nonmedical use by females and males of over-the-counter and prescription medications. Among youth, differences in male/female use of the various types of drugs are not statistically significant. Among adults, male prevalence is significantly higher for "any psychotherapeutic," with highest prevalence in the 18-25 age group.

In terms of recent nonmedical psychotherapeutic drug use, table 3 indicates no statistically significant male/female differences in use during the "past month" or "past year, not past month."

Trends in the percentages of males and females who have ever used psychotherapeutic drugs are shown in table 4. There is little change shown in use by youth during 1972 to 1975-76; female use is slightly higher during all 3 years. Male and female use by adults was equal (10 percent) in 1972, but in 1975-76 female use was lower than male use (9 versus 14 percent).

These data probably disguise the comparative frequency with which females and males experience drug problems with psychotherapeutic drugs because medical use is excluded. Table 5 depicts contacts with emergency rooms due to drug problems in 24 large Standard Metropolitan Statistical Areas (SMSAs) during the time period covered by the national household surveys cited. Considerably more contacts were made by females than males for psychotherapeutic drug problems. It is also interesting to note that nearly twice as many female contacts with these emergency rooms were diagnosed as drug overdose problems compared to male contacts.

Table 5

CONTACTS WITH EMERGENCY ROOMS DUE TO DRUG PROBLEMS
24 LARGE SMSAs, APRIL 1974-APRIL 1975
(numbers in thousands)

Drug Problem	Male	Female	Female Difference
Heroin/Morphine	15.2	6.6	-8.6
Methadone	2.9	1.3	-1.6
Cocaine	1.1	0.5	-0.6
Barbiturates	8.3	11.4	+3.1
Amphetamines	0.4	2.2	+1.8
Tranquilizers	19.3	41.9	+22.6
Hallucinogens	3.6	1.5	-2.1
Inhalants, Solvents, Aerosols	0.9	0.4	-0.5
Alcohol	12.8	14.3	+1.5
Nonbarbiturate Sedatives	7.8	14.9	+7.1
Nonnarcotic Analgesics	6.4	18.2	+11.8
Cannabis	3.2	1.7	-1.5
Others	12.6	21.2	+8.6
Total	94.5	136.1	+41.6
Overdose*	47.2	87.7	+40.5

*Accounts for 134,902 of 186,608 total contacts.

Source: DAWN III, April 1974-April 1975.

2. Characteristics of Male and Female Drug Abusers as Reflected by Data Systems

Characteristics of male and female drug abusers will be addressed in two parts: treatment populations as reflected by existing data systems and drug abusers in both treatment and nontreatment populations as reflected in the literature.

The large and small data systems that were used in preparing this report are described below.

Large-Scale Data Systems

The Client Oriented Data Acquisition Process (CODAP) was instituted (in a revised form) in May 1973 as the single reporting system required of all participating Federal agencies.

The CODAP "Admission Report" is a reporting form filled out on each client upon entrance to a treatment program. It provides admission status, client characteristics, drug problems, and prior treatment data. The "Discharge Report" is completed for every client leaving treatment. It provides discharge status, client characteristics, drug use, and time in treatment data. Currently, approximately 1,600 clinics report almost 40,000 client admissions and discharges each month.

These data provide a potentially rich source of information on client characteristics and clients' problems and status at the time they enter and leave treatment.

A quite different type of large-scale data system is the Drug Abuse Warning Network (DAWN) sponsored by NIDA and the Drug Enforcement Administration. The DAWN system collects only abuse episodes that have resulted in a crisis. The person involved has sought help (or died) and has subsequently been reported by one of the three facility types: emergency rooms of non-Federal, short-term general hospitals; crisis centers; and medical examiners or coroners in 24 SMSAs (Standard Metropolitan Statistical Areas). In 21 of the SMSAs, reporting is from all hospitals. Hospitals are sampled in the three largest SMSAs.

The Polydrug Data Set consists of data collected from programs that were designed to uncover what was felt to be a hidden population of polydrug abusers. Thirteen polydrug projects were initiated in 1973 offering services that were not readily available at the time. These pilot projects, operating between April 1973 and March 1975, collected data on more than 2,000 patients who had abused a variety of psychoactive drugs. Cross-tabulations of these data were obtained from the Polydrug Research Center, in Philadelphia, Pennsylvania.

The Drug Abuse Reporting Program (DARP), operated by Texas Christian University's Institute of Behavioral Research, collected data on clients admitted to treatment (via "Admission Reports") from June 1969 through March 1973 on 38,433 patients who entered treatment at 52 agencies located in the United States and Puerto Rico. "Status Evaluation Reports," covering treatment received and outcome data, were completed for each client up to March 31, 1974.

Small-Scale Data Sets

The data sets used were from the Addiction Services Agency (ASA) in New York City; the Narcotics Treatment Administration (NTA) in Washington, D.C.; the Wayne County Department of Substance Abuse Services and the National Women's Drug Research Coordinating Project, Detroit, Michigan; the University of Miami (two intake and treatment process surveys of clients entering treatment programs in Dade County, Florida; a hospital emergency room survey (HERS) which

Table 6

LARGE AND SMALL DATA SYSTEMS CONSIDERED

Data Systems	Years	Male	Female	Total	Percent Female
CODAP[1]	1974	62,172	21,935	84,107	26
CODAP[2]	1975	167,237	57,727	224,964	26
CODAP[3]	1976	91,728	31,881	123,609	26
DAWN (Emergency Rooms)	1974-75	75,597	108,812	184,403	59
DAWN (Crisis Centers)	1974-75	39,517	27,797	67,314	41
DAWN (Medical Examiners)	1974-75	5,532	2,991	8,523	35
DARP	1969-71	14,648	3,718	18,366	20
Polydrug	1974-75	698	426	1,124	38
Narcotics Treatment Administration (NTA)	1970-74	156	33	189	17
Addiction Services Agency (ASA)	1970-74	291	83	374	22
Wayne County	1975-76	3,812	1,968	5,780	34
National Women's Drug Research Coordinating Project (NWDRCP)	1975-76	--	163	163	100
New Haven	1970-74	401	99	500	20
University of Miami (A)[4]	1974-75	983	302	1,285	24
University of Miami (B)[4]	1975	6,547	2,742	9,289	30
Hospital Emergency Room Survey	1975-76	395	441	836	53

[1]Entry data only for the first three quarters are considered in this study.

[2]Entry data only are considered in this study.

[3]Entry data only for the first two quarters are considered in this study.

[4]The N's in both of these studies are samples of the entire data set. Further, (A) is a subset of (B).

gathered data from hospital emergency rooms in Miami and Denver); the Connecticut Mental Health Center in New Haven, Connecticut.

Analysis of the Data

The analysis will focus upon the percentage distributions of occurrences for males and females for each variable examined. There is concern not only with the distributions for females and males, but more importantly with differences between the two groups.

The first step in determining whether differences between the two groups deserve discussion is to determine whether the differences are statistically significant. The largest national data sets (CODAP, DAWN, DARP) have such a large number of observations that usual statistical tests of significance will be inappropriate. However, some of the local data sets (notably NTA, ASA, and New Haven) have sufficiently small n's that statistical testing is required.[1]

Table 6 gives the total number of n's in the large and small data systems considered, the number of males and females, and the percent female.

The second step in discussing differences between drug-abusing men and women is to discuss the comparative distributions and (where multiyear data are available) trends.

Finally, differences in distributions are discussed in terms of percentage differences for males and females.

It should be noted again that the numbers of men and women included in each data set are often substantially different.

It must be emphasized that this section does not address prevalence, but rather distribution of certain characteristics among female compared to male drug-abusing populations as contained in each of the data sets analyzed.

A common table format is used to depict data for each variable discussed across all data systems examined. This is done to display inconsistencies and gaps in the data and to avoid the distracting effects of a series of collapsing and expanding tables.

Age

National Data Systems. Table 7 indicates that a consistent pattern of age differences between males and females appears to exist in the data systems surveyed.

The presence of this pattern is best noted if the age categories are condensed in the manner shown in table 8. There, a larger percentage is seen to exist across each CODAP year, DAWN emergency rooms,[2] and the DARP System, of more: (1) females than males in the under 21 years of age category; (2) males than females in the 21 to 30 years of age category; and (3) males than females in the over 30 years of age category.

An aberration in this pattern is seen among clients over 30 in the DAWN emergency room and crisis center facilities. There, the general pattern noted above is reversed and the percentage of males is slightly less than that for females (27 versus 35 percent and 12 versus 17 percent, respectively). Data presented in table 9 indicate the percentage, by sex and drug, of the total contacts of emergency rooms and crisis centers by clients 30 years old or less and clients over 30 years of age. These data are presented in order that the specific drugs which may have influenced the aberration of the male/ female contact pattern might be identified. Inspection of these data suggest that it is a greater use of barbiturates, amphetamines, and to a larger extent, tranquilizers, nonbarbiturate sedatives, and nonnarcotic analgesics (i.e., all legal and often medically prescribed drugs) which brings women over 30 into emergency rooms and crisis centers at a greater rate than males.

The percentage of males and females under the age of 21 in federally funded treatment programs declined from 1974 to 1976 (see table 8), but there is still a greater percentage of females in the "under 21" age group. This is a consistent pattern in the CODAP data for all 3 years considered. During this same period, there were slight increases in the percentage of both males and females who were over the age of 30.

In the DAWN medical examiner facilities (see table 7), a striking difference exists between males and females whose deaths are drug related in some manner. Female deaths are more than twice as likely to occur in the 36 or older age category than are male; and male deaths are more likely to occur between 21 and 30 years of age.

Local Data Systems. Four of the local systems surveyed (ASA, Wayne County, New Haven, and Miami [A]) follow the pattern of a higher proportion of females in the under 21 years of age category and a higher proportion of males over 30 years of age. These differences, however, as indicated in tables 7 and 8, are generally negligible and neither

Table 7

AGE, BY SEX
(percentage)

	NATIONAL DATA SYSTEMS																				LOCAL DATA SYSTEMS																					
CATEGORY	CODAP 1974[1]		CODAP 1975		CODAP 1976[2]		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG[3]		UNIV. OF MIAMI[4] (A)		NTA[5]		ASA		WAYNE CO.[6]		NWDRCP[7]		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Under 18	10	20	10	19	8	14	12	14	17	21	2	3	7	11							4	4	5	10	5		11	6		
18-20	14	18	13	15	11	13	15	13	20	19	9	7	18	21			19	20	6	3	15	28	8	11			28	33		
21-25	35	32	33	33	30	34	28	21	32	29	31	17	34	33			46	46	47	55	36	47	28	29	35		36	39		
26-30	21	17	23	18	27	21	18	16	18	14	22	14	17	16			21	21	24	30	27	11	29	25	44		13	13		
31-36	10	7	10	7	12	9	11	13	7	8	13	12	23	19			7	9	10	12	10	4	18	15	16		6	8		
Over 36	10	6	11	7	12	8	16	23	6	9	23	48					6	4	13		8	7	12	10			6			
Total	100	100	100	100	100	99	100	100	100	100	100	101	99	100			99	100	100	100	100	101	100	100	100		100	99		
n=	62,172	21,935	167,237	57,727	91,728	31,881	75,597	108,812	39,517	27,797	5,532	2,991	14,648	3,718			982	301	156	33	291	83	3,812	1,968	165		401	99		

[1]First three quarters only.

[2]First two quarters only.

[3]Polydrug data not available.

[4]The age categories in this study were: Under 20, 20-25, 26-30, 31-35, Over 35.

[5]Clients under 18 were not included in this study.

[6]The age categories in this study were: Under 18, 18-21, 22-25, 26-29, 30-36, Over 36.

[7]Data were not collected on males in this study.

Note: Totals may not add to exactly 100 due to rounding.

Table 8

AGE, BY SEX (CONDENSED)
(percentage)

	NATIONAL DATA SYSTEMS																LOCAL DATA SYSTEMS													
CATEGORY	CODAP 1974[1]		CODAP 1975		CODAP 1976[2]		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG		UNIV. OF MIAMI[3] (A)		NTA		ASA		WAYNE CO.		NWDRCP		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Under 21	24	38	22	34	18	28	27	27	38	40	11	9	25	32			19	20	6	3	19	31	14	21			39	39		
21-30	57	49	56	51	58	56	46	38	50	43	53	31	52	49			67	67	71	85	63	58	57	54			49	53		
Over 30	20	14	22	15	25	17	27	35	12	17	36	60	23	19			14	13	23	12	18	11	29	25			12	8		
Total	101	101	100	100	101	101	100	100	100	100	100	100	100	100			100	100	100	100	100	100	100	100			100	100		
n=	62,172	21,935	167,237	57,727	91,728	31,881	75,597	108,812	39,517	27,797	5,532	2,991	14,648	3,718			980	297	156	33	291	83	3,812	1,968			401	99		

[1]First three quarters only.

[2]First two quarters only.

[3]The age categories for this analysis were: Under 20 20-30 Over 30.

[4]Clients under 18 years of age were not included in the sample.

Note: Totals may not add to exactly 100 due to rounding.

Table 9

AGE, BY SEX AND BY TYPE OF DRUG

USED IN CONTACTS WITH DAWN EMERGENCY ROOMS AND CRISIS CENTERS

(percentage)

AGE CATEGORY	DRUG CATEGORY[1]																					
	HEROIN/ MORPHINE		METHADONE		COCAINE		BARBI-TURATES		AMPHETA-MINES		TRANQUIL-IZERS		HALLUCI-NOGENS		INHALANTS		ALCOHOL		NONBARB. SEDATIVES		NONNARC. ANALGESICS		CANNABIS		OTHER	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Emergency Rooms																										
≤ 30	21	8	39	1	14	1	10	10	4	3	22	33	6	2	15	--	15	11	10	12	8	18	5	2	16	21
> 30	17	3	3	1	1	--	12	11	2	1	33	48	1	--	--	--	22	17	12	17	9	13	1	--	16	17
Total n=	15,217	6,563	2,874	1,348	1,053	481	8,278	11,352	2,404	2,243	19,297	41,896	3,643	1,455	843	361	12,847	14,299	7,838	14,866	6,419	18,158	3,210	1,666	12,612	21,194
Crisis Centers																										
≤ 30	24	19	2	1	4	3	13	14	9	12	8	13	16	12	3	--	10	9	7	9	3	4	19	19	9	10
> 30	35	11	2	1	4	2	10	13	7	13	15	3	10	2	--	--	10	11	6	10	3	6	9	5	13	15
Total n=	11,131	6,229	683	416	1,923	993	5,607	4,243	4,329	4,148	4,518	5,380	6,857	3,409	925	197	4,362	2,820	3,653	3,097	1,561	1,623	7,599	5,316	5,147	3,939

[1]Total percentages are greater than 100 because DAWN collects multiple abuse data.

the New Haven nor the Miami (A) differences are statistically significant.[3]

The two remaining systems--NTA and the National Women's Project--do not reflect this pattern. However, it cannot be determined whether the NTA differences are statistically significant.[4] The National Women's Project data indicate that nearly 80 percent of the female clients fall into the 20- to 30-year-old category, while only 5 percent of the female clients are under 21. These data, also, do not fit the pattern of the other systems. Since male comparison data are not available for this data system, it is difficult to ascertain whether these data are true reversals of the pattern or artifacts of the particular treatment systems included in the survey.

