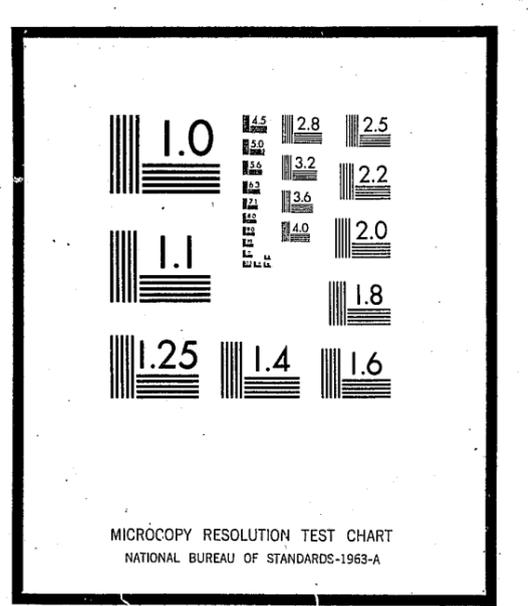


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DRUG RESEARCH REPORT

VOLUME I, NUMBER 1

Memphis Commission on Drug Abuse

July 1, 1971 - August 1, 1972

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DRAFT

A REPORT TO THE MAYOR AND CITY COUNCIL FROM THE MEMPHIS COMMISSION ON DRUG ABUSE

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TABLE OF CONTENTS

	PAGE
SECTION I: Introduction	1
Outline of Goals and Accomplishments	2
SECTION II: Research Projects	3
A Survey of Student Drug Use (Authors: H. W. Smith, Ph.D. and R. F. Henry)	25
A 24-Hour Census of Drug Abuse Agencies (Authors: H. W. Smith, Ph.D., K. V. Tullis, and R. F. Henry)	30
Interviews of Local Physicians (Authors: H. W. Smith, Ph.D. and K. V. Tullis)	33
A Survey of the Parent-Teachers Association (Authors: H. W. Smith, Ph.D., R. F. Henry and K. V. Tullis)	34
Drug-Related Arrests (Authors: Staff)	46
An In-Depth Personality Study of Young Abusers (Authors: Allen O. Battle, Ph.D. and H. W. Smith, Ph.D.)	49
Some Factors Associated with Student Drug Use (Authors: H. W. Smith, Ph.D. and R. E. Hartley, Ph.D.)	54
SECTION III: Treatment	54
Memphis House (Authors: Staff)	54
Black Community Center (Authors: Staff)	55
SECTION IV: Education and Prevention	55
Memphis Alcohol and Drug Council (Authors: Staff)	55
School Programs for Drug Abuse Prevention (Authors: Staff)	56
SECTION V: Summary Table and Overall Recommendations	57
Appendix A	58
Student Questionnaire	66
High School Administration Instructions	68
College Administration Instructions	69
Appendix B	78
PTA Questionnaire	78
Acknowledgements	78

SECTION I INTRODUCTION

This publication represents a report by the Memphis Commission on Drug Abuse to the Mayor and City Council of Memphis and the Tennessee Law Enforcement Planning Agency in Nashville. Its contents represent the activities and findings of a drug research effort conducted by the Commission that was funded by Grant No. 71-DF-521 from the U.S. Department of Justice Law Enforcement Assistance Administration (LEAA).

This grant was originally requested by the Mayor to fund a Drug Care Center located in the Jefferson Pavilion of the City of Memphis Hospital Complex. The extensive renovation period involved in preparing the facilities and a medical staffing problem during the period of January through June of 1971 caused the Commission to reconsider the feasibility of this project. Six months of the 18-month grant period had elapsed without a firm starting date in view. And, although held to a minimum, the administrative staffing costs were beginning to accumulate to the point whereby most of the \$13,000 of seed money provided by the Mayor to start the project had been expended during this stage.

Realizing the need for more insight into the local drug problem, the Commission met with officials of the Tennessee Law Enforcement Planning Agency (LEPA) and regional LEAA personnel from Atlanta in Memphis about mid-July, 1971. During this meeting, a drug research program was presented as an alternate means of acquiring the same grant. The concept was approved; a modified grant request was submitted; the research program was begun about August 1, 1971, and final approval of the grant request was received verbally on October 6, 1971.

Although a complete breakdown of periodic cost reports was submitted to the Mayor when reimbursement was claimed from LEPA, it should be noted that a considerable portion of the grant funds was directed toward various agencies to assist them in their drug programs. At the same time these agencies provided the Drug Research personnel with access

to their programs, records, and individual drug users. Some significant examples are: the \$13,000 seed money provided by the Mayor was repaid; \$55,000 was deposited in the City's General Fund to offset the cost of ancillary services to drug and alcoholic patients at the City of Memphis Hospital; \$11,000 was paid to Memphis House, Inc.; over \$9,000 was used to provide the Memphis Alcohol and Drug Council with part time help to evaluate its programs and originate new programs as worthwhile approaches were uncovered by the Grant research effort. Just these few examples represent over 58% of the total funds expended for this project.

Other significant expenditures were made in such areas as salaries, computers (time, programming, key punching, analysis), professional fees, and extensive printing costs for such items as questionnaires for most schools and PTA councils in the Metropolitan Area.

With the above in mind, you are invited to peruse the detailed research studies which follow, and we direct your attention to the various findings and recommendations that represent an eleven-month effort of the Commission and its Drug Research personnel. We feel that this information makes Memphis one of the few cities in the U.S. with extensive information on its drug problems. What other city can say: "A principal of any school knows the approximate drug problem that exists at his facility and can rank his success (or failure) with other institutions of learning in the City; a need exists for over 200 persons per day who seek help because of their drug or alcohol problems (and this does not include the extensive group who will not seek the necessary help.)"?

We sincerely hope the information compiled herein will be of assistance to the new Commission and (by virtue of the distribution of this report) to other communities throughout the nation.

Outline of Goals and Accomplishments

I. TO DETERMINE THE LEVEL AND TYPE OF DRUG USE IN MEMPHIS.

- A. **Students** - Construction of a student drug use questionnaire. Administration of the questionnaire in February, 1971, in grades 7 through graduate school in both public and private schools. The student questionnaire was modified and re-administered in grades 5 through graduate school in March, 1972. Four Tennessee colleges and a rural high school outside of Memphis were included in the second survey. Service personnel from a nearby military installation were also tested in 1971 and in 1972. The results of both surveys were returned to representatives of all the schools which participated in the surveys. See Summaries, Conclusions and Recommendations at the end of each section.
- B. **Hospitals** - Development of a Drug Abuse Census form to estimate the number of persons contacting hospitals, treatment centers, and counseling centers because of drug-related problems. Administration of the form on November 16 and 20 and again on April 11 and 15. Information from both surveys was returned to the participants of the surveys.
- C. **Physicians** - Development of a form to interview a sample of local physicians concerning the number of abusers they see as patients. Administration of the interview to 65 physicians. Results were returned to the participating physicians.
- D. **Parents** - Construction of an adult survey with sections on drug use, drug knowledge, and attitudes. Administration of the survey to 837 individuals in 25 different PTA groups. Results were returned to each participating PTA.
- E. **Arrests** - Statistics were obtained concerning the number of drug arrests over the past four years.

II. TO IDENTIFY FACTORS ASSOCIATED WITH TWO DRUG ABUSE TREATMENT APPROACHES.

- A. **Criminal Justice System** - The goal of this project was to evaluate the effectiveness of criminal penalties on various drug offenders. The project could not be begun because the arrest records were unavailable to the research staff.
- B. **Personality Studies** - Completion of comprehensive studies involving social histories and psychological tests of 37 persons with histories of drug abuse who received treatment at two local centers.

III. TO FACILITATE COMMUNITY EDUCATIONAL, TREATMENT, AND PREVENTION ACTIVITIES.

- A. **Memphis House** - Assistance has been provided to Memphis House to aid in the treatment and counseling of drug involved individuals in return for access to data.
- B. **Black Community Center** - Two part-time staff members were employed to explore the needs of the black community in the drug abuse area. Plans were formulated to establish some type of treatment and/or referral center.
- C. **Memphis Alcohol and Drug Council** - A joint program in drug abuse education was established with the Memphis Alcohol and Drug Council. Two part-time staff members were assigned to work with this group. They assisted in planning and conducting drug abuse programs for various professional groups.
- D. **Drug Prevention Programs** - Planning sessions have been held with representatives of Catholic schools to discuss various prevention programs. Plans have been made to implement at least two types of drug prevention programs in the schools - one science oriented and one value oriented program.

SECTION II RESEARCH PROJECTS

A Survey of Student Drug Use

Media reports of a widespread use of illicit drugs by college students first focused the attention of the public on the problem of drug abuse in America. Since then, the public has urged that strong measures be taken to prevent drug abuse among students. Before an effective prevention program can be implemented, however, the nature and extent of the problem had to be determined.

It was for the purpose of determining the nature and extent of drug use among students in the schools and colleges of Memphis that this present study was undertaken by the Drug Research Center. From the survey of drug use, taken from a large sample of Memphis students in successive years (1971-72), it was hoped that accurate data could be made available to guide local efforts toward establishing and evaluating community programs aimed at drug abuse prevention.

METHOD

Instrument

A multiple-choice questionnaire was used in both surveys. The length and content of the questionnaire was altered for the second administration, but the personal drug use inventory upon which this paper is based was contained in the initial section of both questionnaires.

This drug use section asked about use of the following drugs: alcohol, marijuana, LSD, amphetamines, barbiturates, narcotics (heroin, morphine, cocaine), and inhalants (glue, lighter fluid, gasoline, paint thinner). The questions on drug use took the general form: "Do you use (drug)?" Possible answers were: (A) Have never used, (B) Use about once a month, (C) Use about once a week, (D) Use 3 or more times a week, (E) Tried a few times and stopped, and (F) Used many (10 or more) times and stopped. As used in this paper, the term "incidence" refers to any answer other than (A). Current users are defined as those who selected answers (B), (C), or (D), and frequent users are those who selected alternatives (C) or (D).

One change was made in the drug use inventory in the second survey. The words "to get high" were appended to the question on alcohol use. This change was made to reduce questions concerning family or ceremonial consumption of alcohol. (A copy of the questionnaire used in the second survey is shown in Appendix A at the end of the report.)

One limitation of the questionnaire method must be kept in mind. Although a questionnaire can contain safeguards against inconsistent or impossible answers, a questionnaire reflects only the information that those who filled it out are willing to report.

Subjects

Table 1 (See pg. 4) contains the composition of the samples tested, in terms of size, race, and sex.

In the 1971 survey the public school sample was chosen by randomly selecting homeroom sections within each grade. The number of sections tested was determined by the number

needed to equal 20% of the enrollment in that grade. The sampling procedure in the public schools was the same in 1972, although a 10% sample was selected.

The participating Catholic and non-Catholic private schools attempted 100% samplings in both surveys. The Catholic school percent was considerably less than 100% in 1971 because some schools in the Catholic school system declined to participate. However, all Catholic schools were tested in 1972. One of eight non-Catholic, private schools in Memphis (grades 7-12) was surveyed in 1971, and two were surveyed in 1972.

In 1971, the colleges and universities participating in the study included 2 small liberal arts colleges, 2 Catholic colleges, 2 theological seminaries, a large state university, a two-year state technical school, a state medical school complex, a professional school, and an art academy. Samples were randomly selected in each of these colleges, the size of the samples varying according to the size of the institutions. In general, the larger schools selected samples of approximately 20% of their enrollment, while the smaller schools selected samples of approximately 50%. The two Catholic colleges that were included in the 1971 sample were not tested in 1972. One of these colleges had gone out of existence, and the other experienced difficulty in administering the questionnaire.

Two limitations of this sampling procedure should be mentioned. First, students who were absent during the testing periods or who had dropped out of school were not included in this sample. In addition, the actual selection of samples was conducted by representatives of the schools involved, introducing the possibility of sample bias.

The percentages of drug use presented in this paper are based on weighted averages, compensating for differences in sample size among the various schools and school systems, and are therefore representative of the student population in Memphis.

Procedure

Administration of the first survey took place in the junior and senior high schools on February 25, 1971. In the colleges, the questionnaires were administered over a period of several days, beginning on February 25. In the second survey, the public schools were tested on February 8, the private schools on February 10, and the college questionnaires were completed in the two weeks following February 10.

The questionnaires were completed while the students were either in a classroom or an auditorium. In the instructions read aloud before the questionnaire booklets were distributed, the students were informed that the survey was co-sponsored by their student government and the Memphis Commission on Drug Abuse. These instructions stressed the fact that the survey was anonymous and that there was no means of identifying an individual's answer sheet. Participation was not mandatory, and students were told that they could turn in a blank answer sheet if they chose to do so. (Copies of the 1972 high school and college administration instructions are shown in Appendix A.

TABLE 1
SAMPLE SIZE

	Number in Sample	Total Number of Students Represented by Sample	Percent of Students Sample
1971 Survey			
Public Schools	11,918	64,749	18.4%
Catholic Schools	2,380	4,025	57.3%
Private Schools	357	1,890	18.9%
Colleges and Graduates	3,411	22,532	15.1%
Total	18,066	93,196	
1972 Survey			
Public Schools	5,889	64,029	9.2%
Catholic Schools	3,824	4,076	93.8%
Private Schools	630	1,890	33.3%
Colleges and Graduates	4,407	23,221	18.5%
Total	14,750	93,216	

SEX AND RACE COMPOSITION OF SAMPLE

	Male	Female	White	Black
1971 Survey				
Public Schools	47%	53%	54%	46%
Non-Public Schools ¹	----	----	----	----
Colleges	55%	45%	82%	18%
Graduates	83%	17%	97%	3%
1972 Survey				
Public Schools ²	46%	54%	60%	40%
Non-Public Schools	58%	42%	92%	8%
Colleges	50%	50%	81%	18%
Graduates	82%	18%	92%	6%

1. These data not available for non-public schools, 1971.

2. The public school sample in grades 8, 9, and 10 contained a higher percentage of females than would be expected on the basis of enrollment. This could be due to a bias in sampling or to the greater likelihood of males dropping out of school, being absent on any given day, or not correctly filling out the answer sheet.

Validity and Reliability of the Data

A number of measures were taken to maximize the probability that the data obtained in this study were valid. First, as mentioned above, the students were assured that their responses were anonymous. Hopefully, this eliminated fear of self-incrimination and encouraged honest answers.

Some answer sheets were eliminated from analysis on the basis of an "L" (lie) scale incorporated in the questionnaire. A fictitious drug was included in the drug use questions, and, if a student claimed use of this drug, his answer sheet was eliminated. In addition, eliminations were made if multi-weekly use of all the other drugs in the inventory was claimed or if an answer sheet contained twelve or more consecutive, identical responses. The total number of questionnaires eliminated for reported use of the fictitious drug was 1.75% of the sample in 1971, and 1.25% in 1972.

Two questions were included in the 1972 questionnaire to provide a measure of internal consistency. These questions asked how many times a person had used marijuana and alcohol in the past two weeks. The alternatives for these check questions were set up to correspond with the drug use questions for alcohol and marijuana. A high positive correlation between these two check questions and the corresponding drug use questions suggested that the subjects were answering the questionnaire in a consistent manner. The correlation between the two alcohol questions was found to be plus .85 and for marijuana questions plus .71. Both of these correlations suggest that the internal consistency was more than adequate for this type of scale.

Preliminary forms of both the 1971 and 1972 questionnaires were pre-tested to discover possible sources of misunderstanding or reading problems in either the questionnaire itself or in the administration instructions. The 1971 pre-test included 30 elementary and secondary school children. In 1972, the pre-test sample included 300 students in grades 5-8.

As a test on the reliability of the sampling methods, the 1971 questionnaire was re-administered in two of the public high schools and in one of the colleges a month after the first test. The questionnaires were administered to newly selected groups in those schools. These results were consistent with the results of the first testing (not significantly different).

Out of Town Groups

In order to provide a comparison with other groups in this region, both questionnaires were administered to military personnel at a nearby installation. In addition, the 1972 questionnaire was administered in four colleges in different parts of the state and in a rural high school in a neighboring state.

RESULTS

Extent of Drug Use

The percentages of reported incidence of use, current use, and frequent use among Memphis students in 1971 and 1972, broken down by grade, drug, and sample size are presented in Tables 2 and 3. A composite of the two years divided into junior high, senior high, college, and graduate school is shown in Table 4. The method of presentation used in Table 4 eliminates the differences

between the two testing periods in order to present a more compact picture of the overall extent of student drug use.

An examination of Tables 2, 3, and 4 will reveal, among other things, that approximately 21% of the high school students claim to have tried marijuana, while almost 6% have tried LSD. About 10% of Memphis high school students report use of amphetamines or barbiturates.

An examination of the college population of Memphis reveals that 31.7% report some use of marijuana with 10% of the college students using it once a week or more. Another 19.4% reportedly have used amphetamines, and 8.3% have used barbiturates.

Trends Across Grade

Rates of drug use vary with grade level and seem to follow three general patterns. (See Figures 1-7) The first of these patterns is found in incidence of alcohol and amphetamine use (See Figures 1 and 4). Reported use of these two drugs increases from grade seven through grade school. Incidence of alcohol use, highest of all the drugs, ranges from approximately 26%* in grade seven to about 80% in graduate school. While 3% of the students at the seventh grade level report that they have used amphetamines, 25% of the graduate students report use of this drug.

A second pattern is evident in reported incidence of marijuana, barbiturates, LSD, and narcotics use (See Figures 2, 3, 5, and 6). This pattern is characterized by an increase to a given grade level and then a decrease. The percent of students who have tried these drugs is small in grade seven. It increases through junior high (grades 7-9) and into high school, reaching a peak at either either grade eleven or twelve. A second peak in incidence of use occurs at about the freshman or sophomore year of college, and use declines in later college years.

The third general pattern of drug use, that of inhalants, shows a constant decrease in reported incidence of use from a peak in junior high school (See Figure 7).

In summary, reported use of drugs other than inhalants shows an increase with grade until the first years of college. From this point, incidence of alcohol and amphetamine use continues to increase, and incidence of marijuana, barbiturate, LSD, and narcotic use declines.

Changes in Drug Use 1971-1972

Reported incidence of use of most of the drugs included in the survey has increased since 1971, and this increase is greatest among college students (See Table 5).

Marijuana shows the greatest increase in incidence of use. Reported use of alcohol is lower in 1972 than in 1971. This decrease in reported incidence of use may be an artifact of the change in the wording of the question regarding alcohol. In a separate re-test study the inhalant use question was modified to read, "How often do you sniff glue, lighter fluid, gasoline, or paint thinner to get high?" Changing the question in this manner reduced the level of reported inhalant use. The changes in this question and the question on alcohol were made in order to clarify the connotation of abuse implied in the questions. One can speculate that further explicitness such as wording the question, "Do you use (drug) to get drunk or intoxicated?", would result in an even lower level of reported use. This emphasizes the caution which must be exercised in the wording of drug use questions and the importance of using identical questions in the follow-up studies to determine changes in drug use.

TABLE 2

Grade	Year	Sample N	Alcohol			Marijuana			LSD		
			% Incidence	% Current Use	% Frequent Use	% Incidence	% Current Use	% Frequent Use	% Incidence	% Current Use	% Frequent Use
7	1971	2366	28.9	12.9	5.8	2.6	1.0	.6	1.1	.6	.3
	1972	1709	22.7	10.5	4.2	3.3	1.5	.6	1.1	.4	.2
	Change*		-6.2	-2.4	-1.6	+ .7	+ .5	+ .1	-----	-.3	-.1
8	1971	2566	42.3	23.4	11.4	6.2	3.2	1.6	2.1	1.1	.5
	1972	1670	34.6	19.5	9.9	8.1	2.9	1.6	2.2	.7	.5
	Change*		-7.7	-3.9	-1.5	+1.9	-.3	-----	+ .1	-.4	-----
9	1971	2885	56.0	32.9	15.0	10.9	6.4	3.3	3.4	2.1	.7
	1972	1766	48.5	29.7	14.6	14.7	9.0	5.3	4.8	1.8	.7
	Change*		-7.5	-3.2	-.4	+3.7	+2.6	+2.0	+1.4	-.3	-----
10	1971	1812	61.0	35.8	18.2	14.4	7.0	5.0	5.1	2.3	.7
	1972	1763	59.8	38.9	21.2	22.4	12.2	6.6	6.8	2.3	.7
	Change*		-1.2	+3.1	+3.0	+8.0	+5.2	+1.6	+1.7	+ .1	-----
11	1971	1759	68.9	43.4	22.9	17.5	10.4	6.4	4.4	2.1	1.0
	1972	1597	65.8	44.6	24.0	26.1	15.2	10.2	6.8	2.5	.9
	Change*		-2.5	+1.2	+1.1	+8.6	+4.8	+3.8	+2.4	+ .4	-.1
12	1971	1636	71.2	46.8	26.3	19.9	10.7	6.2	4.5	1.6	.5
	1972	1700	66.0	49.6	27.9	25.3	15.3	9.9	8.1	2.4	.5
	Change*		-5.2	+2.8	+1.6	+5.4	+4.6	+3.7	+3.6	+ .8	-----

* Due to rounding the percent change does not always equal the difference between the two years.

TABLE 2 (Cont.)

Amphetamines			Barbiturates			Narcotics			Inhalants		
% Incidence	% Current Use	% Frequent Use	% Incidence	% Current Use	% Frequent Use	% Incidence	% Current Use	% Frequent Use	% Incidence	% Current Use	% Frequent Use
2.1	1.0	.5	1.6	.8	.5	1.0	.5	.2	12.1	3.2	1.7
3.3	1.1	.7	3.4	.7	.3	2.0	.7	.3	11.8	3.5	1.4
+1.2	+ .1	+ .2	+1.8	-.2	-.2	+1.1	+ .2	+ .1	-.3	+ .4	-.3
5.2	3.1	1.4	2.8	1.5	.7	1.8	1.1	.5	12.4	3.3	1.6
6.1	2.0	1.1	4.4	1.6	.7	2.6	1.1	.4	14.2	2.9	1.6
+ .9	-1.0	-.3	+1.5	+ .1	-----	+ .8	-----	-.2	+1.8	-.4	+ .1
8.5	4.0	2.0	6.2	2.8	1.3	2.1	.9	.6	12.2	2.7	1.3
10.2	5.8	2.8	7.6	3.5	1.4	2.9	.9	.3	13.7	3.7	1.4
+1.8	+1.7	+ .9	+1.5	+ .7	+ .1	+ .8	-----	-.3	+1.4	+1.0	+ .2
10.5	6.1	2.5	6.1	3.5	1.3	2.9	1.6	.8	9.8	2.7	1.3
13.2	6.5	2.3	10.2	4.7	1.9	3.5	1.3	.6	9.9	1.9	.6
+2.7	+ .4	-.3	+4.2	+1.3	+ .6	+ .7	-.3	-.2	+ .1	-.8	-.7
11.5	5.3	2.7	9.1	4.3	1.9	2.6	1.2	.5	8.6	2.4	1.4
15.0	6.1	3.0	11.1	4.3	1.4	4.0	1.7	1.2	8.0	1.2	.6
+3.5	+ .8	+ .3	+2.0	+ .1	-.5	+1.5	+ .6	+ .7	-.6	-1.3	-.8
11.1	4.2	2.1	8.5	3.4	1.7	2.5	1.2	.5	6.6	.9	.4
14.5	5.8	2.3	10.4	4.5	2.0	2.6	.6	.2	5.5	1.3	.8
+3.4	+1.7	+ .2	+1.9	+1.1	+ .4	+ .1	-.6	-.4	-1.1	+ .5	+ .4

TABLE 3

Grade	Year	Sample N	Alcohol			Marijuana			LSD		
			% Incidence	% Current Use	% Frequent Use	% Incidence	% Current Use	% Frequent Use	% Incidence	% Current Use	% Frequent Use
FR.	1971	796	81.4	64.1	33.6	25.3	12.8	8.1	7.0	1.6	.2
	1972	933	78.4	60.7	34.7	37.4	22.2	15.1	11.8	3.5	.3
	Change*		-3.0	-3.4	+1.1	+12.1	+9.4	+7.0	+4.8	+1.9	+1.1
SO.	1971	552	80.1	63.1	35.8	28.4	15.7	6.2	5.1	1.3	.1
	1972	611	75.9	58.5	32.5	36.5	21.6	13.9	11.5	2.5	.7
	Change*		-4.2	-4.6	-3.3	+8.1	+5.9	+7.7	+6.4	+1.2	+6.6
JR.	1971	402	82.6	64.9	40.5	27.3	10.4	5.8	4.3	1.5	.4
	1972	451	77.6	63.9	35.5	35.1	19.4	11.7	7.5	2.3	.2
	Change*		-5.0	-1.0	-5.0	+7.8	+9.0	+5.9	+3.2	+ .8	-.2
SR.	1971	456	90.6	79.5	50.3	28.7	12.2	7.0	4.4	.8	.3
	1972	721	74.3	60.4	31.9	34.7	17.7	10.0	6.7	1.4	.3
	Change*		-16.3	-19.1	-18.4	+6.0	+5.5	+3.0	+2.3	+ .6	-.1
GRAD.	1971	1205	81.9	72.4	48.5	19.8	10.2	3.0	1.4	.4	-.1
	1972	1691	77.3	65.8	38.0	29.1	13.3	7.6	4.7	1.2	.1
	Change*		-4.6	-6.6	-10.5	+9.3	+3.1	+4.6	+3.3	+ .8	+1.1

* Due to rounding the percent change does not always equal the difference between the two years.