Race/Ethnicity

National Data Systems. Each of the national drug treatment data systems gathered information on the race/ethnicity of their clients. These data, summarized in table 10, suggest several systematic male/female differences on this variable.

When black and white clients are considered by sex, the percentage of white male clients is seen to be greater than the percentage of black male clients across all national programs with the exception of the DARP. Similarly, the percentage of white female clients is greater across all programs with the exception of the DARP.

In addition, a consistent pattern of differences is found not only within racial groups by sexes but also between male and female clients. This pattern lies in the magnitude of the differences found in the percentage of black vs. white male and female clients in the CODAP and DAWN systems. In each CODAP year and component of the DAWN reporting system the discrepancy between the percentage of black and white female clients is considerably greater than that between black and white male clients. Thus, for example, the 1976 CODAP data show a difference of 26 percent between black and white female clients (32 vs. 58 percent) but only 11 percent between black and white male clients (37 vs. 48 percent). Whether this pattern is a reflection of actual drug use rates for these groups or evidence of underrepresentation of black female clients in treatment is a question for future research.

Local Data Systems. The data obtained from the local systems were analyzed and no significant sex by race differences were found within any one system.[5]

Females are more likely than males to utilize a hospital emergency room; the percentage of black male clients is generally greater than the percentage of black female clients; and the percentage of white male clients is generally smaller than the percentage of white female clients.

Marital Status

National Data Systems. The Polydrug Project (see table II) collected data regarding the marital status of its clients. The results show that females are more likely to be married than males (22 vs. 15 percent). Females also are more likely than males to be widowed, separated, or divorced.

Local Data Systems. The differences between males and females are not statistically significant for NTA, ASA, New Haven, or HERS.[6] The University of Miami and Wayne County data show a considerably higher proportion of females than males as widowed, separated, or divorced. The National Women's Project, although not making male/female comparisons, reported the highest percentage of separated females (30 percent) of the local data systems surveyed.

Educational Status

National Data Systems. Educational status data were collected on a national basis in the CODAP (1975 and 1976), DARP, and Polydrug Project systems. Table 12 reveals no clear pattern of differences in educational status between male and female clients in these systems. There is some indication, however, that male clients are more likely to have completed 12 or more grades than female clients, but these differences are not large (Polydrug Project: 56 vs. 54 percent; CODAP 1975: 48 vs. 42 percent; CODAP 1976: 50 vs. 44 percent).[7] The DARP system, although not

Table 10

RACE/ETHNICITY, BY SEX

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS																		LOCAL DATA SYSTEMS															
	CODAP 1974[1]		CODAP 1975		CODAP 1976[2]		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG		UNIV. OF MIAMI (A)		NTA		ASA		WAYNE CO.		NWDRCP		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Black	40	34	37	32	37	32	27	23	17	13	32	22	51	52	11	11	51	52	90	82	51	46	73	60		59	53	46	66	57
White	49	59	50	59	48	58	70	74	79	85	62	76	30	35	86	85	41	40			43	49	27	40		33	44	53	15	20
Puerto Rican[3]	4	2	5	2	5	2							12	8			7	7								12	3		6	6
Mexican American	7	4	7	5	8	6							6	4															11	15
American Indian		1		1		1																							2	2
Asian American																																
Other			1	1	1	1	3	3	4	2	6	2	1	1	3	4	1	1	10	18	6	5				1	1	1	1	1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		100	100	100	101	101
n=	64,117	22,483	166,504	57,727	91,514	31,877	67,968	96,034	41,668	28,161	5,507	2,968	14,648	3,718	698	426	980	297	156	33	291	83	2,192	1,116		162	397	98	394	441

[1]First three quarters only.

[2]First two quarters only.

[3]This category includes Cuban, as well as Puerto Rican, clients in both the University of Miami data and the Hospital Emergency Room Survey.

Table 11

MARITAL STATUS, BY SEX

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS																													
	CODAP 1974		CODAP 1975		CODAP 1976		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG		UNIV. OF MIAMI (A)		NTA		ASA		WAYNE CO.		NWDRCP		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Married															15	22	25	23	29	30	17	8	32	27		15	18	12	22	26
Single															67	52	56	45	71	70	67	69	51	39		53	68	67	44	37
Widowed															1	3	1	3					1	4		1		5	2	3
Separated															9	11	9	16			11	21	10	20		30	9	15	9	13
Divorced															8	13	9	13			4	2	6	10		9	4	1	23	21
Total															100	101	100	100	100	100	100	100	100	100		100	99	100	100	100
n=															696	424	980	297	156	33	290	83	3,065	1,258		160	366	89	395	441

Note: Totals may not add to 100 due to rounding.

Table 12

EDUCATIONAL STATUS, BY SEX

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS															
	CODAP 1974		CODAP 1975		CODAP[1] 1976		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Highest Grade Completed																
Under 9			12	13	12	12									10	10
9			10	12	10	11									[34	[36
10			15	16	14	16										
11			16	17	15	17										
12			34	30	35	32									30	30
Over 12			14	12	15	12									26	24
Total			101	100	101	100									100	100
n=			164,774	57,089	90,801	31,721									698	426
Current Attendance																
In School																
Not in School																
Total																
n=																
Education Level[2]																
Low													10	10		
Medium													87	88		
High													3	2		
Total													100	100		
n=													8,978	2,052		

CATEGORY	LOCAL DATA SYSTEMS													
	UNIV. OF MIAMI (A)		NTA		ASA		WAYNE CO.		NWDRCP[3]		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Highest Grade Completed														
Under 9	7	10	6		9	1				4			21	22
9	8	11	6	6	13	11				12				
10	17	16	26	21	18	21				16			9	16
11	20	24	23	21	26	35				24			13	17
12	31	27	33	42	25	19				27			29	29
Over 12	17	12	6	9	9	13				17			28	16
Total	100	100	100	99	100	100				100			100	100
n=	983	302	155	33	290	83				160			393	438
Current Attendance														
In School											10	4		
Not in School											90	96		
Total											100	100		
n=											354	86		
Education Level[2]														
Low														
Medium														
High														
Total														
n=														

[1]First two quarters only. [2]The categories used here are adapted from Sells (1974). [3]Collected data from female clients only.

Note: Totals may not add to exactly 100 due to rounding.

collecting data on a "highest grade completed" basis, nevertheless provides data which also indicate essentially little male/female client educational status difference.

Local Data Systems. As indicated in table 12, the local data systems also show no consistent pattern of male/female client educational status differences. However, comparability is not possible between all of those systems which collected data on this variable.

New Haven did not use a "highest grade completed" category and the National Women's Project did not collect comparative male data. In the other local systems, none of the male/female differences is statistically significant, with the exception of the HERS data.[8]

Employment Status

National Data Systems. Employment data were collected for the CODAP (1975-76), DAWN (three facility types), and DARP systems. While the percentage of all clients employed is generally low, females are far less likely to be employed than males (table 13).[9] The DAWN data system includes a housewife category (CODAP did not) and women who did not report being employed generally reported being unemployed or being housewives. Although utilizing different categories, data collected in the DARP system appear to coincide with these findings.

Data collected by the DAWN Medical Examiner facilities provide an unexpected finding. Among both males and females suffering drug related deaths, employment (at the time of death) was higher than among the groups of males and females seeking treatment. The difference in employment between males and females in this category (68 vs. 31 percent) is nevertheless considerable.

A second finding of interest in the DAWN Medical Examiner facility data concerns the large percentage (47 percent) of females suffering drug related deaths who were housewives. Differences in this category between females in this data system and others is striking. The percentage of female housewife clients in the DAWN Emergency Room data system is 28 compared to 19 in the DAWN Crisis Center data system and 47 percent in the DAWN Medical Examiner data system.

Local Data Systems. The local data systems surveyed reveal percentage differences between male clients and female clients on employment status similar to those found in the national data. However, only the Miami and New Haven differences are statistically significant.[10]

The National Women's Project, although lacking comparative male data, follows the other data systems in reporting high (94 percent) female unemployment. This is the highest unemployment rate of all the data sources.

Primary Source of Support

National Data Systems. The Polydrug Project was the only national data system to collect information regarding the primary source of support of its clients. Those data (see table 14) show that females are less likely than males to have a job as a primary source of support (23 vs. 30 percent), more likely to receive welfare (27 vs. 23 percent), more likely to be dependent upon others (42 vs. 30 percent), and less likely to be dependent on illegal activities as their primary source of support (4 vs. 11 percent).

Local Data Systems. Four local data systems--NTA, ASA, Wayne County, and the National Women's Project--collected information regarding the primary source of support of their clients. The NTA and ASA data report multiple sources of support, while the Wayne County and NWDRCP report only the primary source of support. In those systems where male/female comparisons were made, there were moderate differences reported. In the Wayne County system, females are more likely than males to be receiving welfare assistance. The other local data systems either did not report or did not collect this data on males. NTA, Wayne County, and ASA do report, however, that females are far more likely to be dependent on others than are males. Males are more likely to be dependent on illegal activities than females. Additionally, however, it should be noted that significant percentages of males and females are involved in illegal activities as primary sources of support (see table 14).

Arrests

National Data Systems. As table 15 indicates, the only national drug abuse data system surveyed which obtained information specifically concerning arrest history[11] was the Polydrug Project. The proportion of females arrested (27 percent) is significantly less than males (57 percent).

Local Data Systems. The local systems surveyed indicate differences between male and female arrest patterns, although they are generally not so strong as those suggested by the Polydrug data. The differences for NTA and ASA are not significant; the Miami (A) and HERS data do indicate significant differences.[12] The Wayne County data, which constitute too large a sample for statistical

Table 13

EMPLOYMENT STATUS, BY SEX

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS																LOCAL DATA SYSTEMS													
	CODAP 1974		CODAP 1975		CODAP[1] 1976		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG		UNIV. OF MIAMI (A)		NTA		ASA		WAYNE CO.		NWDRCP[2]		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Employed			25	17	26	16	32	21	32	23	68	31					29	16	32	19	21	20			6		20	11		
Unemployed			75	83	74	84	46	32	43	29	17	11					71	84	68	81	79	80			94		78	88		
Student							18	18	24	28	10	6																		
Job Training																											2			
Housewife								28		19		47																1		
Retired							2	1			4	4																		
Other							2	1	1	1	1																			
Total			100	100	100	100	100	101	100	100	100	99					100	100	100	100	100	100			100		100	100		
n=			166,188	57,467	91,299	31,788	48,106	74,590	32,297	22,569	3,142	2,170					983	300	155	32	288	80			158		359	84		
Employment Record[3]																														
Poor													48	66																
Average													42	30																
Good													10	4																
Total													100	100																
n=													8,978	2,052																

[1]First two quarters only.

[2]Collected data from female clients only.

[3]These categories are adapted from Sells (1974).

Note: Totals may not add to exactly 100 due to rounding.

Table 14

PRIMARY SOURCE OF SUPPORT, BY SEX

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS																													
	CODAP 1974		CODAP 1975		CODAP 1976		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG		LOCAL DATA SYSTEMS													
																	UNIV. OF MIAMI (A)		NTA[1]		ASA[2]		WAYNE CO.		NWDRCP		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Salary/Wages															30	23			33	26	16	16	46	17	7					
Welfare															23	27				26			17	40	49					
Social Security																							1	2						
Other Pensions and Benefits																			[1		[2		3	1	6					
Dependent on Others															30	42			28	39	15	24	17	31	19					
Illegal Activities															11	4			55	41	65	48			19					
Other															6	4					7	11	16	9						
Total															100	100			117	132	105	100	100	100	100					
n=															691	423			154-155	31-32	273	80	2,993	1,388	152					

[1]This data base asked clients to report all sources of support, not only primary, two months prior to admission.

[2]Several male clients report more than one major source of income.

Table 15

ARRESTS, BY SEX

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS																LOCAL DATA SYSTEMS															
	CODAP 1974		CODAP 1975		CODAP 1976		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG[1]		UNIV. OF MIAMI[2] (A)		NTA[3]		ASA[3]		WAYNE CO.[4]		NWDRCP		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Arrested															57	27	89	72	28	12	29	24	27	21					76	41
Not Arrested															43	73	11	28	72	88	71	76	73	79					24	59
Total															100	100	100	100	100	100	100	100	100	100					100	100
n=															698	426	931	293	156	33	300	79	3,055	1,398					392	439

[1]During past 2 years.
[2]Ever.
[3]During past 2 months.
[4]During past year.

testing, indicate the same pattern as the other local data systems concerning arrests--the percentage of female clients arrested (21) is less than the percentage of male clients arrested (27). However, the differences between males and females in the Wayne County data are much less than those reported in the Polydrug Project.

Admission Type

National Data Systems. The CODAP system, during 1975 and the first 6 months of 1976, collected information regarding the voluntary or involuntary admission status of both male and female clients. The results, given in table 16 indicate that most client admissions, regardless of sex, were voluntary.[13] Males had higher percentages of involuntary admissions than females although the differences were small for both 1975 and 1976.

Local Data Systems. The local data systems surveyed follow a pattern similar to that found in the CODAP data for admission type. Male clients were more likely than females to be involuntary admissions; the difference in male/female involuntary admissions for the NTA system was statistically significant and quite large[14] (31 percent of the males vs. 6 percent of the females). Differences in the two other local systems which gathered data on this variable were in a similar direction.

Drugs of Abuse

National Data Systems. Comparability among the national drug treatment systems on this variable is difficult to achieve. Each system--CODAP, DAWN, DARP, and Polydrug--collected drug use data in a different manner. CODAP asked its clients about primary and secondary[15] drug usage; DAWN asked its clients what drugs they were using at the time of contact and recorded the first three mentioned; Polydrug asked its clients what drugs they were currently using and recorded all of them; and DARP asked its clients what drugs they were using during the 2 months prior to treatment and recorded all of those mentioned. Nevertheless, several systematic similarities may be seen in these data, as shown in tables 17, 18, and 19.

First, the percentage of males using heroin exceeds the percentage of female heroin users in each CODAP year as well as each data system, although the CODAP system data present evidence which suggests that this difference may be becoming attenuated. Table 18 suggests that while the percentage of both males and females listing heroin as their primary drug of abuse increased between 1974 and 1976, the rise was notably steeper for females. Whereas the percentage of male clients increased by 3 percent (from 60 to 63 percent) during these years, females increased by 8 percent (from 50 to 58 percent), suggesting that heroin as a primary drug of abuse may be rising more quickly for females than for males in the CODAP population.

Second, the percentage of female clients abusing psychotropic drugs (i.e., barbiturates, other sedatives, amphetamines, and tranquilizers) is greater than the percentage of male clients abusing these drugs. It is difficult to discuss this class of drugs as a group because both the DAWN and DARP systems collect multiple abuse data, making it impossible to be specific regarding what percentage of the population under consideration is using a particular drug. For example, table 17 indicates that 11 percent of the male DAWN Emergency Room clients were using barbiturates at the time of contact and 25 percent were using tranquilizers. It is not possible, however, to say on this basis that 36 percent of the male clients are using barbiturates or tranquilizers since there is no way of knowing the percentage of overlap; that is, what percentage of the barbiturate users are also tranquilizer users.