Substance	1971			1972			Change*		
	% Incidence	% Current Use	% Frequent Use	% Incidence	% Current Use	% Frequent Use	% Incidence	% Current Use	% Frequent Use
Amphetamines	16.1	17.7	4.0	8.5	2.4	.7	-7.6	-15.3	-3.3
	21.4	8.5	2.2	12.8	3.7	.8	-8.6	-4.8	-1.4
	+5.3	+ .8	-1.8	+4.3	+1.3	+1.1	-13.9	-6.6	-2.2
Barbiturates	19.8	10.1	3.8	5.5	2.2	.3	-14.3	-7.9	-3.5
	19.9	6.6	1.7	9.1	2.0	.2	-10.0	-4.4	-1.5
	+1.1	-3.5	-2.1	+3.6	-.2	-.1	-14.1	-6.6	-1.7
Narcotics	15.9	6.6	2.7	4.5	1.1	.6	-11.4	-5.5	-2.1
	20.7	8.6	2.0	7.4	1.7	.3	-13.3	-6.9	-1.7
	+4.8	+2.0	-.7	+2.9	+.6	-.3	-18.7	-8.5	-2.4
Inhalants	21.0	9.6	2.9	6.7	2.1	.4	-14.3	-7.5	-2.5
	20.7	7.5	2.0	8.1	2.9	1.1	-1.4	5.4	1.1
	-.3	-2.1	-.9	+1.4	+.8	+.7	-9.5	-1.1	-.7

TABLE 3 (Cont.)

TABLE 4

POPULARITY OF DRUGS (1971-72 combined)

Drug	JUNIOR HIGH		HIGH SCHOOL		COLLEGE		GRADUATE		Median Rank			
	Incidence %	Rank	Weekly %	Rank	Incidence %	Rank	Weekly %	Rank				
Alcohol	39.5	1	10.4	1	65.6	1	23.6	1	43.3	1	1	
Inhalant	12.7	2	1.5	3.5	8.0	5	.8	5	1.1	6	6.5	
Marijuana	7.9	3	2.2	2	21.0	2	7.4	2	10.0	2	5.3	2
Amphetamines	6.1	4	1.5	3.5	12.6	3	2.5	3	2.7	3	1.9	3
Barbiturates	4.4	5	.9	5	9.2	4	1.7	4	.6	4	5.4	4
LSD	2.5	6	.5	6	5.9	6	.7	6	7.7	5	3.1	5
Narcotics	2.1	7	.4	7	3.0	7	.6	7	2.7	6	1.0	7

With the exception of marijuana and alcohol, frequent use shows very little change between testing periods (See Table 6).

Frequent marijuana use shows an increase since 1971, and frequent alcohol use has declined.

To determine if frequent drug use had increased or decreased in relation to incidence of use between the two testing periods, a ratio of these two numbers was computed. An inspection of Table 7 reveals that the proportion of frequent use has decreased for most of the drugs during the last twelve months. Marijuana is an exception to this general rule, the proportion of marijuana users who are frequently using being greater in 1972 than in 1971.

(In evaluating Table 7, the reader is cautioned to remember that the percentages in this table reflect the relationship between the number of students who have ever used a given drug to those who are using it frequently. These numbers should not be interpreted as a percentage of students who have used the drug).

Popularity of Individual Drugs

The popularity of each drug included in the survey of Memphis schools was determined by two measures of drug use. The first was incidence of use (the percent who reported having ever used a given drug). The second measure of popularity was frequent use (use of a drug at least once a week).

Popularity, as measured by incidence of use in the 1971 and 1972 samplings, was almost identical. The rank-order correlations (a statistical test used to determine if the drugs maintained their relative positions for the two years) between the two testing periods were +1.0 in junior high, +.96 in high school and college, and +.93 among graduate students. For this reason the estimates from the two testing periods were pooled to provide an overall estimate of popularity. The incidence ranking given to each drug indicates the likelihood of that drug being used by a student who chooses to experiment with drugs.

The second criterion of popularity was the reported weekly use of a given drug. This category included the responses of students who use a drug at least once a week, and it reflects frequent use of a drug at the time of the survey. Once again the correlation between the two testing periods, one year apart, were very high (+.99 in junior and senior high school, +1.0 in college, and +.96 in graduate school). The weekly measurements were pooled to provide a second estimate for this index of popularity. A high ranking on this indicates a drug is more likely to be used frequently. The results of these two pooled indices of popularity are shown in Table 4.

Inspection of Table 4 reveals that alcohol is clearly the most popular drug. This is true regardless of whether the criterion employed was having ever used or weekly use of a drug. Marijuana was generally second in popularity, followed by amphetamines, barbiturates, LSD, and narcotics. The rank of inhalants varied, becoming less popular with grade.

In general the popularity of each drug included in this study was a very stable phenomenon between the two testing periods, across grades and in frequency of use.

Analysis by Sex

Sex and race differences in drug use were tested by the Chi-Square Test of Association. Private and public school systems were treated separately because of the different

sampling methods used and because the public school sample was larger than the private school sample. This analysis was confined to grades 7-12.

In general, drug use is greater among public school males than among females, and these differences were greater in 1971 than in 1972. In 1971, the percentage of males in grades 7-12 who reported having ever used each of the drugs was greater than the percentage among the females in each of the grades. These differences were significant in all but a few instances. The non-significant differences were: marijuana, seventh grade; LSD, seventh and tenth grades; narcotics, seventh, ninth, tenth, and eleventh grades; and inhalants, eighth grade.

Male use was not always greater than female use in 1972, and there were fewer significant differences. In 1972, reported use of alcohol among males was higher than among females in all grades. Significant differences in use of the other drugs were confined to the higher grades. Males are significantly more likely than females to have used marijuana in grades ten through twelve and LSD in grades eleven and twelve. In grade twelve, amphetamines, barbiturates, and narcotics are more likely to have been tried by males.

Sex and race differences in the private schools were evaluated only for the 1972 data. There were fewer differences between the sexes in drug use in the private schools than in the public schools. Males in all grades except the twelfth are significantly more likely to have used alcohol than are females. Incidence of marijuana use among males is significantly greater than among females in grades seven, eight, and ten. Reported inhalant use is greater among ninth grade males than among females. In the eleventh grade, incidence of amphetamines is significantly greater among females than among males.

Analysis by Race

For the analysis by race, public and private school systems were again treated separately. In the public schools, all significant differences as to race were a result of the fact that reported drug use among whites is greater than use among blacks. Alcohol use was significantly greater among whites than among blacks in grade ten in 1971 and in grades eight, nine, and eleven in 1972. Whites were significantly more likely to have used marijuana in grades eight and nine in both years and also in grade ten in 1971. In both years, incidence of LSD use was significantly greater among white high school students (grades 10-12). Among white students, amphetamine use is greater in all grades except the seventh. In 1972, incidence of barbiturate use was significantly greater among whites than among blacks in grades 8-12, and in 1971 in grades 8-10. In 1972, reported narcotics use was higher for whites than for blacks. Incidence of inhalant use was greater in 1971 among seventh, ninth, and tenth grade whites than among blacks, and in 1972, it was greater among white students than among black students in grades 8 and 9.

As with sex, there are fewer differences in drug use along racial lines in the private schools than in the public schools. The only instance of drug use among whites being significantly greater than among blacks is with respect to use of alcohol in grade ten. Twelfth grade blacks in private schools are more likely than are their white classmates to have used alcohol, marijuana, and narcotics.

In general there are fewer differences and smaller differences in drug use between blacks and whites than between male and females.

TABLE 5

Per Cent Change in Reported Incidence of Use *

1971-1972

	Junior High	High School	Colleges	Graduate
Alcohol	- 7.6	- 3.2	- 6.6	- 4.6
Marijuana	+ 2.0	+ 7.2	+ 9.0	+ 9.3
LSD	+ .5	+ 2.6	+ 4.4	+ 3.3
Amphetamines	+ 1.2	+ 3.2	+ 2.7	- 3.0
Barbiturates	+ 1.6	+ 2.6	+ 3.3	+ 2.3
Narcotics	+ .9	+ .7	+ 1.8	+ .7
Inhalants	+ 1.0	- .5	+ .1	- .5

* Caution should be exercised in interpreting very small reported changes in drug use.

TABLE 6

Per Cent Change in Reported Frequent Use

1971-1972

	Junior High	High School	College	Graduate
Alcohol	- 1.4	+ 1.8	- 5.4	- 10.5
Marijuana	+ .6	+ 3.0	+ 6.1	+ 4.6
LSD	unch	unch	+ .1	+ .1
Amphetamines	+ .3	unch	- 1.5	- .8
Barbiturates	unch	+ .1	+ .1	unch
Narcotics	- .1	unch	unch	unch
Inhalants	unch	- .3	- .2	unch

(differences of less than + .1% reported as unchanged)

TABLE 7

Percentage of Those Who Report Using Drugs Who Are Frequent Users

	Junior High Proportion			High School Proportion		
	1971	1972	Change	1971	1972	Change
Alcohol	24%	25%	+ 1%	32%	37%	+ 5%
Marijuana	26%	23%	- 3%	33%	35%	+ 2%
LSD	24%	18%	- 6%	15%	9%	- 6%
Amphetamines	23%	22%	- 1%	21%	17%	- 4%
Barbiturates	24%	14%	- 10%	20%	16%	- 4%
Narcotics	26%	12%	- 14%	21%	16%	- 5%
Inhalants	11%	10%	- 1%	10%	9%	- 1%

	College Proportion			Graduate Proportion		
	1971	1972	Change	1971	1972	Change
Alcohol	46%	43%	- 3%	59%	49%	- 10%
Marijuana	25%	35%	+ 10%	15%	26%	+ 11%
LSD	3%	3%	unch	---	2%	+ 2%
Amphetamines	18%	9%	- 9%	8%	6%	- 2%
Barbiturates	7%	6%	- 1%	7%	4%	- 3%
Narcotics	3%	1%	- 2%	---	---	unch
Inhalants	5%	6%	+ 1%	---	---	unch

Comparison with a Military Installation

Both student questionnaires were administered to a group of enlisted personnel who participated in a drug orientation program at a nearby military base. The men and women in this group were all volunteers for special training. They were transferred to the base from five basic training centers, and most of the participants had only been in the service 3 1/2 months. The first questionnaire was administered during the spring of 1972. Table 8 presents the reported incidence of drug use for the 1971 and 1972 military base samples. To allow comparison with Memphis students of approximately the same age, reported incidence among 1972 Memphis college freshmen is also included in this table.

A comparison of the 1971 and 1972 incidence rates among the military personnel indicates an increase in the percentages of those who have ever used any of the drugs other than alcohol and barbiturates. Although incidence of alcohol use had decreased, frequent use had increased about 7%, from 20.9% to 28.3%. Marijuana also shows an increase in frequent use, from 2.9% to 5.6%. Marijuana and alcohol are the only two drugs named in the questionnaire which show this increase in frequent use. LSD, amphetamines, narcotics, and inhalants all show an increase in experimentation (tried a few times and stopped) and monthly use, with little or no increase in heavy use. The use of barbiturates shows a decline.

Compared to college freshmen in Memphis, the military base shows a higher percentage of respondents who have ever used all of the drugs on the questionnaire. Frequent use of alcohol is greater among the military personnel than among college freshmen. However, the differences in incidence of use of the other drugs is largely due to a higher rate of experimental use among the military respondents.

Comparison with a Rural High School

The 1972 questionnaire was completed by 380 students in a rural high school near Memphis. Table 9 is a comparison between these students and Memphis high school students on reported incidence of drug use.

As shown above, reported use of all the drugs is greater among Memphis students than among students in the rural high school.

Comparison with College Students Elsewhere in Tennessee

The 1972 questionnaire was administered at four colleges in different parts of Tennessee. The sample size totaled 2,542 undergraduates and graduate students, comprising 8.3% of the enrollment at the four colleges.

The overall incidence of drug use among Memphis college and graduate students is about the same as it is among other students within the state (See Table 10 on page 11)

The greatest difference between students in and out of Memphis occurs with respect to amphetamine use. Incidence of amphetamine use is about 6% higher among non-Memphis undergraduates than among undergraduates in Memphis. In contrast, amphetamine use among graduate students is approximately 6% higher in Memphis than in the non-Memphis schools.

What Table 10 does not show is a consistent difference in trends of drug use across grade between Memphis and non-

Memphis college students. As reported elsewhere, use of drugs other than alcohol and amphetamines among Memphis students shows a definite increase in college from a peak in the freshman or sophomore year. Among non-Memphis college students, this peak of drug use occurs later, during the junior year.

In summary, although the level of drug use is about the same in Tennessee colleges in and out of Memphis, the peak of drug use occurs earlier in Memphis than in the colleges tested elsewhere in Tennessee.

DISCUSSION

The three drug patterns identified in this study appear to be a function of the social acceptability and availability of the substances studied. The first pattern, which is characteristic of alcohol and amphetamine drug use, shows consistent increase with the age (grade) of the students. Alcohol is the most socially acceptable substance included on the questionnaire and its use is legally tied to age, i.e., social approval generally increases with age. Alcohol is also the most available drug included on the questionnaire, and the legal restrictions against the use of this drug are ignored by a majority of high school students. An additional factor accounting for the high and increasing use of this drug is that early alcohol use is not incompatible with a passing performance in school. The user of this drug is perhaps more likely to stay in school than the users of drugs such as narcotics and hallucinogens.

Incidence of amphetamine use, though substantially lower, follows the same increasing trends across grade as does alcohol. The reason for similarity in trends lies most probably in the fact that amphetamine use for study purposes among college students is a socially sanctioned practice. The assumption that most use of amphetamines among the college population is related to study practices is supported by the fact that most of those who report use of this drug say that they use it monthly rather than weekly or multi-weekly, and, in fact, frequent use of amphetamines decreases with age. This decreasing pattern resembles the second drug use pattern, which is to be discussed in the following section.

The second pattern of drug use visible in the data includes drugs which are not as socially acceptable nor easily obtained as pattern one drugs. The drugs included in this classification are marijuana, barbiturates, narcotics, and LSD. The percentage of use of these drugs within pattern two is directly related to the degree of acceptability and availability of this substance among students. For example, the overall level of marijuana use is much greater than the use of narcotics. These two classes of substances occupy the extreme positions in the areas of student acceptance and ease of purchase. Two high points of use occur in the late high school and early college years for this group of drugs. The decreases noted in the 12th grade and in the later college years suggests that the users of these substances are less likely to complete their formal education than nonusers. The two peaks of use could be related to numerous other factors such as high-degree peer pressure at these ages, reduced dependency on family, knowledge of how to obtain drugs, etc.

Inhalants are the only drug which show a continual decrease in reported use across grade (pattern three). This decrease could be a function of several factors. Peer-group acceptance of inhalant use is not high, even among junior high school students, and acceptance decreases rapidly in higher grades.

TABLE 8

Reported Incidence of Drug Use among
Military Personnel and Memphis College Freshmen

	1971 Military Base	1972 Military Base	1972 Memphis Freshmen
Alcohol	94.2%	91.2%	78.4%
Marijuana	35.9%	42.9%	37.4%
LSD	10.9%	19.1%	11.8%
Amphetamines	23.1%	24.0%	21.4%
Barbiturates	19.5%	17.9%	12.8%
Narcotics	2.8%	6.8%	4.1%
Inhalants	6.0%	9.0%	4.4%

TABLE 9

Reported Incidence of Drug Use Among
Rural and Urban High School Students

	Memphis Students	Rural Students
Alcohol	63.9%	57.6%
Marijuana	24.6%	8.2%
LSD	7.2%	1.1%
Amphetamines	14.2%	5.0%
Barbiturates	10.5%	2.9%
Narcotics	3.4%	.8%
Inhalants	7.7%	5.0%

TABLE 10
Reported Incidence of Drug Use Among
College Students in Tennessee

I. Undergraduates

	Memphis Students	Non-Memphis Students
Alcohol	76.8%	78.1%
Marijuana	36.2%	37.4%
LSD	9.9%	6.1%
Amphetamines	20.8%	26.5%
Barbiturates	9.9%	8.2%
Narcotics	3.6%	2.3%
Inhalants	2.6%	2.3%

II. Graduate Students

	Memphis Students	Non-Memphis Student
Alcohol	77.3%	74.0%
Marijuana	29.1%	26.5%
LSD	4.7%	4.3%
Amphetamines	23.3%	17.5%
Barbiturates	6.5%	5.8%
Narcotics	1.3%	2.4%
Inhalants	.8%	1.2%

Also, there is some evidence to suggest that chronic users of inhalants are unlikely to be able to continue functioning in school. However these substances can easily be purchased by younger students.

Although the three patterns are very stable between testing periods, one drug seems to be in a transition stage. Marijuana appears to be moving from pattern two into pattern one. There are several reasons for suggesting that this drug is moving toward the steady increasing pattern. First the overall level of use is second only to alcohol. Secondly the decrease in use visible during the college years in pattern two is not as pronounced in the case of marijuana, and finally the drug showed the greatest overall increase between the two testing periods.

The three patterns of usage indicated above occur not only for incidence of use, as shown in Figures 1-7, but also occur for frequent use.

Another general conclusion that can be drawn as a result of this study is that the reported incidence of illegal drug use by students in Memphis increased between 1971 and 1972. These increases were very systematic. The characteristics of 1971 and 1972 drug use curves (Figures 1-7) are almost identical even though only about 27% of the students participated in both studies. While incidence of use increased except for marijuana the percentage of frequent use decreased during the last year. These findings suggest that while illegal student drug use is becoming more a part of life in this community indiscriminate use is decreasing. This increase in incidence of reported drug use is also visible in the military sample.

Another finding of this study is that there is a definite hierarchy in popularity of drugs of abuse. The popularity of the drugs included in this study was a very stable phenomenon with respect to time, grade, and frequency of use. Alcohol is the most popular followed by marijuana and then amphetamines barbiturates, LSD, and narcotics. The inhalants decrease in popularity with age. This order of preference will undoubtedly remain constant well into the foreseeable future.

Another general observation is that sex and race are associated with reported drug use. Males are more likely than females, and whites are more likely than blacks, to report drug use. However, the difference between the sexes in drug use decreased between the two testing periods. The increasing proportion of drug use among females lends support to the hypothesis that illegal drug use is becoming more a part of this community. The difference in reported drug use among the races is probably due to the socio-economic status of the user. Much of the drug traffic has in recent years been centered in the middle-class, which is predominantly white. That what is being reflected in this instance is socio-economic class and not race is indicated by the finding that blacks in private schools, where most of the students are of middle-class status, use drugs as much or more than their white classmates.

Several comparison groups were tested and their drug use was compared to that of Memphis students. Drug use among military personnel clearly indicated that this problem is not confined to students in this community. Student drug use in a surrounding rural area, while significantly lower than in Memphis, will probably increase in the future. College students throughout the state report similar abuse patterns.

Finally a visual inspection of Figures 1-6 will reveal a distinct increase in drug use especially in the 1972 survey between high school and college years. This is especially true of marijuana and LSD and would suggest that students who go

to college are more likely to use these drugs than non-college groups of the same age. However, experimental use by the military was also higher than expected. More information is needed on the extent of drug use among other non-student populations.

CONCLUSION

A significant percentage of students reported that they are abusing drugs. Illegal student drug use has increased in Memphis during the past year. Even though the use of alcohol is illegal for most students in grades 7-12, a steady increase in use of this drug is reported. Any use or possession of marijuana is prohibited by both federal and state statutes, yet the use of this drug is increasing. A consistent community-wide effort will be required to make any reduction in the current level of student drug abuse. If these efforts are not successful in modifying some of the parameters of the supply and demand drug abuse equation by February, 1973, 32% of high school students and 45% of college students will probably have tried marijuana. The use of other illegal drugs will also probably increase during the next year.

On the positive side these studies have consistently shown that with the exception of alcohol, the majority of students were not abusing drugs. Secondly a firm foundation has been developed for evaluating the effectiveness of drug prevention, treatment and rehabilitation programs.

THE STUDENT SURVEY: SOME CONCLUSIONS

1. There is a significant amount of drug abuse among Memphis students in grades seven through graduate school.
2. Drug abuse is greater among older students.
3. Drug use among Memphis students has increased since 1971. This is especially true of marijuana.
4. Alcohol is the most often used drug.
5. The proportion of frequent users of drugs other than marijuana was smaller in 1972 than in 1971.
6. Drug abuse exists among seventh grade students and there is evidence that at least 1% of fifth grade students use some illegal drugs.

RECOMMENDATIONS

1. A drug abuse prevention program should be begun in Memphis school systems. The results of this study could be used to evaluate the effectiveness of this program.
2. Educational programs should emphasize the dominant roles of alcohol and marijuana in patterns of drug use.
3. Drug use among Memphis students should be monitored during the next several years by survey techniques and by the establishment of an analytical laboratory so that suspect material and urine specimens could be submitted by concerned parents.