With this caution in mind, and with the knowledge that, at least for the DAWN clients, multiple drug use for males and females was essentially equal, table 20 presents the total percentages of psychotropic drugs used by males and females in each data system. The data in this table indicate that female clients are more likely than male clients to consider psychotropics their primary or secondary drug of abuse (CODAP), to have used one or more psychotropics during the 2 months prior to treatment (DARP), and to have used one or more psychotropics at the time of emergency room or crisis center contact (DAWN). As indicated previously, the prevalence of nonmedical use of psychotropics is higher for males than females, while the prevalence of medical use is higher for females. The DAWN data (table 17) show more females than males contacting hospital emergency rooms and crisis centers. This could suggest that females are experiencing problems with use of prescribed psychotropics taken for medical reasons.

Finally, tables 17, 18, and 19 indicate that male clients may be more likely than female clients to abuse methadone, alcohol, cocaine, or inhalants.

Table 16

ADMISSION TYPE, BY SEX

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS														LOCAL DATA SYSTEMS															
	CODAP 1974		CODAP 1975		CODAP 1976		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG		UNIV. OF MIAMI (A)		NTA		ASA		WAYNE CO.		NWDRCP		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Voluntary			95	98	81	88													69	94	80	88	92	97						
Involuntary			5	2	19	12													31	6	20	12	8	3						
Total			100	100	100	100													100	100	100	100	100	100						
n=			156,549	51,416	87,962	31,381													155	31	269	77	3,032	1,420						

Table 17

USE OF SPECIFIC DRUGS, BY SEX[1]

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS																													
	CODAP 1974		CODAP 1975		CODAP 1976		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG		LOCAL DATA SYSTEMS													
																	UNIV. OF MIAMI (A)[2]		NTA		ASA		WAYNE CO.		NWDRCP		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
None																														
Heroin							20	6	24	16			83	80	21	13	81	80	98	97	83	73					64	75		
Illegal Methadone							4	1	2	1							16[3]	21[3]	36	30	19	12								
Other Opiates													17	16	21	23	25	20												
Alcohol							17	13	9	9					51	43	9	6												
Barbiturates							11	10	12	13			21	27	53	58	43	45	17	12	25	32					15	20		
Other Sedatives							10	13	8	10							51	56												
Amphetamines							3	2	9	13			13	16	41	46	34	36	26	21	14	11					14	17		
Cocaine							1	0	4	3			34	32	26	17	57	50	59	52	41	34					22	24		
Marihuana							4	1	16	16			43	38	73	55	97	81	72	73	57	43					44	37		
Hallucinogens							5	1	15	10			10	10	32	25	39	31	12	9	11	13					11	13		
Inhalants							1	0	2	1					5	2	7	2												
Over the Counter															2	5	1	1												
Other Drugs							16	19	11	12			3	3	10	11			6	6							11	3		
Tranquilizers							25	38	10	16																				
Total							117	104	122	120			224	222	335	298	460	429	326	300	250	218					181	189		
n=							76,605	110,003	46,632	32,734			14,648	3,718	698	426	976	301	156	33	291	82					309-353	70-85		

[1]Column totals greater than 100 percent due to multiple drug use.

[2]The categories concern drugs "ever used."

[3]Methadone was not classified as legal or illegal in this data base.

Table 18

PRIMARY DRUG OF ABUSE, BY SEX

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS																LOCAL DATA SYSTEMS													
	CODAP 1974[1]		CODAP 1975		CODAP 1976[2]		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG		UNIV. OF MIAMI (A)		NTA		ASA		WAYNE CO.		NWDRCP		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
None	1	1	3	4	2	3																							19	38
Heroin	60	50	58	51	63	58											51	48					87	77	76				12	7
Illegal Methadone	1	1	1	1	1	1											2[3]	2[3]					[1	[1	10[1]				2[1]	1[1]
Other Opiates	2	2	2	2	2	2											2	3												
Alcohol	5	6	8	6	8	5											2	2					1	1					12	9
Barbiturates	5	8	4	6	4	6											7	10					[5	[12					10	6
Other Sedatives			1	4	2	5											2	4							2				14	18
Amphetamines	4	5	4	5	4	6											1	2					1	2					5	3
Cocaine	1	1	1	1	1	1											4	2						1	2				2	1
Marihuana	16	20	14	15	9	9											26	25					2	2	4				9	4
Hallucinogens	3	3	3	2	2	2											1	1					3	4					4	2
Inhalants	1		1	1	1	1											2	1											1	1
Over the Counter																													3	4
Other Drugs	1	3		1		1																	1	1	6				7	6
Prevention		1																												
Total	100	101	100	99	99	100											100	100					101	101	100				100	100
n=	63,956	22,331	166,605	57,478	91,580	31,890											6,414	2,684					2,481	1,212	133				395	441

[1] First three quarters only.
[2] First two quarters only.
[3] Methadone was not classified as legal or illegal in this data base. Note: Totals may not add to 100 due to rounding.

Table 19

SECONDARY DRUG OF ABUSE, BY SEX

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS																LOCAL DATA SYSTEMS													
	CODAP 1974		CODAP 1975		CODAP 1976		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG		UNIV. OF MIAMI (B)		NTA		ASA		WAYNE CO.		NWDRCP		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
None	39	42	48	49	50	50											20	22					52	52						
Heroin	3	2	3	2	2	2											4	3					1	1						
Illegal Methadone	4	3	2	2	2	2											1[2]	2[2]					[7	[1						
Other Opiates	4	3	3	3	3	3											3	3												
Alcohol	7	8	8	7	7	7											5	5					7	7						
Barbiturates	8	10	6	8	6	8											10	13					[5	[7						
Other Sedatives	[1]		2	3	2	4											13	12												
Amphetamines	5	6	5	5	4	5											3	4					1	3						
Cocaine	10	6	7	5	7	5											13	12					8	6						
Marihuana	15	13	13	11	13	11											22	19					17	16						
Hallucinogens	3	4	3	3	3	2											3	2					1	2						
Inhalants																	1	1												
Over the Counter																														
Other Drugs	1	2															2	2					1	1						
Prevention				1																										
Total	99	99	100	99	99	99											100	100					100	96						
n=	64,706	22,699	167,933	57,871	91,830	31,906											6,547	2,742					2,543	1,255						

[1] Data were not collected for this category for CODAP in 1974.

[2] Methadone was not classified as legal or illegal in this data base.

Note: Totals may not add to 100 due to rounding.

Local Data Systems. The NTA, ASA, New Haven, and Miami (A) data systems each collected data on the overlap basis noted in several of the national data systems above. The clients in these systems were asked what drug(s) they were using during the 2 months prior to treatment. The Wayne County and Miami (B) systems asked their clients to list their primary and secondary drugs of abuse. The National Women's Project and HERS collected data on their client's primary drug of abuse.

The data in tables 17, 18, and 19 reveal mixed patterns of local use. Heroin use is slightly higher among males than females However, in New Haven, significantly more females use heroin than do males coming into treatment.

Viewing psychotropic drug use individually and as totals (table 20), use is slightly higher among female clients; however, none of the differences is statistically significant.[16]

Number of Drugs Which
Are Used or Cause a Problem

National Data Systems. Differences between males and females on this variable were negligible, as indicated in table 21.

Local Data Systems. Only one local data system, Wayne County, collected data on this variable. The male/female difference was small (23 vs. 28 percent) although in the direction of more polydrug use for females.

Table 20

PSYCHOTROPIC DRUG USE--TOTAL PERCENTAGES[1]

CATEGORY	NATIONAL DATA SYSTEMS																							
	CODAP 1974[2]		CODAP 1975		CODAP 1976[3]		DAWN (EMERG. ROOM)		DAWN (CRISIS CENTER)		DAWN (MED. EXAM)		DARP		POLY-DRUG		UNIV. OF MIAMI (B)		NTA		ASA		WAYNE CO.		NWDRCP		NEW HAVEN		HOSP. EMERG. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total Percent of Clients Reporting Use of Any Psychotropic Drugs[4] (including overlap)	PRIMARY		PRIMARY		PRIMARY												PRIMARY						PRIMARY						PRIMARY	
	9	14	11	16	10	17	49	64	39	54			34	43	94	104	10	16	42	43	40	43	6	10		2	29	37	29	27
	SECONDARY		SECONDARY		SECONDARY												SECONDARY						SECONDARY							
	13	16	13	17	12	16											26	29					6	14						

[1]Caution should be used in interpreting this table; see "Drugs of Abuse" in this chapter.

[2]First three quarters only.

[3]First two quarters only.

[4]Psychotropics here include barbiturates, other sedatives, amphetamines, and tranquilizers.

Table 21

NUMBER OF DRUGS WHICH ARE USED OR CAUSE PROBLEMS, BY SEX[1]

(percentage)

CATEGORY	NATIONAL DATA SYSTEMS										LOCAL DATA SYSTEMS									
	CODAP 1974		CODAP 1975		CODAP 1976[2]		DAWN[2] (EMERG. ROOM)		DAWN[2] (CRISIS CENTER)		DAWN[2] (MED. EXAM)		DARP	POLY-DRUG	UNIV. OF MIAMI (A)		NTA		ASA		WAYNE CO.		NWDRCP		NEW HAVEN		HOSP. EMER. ROOM SURVEY	
	M	F	M	F	M	F	M	F	M	F	M	F	M F	M F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
3 or less					65	64	99	99	100	100											77	72						
Over 3					35	36	1	1													23	28						
Total					100	100	100	100	100	100											100	100						
n=					36,192	11,031	76,605	110,003	46,632	32,734											2,185	667						
2 or less			72	72																								
Over 2			28	27																								
Total			100	100																								
n=			166,263	57,624																								

[1]These category divisions are based on those utilized in the respective data collection instruments for each system.

[2]First two quarters only.

[3]These data represent the number of drugs the client was using at the time s/he contacted the emergency room or crisis center; it is not necessarily an indication, as are the CODAP data, of how many drugs currently present a problem for the client.

3. A Review of the Literature

Characteristics of Male and Female Drug Abusers as Reflected in the Literature

Two broad types of studies are addressed in this section: (1) treatment studies and (2) nontreatment studies. The numbers referenced in the text refer to the studies listed in tables 22 and 23. Caution should be exercised in viewing these studies. Inclusion here does not necessarily indicate a good study design but rather the presence of a discussion of female or female vs. male drug abuse.

Sex

Treatment Studies. It is not possible, on the basis of the studies considered here, to speculate on the percentage of female as opposed to male drug abusers in the population. Few of the samples were drawn with the intention of collecting a representative (in terms of sex) group of drug users.

In the majority of those studies in which the sample was collected either randomly or from consecutive admissions (10, 17, 19, 20, 21, 22, 24), the percentage of male clients was greater than that of female clients, although study 21 suggests that the male/female gap is declining over time. An exception to the general finding, however, is study 22, whose sample consists of clients treated at a hospital emergency room for acute drug reactions. In this case, the percentage of female clients is greater, a finding not unexpected in light of similar findings on a national basis in the DAWN data.

Nontreatment Studies. The data in these studies also were not collected with the intention of indicating the relative percentage of male and female drug abusers in the population. The one study (1N) in which data were collected in such a manner as to offer an indication of this shows that, at least in the mid-1960s, the percentage of males arrested for heroin and/or marihuana use in one Northeastern city was sharply higher than that of females arrested for the same offenses.

A single study, of course, cannot be viewed as an accurate barometer of the extent of male vs. female drug abuse in the population. Seen in the context of the larger data collection systems described earlier, however, such an individual finding can serve to further bolster those more objective results.

Age

Treatment Studies. While the studies being considered have not attempted to reflect an accurate representation of the age patterns of male and female drug abusers in the population, they do offer some insight into this question.

In those studies where the mean age of the clients is compared for males and females, little difference exists; where mean age is given in female only samples the range is wider, but this appears to be due to the purpose of the particular study, and facility from which the sample was drawn, rather than a true indication of the age of female drug abusers in the population.

The one pattern which appears to exist may be examined among the female samples which are broken down by age and race categories (3, 6, 13, 14, 22). In three of these studies (3, 6, 22) either the mean age or percentage of white female clients 30 years of age and over considerably exceeds that of black female clients. Two of these studies (3, 22), one covering a hospital emergency room and the other the NIMH Center at Lexington, gathered data from consecutive admissions.

Nontreatment Studies. Only one nontreatment study (7N) presents age data relevant to female drug abuse. This study indicates that, among a sample drawn from a female prison population, heroin users were significantly ($p < 0.01$) more likely to be younger than nonheroin users. No other studies examined in this category gathered age data in terms of drug abuse.

Race/Ethnicity

Treatment Studies. Among the studies being considered here which collected race/ethnicity data, a majority (1, 5, 8, 12, 14, 16, 17, 19, 24) dealt with a greater percentage of black than white female drug abusers. Exceptions to this finding (4, 6, 13, 22, 23) occur in emergency room and therapeutic community settings.

Nontreatment Studies. One study (8N) found the number of black "narcotics involved" females to be significantly ($p < 0.001$) greater than white females in the same categories.

Marital Status

Treatment Studies. Data on this variable are collected in several studies (3, 5, 6, 9, 13, 14, 18, 24, 25). No clear pattern of sex differences was found.

Nontreatment Studies. One study (7N) in this category gathered data concerning marital status. This study compared female heroin users and nonusers among a prison population. A significant difference was found between the number of heroin users and nonusers who were divorced, with users being less likely to be divorced ($p < 0.05$).

Educational Status

Treatment Studies. Essentially no differences are seen between males and females in those studies (3, 5, 6, 14, 16, 17, 25) where educational status data are gathered. There is, however, some indication (studies 3, 6, 14) that white females are more likely to have either completed high school or a greater number of grades than black females.

Nontreatment Studies. Educational status in these studies is entirely dependent upon the population from which the sample was drawn--most often this is from a secondary school or a university (with no nonschool comparison group). Therefore, no differences between males and females would be expected and none are found. Three nonschool studies examined in this category did not report educational data.

Current Drug Use

Treatment Studies. Current drug use refers to usage levels and types recorded at admission to treatment. There are no clear difference patterns between males and females in this category. Although some differences do appear between black females and white females, these findings are limited to individual studies (3, 22) and should be regarded cautiously.

Nontreatment Studies. Two studies (2N, 10N) in this category collected data on current drug use, which refers to usage levels and types recorded at the time of the study. One study (2N) indicates heavier use of barbiturates, bromides, and tranquilizers by undergraduate females than males. The second study (10N) indicates essentially no difference between male and female secondary school students in use of a variety of drugs.

Drug Use History

Treatment Studies. Data concerning a large number of variables were collected in this category. However, only two variables--age at first illicit drug use and source of drugs--are dealt with by more than two studies. Since there is little validity in discussing variables covered in only one or two studies, the remaining variables and the studies in which they were investigated are listed below:

	Study No.
Basis of decision/failure to withdraw	5
Length of time using heroin	25
Source of heroin introduction	25, 27
Source of support for drug habit	13, 25
People drugs were used with	25
Immediate precursor drug to heroin	1, 8
Age at addiction to heroin	16
History of heroin use	3, 6
Situation at onset of addiction	3
Number of years between first drug use and first heroin use	3
Ever used specific drugs	6
Length of time between first heroin use and addiction	13
Number of times volunteered for treatment	13

Age at first illicit drug use is discussed in four studies (1, 14, 25, 26). No pattern of male/female differences is established. Study 14 indicates that males began narcotics use 0.7 year earlier than females; study 25 indicates that males began heroin use 1.1 years earlier than females.