FIGURE 2

REPORTED INCIDENCE OF MARIJUANA USE

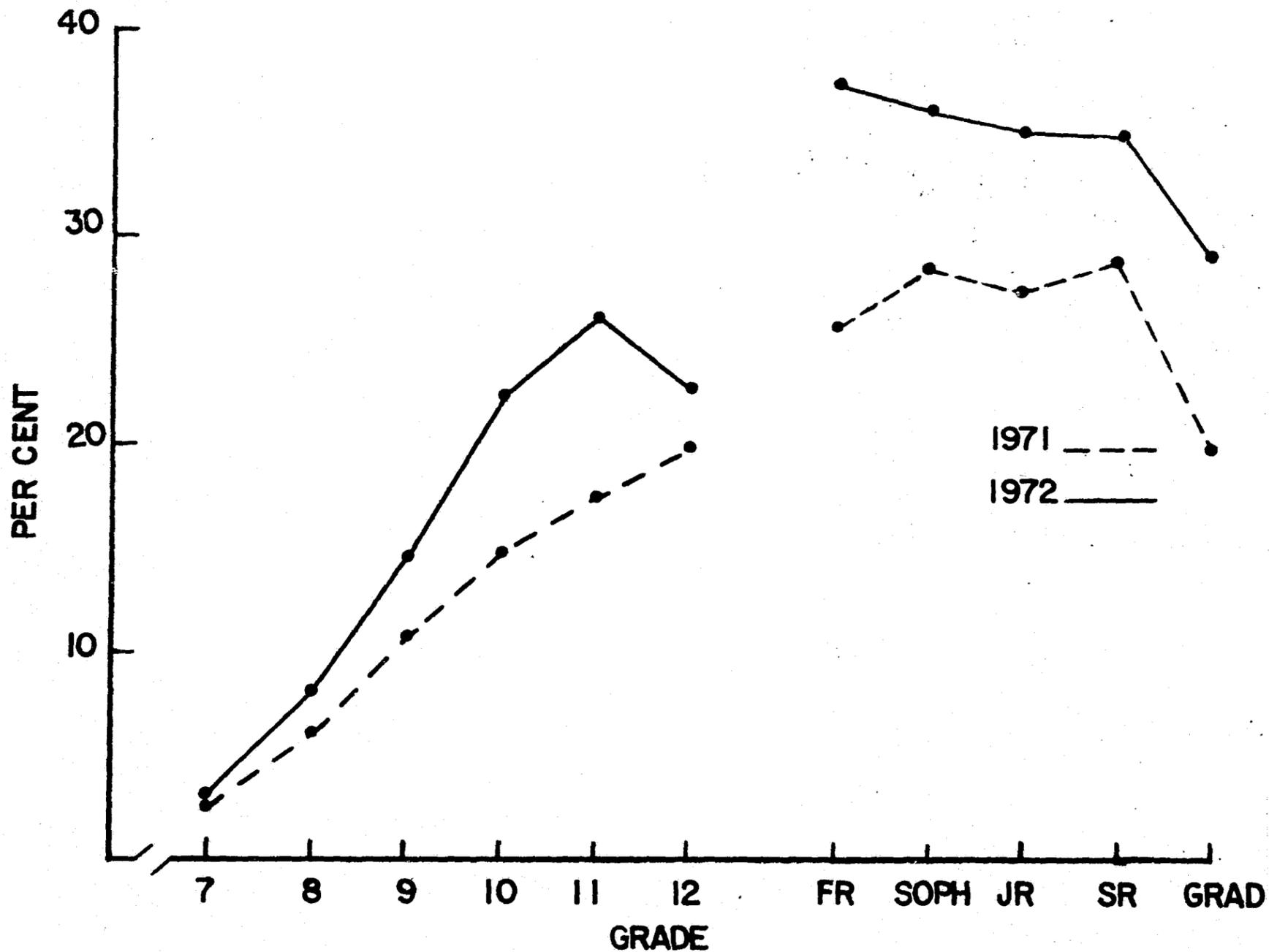


FIGURE 1

REPORTED INCIDENCE OF ALCOHOL USE

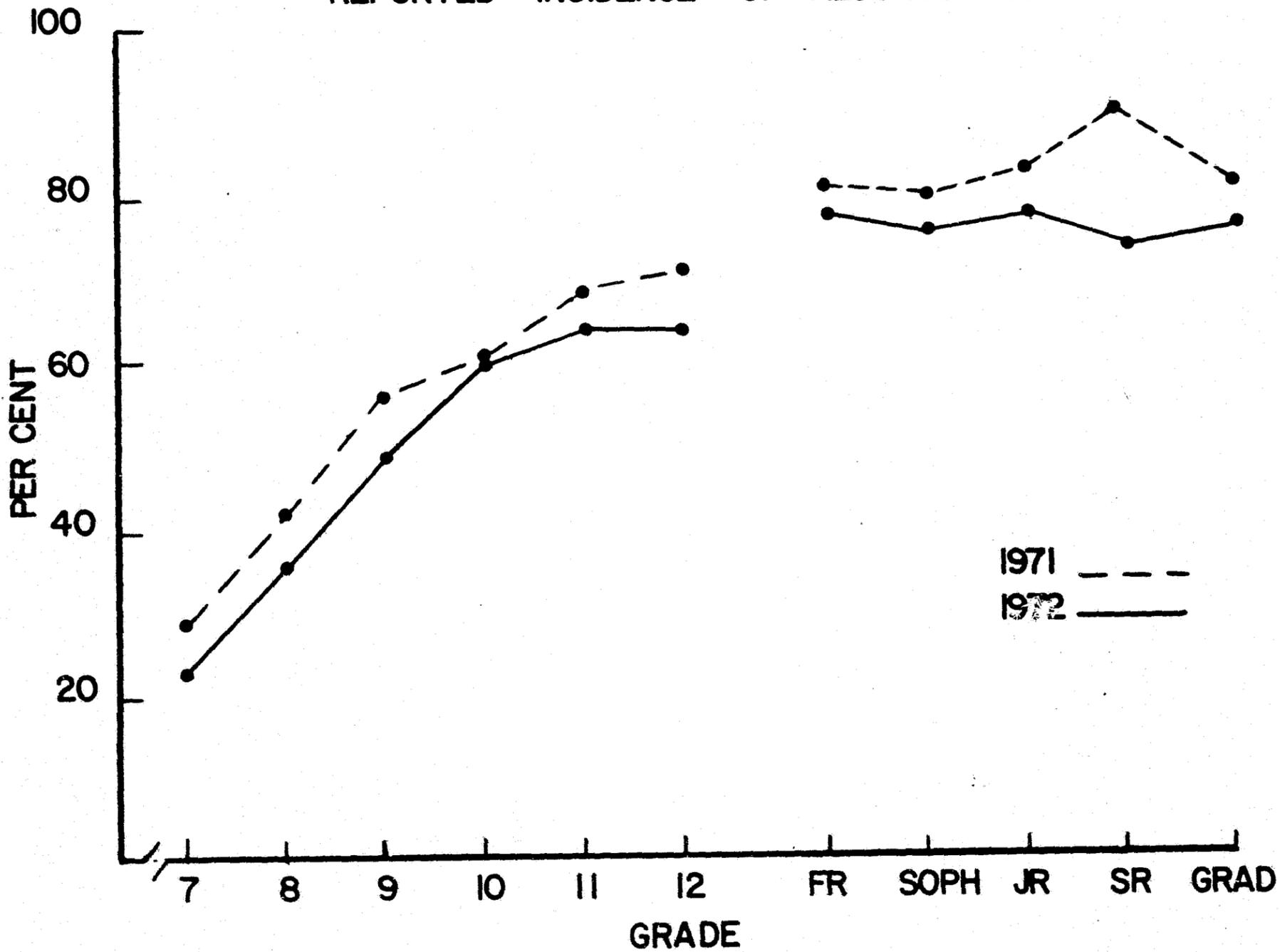


FIGURE 4

REPORTED INCIDENCE OF AMPHETAMINE USE

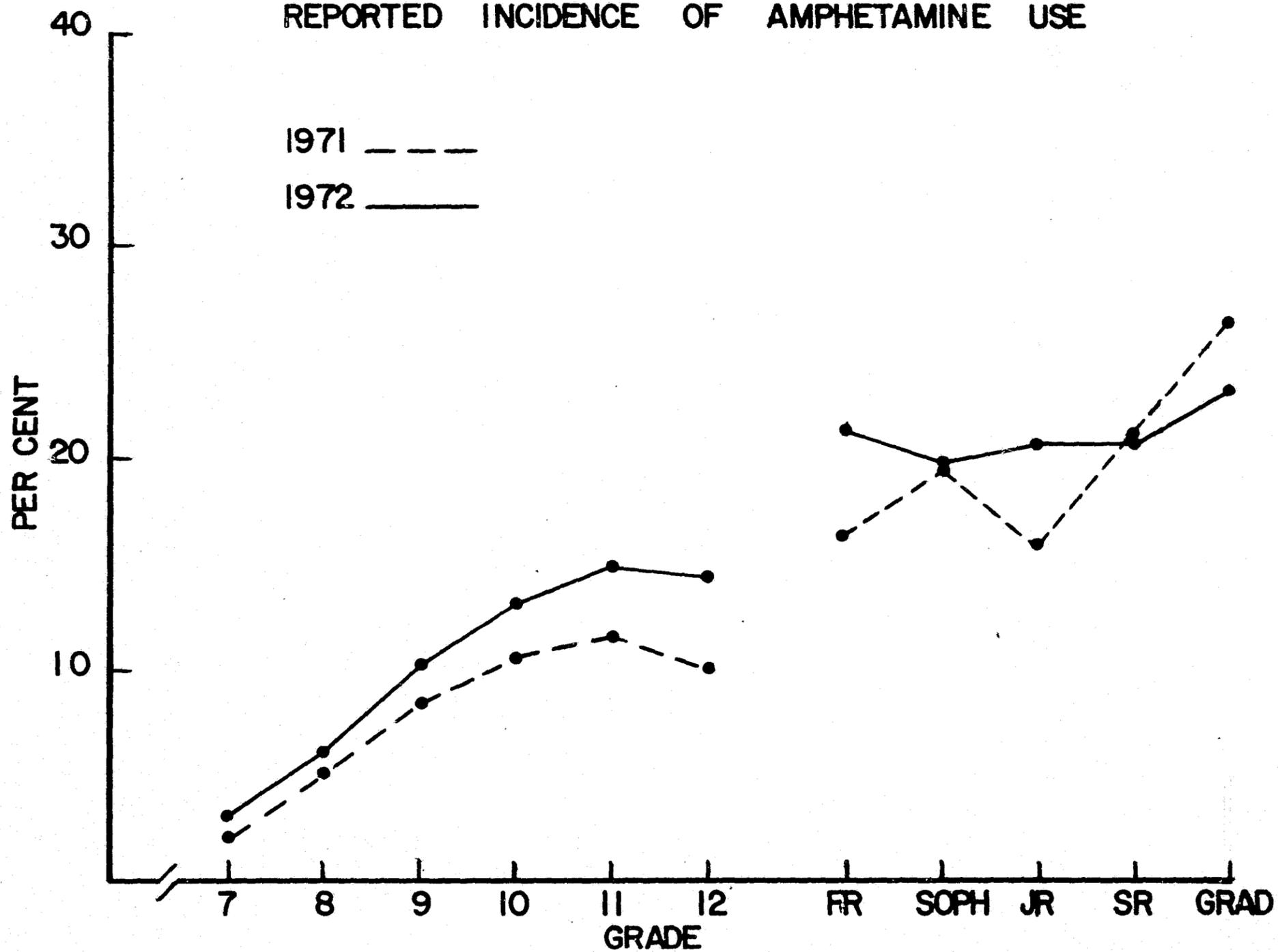


FIGURE 3

REPORTED INCIDENCE OF LSD USE

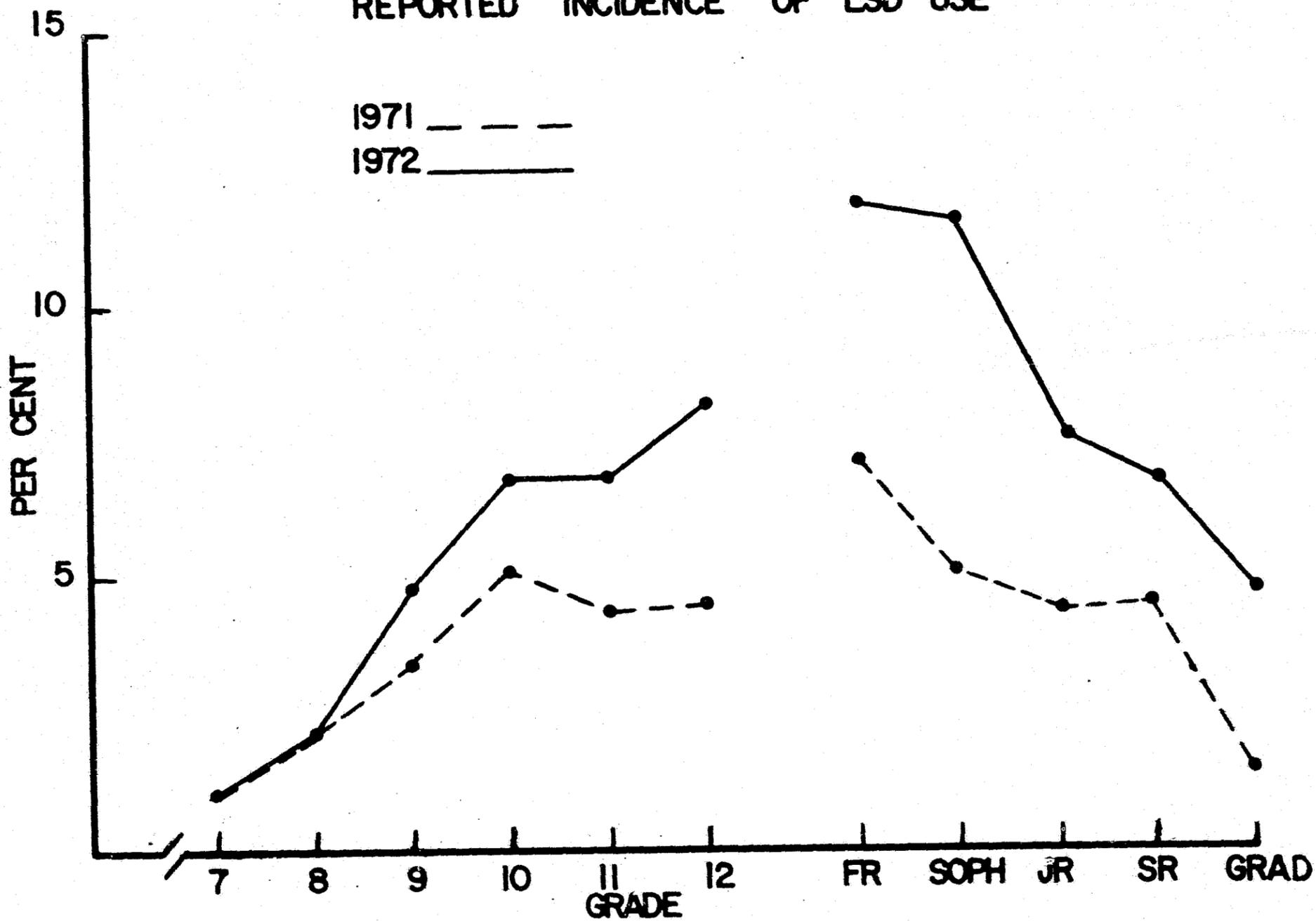


FIGURE 6
REPORTED INCIDENCE OF NARCOTIC USE

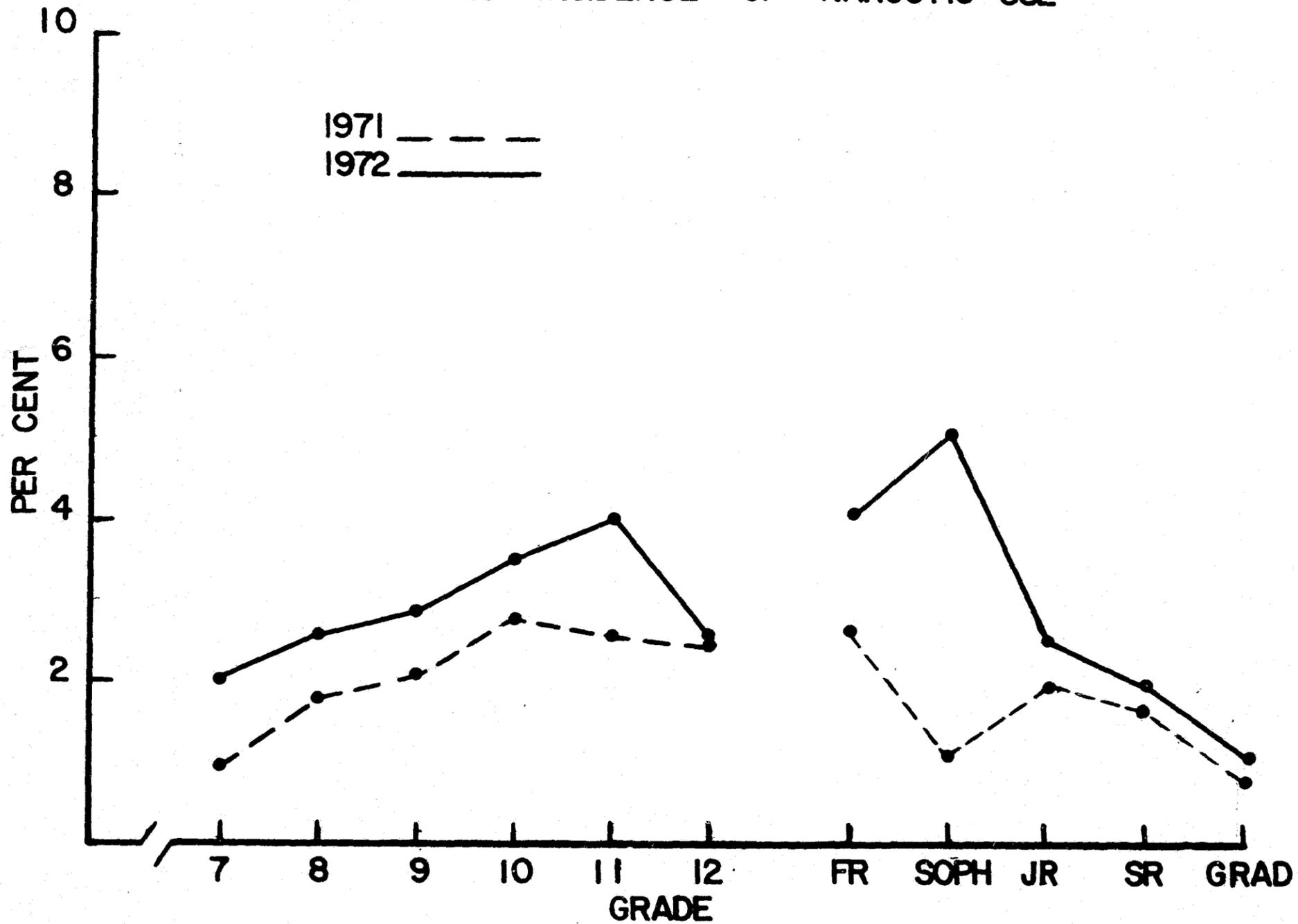
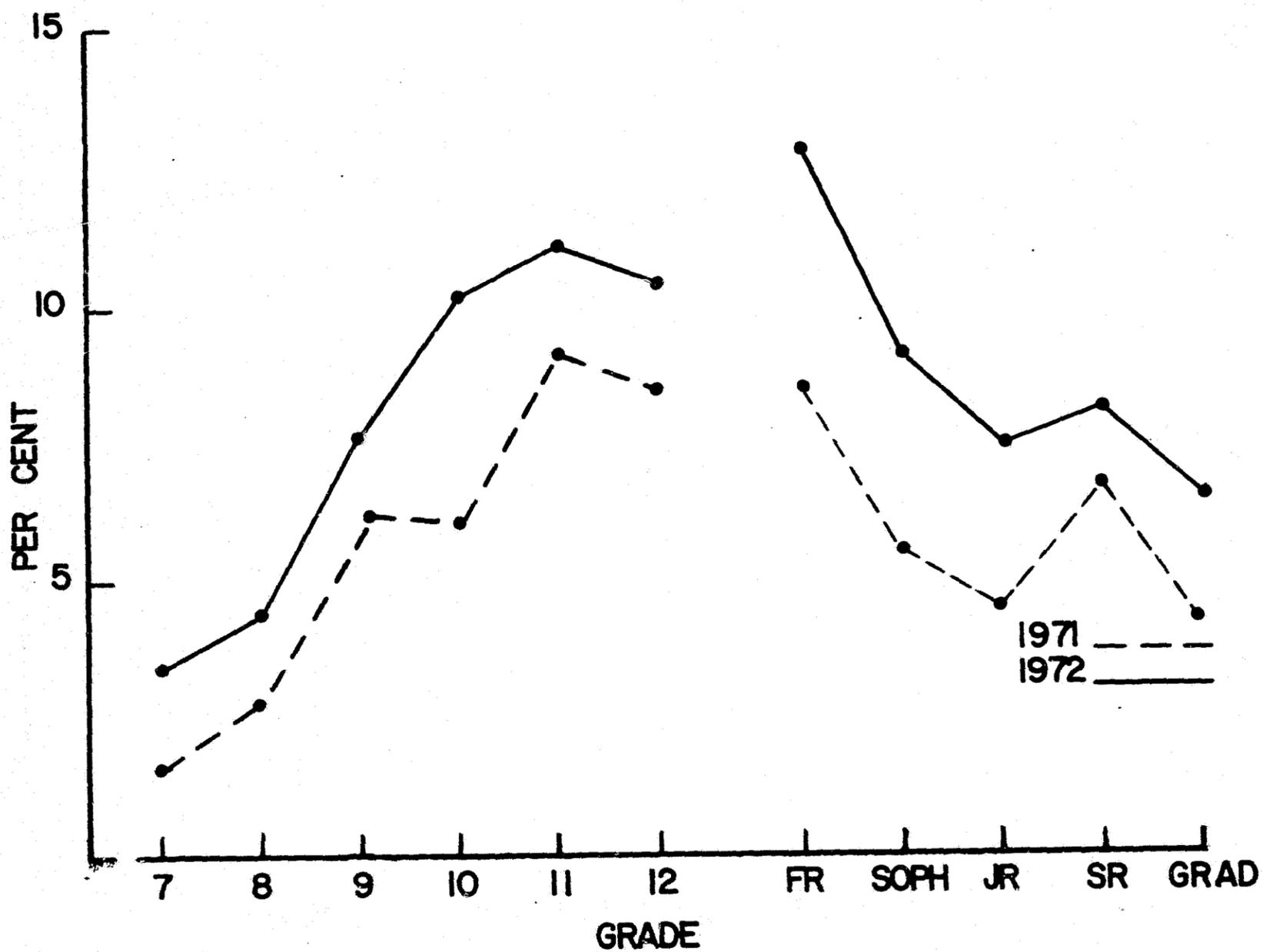
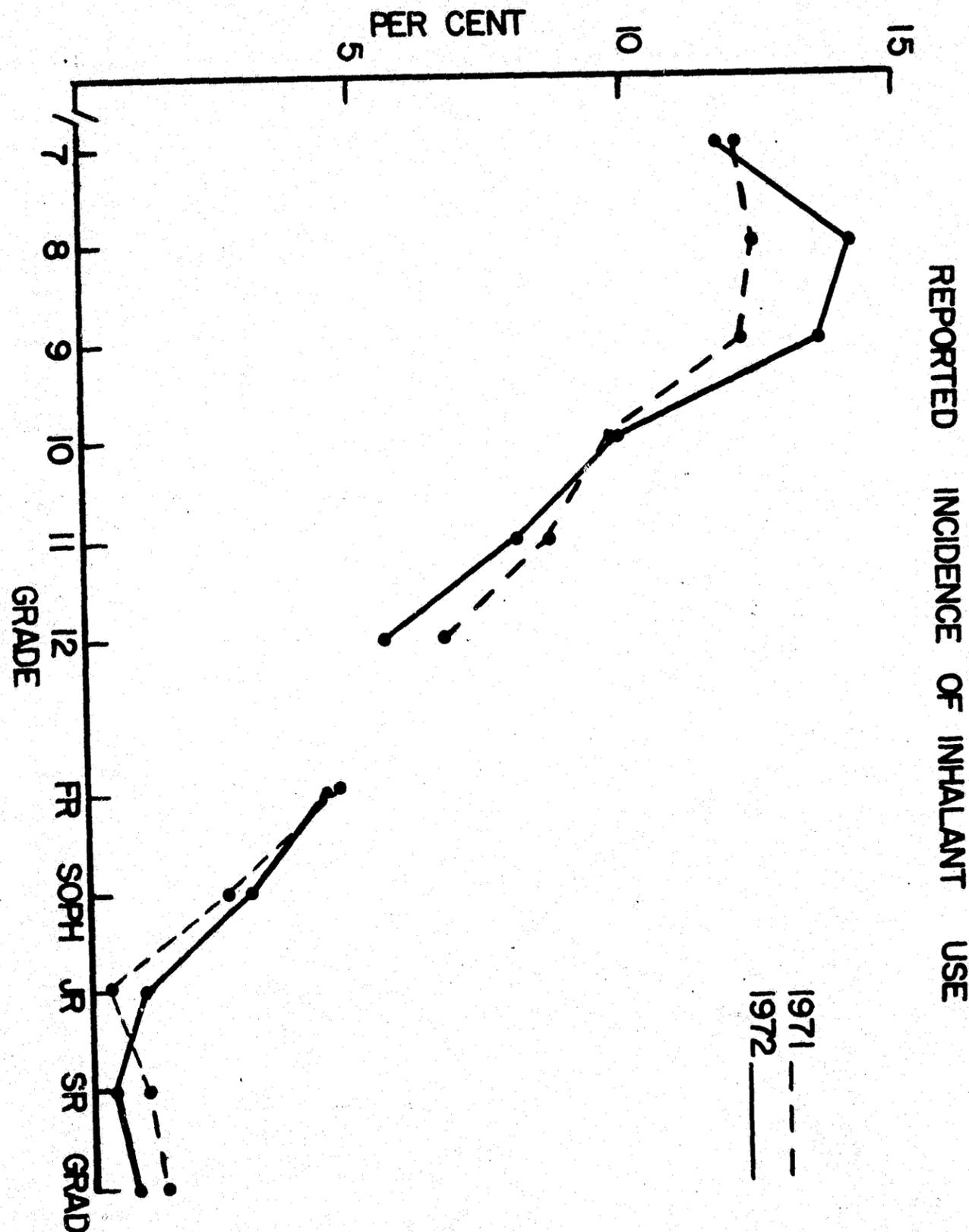


FIGURE 5
REPORTED INCIDENCE OF BARBITURATE USE



A 24-Hour Census of Drug Abuse Agencies



REPORTED INCIDENCE OF INHALANT USE

FIGURE 7

The Drug Research Center has attempted to determine the extent of the drug abuse problem by surveys of students' and parents' personal use of drugs, as well as a survey of physician contacts. Perhaps a more direct measure of the detrimental influence of drug abuse on the community, however, is the amount of community resources, in terms of both facilities and man-hours, that are extended in treating or apprehending drug abusers. To measure the utilization of resources in Memphis that are involved with the problem of drug abuse, the Drug Research Center conducted four twenty-four hour censuses, tabulating the number of individuals with a drug-related problem requiring institutional assistance.

METHOD

During two 24-hour periods in November, 1971, and again five months later in April, 1972, various organizations in the Memphis area, including hospitals, treatment facilities, counseling centers, referral agencies, and law enforcement agencies, were asked to report all contacts made with individuals requiring assistance with any drug-related problem. A list of the organizations which participated in the survey is shown at the end of this report.

Each participating organization completed a standardized date sheet describing the general characteristics of the drug users assisted (age, sex, race), as well as the time at which the contact occurred. A description of the user's problem, which might include overdose, drug dependency, injury due to intoxication, hepatitis, and request for counseling and information, was reported. The course of action, treatment, or referral was also recorded.

In order to avoid a bias due to selection of a particular day of the week, the censuses in both November and April were conducted on a Tuesday (11/16/71 & 4/11/72) and on a Saturday (11/20/71 & 4/15/72). The organizations which do not operate on Saturday were asked to report the contacts made on the preceding day. The two testing periods were utilized to improve the accuracy of measurement.

RESULTS

The figures presented in Table 1 represent an average of the number of contacts made on each day of the two-day census. The numbers are divided according to seven different types of contacts: Emergency Room Cases, In-Patients, New Admissions, Out-Patients, New Crisis/Counseling Contacts, Regular Counseling, and Law Enforcement Arrests. The information in this table is based on the total number of cases of institutional help for a drug-related problem reported to the Drug Research Center.

Table 2 indicates the frequency of particular drugs involved in the patient contacts reported during the two censuses. Note that these percentages are not necessarily additive as a person might be abusing more than one drug.

Table 3 contains the mean age of the persons abusing each particular drug who required the use of community facilities.

All of the information obtained from Census I and II is not directly comparable, since during Census II one hospital did not report the number of drug-related In-Patients, and one counseling center did not report at all. In addition, three counseling centers not included during the first Census participated in the second. However, omitting the information from organizations which did not report during both censuses does allow a comparison between Census I and II. Table 4 contains the adjusted totals for Census I and II and the net percent change between the two.

DISCUSSION

In interpreting the information obtained during the two censuses, it is important to keep in mind that the information is only representative of drug abusers who contacted one of the organizations participating in the census. We have no estimate of the number of individuals who had drug-related problems during the census periods who did not come to the attention of one of these participating organizations.

There are approximately 200 people per day in Memphis requiring use of community resources and facilities because of a drug-related problem. The average age of these individuals is 35, although ages range from 2 to 75. (The two-year-olds were treated for ingestion of household substances.) Those assisted during the censuses were mostly whites (80%) and they were mostly males (70%).

The drug most commonly involved in cases receiving institutional help was alcohol. It was a factor in approximately 60% of all contacts made during the censuses. Narcotics were the second most frequently involved drugs. In the November census, 10% of the reported contacts involved narcotics, while in the April census, narcotics were a factor in 24% of the cases. If drug use continues to increase in Memphis, the area of Narcotics abuse will require special attention. On the basis of other studies, it appears that the percentage of narcotics users who require medical assistance than that of any other drug.

Alcohol abusers constituted the oldest age group, with an average age of 43. Abusers of marijuana and its derivatives, on the other hand, formed the youngest age group, with an average age of 19. The mean age reported in the two censuses was very stable.

Because of the difference mentioned above in the number of organizations participating in the November and the April censuses, caution must be exercised in comparing the two. However, after correcting for these differences (see Table 4), it appears that utilization of facilities for handling drug-related problems showed an increase between November and April. This increase is evidenced in all categories of contacts except emergency room cases, which remained unchanged, and in-patients, which decreased 30%. The possibility exists that these changes reflect not only an increase with time in the number of contacts but also seasonal variations in patterns of drug abuse or better reporting methods. Only future censuses will be able to determine the extent of seasonal variation.

TABLE 1
AVERAGE NUMBER OF CONTACTS

I. EMERGENCY ROOM CASES - Involving drugs

	Census I (November)	Census II (April)
Number of Contacts*	16.0	16.0
Average Age	37.1	31.8
Age Range	2-75	2-65
Male	56%	38%
Female	44%	62%
White	81%	75%
Black	19%	25%

II. IN PATIENTS - Drug Related

	Census I	Census II
Number of Contacts	94.5	34.0
Average Age	36.6	31.8
Age Range	13-71	17-69
Male	68%	60%
Female	32%	40%
White	84%	81%
Black	16%	19%

III. NEW ADMISSIONS - Drug Related

	Census I	Census II
Number of Contacts	5.5	7.5
Average of Age	34.7	43.4
Age Range	16 -57	19-66
Male	91%	73%
Female	9%	27%
White	82%	93%
Black	18%	7%

* An average of the number of contacts made on each day of the census

IV. OUT PATIENTS - Drug Related

	Census I	Census II
Number of Contacts	29.0	41.5
Average Age	39.7	35.5
Age Range	15-67	18-68
Male	69%	66%
Female	31%	34%
White	79%	75%
Black	21%	25%

V. NEW CRISIS/COUNSELING CONTACTS - Involving Drugs

	Census I	Census II
Number of Contacts	26.0	34.0
Average Age	30.7	35.9
Age Range	15-60	13-69
Male	81%	78%
Female	19%	22%
White	67%	87%
Black	33%	13%

IV. REGULAR COUNSELING CONTACTS - Involving Drugs

	Census I	Census II
Number of Contacts	12.0	35.0
Average Age	24.2	37.7
Age Range	14-56	15-63
Male	54%	86%
Female	46%	14%
White	100%	90%
Black	---	10%

VII. LAW ENFORCEMENT ARRESTS - Involving Drugs

	Census I	Census II
Number of Contacts	34.0	43.0
Age, Sex, and Race data not available		

TOTAL CONTACTS MADE - Involving Drugs

	Census I	Census II
Number of Contacts	217.0	211.0
Average Age	35.5	35.3
Age Range	2-75	2-69
Male	69%	69%
Female	31%	31%
White	83%	82%
Black	17%	18%

Table 2 indicates the frequency of particular drugs involved in the patient contacts reported during the two censuses. Note that these percentages are not necessarily additive as a person might be abusing more than one drug.

TABLE 2

	Census I			Census II		
	% Among Males	% Among Females	% Overall	% Among Males	% Among Females	% Overall
Alcohol	69	41	60	61	36	53
Amphetamines	5	7	6	4	15	8
Barbiturates	3	17	8	4	13	7
Hallucinogens	7	4	6	6	10	7
Marijuana & Derivatives	3	4	3	6	5	6
Narcotics	9	12	10	24	24	24
Tranquilizers	2	8	4	4	13	7
Aspirin & Other						
Household substances	1	2	1	1	7	3
Unknown or Unspecified	10	11	10	2	6	3

Percentage Using Each Drug During the 24 Hour Censuses

Table 3 contains the mean age of the person abusing each particular drug who required the use of community facilities.

TABLE 3

MEAN AGE BY DRUG OF INDIVIDUALS ASSISTED DURING CENSUS

	Census I	Census II
Alcohol	43.5	43.4
Tranquilizers	30.7	31.0
Barbiturates	29.4	25.0
Narcotics	22.9	29.0
Amphetamines	19.9	23.1
Marijuana and Derivatives	18.5	19.1

SUMMARY

The 200 people who daily obtain institutional aid with a drug-related problem in Memphis can serve as a conservative, baseline estimate of the facilities needed in the city to deal with problems of drug abuse. It is impossible to determine accurately how many people who need help with drug problems do not seek or do not obtain such help. The physicians survey conducted by the Drug Research Center provides some estimate of the number of abusers seen monthly by private physicians in the area, but it is probably an underestimate of the total problem. This is probably most true in the black community. Evidence from other studies suggests that there is an association between drug use and race. White students, on the whole, report more drug use than black students. However, the contacts in these censuses were 80% white and 20% black. This difference is much greater than would be expected on the basis of our other information.

Female contacts were significantly fewer than male contacts on both censuses. This could be a result of less drug use among females, as suggested by the student surveys, or the reluctance of this group to request institutional assistance. Evidence from the physicians survey indicates, however, that many females do receive assistance from private physicians for drug-related problems.

These studies represent a first and valuable step in the cooperation and coordination of efforts in the abuse area. Both in the present and in the future a thorough knowledge of

the level and nature of drug abuse is essential to effectively combat drug abuse and its related problems in this community. A valuable tool in measuring the resource requirements for dealing with drug-related problems would be an ongoing agency which could monitor the daily and monthly utilization of present facilities in the same manner in which this project was conducted. If all agencies operating in the drug abuse field would submit regular accounts of the extent of their activities, a coordinating agency could more effectively plan for future needs and reduce wasteful duplication of services.

THE 24-HOUR CENSUS: SOME CONCLUSIONS

1. Approximately 200 people obtain institutional assistance for drug-related problems in Memphis.
2. Alcohol is involved in 60% of these cases.
3. Narcotics abuse results in a disproportional number of requests for assistance.
4. Age of recipient is a factor: younger individuals abuse marijuana, and older individuals abuse alcohol and tranquilizers.
5. Females and blacks receive less assistance than males and whites.
6. In the last five months, there has been an increase in the number of persons requesting services in most of the categories recorded.

All of the information obtained from Census I and II is not directly comparable, since during Census II one hospital did not report the number of drug-related In-Patients, and one counseling center did not report at all. In addition, three counseling centers not included during the first Census participated in the second. However, omitting the information from organizations which did not report during both censuses does allow a comparison between Census I and II. Table 4 contains the adjusted totals for Census I and II and the net percentage change between the two.

TABLE 4

COMPARISON OF AVERAGE NUMBER OF CONTACTS AND PERCENT CHANGE

	Census I	Census II	% Change	Overall Average
I. Emergency Room Cases	16	16	unch	16
II. In-Patients	48.5	34	-30%	41
III. New Admissions	5.5	7.5	+36%	6.5
IV. Out-Patients	29	41.5	+43%	35
V. New Crisis/Counseling	23	24.5	+7%	23.7
VI. Regular Counseling	8.5	13	+53%	10.7
VII. Law Enforcement	34	43	+26%	38.5

RECOMMENDATIONS

1. There is a need to provide the black community easier access to drug abuse services and facilities.
2. Alcohol treatment programs should receive a priority in community interests.
3. Narcotics abuse should be closely monitored in the future.
4. There is a need to establish an agency which would be responsible for continuing to collect drug abuse information.

LIST OF ORGANIZATIONS PARTICIPATING IN 24-HOUR CENSUS

HOSPITALS:

Baptist Memorial Hospital
City of Memphis Hospital
Gartly-Ramsay Hospital
Methodist Hospital
Neurological Treatment Center, Inc.
St. Joseph Hospital
Shelby County Treatment and Research Center
Tennessee Psychiatric Hospital
Tranquilair A & D Center
Veterans Administration Hospital

TREATMENT CENTERS:

Christian Brothers College Health Service
Harbor House
Medicenter Extended Care Facility
Memphis House, Inc.
Memphis & Shelby County Health Department
Memphis & Shelby County Mental Health Center
Memphis State University Health Center
Southwestern at Memphis Infirmary
University of Tennessee Health Service
Wesley House

LAW ENFORCEMENT AGENCIES:

Memphis Police Department
Metro-Narcotics Squad

COUNSELING CENTERS:

Christian Brothers College Counseling Center
Family Service of Memphis
Half & Half Coffee House
Jewish Community Center
LeMoyne-Owen College Counseling Center
Map-South, Inc.
Memphis State University Counseling Center
Mid-South Christian Counseling Center
North Memphis Action Program
Northeast Shelby Community Action Center
People's Development Center
Riverview Community Center
Salvation Army - Men's Social Service Center
Southwestern Counseling Service
Teen Challenge
University of Tennessee Counseling Service
Youth Service

CRISIS INTERVENTION REFERRAL CENTERS:

Highland House
Memphis Alcohol and Drug Council
Memphis Suicide Prevention Center
Information and Referral Service

Interviews of Local Physicians

The Drug Research Center, under the direction of the Memphis Commission on Drug Abuse, has been working to determine the nature and extent of drug abuse in Memphis. In order to attain this goal, the center has been involved in several extensive projects. The first of these was a questionnaire which was administered in the high schools and colleges in Memphis to determine the amount of drug use among students, and the second project was a two-day survey to determine the number of abusers seeking help from hospitals, treatment centers, and counseling centers.

Both of these investigations provided a great deal of information, but the picture was not complete because there was no available information concerning the number of abusers being seen by private physicians. For this reason, the staff of the Drug Research Center, with the aid of the Memphis and Shelby County Medical Society, endeavored to interview a sample of physicians in Memphis.