Source of drugs is discussed in three studies (3, 6, 26). Two of these studies, 3 and 6, deal only with female samples but compare by race. In both of these studies, black females were more likely than white females to have obtained their drugs from a pusher; study 3 indicates that white females were more likely than black females to have obtained their drugs from a doctor or a drugstore.

Study 26 compares males and females but does not break down the comparison by race. This study indicates that females were significantly more likely than males to have received their

drugs from friends ($p < 0.05$) and that males were significantly more likely than females to have obtained drugs by stealing ($p < 0.01$). Males were also more likely than females, although not significantly so, to have received their drugs from a pusher or by pushing drugs themselves.

Nontreatment Studies. The studies in this category did not investigate as wide an array of variables as did the treatment studies. Variables which were dealt with in only one study were time of introduction into cigarette and/or alcohol use (5N), use of "decrement producing" or "increment producing" drugs (2N), drugs "ever used" comparing use by 7th-to-9th-grade and 10th-to-12th-grade males and females (10N), and length of time using drugs (4N).

The only variable which was dealt with in more than one study (2N, 4N, 9N) was age at first drug use. The results were inconclusive. One of these studies (4N) found that females began use of nonspecific drugs at a younger age than males; study 2N also found that females began drug use at a younger age than males but only among certain drugs which were reported (barbiturates, bromides, and tranquilizers); study 9N, however, indicated that males had earlier initial drug experiences than females.

Criminal Justice History

Treatment Studies. Variables concerning criminal justice history were discussed in only five studies (5, 9, 14, 23, 25) and compared by sex in three (5, 14, 25). Study 5 indicated that males were more likely to have committed illegal acts prior to use of heroin; study 14 found that males were more likely to have been arrested at a younger age than females; and study 25 found a higher percentage of males than females referred to treatment from the criminal justice system.

Nontreatment Studies. Only one study (8N) collected data concerning criminal justice history. This study utilized an all female sample. Racial comparisons indicated that among "narcotics involved" arrestees, black females were arrested more often than white females for prostitution, larceny, and robbery.

Other Characteristics

Treatment Studies. A wide range of variables, inappropriate for consideration in previous categories, were assigned to this category. Variables treated in only one study were results of the Rokeach Value Ranking Test (12), addiction status of spouse (13), results of depression and anxiety scale administrations (16), results of Personal Orientation Inventory (18), results of a staff/resident perception of problems questionnaire (20), MMPI results (23), living arrangements before treatment admission (26), and IQ (26).

Three variables--family background, employment/source of support, and suicide thoughts/attempts--were dealt with in more than one study. The first of these variables, family background, is discussed in four studies (3, 13, 15, 24). Investigated were the number of female treatment program residents from severely disturbed families (15), the percentage of female treatment clients reared in broken homes (3), occupation classifications of female treatment clients' fathers (13), and by whom male and female treatment clients were raised (24). Only one of these studies (24) compares males and females, but this study, in conjunction with two others (3, 15) indicates that male and female drug abusers are very often products of a disorganized family.

The second variable, employment/source of support, is investigated in three studies (3, 6, 17). One of these studies (17) compares males and females, while the other two (3, 6) deal only with females (with race comparisons). Female treatment clients, especially black females, appear to experience quite low employment levels, a condition which, according to one study (6), worsened between 1961 and 1967.

The final variable, suicide thoughts/attempts, is discussed in three studies (9, 22, 24). One of these studies (24) indicates that females had significantly ($p < 0.01$) more suicidal thoughts and suicide attempts than males. The other two studies (9, 22) investigated female drug abusers in private treatment and emergency room settings. In study 9, 46 percent of the women had attempted suicide, and in study 22, significantly more white (45 percent) than black (32 percent) females were being treated for suicide attempts.

Nontreatment Studies. No pattern of differences emerged from the studies in this category since no variable is dealt with by more than one study. One study (7N) investigated suicide thoughts/attempts in a female prison population divided into heroin users and nonusers. The findings are an increment to the suicide-related studies cited above--a greater (though nonsignificant) percentage of female heroin users than nonusers report suicidal thoughts and suicide attempts.

Other variables discussed are value-issue differences among college marihuana users and nondrug users and noncollege heroin users

and nondrug users (3N); the male vs. female percentages of identified addicts in Connecticut during a 3-year period in the mid-1960s (1N); drug user vs. nonuser (no sex breakdown) differences in parental perceptions (11N); heroin users vs. marihuana only users vs. nondrug users on several social interaction dimensions (6N); heroin vs. nonheroin users; urban vs. nonurban; birth and current place of living (7N); and source of drugs (2N).

Psychological Characteristics of Female Drug Abusers

There is great potential for misunderstanding and misusing assessment data in an area that is controversial in itself, such as the psychological characteristics of the female drug abuser. This does not imply, of course, that study of controversial areas should not be carried out. Rather, it should encourage further investigation and reexamination of already existing data. A necessary element of this investigation and reexamination, however, is an awareness of the actual, alleged, and potential shortcomings of the validity of the data and instruments being utilized.

Limitations of the Data

There is extensive literature concerning the psychological characteristics of drug abusers. Upon examination, however, there are limitations to this literature. First, much of this literature is based upon clinical impressions rather than data collected under controlled conditions. Second, there are numerous methodological problems with many of these studies. Sample sizes are generally small and often not comparable across studies; there is often little cross-study comparability of instruments designed to measure the same or similar characteristics; descriptions of methodology, sample population, and findings are incomplete in many studies; control groups are often lacking; and very few investigations have concentrated on "normal" as well as psychopathological attributes of drug abusing populations, resulting in an emphasis upon profiles of psychopathology with little or no portrayal of "normality." Third, and most relevant for this study, a substantial majority of the studies in the area deal only with male drug abusers, or where a sample of males and females is obtained, results are often not reported by sex.

Given these limitations and the possible confounding factors cited earlier, this review contains only those studies which (a) utilize specific, nonimpressionistic data, and (b) report results utilizing either samples of female and male subjects or female subjects only. The setting of these criteria has the effect of narrowing the number of eligible studies a great deal. This scarcity of eligible studies thus makes the need for additional study in this area more obvious.

Study Results

A summary of the studies reviewed for this section may be seen in table 24. Whether they validate the perceptions of the staff members cited in Levy and Doyle (1974) that female drug treatment clients are implicitly "sicker" than male clients is not at all clear. Certainly, these studies note sex differences on many of the personality dimensions they investigate. For example, Miller et al. (1973) found that female and male addicts differed significantly on ratings on the Rokeach Value Ranking Test; DeLeon (1974) found greater evidence of depression and anxiety among female than male addict clients; and Olson's results (1964) suggest that female and male addicts differed on MMPI profiles. Such findings do not, however, indicate that among addicts, one sex is more pathological or "sicker" than the other.

Nevertheless, there are several studies which do reach the general conclusion that female drug abusers are more psychologically disturbed than male drug abusers. Table 25 describes, in a broad manner, how the studies reviewed here deal with this issue. As may be seen in this table, one-third of the studies reviewed conclude that female drug abusers function, psychologically, more poorly than male drug abusers; there are no studies which report the opposite conclusion. Those studies which did not utilize a male comparison group nevertheless also reported significant pyschological difficulties on the part of the female addicts who were studied. The largest group of studies (40 percent of those under consideration here) do not report broad male/female differences, although each notes some psychological difficulty in both male and female drug abusers. One study (Miller et al. 1973) concludes that the differences found merely reflect the societal differences between all males and females, rather than between male and female drug abusers.

Table 22

TREATMENT STUDIES

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
1/ Chein, Gerard, Lee, and Rosenfeld (1964)	20	Patients admitted to treatment in New York City Hospital; 85% were addicted to heroin at entry	All F	Range= 17-20 Median= 18.5	Black-55 White-25 Puerto Rican-15 Other-5				First Use of Opiates: Age Range: 14-19 Age Median: 16 45% had used other drugs prior to heroin 100% did not purchase first heroin		
2/ Poplar (1969)	90	Registered nurse patients at the NIMH Clinical Center in Lexington, Ky.	M=2 F=98	$\bar{X}$=41.7 Range= 23-63	Black-7 White-93		1 yr college-19 2 yr college- 8 3 yr diploma-64 BA- 9		Drug of choice was Demerol		Addicted nurses did not appear to be typical of other addicts

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
3/ Chambers, Hinesley, and Moldestad (1970)	168	Subjects were 168 consecutively admitted female patients at the NIMH Clinical Center in Lexington, Ky.	All F	X=34.8 Black X=30.4 White X=37.0	Black-66 White-34	B W* M 9 55 S 82 13 Bk.M 9 32 *M-married S-single Bk.M-broken marriage	B W < HS 67 61 HS 24 23 > HS 9 16 HS-high school	Heroin use at admission:[1] Black-35 White-88 [1]Difference significant at p. < .001.	Heroin use: B W Ever used[1] 93 37 First drug[1] 89 32 Preferred drug[1] 81 37 Most frequent drug[1] 93 33 Marihuana ever used:[1] Black--68 White--39 Initial exposure to narcotic use:[1] B W Peer-Social 89 42 Medical 3 45 Family 8 13 [1]Difference significant at p. < .001. Source of drugs: B W Pusher 91 44 Doctor 4 33 Drugstore 5 19 Theft 0 4		Employment status 6 months prior to admission: B W Legally employed 16 23 Illegally employed 68 32 Dependent 16 45 Reared in broken home: Black--72 White--46

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
4/ Williams and Bates (1970)	172	Patients at the NIMH Clinical Center in Lexington, Ky.	All F	$\bar{X}$=34.9 Range= 17-70	Black--34 White--66						
5/ Brown, Gauvey, Meyers, and Stark (1971)	218	Clients of the Narcotics Treatment Administration in Washington, D.C., classified into 3 groups: M=83 F=17 I-Adult male addicts (N=105) II-Adult female addicts (N=36) III-Juvenile male addicts (N=77)		I=$\bar{X}$: 28.6 II=$\bar{X}$: 27.4 III=$\bar{X}$: 17.2	B O I 89 11 II 95 5 III 96 4 B-Black O-Other	M S O I 33 44 23 II 22 44 34 III 4 96 0 M-married S-single O-other	$\bar{X}$ Number of grades completed I - 10.3 II - 10.4 III - 9.5	Basis of decision to withdraw from drugs: I-Change life II-Drug-related physical problem III-Change life Basis of failure of first withdrawal attempt: I-Continued physical need II-Continued physical need III-Continued physical need	Initial illegal act: 1) Occurred before first heroin use: I--74 II--40 III--78 2) Occurred in order to obtain drugs: I--18 II--33 III--14 3) Arrested before first heroin use: I--53 II--20 III--55	

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
6/ Cuskey, Moffett, and Clifford (1971)	457	Patients at the NIMH Clinical Center in Lexington, Ky.; divided into two groups: 1961: a sample of females admitted to Lexington in 1961 1967: a sample of females admitted to Lexington in 1967	All F	1961 % B W T 15-19 1 1 2 20-24 8 7 15 25-29 16 8 24 30-34 13 6 19 35-39 6 7 13 40-44 2 10 12 > 44 2 13 15 1967 % B W T 15-19 - 3 3 20-24 14 11 25 25-29 14 7 21 30-34 7 11 18 35-39 8 4 12 40-44 4 6 10 > 44 1 9 10	1961 B-47 W-53 1967 B-49 W-51	1961* B W M 30 51 S 36 16 BrM 34 33 1967 B W M 33 39 S 25 10 BrM 42 51[1] [1]Difference between 1961 and 1967 significant at p. < .05. *M-married S-single BrM-broken marriage	1961 B W < HS 75 55 HS 23 29 > HS 2 15 1967 B W < HS 64 47 HS 30 33 > HS 6 20 HS-high school	1967 (only) B W Heroin ever used 94 34 Marihuana ever used 88 45 Other drugs ever used 6 66 Source: B W Pusher 94 49 Other 5 51			Primary source of support 1961 B W Work 24 53 Dependent 40 37 Illegal Acts 36 10 1967 B W Work 12 18 Dependent 21 51 Illegal Acts 67 31

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
7/ Gottschalk, Bates, Fox, and James (1971)	113	New patients coming into two types of clinics: I--Mental health (N=65) II--General medical (N=48)	I: M=28 F=72 II: M=35 F=65					Use of psychoactive drugs at contact: I: M=50 F=72 II: M=65 F=65			
8/ Weppner and Agar (1971)	738	Patients at the NIMH Clinical Center in Lexington, Ky. divided into two groups: I--Those addicted to heroin before any other drug II--Those addicted to another drug before heroin	M=77 F=23 I: M=74 F=26 II: M=79 F=21		Black = 66 White = 34 I M F B 54 17 W 20 9 74 26 II M F B 50 13 W 28 9 78 22				Groups I and II-- Drug used as immediate precursor to heroin: M F Marihuana 46 49 Alcohol[1] 39 23 Other than alcohol/marihuana 27 15 [1]Difference significant at $p < .01$.		

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX	AGE	RACE/ ETHNICITY	MARITAL STATUS	EDUCATIONAL STATUS	CURRENT DRUG USE	DRUG USE HISTORY	CRIMINAL JUSTICE HISTORY	OTHER
9/ Driscoll and Barr (1972)	100	Consecutive admissions at a private drug treatment facility over a 15-month period	All F	$\bar{X}$ = 25 Range= 15.58	Black = 26 White = 74	M = 19* S = 46 O = 35 *M-married S-single O-other	< HS--55 HS--26 > HS--19			Arrests Never--31 Once--11 > 1--58	Attempted suicide: Yes--46 No--54
10/ Heller and Mordkoff (1972)	67	Young, non-addicted drug abusers in a non-residential program	M = 63 F = 37								No M-F differences on MMPI
11/ Levi and Seborg (1972)	414	Entire population of the women's unit of a State rehabilitation center for drug treatment; divided into two groups: I--Literates (N=335) II--Illiterates (N=79)	All F		I II Black 20 47 White 60 18 Mexican American 20 35						

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
12/ Miller, Sensenig, Stocker, and Campbell (1973)	274	Patients at the NIMH Clinical Center in Lexington, Ky.	M = 75 F = 25		Black White M 50 28 F 12 10 62 38						The Rokeach Value Ranking Task was administered: Females reported valuing the following significantly more than males--happiness, self-respect, inner harmony, true friendship, being clean, and being forgiving; males reported valuing the following significantly more than females--being ambitious, self-controlled, logical, and intellectual.

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
13/ Rosenbaum (1973)	360	Clients at the California Rehabilitation Center for Drug Addiction; matched male and female samples	M = 50 F = 50	(F only) % B W C T < 19 0 15 12 12 20-24 27 53 37 46 25-29 20 21 24 22 > 30 53 11 27 21 B-Black W-White C-Chicana T-Total	Black-17 White-65 Chicana-18	M F Married 84 94 Not Married 16 6			Time between first use and addiction to heroin:[1] M F < 4 mos. 23 47 4-12 mos. 44 22 > 12 mos. 33 31 [1]Difference significant at p < .001. Volunteered for treatment:[1] M F Never 62 47 Once 23 25 > 1 15 28 [1]Difference significant at p < .001. How was habit supported? (F only) Vice--9 Forgery--42 Conning--14 Sex--29 Narcotics--69 Robbery--6 Theft--48 Work--5		Occupation of father (F only) B W C White Collar 43 46 24 Blue Collar 50 50 64 None 7 4 12 Was spouse addict?[1] Yes No M 39 61 F 83 17 [1]Difference significant at p < .001.

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
14/ Campbell and Freeland (1974)	3,583	Patients at the NIMH Clinical Center in Lexington, Ky.	M = 80 F = 20	M: $\bar{X}$=27.0 F: $\bar{X}$=26.7 $\bar{X}$ M F B 27.4 27.2 W 26.2 26.0 B-Black W-White F-Female M-Male	M F T B 52 11 63 W 28 9 37 M-Male F-Female T-Total	Married: M = 71 F = 82 M F B 74 84 W 67 80	$\bar{X}$ Number of grades completed: M = 10.7 F = 10.4 $\bar{X}$ M F B 10.5 10.0 W 11.0 10.9		$\bar{X}$ Age at first use: M = 19.0 F = 19.7 $\bar{X}$ M F B 19.0 19.9 W 18.9 19.4	$\bar{X}$ Age at first arrest: M = 17.1 F = 18.6 $\bar{X}$ M F B 17.0 18.5 W 17.0 18.7	
15/ Coughlan and Gold (1974)	69	Residents of a residential drug treatment program	All F	Range: 13-17	Black-38 White-38 Puerto Rican-24			At entry 58% were primary heroin users; the remaining 42% used pills, marihuana, LSD, inhalants, and alcohol			The majority of the residents were from severely disturbed families

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY	CRIMINAL JUSTICE HISTORY %	OTHER %
16/ DeLeon (1974)	206	Residents of a therapeutic community	M = 71 F = 29	M: $\bar{X}$=21.1 F: $\bar{X}$=21.0	M F T B 27 12 39 W 32 10 42 O 13 6 19 B-Black W-White O-Other M-Male F-Female T-Total		$\bar{X}$ Number of grades completed: M = 10.5 F = 10.7	Addicted to heroin: M=82 F=90	$\bar{X}$ Age at addiction: M = 17.1 F = 17.8		Females (on the Beck Depression Inventory and MAACL Depression and Anxiety Scales and Shortened Manifest Anxiety Scale) were significantly more likely than males to evidence depression and anxiety.
17/ Gioia and Byrne (1975)	67	Subjects were heroin users from an Illinois drug abuser program	M = 58 F = 42	M: $\bar{X}$=31.3 F: $\bar{X}$=29.9	M F T B 39 33 72 W 16 6 22 S 3 3 6 B-Black W-White S-Spanish		High school diploma: M=41 F=29	Heroin use prior to admission: M=90 F=93 Methadone: M=80 F=68			Employed: M = 59 F = 4

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
18/ Kilmann (1974b)	84	Residents of the California Rehabilitation Center	All F	$\bar{X}$=25.6 Range= 18-34	White-73 Other-27	Married-27 Single-36 Divorced-13 Separated-19 Widowed-5					Administration of the Personal Orientation Inventory indicated that drug abusers in this sample, when compared with 158 nonabusing adults, were a) less efficient in their use of time; b) less satisfied with their lives; c) skeptical of human goodness; d) more sensitive toward their own needs and feelings; e) more spontaneous in expressing feelings; and f) better able to develop meaningful relationships with others.
19/ Lett and Ingram (1974)	429	Subjects were all narcotics addicts presenting at a Dallas methadone clinic for evaluation and treatment during an 18-month period	M = 66 F = 34		M F T B 44 23 67 W 23 10 33				Number of years from first use of illicit drug to first use of heroin: BM BF WM WF M F < 1 17 26 34 45 23 32 1-4 33 39 38 32 35 37 4-7 18 15 20 14 19 15 7-10 11 5 6 5 12 5 >10 21 15 2 4 11 12		BM-Black male BF-Black female WM-White male WF-White female M-Male F-Female

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAM-PLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCA-TIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER
20/ Levy and Doyle (1974)	130	Staff (n=34) and residents (n=96) in a therapeutic community	Staff M = 74 F = 26 Residents M = 76 F = 24								Residents and staff gave their perceptions of the major problems of drug addicts; the major M-F resident differences: males exceeded females in perceiving being prejudiced against; females exceeded males in perceiving childishness, suicide attempts, dependency, bad feelings concerning one's body, and inability to express feelings as major problems of drug addicts.

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
21/ Newmeyer (1974)	561	Clients seen at the drug detoxification project of a free medical clinic were divided into three groups: I--Old style addicts, addicted before 1969 (N = 264) II--Transition era addicts, addicted during 1969 (N = 169) III--New era addicts, addicted after 1971 (N = 128)	M = 69 F = 31 M F I 78 22 II 62 38 III 60 40								

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
22/ Petersen (1974)	1,127	Patients treated for acute drug reactions in a hospital emergency room	M = 42 F = 58	(F only) % B W[1] 14-17 22 12 18-24 44 38 25-34 23 22 35-49 9 19 > 49 2 9 [1]Difference significant at p < .001.	Black = 33 White = 67 M F B 13 20 W 29 38			(F only) Number of substances abused: Black White[1] 1 86 71 > 1 14 29 [1]Difference significant at p < .001. - - - - - - - - - - - - Alcohol-drug use in combination: Black White Yes 8 11 No 92 89			Was the present contact a suicide attempt? Black White[1] Yes 32 45 No 68 55 [1]Difference significant at p < .01.
23/ Ross and Berzins (1974)	395	Patients at the NIMH Clinical Center, Lexington, Ky.	All F	$\bar{X}$ = 32.7	Black and other --38 White --62					Admission type: Voluntary: 59 Involun.: 41	MMPI results suggested that female addicts are active, aggressive, and immature personalities.

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
24/ Barr (1976)	864	Residents of a therapeutic community and clients from a number of methadone maintenance programs	M = 73 F = 27	Median M - 26 F - 25	M F O B 64 67 65 O 36 33 35 B-Black O-Other	M F Married 17 22 Single 40 49 Other 43 29					Suicidal thoughts: M = 27 F = 41 Suicide attempts: M = 10 F = 27 - - - - - - - - - - - - Raised by: M F Both Parents 58 40 Single Parent 32 40 Relatives 9 16 Foster Home/ Orphanage 1 4

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE %	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
25/ Eldred and Washington (1976)	158	Clients of the Narcotics Treatment Administration in Washington, D.C.	M = 50 F = 50	M: $\bar{X}$ = 25.0 F: $\bar{X}$ = 24.9 M: 20-29=71% F: [1]20-29=49% [1]Difference significant at p < .02.	B W M 89 11 F 97 3 B-Black W-White	M S O M 23 64 14 F 12 54 33 M-Married S-Single O-Other	$\bar{X}$ Number of grades completed: M = 10.7 F = 10.6 Percent who are HS graduates: M = 37 F = 39		$\bar{X}$ age at first heroin use: M = 19.6 F = 20.7 - - - - - - - - $\bar{X}$ years of heroin use: M = 5.6 F = 4.7 - - - - - - - - Who introduced you to heroin? M F[1] Same sex 59 29 Opposite sex 5 41 Both sexes 30 19 Client sought 5 11 [1]Difference significant at p < .001. - - - - - - - - With whom did you usually use drugs? M F[2] Alone 42 46 Same Sex 38 27 Opposite sex 4 28 Both Sexes 37 52 [2]Difference significant at p < .005.	Referred to treatment from Criminal Justice System: M = 42 F = 32	

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE %	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
Eldred and Washington (1976) (continued)									How did you support your habit? M P[3] Work 61 49 Parents 14 13 Spouse 3 13 Free/others 4 21 Illegal acts 66 59 [3]Difference significant at $p < .01$.		
26/ Klinge, Vaziri, and Lennox (1976)	143	Patients in an inpatient adolescent psychiatric facility; the subjects were not diagnosed as drug abusers but were identified as such by self-report and urinalysis	M = 57 F = 43	M = $\bar{X}$: 15.7 F = $\bar{X}$: 15.3				M F M 70 80 H 53 62 S 49 60 N 38 35 D 23 38 M-marihuana H-hallucinogens S-stimulants N-narcotics D-depressants No significant drug use differences were found on individual drug use or use of two or more drugs	r between age at admission and duration of abuse: M = .157 F = .351 This indicates that females had begun abusing drugs chronologically earlier than males. Source of drugs: M F Friends[1] 32 48 Dealer 36 26 Pushing[2] 12 8 Stealing 14 2 Other 6 16 [1]Difference significant at $p < .05$. [2]Difference significant at $p < .01$.		IQ: M F Verbal 105.9 105.1 Performance 105.8 105.6 Living arrangement prior to admission: M F Parents 90 82 Relative 1 9 School/ Institution 5 6 Friends 4 3

Table 22

TREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
27/ Sacher, Brown, Groene, and DuPont	100	An accidental sample of clients of the Narcotics Treatment Administration in Washington, D.C.	M = 78 F = 22						Drug Use Initiation (Percentage) Sex of Initiator M F M 99 1 F 50 50		

Table 23

NONTREATMENT STUDIES

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
1N/ Kleber (1969)	275	Arrestees, 133 of whom were arrested for heroin use and 142 arrested for marihuana use (covered the city of New Haven 1964-67)	M = 85 F = 15 --- Heroin arrestees: M = 82 F = 18 --- Marihuana arrestees: M = 89 F = 11								Connecticut addicts, identified during a 3-year period M F 1963-64 80 20 1964-65 84 16 1965-66 83 17
2N/ Mitchell, Kirkby and Mitchell (1970)	71	College Undergraduates	M = 48 F = 52	M: $\bar{X}$ = 19.3 F: $\bar{X}$ = 18.9			Currently in college	M F Barb. 3 11 Bromide 0 24 Tranq. 12 22	Females more likely ($p < .001$) than males to have used a "decrement-producing" (i.e., barbiturate, bromide, or tranquilizer) drug, but no more likely to have used an "increment-producing: (i.e., amphetamine, hallucinogen, or narcotic) drug $\bar{X}$ Age at first use: Barb. 18.0 15.5 Bromide -- 16.5 Tranq. 18.3 17.3		Source of drug Doctor Mother M F M F Barb. 100 100 -- -- Brom. -- 34 -- 18 Tranq. 75 50 -- 18

CONTINUED

1 OF 2

Table 23

NONTREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
3N/Baldiner, Goldsmith, Capel and Stewart (1972)	120	Four groups of 30 subjects each were constituted. Their composition was as follows: I-College marihuana users II-College nondrug users III-Noncollege heroin users IV-Noncollege nondrug users The subjects were obtained from the population of a university, a community action program, and a methadone maintenance clinic.	All F								Group I consistently differed from all others on the following value issues: religion, law/justice, economics, race, sex, education. Marihuana is not seen as a causal agent of these views but as a symbol of nontraditional and less conservative attitudes.
4N/ Scott (1972)	58	Subjects were former drug abusers of high school age.	M = 43 F = 57						Age at first drug use: M F 11-12 4 11 13-14 40 60 15-16 56 29 Length of time using drugs: M F 6 mo. 4 9 6-12 mo. 44 23 >12 mo. 52 68		

Table 23

NONTREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
SN/ Steffenhagen, McAree and Nixon (1972)	131	College undergraduates, 93 of whom were classified as users on a self-report basis.	All F				Currently undergraduate students		Initiation into: Cigarette use-- Users / Non-users In College 21 / 23 Before College 71 / 38.5 Not Used 8 / 38.5 Total 100 / 100 Alcohol use-- Users / Non-users In College 11 / 33 Before College 89 / 60 Not Used 0 / 7 Total 100 / 100		

Table 23

NONTREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
6N/ MacDonald, Walls, and LeBlanc (1973)	411	College undergraduates classified as users and nonusers on a self-report basis and, for the purpose of "extreme groups analysis," further classified as: I-users of 2 or more drugs (n = 23); II-randomly selected nonusers (n = 23) III-marihuana users only (n = 8).	All F				Currently undergraduate students				In the "extreme groups analysis," drug users (I) and marihuana-only users (III) did not differ significantly from each other, but these groups combined differed significantly from nonusers in conformity, social participation, and use of cigarettes, beer, and hard liquor.
7N/ Climent, Raynes, Rollins, and Plutchik (1974)	66	Subjects were selected from a female prison population and divided into two groups: I--Heroin users (N=42) II--Nonheroin users (N=24)	All F	I: $\bar{X}$=25.3 II: $\bar{X}$=29.5 I % / II % < 20[1] 40 / 17 20-25 31 / 37 >25 29 / 46 [1]Difference significant at p<.05.			I / II Married 20 / 13 Single 61 / 50 Divorced[1] 7 / 25 Separated 10 / 8 Widowed 2 / 4 [1]Difference significant at p<.05.				Born in urban area: I - 34 II - 22 Live in urban area: I - 51 II - 30 Suicidal thoughts: I - 76 II - 54 Suicide attempts: I - 62 II - 46

Table 23

NONTREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
8N/ File, McCahill and Savitz (1974)	227	Female arrestees classified as "narcotics involved"	All F		[1]Black=72 White=28 [1]Difference significant at p <.001.					Ever arrested for the following offenses: Prostitution: Black 49, White 20, Other 41 Drug Sales or Possession: Black 71, White 84, Other 81 Larceny: Black 51, White 31, Other 45 Burglary: Black 20, White 22, Other 21 Forgery/Fraud: Black 9, White 8, Other 9 Robbery: Black 17, White 5, Other 13 Assault: Black 14, White 9, Other 12 Weapons: Black 12, White 8, Other 11 Homicide: Black 3, White 2, Other 2 Gambling: Black 9, White 2, Other 7 Liquor: Black 4, White 11, Other 6 [1]Other: Black 42, White 36, Other 40 $\bar{X}$ Number of arrests by category: Prostitution: Black 2.6, White 1.0, Other 2.1 Drug Sales or Possession: Black 1.8, White 1.5, Other 1.7 Property Offenses: Black 1.9, White 1.1, Other 1.7 Personal Offenses: Black .4, White .2, Other .3 Other: Black 1.1, White .7, Other 1.0 [1]Includes contempt of court, violation of probation or parole, failure to appear in court.	

Table 23

NONTREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
9N/ Krug and Henry (1974)	563	Subjects were entering freshmen at a junior college (N=285) and a graduating senior class (N=278) at a high school--both in the Southern U.S.	M=53 F=47	M: $\bar{X}$=17.6 F: $\bar{X}$=17.4					$\bar{X}$ Age at initial drug experience: M: $\bar{X}$=14.1 F: $\bar{X}$=15.5		

Table 23

NONTREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY* %
10N/ Rosenberg, Kasl, and Berberian (1974)	8,700	Subjects were students in grades 7-12 in New England. Data were collected in two consecutive years: (71) Year I: N=4,427 (72) Year II: N=4,273	Year I: M=49 F=51 Year II: M=49 F=51		Year I: Black - 8 White - 92 Year II: Black - 10 White - 90			"Currently using" Year I: M F Marihuana 18 16 Hashish 13 11 Amphetamines 4 4 Barbiturates 3 3 Glue 1 1 Mescaline 4 3 LSD 3 2 Cocaine 1 1 Heroin 1 .1 Year II: M F Marihuana 20 18 Hashish 14 11 Amphetamines 3 4 Barbiturates 3 4 Glue 1 1 Mescaline 3 3 LSD 2 2 Cocaine 1 1 Heroin 1 .4	"Ever used" Year I: GRADES: 7-9 10-12 M F M F Marihuana 18 16 44 39 Hashish 11 9 32 28 Amphetamines 5 6 16 17 Barbiturates 5 5 14 14 Glue 10 5 10 7 Mescaline 4 2 14 11 LSD 3 3 14 9 Cocaine 1 1 5 3 Heroin 1 .4 5 1 Year II: GRADES: 7-9 10-12 M F M F Marihuana 24 22 52 48 Hashish 13 11 36 31 Amphetamines 5 8 18 19 Barbiturates 5 7 12 12 Glue 14 13 13 7 Mescaline 4 4 16 14 LSD 3 4 16 13 Cocaine 2 2 6 6 Heroin 1 1 5 2

*Columns CRIMINAL JUSTICE HISTORY and OTHER were omitted.

Table 23

NONTREATMENT STUDIES
(continued)

STUDY	SAMPLE SIZE	SAMPLE DESCRIPTION	SEX %	AGE	RACE/ ETHNICITY %	MARITAL STATUS %	EDUCATIONAL STATUS %	CURRENT DRUG USE %	DRUG USE HISTORY %	CRIMINAL JUSTICE HISTORY %	OTHER %
11N/ Streit, Halsted, and Pascale (1974)	1,050	Secondary school students divided into drug users and nondrug users on the basis of number of times they reported using marihuana, LSD, barbiturates, or amphetamines.	M&F, no breakdown given				Currently secondary school students				No consistent M-F differences in perception of parental behavior; differences were found between users and nonusers (both M and F) concerning perception of parental love and hostility.

Table 24

REVIEW OF STUDIES NOTING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS

STUDY	SAMPLE	MAJOR FINDINGS CONCERNING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
Olson (1964)	120 hospitalized male and female heroin addicts n of 60 males n of 60 females	MMPI profiles suggested that male addicts were significantly more guarded and overtly wary than female addicts but that females felt more exposed and vulnerable to their current situation. On this basis it was posited that the females in this study may have had less well-developed ego defenses and tended to demonstrate more pessimism and low morale while utilizing projective and obsessive-compulsive defenses. Additionally, females scored significantly higher on the Depression and Paranoia scales. The author suggests that this indicates a lack of self-confidence, poor morale, and more worry and dissatisfaction with their current situation, along with the use of paranoid defense mechanisms. A primary elevation on the psychopathic deviate and secondary elevation on the hypomania scales was noted with both sexes and is suggested to be representative of narcotic addicts in general.
Chein (1964)	52 hospitalized male and female opiate addicts n of 32 males n of 20 females	Psychiatric diagnoses of male and female addicts were not significantly different. The only difference of note was in the categorization of subtypes of the diagnosis of character disorder. Two subtypes used to describe the male addict were "pseudopsychopathic delinquent" and "oral character"; both these subtypes were described as defining their lives "in terms of aggression and hostility experienced as pleasurable or as justified reaction to mistreatment or frustration (p. 311). These subtypes were not described for females. It was suggested that females did not employ the facade of "joy in battle" of the male "pseudopsychopathic delinquent" but did experience anxiety and reproach following episodes of rage or anxiety, a characteristic not reported among the male subtype of "oral character." Both males and females were considered to be "seriously maladjusted" prior to addiction.

Table 24

REVIEW OF STUDIES NOTING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
(continued)

STUDY	SAMPLE	MAJOR FINDINGS CONCERNING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
Ellinwood, Smith and Vaillant (1966)	111 male and female admissions to the USPHS Narcotics Hospital at Lexington n of 81 males n of 30 females	Review of psychiatric examinations revealed that, "diagnostically, women were more often seen as neurotic and psychotic, while males were more often seen as having personality disorders and being sociopathic" (p. 37). The authors note, however, that "there may be a judgmental and diagnostic bias here since different psychiatrists examined the males and the females" (p. 37). The diagnostic classifications were: Diagnostic Classification — M (n = 81) — F (n = 30) — Percent Organic Diagnosis: 1 — 0 Psychosis: 0 — 7 Neurosis: 1 — 10 Psychophysiologic: 3 — 0 Personality Disorder: 77 — 66 Sociopathic: 17 — 3 Drug Abuse Only: 0 — 14
d'Orban (1970)	66 imprisoned female heroin addicts	Seventeen percent of this addict sample had a history of psychiatric inpatient treatment prior to addiction; 50 percent had a history of psychiatric hospitalization since addiction. There were no psychotic diagnoses; the most frequent diagnosis was personality disorder, usually precipitated by a suicidal gesture or transient amphetamine psychosis. The author reports the most striking finding to be "disturbed psychosexual development" among the sample as evidenced by 48 percent reporting themselves to be homosexual, with few expressions of conflict concerning this. The author concludes that "the women in this study showed more severe psychiatric abnormality" than a similar sample of male addicts obtained in another study.

Table 24

REVIEW OF STUDIES NOTING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
(continued)

STUDY	SAMPLE	MAJOR FINDINGS CONCERNING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
Heller and Mordkoff (1972)	67 young male and female nonaddicted polydrug abusers in a nonresidential treatment program n of 42 males n of 25 females	The group form of the MMPI was administered and scored for 14 standard and the following special scales: Welsh's first and second factor, manifest anxiety, ego strength, and dominance. No significant differences were found among these scores.
Waddell, Smith, and Stewart (1972)	21 black methadone maintenance clients n of 13 males n of 8 females	Form R of the MMPI was administered upon admission to a methadone maintenance program and again 5 months later. Both males and females showed an elevation of the Hypomania scale after methadone. The authors interpret this as a suggestion that methadone maintenance causes a further increase in the overt behavior and restlessness of the addict. Sex differences were noted on two scales. First, the Hypochondriasis scale, where females showed a marked increase between the two testing periods, whereas the mean score for males decreased slightly. This finding was interpreted as suggesting that the side effects of methadone may persist longer in females than males, causing them some difficulty in coping with bodily functions. The second scale in which sex differences were noted was the Paranoia scale where females scored consistently higher than the males. This was interpreted to indicate that females showed 'touchy,' more sensitive responses to their environment" (p. 436).
Sutker and Moan (1972)	59 females in three groups: a. Prisoners with a history of heroin addiction (n = 17)	All Ss were administered a large battery of psychological tests including the group form of the MMPI. Fourteen MMPI scales were scored; the 10 standard clinical scales, 3 validity scales, and the Welsh A scale. Among the 3 groups, prison addicts and

Table 24

REVIEW OF STUDIES NOTING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
(continued)

STUDY	SAMPLE	MAJOR FINDINGS CONCERNING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
Sutker and Moan (1972) (continued)	b. Prisoners with no history of heroin addiction (n = 23) c. Street addicts applying to the Narcotic Addict Rehabilitation Act Program (NARA) (n = 19)	NARA heroin addicts responded on the MMPI in a more deviant fashion on every major clinical scale. Their elevations were particularly dramatic on the F, Psychopathic deviate, and Hypomania scales. Classification of the Ss on the basis of MMPI profile types suggested that while 48 percent of the nonaddicts were "normal," only 18 percent and 21 percent of the prison and NARA addicts, respectively, could be so labeled. It was suggested that the addict profiles reflected "pronounced acting out potential, disregard for cultural norms, a tendency toward irrational expression of impulses, as well as marked sociopathy" (p. 112). It was noted that these antisocial features were well documented as features in the personality of male heroin addicts. Finally, it was pointed out that the imprisoned heroin addicts, for all their potential for social deviance, were incarcerated for relatively minor offenses in comparison to the nonaddict prison group. It was suggested that tendencies of addicted women toward "extreme forms of behavior deviance . . . are likely diverted, redirected and tempered by a complex interaction of subgroup pressures" (p. 112). Reasons suggested for this relative lack of extreme behavior deviance are that the behavior of the female addict is often determined by the male addict, who is expected to carry out the violence, the effects of the narcotics themselves, and the existence of other outlets for social deviance such as sexual promiscuity (especially prostitution), fighting, and arguing with other female addicts and vicarious participation in violence by provocation of the male partner.

Table 24

REVIEW OF STUDIES NOTING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
(continued)

STUDY	SAMPLE	MAJOR FINDINGS CONCERNING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
Miller, Sensenig, Stocker and Campbell (1973)	274 male and female consecutive n of 212 males n of 62 females	Rokeach's value ranking task (Value Survey) was administered; analysis of sex differences obtained indicated that males placed more emphasis upon values related to achievement and competence while females place more emphasis upon values related to interpersonal and intrapersonal sensitivities. On this basis the authors suggest that . . . "In sum, differences in values between male and female addicts more directly reflect differences found between the sexes generally rather than reflecting differences attributable to the drug abuse experience" (p. 596). A difference was found, however, on the values "cleanliness" and "self-respect," both of which females valued more highly than males. The authors interpret this in the context of the "common life experiences of female drug addicts" where feelings of "dirtiness and worthlessness" may be engendered by the female addict's "activities which are particularly inconsistent with female role definition in our culture."
Cryns (1974)	70 male and female methadone maintenance clients n of 51 males n of 19 females	The Shostrom Personal Orientation Inventory (POI), a measure of positive mental health rather than of clinical defect, was administered. No real differences in personality profile were found between males and females, with the exception that females were significantly more "sensitive emotionally" than males.
Kilmann (1974a)	84 hospitalized female heroin addicts and 176 "normal" females	The Adjective Check List, 300 commonly used adjectives forming 24 scales and based upon Murray's need trait system, was administered to both the addict and the "normal" groups. The addict group described themselves as being less defensive, self-controlled, personally adjusted, oriented to

Table 24

REVIEW OF STUDIES NOTING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
(continued)

STUDY	SAMPLE	MAJOR FINDINGS CONCERNING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
Kilmann (1974a) (continued)		achievement, dominant, enduring, orderly, nurturant and deferent and more unfavorable, labile, heterosexual, exhibitionistic, autonomous, aggressive, succorant, and attracted to novel experiences than the control group. These results are collectively interpreted to suggest that ". . . the female addict engaged in immature social interactions . . . their reported competitiveness, aggressiveness, indifference to the concerns of others and lack of control over hostile impulses coupled with their self-centered orientation suggests that the addict's problems in living can be attributed to the impersonal and immature quality of their interpersonal interactions" (p. 486).
Kilmann (1974b)	84 hospitalized female heroin addicts	The Personal Orientation Inventory was administered to measure personality characteristics associated with "positive mental health." Compared with a "normal" sample (obtained in another study) the addicts were found to be less effective in their use of time, less satisfied with their lives and selves, more skeptical of man's goodness, their feelings, and better able to develop meaningful relationships with others than the control group.
DeLeon (1974)	208 male and female residents of a drug free residential program 148 males 60 females	Five instruments (seven scales) were selected to assess psychopathology and administered: Internationalization-Externalization (I-E), Schizophrenia Scale (Ss), Beck Depression Inventory (BDI), Manifest Anxiety Scale (MAS), and three Multiple Affect Adjective Checklists (Anxiety, Depression, and Hostility). Both male and female mean scores were comparable with psychopathological groups reported in the literature. However, with one exception

Table 24

REVIEW OF STUDIES NOTING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
(continued)

STUDY	SAMPLE	MAJOR FINDINGS CONCERNING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
DeLeon (1974) (continued)		(Hostility), mean scale scores for females were higher than those of males and significantly so for four of these scales (BDI, MAS, and Anxiety and Depression). Further, the author notes that "the female data point to the possibility that for women, especially white and Spanish, addiction may relate to or express a more serious and complex psychological disturbance" (p. 150). Females' scores were consistently elevated in comparison to males at every stage of time spent in the program, although a significant decrease in psychopathological signs with time spent in residence was found for both males and females.
Ross and Berzins (1974)	395 female patients at the NIMH Clinical Research Center	The Lexington Personality Inventory, a questionnaire consisting of a) 600 true/false statements describing various facets of the addict personality and b) the clinical and validity scales of the MMPI, was administered. All mean profiles showed considerable elevation, with only the Hypochondriasis scale consistently below a t score of 60 and the Psychopathic deviate score consistently equal to or greater than a t score of 70. These high Pd scale scores were interpreted to reflect anger, rebelliousness and resentment on the part of these women; other indicators of "more severe pathology" were seen in high scale scores on Depression, Schizophrenia, and Psychasthenia (t scores over 65) as well as discontent with current levels of functioning (F greater than K). The results of the study suggests that "the mean MMPI profile of female narcotics addicts at the Lexington Clinical Reserach Center . . . indicates an active, aggressive, immature type of personality which is also associated with heavy drinking or abuse of drugs" (p. 783).

Table 24

REVIEW OF STUDIES NOTING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
(continued)

STUDY	SAMPLE	MAJOR FINDINGS CONCERNING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
Arnon, Kleinman and Kissin (1974)	61 male and female Methadone Maintenance Clients 30 males 31 females	Witkin's Rod and Frame Test, a measure of field dependence, was administered. Both field-dependent and field-independent cognitive styles are hypothesized to be associated with separate clusters of personality characteristics. For example, field-dependent individuals are thought to "depend on their surrounding environment for structure and support, . . . have difficulty dealing analytically with the world around them and characteristically react to it in a passive manner . . . have a poor sense of separate identity, a relatively primitive, undifferentiated body image, poor control over impulses, and a tendency to use more primitive defenses such as denial and repression" (p. 152). Alternatively, field independence is considered to be "characterized by activity and independence . . . better impulse control, higher self-esteem, a more mature body image with a well developed sense of separate identity and more differentiated defenses based on isolation and intellectualization" (p. 152). Results indicated that the total addict group, including males and females, was significantly more field dependent than a group of "normal" subjects in another study. Comparison of male and female addicts indicated that females were significantly more field dependent than males. Female addicts were also significantly more field dependent than the female control group; the male addict and male control group did not significantly differ on field dependence.
Gossop (1976)	55 male and female drug dependent clients of a London Drug Dependence Unit	Self-ideal discrepancy scores, a measure of self-esteem, was administered to the addict experimental group and a small, nonaddict, control group comprised of 8 males and 8 females. There was no difference between male and female controls

Table 24

REVIEW OF STUDIES NOTING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
(continued)

STUDY	SAMPLE	MAJOR FINDINGS CONCERNING PSYCHOLOGICAL CHARACTERISTICS OF FEMALE DRUG ABUSERS
Gossop (1976) (continued)	32 males 23 females	on self-esteem; female addicts, however, tended to evaluate themselves less favorably in relation to their ideal selves than male addicts. This finding is interpreted as providing some support for the view that female addicts may be more generally disturbed than male addicts.

Table 25

GENERAL CONCLUSIONS REGARDING OVERALL PSYCHOLOGICAL FUNCTIONING OF FEMALE vs. MALE DRUG ABUSERS

FEW DIFFERENCES BETWEEN MALE AND FEMALE FUNCTIONING[1]	FEMALES FUNCTION WORSE THAN MALES	FEMALES FUNCTION BETTER THAN MALES	NO MALE/FEMALE COMPARISON
Olson (1964)	d'Orban (1970)	Sutker and Moan (1972)	
Chein (1964)	Waddell et al. (1972)	Kilmann (1974a)	
Ellinwood et al. (1966)	DeLeon (1974)	Kilmann (1974b)	
Heller and Mordkoff (1972)	Arnon et al. (1974)	Ross and Berzins (1974)	
Miller et al. (1973)	Gossop (1976)		
Cryns (1974)			

[1]This category includes those studies in which males and females may have different diagnoses or MMPI elevations but do not essentially differ in their overall functioning, although both may be functioning poorly.

4. Conclusions

This report on the characteristics of female drug abusers is based on a structured effort to identify, collect, and assess all of the available data sources on drug use patterns, demographic descriptors as reflected in national and local drug treatment data systems, treatment and nontreatment studies, and psychological descriptions from published and unpublished literature.

The data on both female and male drug abusers were examined to determine if there are sex-specific drug use patterns, demographic variables, and psychological characteristics; to look at trends; and to permit further analyses to explore significant differences between females and males. A summary of findings identified by data source follows.

For adults (18 and over), the national household surveys (Abelson and Atkinson 1975; Abelson and Fishburne 1976) indicate the following:

- For "current use of illicit drugs" there are no significant differences between males and females, except for marihuana (current use for males is substantially higher). The illicit drugs listed are heroin, cocaine, other opiates, hallucinogens, inhalants, marihuana, and hashish.
- The prevalence (defined as "ever used") of use of all of the illicit drugs is significantly higher for males than for females.
- There are no statistically significant male/female differences reported in current nonmedical use of psychotherapeutic drugs.
- Females report substantially and significantly higher prevalence ("ever used") of nonmedical use of psychotherapeutic drugs.

For youths (12 to 17), the national surveys indicate:

- Females and males report similar "current use" patterns of heroin, cocaine, marihuana, and hashish, but females report significantly less use of hallucinogens than males;
- Females report significantly lower use ("ever used") than males of inhalants, marihuana, and hashish.

The data on prevalence of nonmedical drug use disguise the comparative extent to which women and men experience drug problems because medical use is excluded. According to DAWN data, women experience more than twice as many contacts with hospital emergency rooms due to tranquilizers, nearly three times as many contacts due to nonnarcotic analgesics, and nearly twice as many due to nonbarbiturate sedatives. Further, women are more likely than men to contact emergency rooms because of problems with barbiturates, amphetamines, alcohol, and "other drugs"; but men are more likely to contact emergency rooms because of problems with heroin/morphine, methadone, cocaine, hallucinogens, inhalants, solvents, aerosols, and nonnarcotic analgesics. Women are nearly twice as likely as men to contact hospital emergency rooms due to a drug overdose.

Clearly, the exclusion from this study of medical use of psychotherapeutic drugs omits consideration of a substantial proportion of the drug problems encountered by women.

The following are highlights of the treatment data:

- Females in traditional treatment programs are slightly more likely than males to be under 21 years old and slightly less likely to be 21 and over. However, this pattern is reversed in emergency room and crisis center facilities where females are more likely to be over 30 years of age; females who die of drug overdoses are considerably more likely to be over 36. This reversal is probably attributable to higher use of psychotherapeutic drugs by females than males in that age group.
- Female clients entering treatment are less likely than males to be using heroin, although there is some evidence to suggest that the difference is becoming attenuated. Females are more likely to be abusing psychotherapeutic drugs, but less likely to be abusing methadone, alcohol, or cocaine.
- Female, as compared to male, clients are slightly less likely to be black and substantially less likely to be Puerto Rican or Mexican American. Females are more likely to be, or to have been, married than their male counterparts.
- While there are no differences on education, females entering treatment are considerably less likely to be employed than males. They are more likely than males to be dependent on others or welfare for support and less likely to be dependent on illegal activities as their primary source of support.
- Females are less likely to have been arrested, and less likely than males to enter treatment involuntarily.

5. Discussion

The previous sections provide us with information concerning the characteristics of female and male drug abusers according to client data in national and local drug information systems, national household surveys, treatment and nontreatment studies, and in some additional studies of psychological characteristics. It is clear that, although there is a great deal of data available, there is still much to be learned about the characteristics of female drug abusers.

Drug program data show that men and women have differing rates of entry into drug abuse treatment and emergency treatment programs and that those rates of entry will vary by age within male and female groups.

Within the female treatment (CODAP) population, there are significantly more women in programs under age 26 than there are women 26 or older. The disparity in these numbers suggests that either programs are better geared to the younger female client or that women's conditions change in some significant way, limiting their availability for treatment after age 25. The finding that women in treatment are often responsible for dependent children has obvious relevance for this latter hypothesis. The woman aged 26 and older then becomes of special concern. Why is there the dropoff in women entering drug abuse treatment programing in this age group? What special programing may be required to meet this group's special needs?

In addition, the opiate-oriented drug treatment environments would appear inappropriate for large numbers of drug abusing women who are seen at hospital emergency rooms and crisis centers. It will be important to assess the treatment needs of women over age 30 who receive emergency services for drug and drug-related problems since that age group is overrepresented in emergency treatment relative to other female age groupings. What types of services are required once these women are released from hospital emergency rooms and crisis centers? Are existing agencies capable of providing the desired services to this population?

The available demographic data clearly suggest that women generally have different treatment needs. The employment and primary source of support data indicate that female clients in all but emergency rooms and crisis centers are more likely than males to be unemployed and/or dependent upon others or welfare for their support. Females have fewer and more restricted employment opportunities than males. The data cited here also suggest a tendency for females to fall into somewhat lower educational categories than males. Moreover, females in treatment programs are more likely than males to be separated or divorced, and to have responsibility for dependent children.

It has been reported that female drug addicts have more psychological difficulties than male addicts. However, it should be observed that methodological problems have been noted in many of the psychological studies that have been conducted. Thus, while studies do suggest sex differences between male and female clients on many of the personality dimensions investigated, there is a need for more study in this area to verify and understand differences.

Based on the data, it appears that long-term opiate-oriented treatment programs may not be appropriate for a large segment of the female drug abusing population. It is possible that more women would be encouraged to participate in the drug treatment service system if these services were modified to meet their needs.

Among the different variables that must be considered in planning treatment for drug-abusing women are the following:

1. Age seems to be an important factor to consider, given the evidence that there are differences between men and women in drug use patterns and treatment needs at different age ranges.

2. Mental health services may be more appropriate for women who require emergency medical treatment for drug problems. For example, suicide attempts and gestures (using drugs) would be more likely to require mental health services.

3. Treatment programs for females must put more emphasis on such services as female-oriented vocational training, child day care facilities, assertiveness training, increased educational support and opportunity, and social services. Every effort should be made to assess the availability of such services in the community.

Treatment programs should consider local attitudes and conditions in attempting to encourage female clients to seek treatment. Drug treatment programs need to recognize the particular stigma attached to female drug abuse and develop innovative ways to serve females. Appropriate referral strategies need to be developed for older women who experience problems with psychotropic drugs. By doing so, it is possible that greater numbers of female abusers may feel more inclined to seek treatment appropriate to their needs.

FOOTNOTES

CHAPTER 1

[1]The publications referenced did not report prevalence of illicit drug use separately by sex except for marihuana. We are indebted to Ira Cisin, Ph.D., who provided special tabulations of the 1975-76 data for use in this analysis.

[2]Statistical significance is considered here at the 0.05 level.

CHAPTER 2

[1]Statistical tests are also carried out in one national (Polydrug) and one local (University of Miami [A]) data set with large n's. These tests are performed in order to demonstrate that, even with a large number of observations, significant male/female differences are not often found. Due to the large n's, however, the results of these tests should be regarded with some caution.

[2]The DAWN Medical Examiner facilities are not, of course, considered as treatment facilities.

[3]The results of chi-square tests are: ASA--X^2=7.0, d.f.=2, $p < 0.05$; New Haven--X^2=1.2, d.f.=2, $p < 0.05$; Miami (A)--X^2=0.2, d.f.=2, $p > 0.05$.

[4]The X^2 test for NTA was invalid because the expected frequency was less than 5 for one cell.

[5]The results of chi-square tests were: NTA--X^2=0.03, d.f.=1, $p > .05$; ASA--X^2=4.9, d.f.=2, $p > 0.05$; Miami--X^2=0.9, d.f.=3, $p > 0.05$; HERS--X^2=8.5, d.f.=5, $p > 0.05$; Polydrug--X^2=0.8, d.f.=2, $p > 0.05$; New Haven--X^2=2.9, d.f.=2, $p > 0.05$.

[6]The chi-square test results were: NTA--X^2=2.0, d.f.=1, $p > 0.05$; ASA--X^2=1.2, d.f.=1, $p > 0.05$; New Haven--X^2=1.4, d.f.=1, $p > 0.05$; Miami (A)--X^2=25.7, d.f.=4, $p < 0.001$; HERS--X^2=8.4, d.f.=4, $p > 0.05$; Polydrug--X^2=30.8, d.f.=4, $p < 0.001$.

[7]Even these small differences may be accounted for by the indication, noted earlier (table 7), that female clients may be younger than male clients. A greater percentage of females under 18 would tend to suppress the number of females even eligible (by virtue of age) to have completed 12 grades.

[8]The chi-square results were: NTA--X^2=2.0, d.f.=1, $p > 0.05$; ASA--X^2=7.0, d.f.=4, $p > 0.05$; Miami (A)--X^2=10.8, d.f.=5, $p > 0.05$; HERS--X^2=23.5, d.f.=4, $p < 0.001$; Polydrug--X^2=0.8, d.f.=3, $p > 0.05$.

[9]It should be noted that the DARP system collected data on several employment-related variables and reported them as an index entitled "employment record." Included are employment history based upon type of work, past and present employment in the year previous to treatment entry, and source of financial support. High scores on this index report reflect steady employment in skilled positions, while low scores indicate very poor work histories.

[10]The results of chi-square tests are: NTA--X^2=2, d.f.=1, $p > 0.05$; ASA--X^2=0, d.f.=1, $p > 0.05$; New Haven--X^2=4.17, d.f.=1, $p < 0.05$; Miami (A)--X^2=20.2, d.f.=1, $p < 0.001$.

[11]The DARP system obtained information regarding a variable entitled "criminal history" which included, but was not limited to, arrest data.

[12]The chi-square test results are: NTA--X^2=3.48, d.f.=1, $p > 0.05$; ASA--X^2=0.9, d.f.=1, $p > 0.05$; Miami (A)--X^2=50.6, d.f.=1, $p < 0.001$; HERS--X^2=106.8, d.f.=1, $p < 0.001$; Polydrug--X^2=96.1, d.f.=1, $p < 0.001$.

[13]It should be noted that a "voluntary" admission is not necessarily voluntary in the sense that it is an internally self-motivated act. Legal or family pressure, for example, may result in a client "volunteering" to enter treatment in the face of less desirable alternatives.

[14]X^2=7.9, d.f.=1, $p < 0.005$.

[15]In 1975 and 1976 the CODAP clients were also asked to identify their tertiary problem drug. These data, however, are considered by NIDA of insufficient validity to report.

[16]The chi-square results comparing male versus female drug use (table 17) are as follows:

Drug	Program	X^2	d.f.	p
Heroin	NTA	(expected frequency too small)		
Heroin	ASA	3.5	1	--
Heroin	New Haven	4.3	1	<.05
Heroin	Miami (A)	0.1	1	--
Illegal methadone	NTA	0.4	1	--
Illegal methadone	ASA	1.8	1	--
Illegal methadone	Miami (A)	3.3	1	--
Barbiturates	NTA	0.4	1	--
Barbiturates	ASA	1.3	1	--
Barbiturates	New Haven	1.4	1	--
Barbiturates	Miami (A)	0.3	1	--
Amphetamines	NTA	.0.3	1	--
Amphetamines	ASA	0.6	1	--
Amphetamines	New Haven	0.3	1	--
Amphetamines	Miami (A)	0.4	1	--
Cocaine	NTA	0.6	1	--
Cocaine	ASA	1.1	1	--
Cocaine	New Haven	0.1	1	--
Cocaine	Miami (A)	4.3	1	--
Marihuana	NTA	.0	1	--
Marihuana	ASA	5.3	1	<.05
Marihuana	New Haven	1.6	1	--
Marihuana	Miami (A)	93.7	1	<.001
Hallucinogens	NTA	(expected frequency too small)		
Hallucinogens	ASA	0.5	1	--
Hallucinogens	Miami (A)	6.5	1	<.05
Other drugs	NTA	(expected frequency too small)		

REFERENCES

Abelson, H., and Atkinson, R. Public Experience with Psychoactive Substances: A Nationwide Study among Adults and Youth. Princeton, N.J.: Response Analysis Corp., 1975.

Abelson, H., and Fishburne, P. Nonmedical Use of Psychoactive Substances. 1975-76 Nationwide Study among Youth and Adults. Princeton, N.J.: Response Analysis Corp., 1976.

Allport, G. Traits revisited. American Psychologist, 21:1-10, 1966.

Arnon, D.; Kleinman, M.; and Lissin, B. Psychological differentiation in heroin addicts. The International Journal of the Addictions, 9(1):151-159, 1974.

Aron, W., and Daily, D. Graduates and splitees from therapeutic community drug treatment programs: A comparison. The International Journal of the Addictions, 11(1):1-18, 1976.

Baldinger, R.; Goldsmith, B.; Capel, W.C.; and Steward, G.T. Pot smokers, junkies and squares: A comparative study of female values. The International Journal of the Addictions, 7(1):153-166, 1972.

Ball, J.C. Sex differences in criminality among drug abuse patients in the United States. In: Gibbins, R.J., et al., eds. Research Advances in Alcohol and Drug Problems. Toronto: John Wiley, 1976.

Ball, J.C.; Demaree, R.G.; Levine, B.K.; and Newman, J.F. Pretreatment criminality of male and female drug abuse patients in the United States. Addictive Diseases: An International Journal, 1(4):481-489, 1975.

Barr, H. Memo dated February 21, 1976, "Some Data About Women." Eagleville, Pa.

Baughman, E.E., and Welsh, G.S. Personality: A Behavioral Science. Englewood Cliffs, N.J.: Prentice-Hall, 1962.

Bem, D.J., and Allen, A. On predicting some of the people some of the time: The search for cross-situational consistencies in behavior. Psychological Review, 81:506-520, 1974.

Brown, B.S.; Gauvey, S.K.; Meyers, M.B.; and Stark, S.D. In their own words: Addicts' reasons for initiating and withdrawing from heroin. The International Journal of the Addictions, 6(4):635-645, 1971.

Burt, M.R., et al. An Investigation of the Outcomes of Traditional Drug Treatment/Service Programs. Washington, D.C.: U.S. Government Printing Office, 1977.

Butler, M. A Survey of the Prevalence of Drug Use in Eight North Central Texas Junior and Senior High Schools. Fort Worth: Institute of Behavioral Research, 1975.

Calahan, D.; Cisin, I.H.; and Crossley, H.M. American Drinking Practices: A National Survey of Behaviors and Attitudes. Monograph No. 6. New Brunswick, N.J.: Rutgers Center of Alcohol Studies, 1969.

Campbell, D.T., and Fiske, D.W. Convergent and discriminant validation by the multitrait-multimethod matrix. Psychological Bulletin, 56:81-105, 1959.

Campbell, R., and Freeland, J. Patterns of drug use. The International Journal of the Addictions, 9(2):289-300, 1974.

Chambers, C.; Hinesley, R.K.; and Moldestad, M. Narcotic addiction in females: A race comparison. The International Journal of the Addictions, 5(20):257-278, 1970.

Chapman, L.J., and Chapman, J.P. Illusory correlations as an obstacle to the use of valid psychodiagnostic signs. Journal of Abnormal Psychology, 74:271-287, 1969.

I. Narcotics use among juveniles. In: Cavan, R., ed. Readings in Juvenile Delinquency. New York: J.B. Lippincott, 1964.

Chein, I.; Gerard, D.; Lee, R.; and Rosenfeld, E. The Road to H. New York: Basic Books, 1964.

Climent, D.E.; Raynes, A.; Rollins, A.; and Plutchik, R. Epidemiological studies of female prisoners. II: Biological, psychological and social correlates of drug addiction. The International Journal of the Addictions, 9(2):345-350, 1974.

Cooperstock, R. Psychotropic drug use among women. Canadian Medical Association Journal, 115:760-763, 1976.

Cooperstock, R., and Sims, M. Modifying drugs prescribed in a Canadian city: Hidden problems. American Journal of Public Health, 61:1007-1016, 1971.

Coughlan, A.J., and Gold, R. Self-destructive behavior in female adolescent addicts. American Journal of Orthopsychiatry, 44(2):252-253, 1974.

Cronbach, L.J. Five decades of public controversy over mental testing. American Psychologist, 30:1-14, 1975.

Cryns, A.G. Personality characteristics of heroin addicts in a methadone treatment program: An exploratory study. The International Journal of the Addictions, 9(2):256-266, 1974.

Cuskey, W.; Moffett, A.; and Clifford, H. Comparison of female opiate addicts admitted to Lexington Hospital in 1961 and 1967. HSMHA Health Reports, 86(4):332-40, 1971.

Cuskey, W.; Premkumar, T.; and Sigel, L. Survey of opiate addiction among females in the U.S. between 1850 and 1970. In: Cohen, C.; Robinson, S.; Smart, R.; et al. Psychotherapy and Drug Addiction. I: Diagnosis and Treatment. New York: MSS Information, 1974.

DeLeon, G. Phoenix House: Psychopathological signs among male and female drug-free residents. Addictive Diseases: An International Journal, 1(2):135-152, 1974.

d'Orban, P.T. Heroin dependence and delinquency in women--A study of heroin addicts in Holloway Prison. British Journal of the Addictions, 65:67-75, 1970.

Driscoll, G., and Barr, H. "Comparative Study of Drug Dependent and Alcoholic Women." Paper presented at the 23rd Annual Meeting of the Alcohol and Drug Problems Association of North America, Atlanta, September 1972.

Duster, T. The Legislation of Morality: Law, Drugs and Moral Judgment. New York: Free Press, 1970.

Eldred, C., and Washington, M. Interpersonal relationships in heroin use by men and women and their role in treatment outcome. The International Journal of the Addictions, 11(1): 117-130, 1976.

Ellinwood, E.H.; Smith, W.G.; and Vaillant, G.E. Narcotic addiction in males and females: A comparison. The International Journal of the Addictions, 1:33-35, 1966.

Fejer, D., and Smart, R. The use of psychoactive drugs by adults. Canadian Psychiatric Association Journal, 1973. p. 18.

File, K.N. Sex roles and street roles. The International Journal of the Addictions, 11(2):263-268, 1976.

File, K.N.; McCahill, T.; and Savitz, L. Narcotics involvement and female criminality. Addictive Diseases: An International Journal, 1(2):177-188, 1976.

Franks, V., and Vasanti, B., eds. Women in Therapy: New Psychotherapies. New York: Brunner-Mazel, 1974.

Frederick, C.J.; Resnik, L.P.; and Wittlin, B.J. Self-destructive aspects of hard core heroin addiction. Archives of General Psychiatry, 28:579-585, 1973.

Gay, G.R. Fifth Annual Conference on Methadone Treatment. Washington, D.C., March 18, 1973. Journal of Drug Issues, 4(4):342-344, 1974.

Gioia, C., and Byrne, R. Distinctive problems of the female addict: Experiences at IDAP. In: Senay, E., and Shorty, V., eds. Developments in the Field of Drug Abuse. Proceedings 1974 of the National Association for the Prevention of Addiction to Narcotics. Cambridge, Mass.: Schenkman Publishing Co., 1975.

Glenn, W.A., and Richards, L.G. Recent Surveys of Nonmedical Drug Use: A Compendium of Abstracts. Rockville, Md.: National Institute on Drug Abuse, 1974.

Gossop, M. Drug dependence and self-esteem. The International Journal of the Addictions, 11:741-753, 1976.

Gottschalk, L.; Bates, D.; Fox, R.; and James, J. Psychoactive drug use. Archives of General Psychiatry, 25:395-397, 1971.

Guilford, J.P. Personality. New York: McGraw-Hill, 1959.

Harrison, J.A. Results of Administration of a Substance Abuse Questionnaire. Shianassee County, Mich.: Commission on Alcohol and Drug Education, 1974.

Hays, J.R. The incidence of drug abuse among secondary school students in Houston, 1973. St. Joseph Hospital Medical Surgical Journal, 9(1):12-17, 1974.

Heller, M., and Mordkoff, A. Personality attributes of the young, non-addicted drug abuser. The International Journal of the Addictions, 7(1):65-72, 1972.

Hurvitz, N. Psychotherapy as a means of social control. Journal of Consulting and Clinical Psychology, 40:232-239, 1973.

Inciardi, J.A., and Chambers, C.D. Unreported criminal involvement of narcotic addicts. Journal of Drug Issues, 2(2):57-64, 1972.

James, J. Prostitution and addiction: An interdisciplinary approach. Addictive Diseases: An International Journal, 2(4):601-619, 1976.

James, I.P. Suicide and mortality amongst herion addicts in Britain. British Journal of the Addictions, 62:391-398, 1967.

Jensen, A.R. Social class, race, and genetics: Implications for education. Harvard Educational Review, 39:1-23, 1969.

Kamin, L. The Science and Politics of I.Q. Potomac, Md.: L. Erlbaum Associates, 1974.

Kaplan, B., ed. The Inner World of Mental Illness. New York: Harper and Row, 1964.

Kaubin, B.J. Sexism shades the lives and treatment of female addicts. Contemporary Drug Problems, Winter 1974. pp. 471-484.

Krasner, L., and Ullmann, L.P. Behavior Influence and Personality. New York: Holt, Rinehart, and Winston, 1973.

Kemp, W., ed. Drug Abuse: Current Concepts and Research. Springfield, Ill.: Charles C Thomas, 1975.

Kilmann, P.R. Self actualization of female narcotic drug addicts. Journal of Clinical Psychology, 30(3):308-310, 1974a.

Kilmann, P.R. Personality characteristics of female narcotic addicts. Psychological Reports, 35:485-486, 1974b.

Kleber, H.D. Narcotic addiction--The current problem and treatment approaches. Connecticut Medicine, 33(2):113-116, 1969.

Klinge, V.; Vaziri, H.; and Lennox, K. Comparison of psychiatric inpatient male and female adolescent drug abusers. The International Journal of the Addictions, 11(2):309-323, 1976.

Knudten, R.D., and Meade, A.C. Marijuana and social policy. Addictive Diseases: An International Journal, 1(3):323-351, 1974.

Krug, S.E., and Henry, T.J. Personality, motivation and adolescent drug patterns. Journal of Counseling Psychology, 21(5):440-445, 1974.

Lett, C.R., and Ingram, C.R. Progression time to narcotic use in a southwestern addict population. The International Journal of the Addictions, 9(2):351-354, 1974.

Levi, M., and Seborg, M. The study of I.Q. scores on verbal vs. academic achievement among women drug addicts from different racial and ethnic groups. The International Journal of the Addictions, 7(3):581-584, 1972.

Levine, J. The Nature and Extent of Psychotropic Drug Usage in the United States. Statement before the Subcommittee on Monopoly of the Select Committee on Small Business, 1969.

Levy, S., and Doyle, K. Attitudes toward women in a drug treatment program. Journal of Drug Issues, 4(4):428-434, 1974.

Linder, R.L.; Lerner, S.E.; and Burke, E.M. Drugs in the junior high school. Parts I and II. Journal of Psychedelic Drugs, 6(1):43-49 (part I), 51-56 (part II), 1974.

Lindesmith, A.R. The Addict and the Law. Bloomington, Ind.: Indiana University Press, 1965.

MacDonald, A.; Walls, R.; and LeBlanc, R. College female drug abusers. Adolescence, 8:189-196, 1973.

Manheimer, D.; Mellinger, G.; and Balter, M. Psychotherapeutic drug use among adults in California. California Medicine, 109:445-451, 1968.

Marks, J.; Stauffacher, J.C.; and Lyle, C. Predicting outcome in schizophrenia. Journal of Abnormal and Social Psychology, 66:117-127, 1963.

Mellinger, G.; Balter, M.; and Manheimer, D. Patterns of psychotherapeutic drug use among adults in San Francisco. Archives of General Psychiatry, 25:385-394, 1971.

Michigan Department of Public Health. Alcohol and Other Drug Use and Abuse in the State of Michigan. Silver Spring, Md.: Macro Systems, 1975.

Miller, J.S.; Sensenig, J.; Stocker, R.B.; and Campbell, R. Value patterns of drug addicts as a function of race and sex. The International Journal of the Addictions, 8(4):589-598, 1973.

Mischel, W. Personality and Assessment. New York: John Wiley and Sons, 1968.

Mischel, W. Introduction to Personality, 2nd edition. New York: Holt, Rinehart, and Winston, 1976.

Mitchell, K.R.; Kirkby, R.J.; and Mitchell, D.M. Note on sex differences in student drug use. Psychological Reports, 27:116, 1976.

Moseley, W.H., and Gerould, M.H. Sex and parole: A comparison of male and female parolees. Journal of Criminal Justice, 3:47-58, 1975.

*U.S. GOVERNMENT PRINTING OFFICE: 1980 311-246/1160 1-3

Moynihan, D.P. Comment: Jensen not "must reading" in the Nixon cabinet. Journal of Social Issues, 26:191-192, 1970.

National Institute on Drug Abuse. Client Oriented Data Acquisition Process, National Management Handbook. Rockville, Md.: the Institute, 1974.

Newmeyer, J.A. After the aquarian age: Observations on the changing face of heroin addiction in a San Francisco clinic population. American Journal of Drug and Alcohol Abuse, 1(2): 199-206, 1974.

Olson, R.W. MMPI sex differences in narcotic addicts. The Journal of General Psychology, 71:257-266, 1964.

Parry, H.J. Patterns of psychotropic drug use among American adults. Journal of Drug Issues, 1:269-273, 1971.

Parry, H.; Balter, M.; Mellinger, G.; Cisin, I.; and Manheimer, D. National patterns of psychotherapeutic drug use. Archives of General Psychiatry, 28:769-783, 1973.

Petersen, D. Acute drug reactions (overdoses) among females: A race comparison. Addictive Diseases: An International Journal, 1(2):223-233, 1974.

Peterson, D.R. The Clinical Study of Social Behavior. New York: Appleton, Century, Crofts, 1968.

Poplar, J. Characteristics of nurse addicts. American Journal of Nursing, 69(1):117-119, 1969.

Prather, J., and Fidell, L. Drug abuse among women: An overview. Journal of Drug Issues, 1977.

Raynes, A.E.; Climent, C.; Patch, V.D.; and Ervin, F. Factors related to imprisonment in female heroin addicts. The International Journal of the Addictions, 9(1):145-150, 1974.

Rosenbaum, M. The World and Career of Women Heroin Addicts. San Fernando, Calif.: Scientific Analysis Corp., 1973.

Rosenberg, J.; Kasl, S.; and Berberian, R. Sex differences in adolescent drug use: Recent trends. Addictive Diseases: An International Journal, 1(1):73-96, 1974.

Ross, F., and Berzins, J.I. Personality characteristics of female narcotic addicts on the MMPI. Psychological Reports, 35(2):779-784, 1974.

Sacher, C.G.; Brown, B.S.; Greene, M.H.; and DuPont, R.L. "Initiation into Heroin Use." Unpublished manuscript, no date.

San Mateo County, California. Student Drug Use Survey. San Mateo: Department of Public Health and Welfare, 1974.

Scott, E.M. The Adolescent Gap: Research Findings on Drug Using Teens. Springfield, Ill.: Charles C Thomas, 1972.

Simon, R.J. Women and Crime. Lexington: D.C. Health and Co., 1975.

Society for the Psychological Study of Social Issues. SPSSI on current I.Q. controversy: Heredity versus environment. American Psychologist, 24:1039-1040, 1969.

Sowder, B.J., et al. An Investigation of Ways in Which the Treatment Process Affects Women and Men Drug Abusers Differentially. Washington, D.C.: U.S. Government Printing Office, 1977.

Spencer, C., and Berecochea, J.E. Recidivism among Women Parolees: A Long Term Study. Research Report No. 47. Sacramento, Calif.: California Department of Corrections, July 1972.

Steffenhagen, R.; McAree, C.; and Nixon, H. Drug use among college females: Sociodemographic and social psychological correlates. The International Journal of the Addictions, 7(2):285-303, 1972.

Streit, F.; Halsted, D.; and Pascale, P. Differences among youthful users and nonusers of drugs based on their perceptions of parental behavior. The International Journal of the Addictions, 9(5):749-755, 1975.

Sutker, P.B., and Moan, C.E. Personality characteristics of socially deviant women: Incarcerated heroin addicts, street addicts, and non-addicted prisoners. In: Singh, J.M.; Miller, L.; and Lal, H., eds. Drug Addiction: Clinical and Socio-Legal Aspects. Mount Kisco, N.Y.: Futura Publishing Co., 1972. pp. 107-114.

Swanson, D.W.; Weddige, R.L.; and Morse, R.M. Abuse of prescription drugs. Mayo Clinic Proceedings, 48(5):359-367, 1973.

Waddell, K.J.; Smith, R.K.; and Stewart, G.T. Changes in MMPI scores of black heroin addicts maintained on methadone. Proceedings, Fourth National Conference on Methadone Treatment. New York: National Association for the Prevention of Addiction to Narcotics, 1972. pp. 435-438.

Weissman, J.C.; Katsampes, P.L.; and Giancinti, J.C. Opiate use and criminality among a jail population. In: Senay, E., and Shorty, V., eds. Developments in the Field of Drug Abuse. Proceedings 1974 of the National Association for the Prevention of Addiction to Narcotics. Cambridge, Mass.: Schenkman Publishing Co., 1975.

Weppner, R., and Agar, M. Immediate precursors to heroin addiction. Journal of Health and Social Behavior, 12:10-18, 1971.

Williams, J.E., and Bates, W.M. Some characteristics of female narcotic addicts. The International Journal of the Addictions, 5(2):245-256, 1970.

Zahn, M.A. The female homicide victim. Criminology, 13(3):400-415, 1975.

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