METHOD

In order to obtain a stratified sample, the participants were randomly selected within their specialties from a listing of physicians in the Memphis telephone directory. Of the 715 physicians listed in the yellow pages of the directory, 167 were selected to participate. Letters explaining the proposed project were sent to the 167 selected physicians, and 65 agreed to be interviewed. The interviews were conducted by staff members of the Drug Research Center during the months of December, 1971, and January and February 1972.

During the interview each physician was asked to define drug abuse and estimate the number of patients he sees who, according to his own definition, are abusing drugs. In addition, each physician was asked to indicate whether or not he thought drug use had increased or decreased in the last year, to list common characteristics of drug abusers, to describe the types of treatment given to the individuals, and to make suggestions as to how to combat this problem.

RESULTS

A summary of the samples selected from each field of practice is shown in Table 1. The first column shows the total number of physicians (according to the listing in the phone directory) in each field of practice. The second column indicates the number from each specialty who were selected to participate, and the third column is the number who agreed to be interviewed. Column 4 contains the percentages of those selected to participate who were interviewed. Column 5 is the percentage of the total number of physicians practicing in each field who were interviewed.

The figures in column 4 indicate that the most cooperative groups were the Pediatricians and the Psychiatrists. The Obstetricians and Internal Medicine specialists ranked second, followed by the Dermatologists, Surgeons, and the General Practitioners, who were the least responsive of all the groups.

Even though the number of responses from each specialty was small (about 10% of the population) and the response pattern was somewhat varied, a look at column 5 reveals that the samples were fairly well representative of the number of physicians in each specialty.

Results of the analysis on the question concerning the number of abusers being seen by the physicians are shown in Table 2. The figures indicate the average number of abusers each physician reported seeing in a month. These estimates do not necessarily represent different individuals but, rather, the number of contacts made by each physician. It is possible that an abuser may have been seen more than once by a physician or he may have consulted more than one physician.

During the interview the physicians were asked whether or not they thought there had been a change in the amount of drug use in the last year. They reported that the use of most illicit drugs had increased, while use of alcohol, tobacco, and other legal drugs remained about the same. Some doctors also said that use of Amphetamines had decreased slightly because of stricter rules concerning prescriptions for these drugs.

In regard to common characteristics of drug users, the physicians reported that barbiturates and tranquilizers are abused more by middle-aged women, while marijuana, hallucinogens, and other illicit drugs are abused by young people. Alcohol, they said, is generally abused by older men and women.

When asked about treatment of these individuals, most of the physicians reported having had little experience in treating drug-dependent patients. If a patient is diagnosed as having a severe problem, the physician generally refers him to a psychiatrist or the state psychiatric hospital. For less severe problems, most physicians talk to the patients and families and try to discourage further drug use. Some also mentioned giving alcoholics Antabuse and referring them to Alcoholics Anonymous.

The physicians also reported little knowledge of the existing facilities for treating drug-involved individuals. Those aware of the existing facilities tended to think that more programs were needed to adequately combat the problem among young people.

The most common suggestion as to how to discourage drug use emphasized stricter law enforcement, especially for those selling illegal drugs. In regard to Alcohol, many suggested stricter penalties for driving while intoxicated. It was also felt by many that physicians should be more reticent in prescribing legal drugs such as Amphetamines and Barbiturates.

In addition to the stricter controls, many felt that an increase in drug education programs and public announcements would be helpful.

DISCUSSION

The physician survey had the distinction of being the first survey of its kind in the Memphis area, but, as in all surveys conducted where no previous information was available, there was a problem in deciding which questions should be asked. In order to obtain as much information as possible it was decided that the interview should be rather open-ended, leaving the physicians sufficient freedom to express their opinions on the subject. This procedure produced a wide variety of answers which were difficult to categorize and combine in a reliable manner. As a result, many of the conclusions presented in this paper are somewhat subjective in nature.

In addition to these difficulties, there was some margin for error concerning the number of abusers shown in Table 2. The figures were based on the physicians' estimates as to how many abusers they see in a month, and those estimates were determined by each physician's personal definition of abuse. Among 65 physicians, however, the extremely conservative and liberal definitions should have canceled out one another, so that the effect of the individualized definitions was minimized.

Another possible source of error in the survey was the fact that the physicians volunteered to participate. Because the sample was voluntary, it may not have been representative of the entire population of physicians in Memphis.

However, even with these problems, the project yielded valuable information. For example, even though the figures referring to the number of abusers were estimates, they do provide some idea of the number of abusers being seen by the physicians. They indicate that the number of abusers is relatively small as compared to the population of Memphis. Among the patient population the statistics reveal that alcohol and tobacco are the most abused drugs, prescription drugs are the second most abused, and illegal drugs are by far the least abused.

In regard to characteristics of abusers, the results suggested a distinct pattern of abuse involving the same three groups of drugs. Alcohol and tobacco were described as chronic problems associated with the older generation, and prescription drugs were reported to be used by middle-aged housewives with depressed and nervous conditions. As for the illegal drugs, nearly all of the physicians reported these drugs were abused more by young people than by any other group.

In addition, one of the most important findings of the survey was that there exist a lack of knowledge on the part of the physicians concerning the various programs for treating drug abusers. This finding suggests that Memphis needs a program aimed at educating professionals as well as laymen as to the types of treatment facilities available for these individuals.

TABLE 1

SAMPLES WITHIN EACH SPECIALTY

Field of Practice	Number	Number	Number	Percentage	Percentage
	in Memphis	Selected	Interviewed	of selected Interviewed	of Total Interviewed
Dermatology	15	3	1	33.3	6.7
General Practice	114	30	6	20.0	5.3
Internal Medicine & Sub-specialties	153	34	19	55.9	12.4
Obstetrics - Gynecology	66	13	7	53.9	10.6
Pediatrics	34	7	5	71.4	14.7
Psychiatry	38	9	6	66.7	15.8
Surgery and Sub-specialties	295	71	21	29.6	7.1
Total	715	167	65		

TABLE 2

REPORTED MONTHLY INCIDENCE OF DRUG ABUSE

Drug	Average Number of Abusers Seen By Each Physician Per Month
Marijuana	1.6
Hallucinogens	.7
Amphetamines	4.2
Barbiturates	4.0
Tranquilizers	7.5
Narcotics	.8
Inhalants	.2
Alcohol	12.0
Tobacco	38.0

PHYSICIANS' INTERVIEW: SOME CONCLUSIONS

1. The most frequently abused drugs as reported by the physicians were tobacco and alcohol, followed by tranquilizers, amphetamines, barbiturates, marijuana, narcotics, hallucinogens, and inhalants.
2. The use of alcohol and tobacco were described as chronic problems associated with the older generations. Prescription drugs are more likely to be abused by middle-aged females, and illegal drugs are most abused by young people.
3. Most of the physicians reported having had little experience

in treating drug-dependent patients. They also reported little knowledge of the local facilities for treating drug-involved individuals.

RECOMMENDATIONS

1. That the dominant role of tobacco and alcohol in the drug abuse area be communicated more effectively to the general public.
2. That an educational program be developed to provide interested physicians some experience in contemporary methods of treating drug-dependent patients.

A Survey of the Parent-Teachers Association

If a community-wide effort of drug abuse prevention is to be implemented in Memphis, the Parent-Teachers Association may prove to be a deciding factor in the success or failure of such a program. For this reason the Drug Research Center decided to administer a questionnaire to provide the PTA with some additional information on the subject of drug abuse, while at the same time determining the extent of parents' knowledge and use of drugs. It was hoped that such an evaluation might serve as the first step toward a comprehensive drug prevention program in the Memphis City Schools.

METHOD

Staff members of the Drug Research Center met with all PTA representatives at a city-wide PTA council meeting in October, 1971, and outline a proposal whereby a drug survey might be conducted among the various PTA groups. When the council failed to approve this proposal unanimously, it was decided that the Drug Research Center would contact each group individually and request participation in the survey.

In the meantime, the questionnaire was being written in its final form. This form included four distinct sections. The first section dealt with background information such as age, sex, race, and education. The second section was a test of the members' knowledge of drugs, the effects, and the words associated with their use. The third section dealt with opinions concerning the drug problem and the final section asked about the member's own drug use.

Before it was completed, the questionnaire was pre-tested on two of the PTA groups. Several changes were made and the questionnaire was finally completed. (A copy of the final questionnaire is shown in Appendix B at the end of the report.)

Letters were sent to all 142 of the PTA groups (excluding the two pre-test groups), but responses were received from only 25 of the groups. The questionnaires were delivered to the 25 groups and a representative of each group administered the questionnaires in one of the group's meetings in December, 1971, January, 1972, or in February, 1972.

RESULTS

A total of 837 analyzable questionnaires were returned from the 25 PTA groups. The results of the analysis of these questionnaires are shown in the listing at the end of this report.

Section-I shows the percentage of people in each background classification. According to these percentages most of the PTA members were white females, age 30-39, with 2 children in school. They have completed a high school education, and, in general, they are Protestants who attend church every week.

Based on the answers to the questions in Section II, drug knowledge scores were calculated for each PTA member.

A score of one point was given for each correct answer, and, since there were 35 questions, the highest possible score was 35. The city-wide average for the section was 16, which indicates that the average PTA member correctly answered less than half of the drug-knowledge questions.

In answer to the questions in Section III concerning definitions of abuse of the various drugs, nearly all of the PTA members agreed that use of hallucinogens and narcotics only one time was abuse of those drugs. They also agreed, but not quite as frequently, that use one time only of drugs other than Alcohol and Tobacco was abusive. As for Tobacco and Alcohol, there were two schools of thought concerning the definition of abuse. One group felt that any use of Tobacco or Alcohol was abuse, while the other group maintained that only multi-daily use was abuse. As a result, the scores for those questions, which were calculated on the basis of a point system shown in the listing of that section, indicated that the average definition of abuse was usage 3 times a week, when in reality the group was divided between the two extremes - 1 time only and 3 or more times a day.

When asked to rank the drugs according to the dangers associated with their use, narcotics and hallucinogens were ranked the most dangerous. As for the other drugs, there was a wide range of opinion, but generally speaking, amphetamines were ranked third, followed by barbiturates, cannabis, alcohol, and then tobacco.

In regard to treatment of drug abusers, most of the members agreed that drug abusers, addicts, and alcoholics should be considered ill, and that family, medical, psychiatric, and community efforts provide the best types of treatment for these people.

Other opinion questions in this section revealed that most PTA members think drug use among students as well as adults is increasing and they believe young people abuse drugs because "it's the 'in' thing to do."

Most PTA members felt that physicians were the most qualified to provide drug information. Yet most also felt that physicians often contributed to the problem by prescribing too many drugs.

In regard to legal restrictions on drugs, many PTA members felt unqualified to comment on them as a whole, but most agreed that the existing laws concerning tobacco should be enforced and that taxes on tobacco should be increased.

The question concerning drug programs indicated that the PTA's favored more drug educational programs in the schools, and most of them said they would be willing to participate in such programs.

When asked to rank a series of current problems in order of importance, nearly all of the members rated drug abuse the most important. Rating of the agencies which deal with

this problem revealed that Alcoholics Anonymous was considered the most successful, while the city school system was considered the least successful.

The final section of the questionnaire dealt with the PTA members' own drug use. Results of these questions indicated that about half of the PTA members use alcohol, tobacco, some of them use tranquilizers and patent drugs, and some of them use tranquilizers and patent drugs, and almost none have used marijuana, hallucinogens, amphetamines, barbiturates, narcotics, or inhalants. The lie-scale question, which asked about use of the nonexistent drug Poirotine, indicated that less than .5% (3 people) reported use of that drug. Therefore only 3 questionnaires were considered invalid. The percentage is much smaller than the percentage on the same question in the student questionnaire.

SUMMARY

The most revealing feature of the PTA survey was the lack of response on the part of PTA groups. While every PTA in Memphis was asked to participate in the survey, less than one-fifth of them volunteered to administer the survey to their members. Undoubtedly, the turmoil over busing, as well as other topical issues, made the timing of the survey (December, 1971 through February, 1972) unfortunate. The resulting sample was extremely small, as well as being somewhat biased by the voluntary nature of the survey.

The analysis of background information indicated that the sample population was fairly typical of the average participant in PTA groups in Memphis. Most respondents were white, middle-aged females with two children in school, who generally attend Protestant churches every week. The sample, though biased by the factors mentioned above, appeared representative of those who might be willing to work in the drug abuse area.

The results of the drug-knowledge section indicated that PTA members were not very familiar with drug terminology and the problems associated with drug use.

If the opinions of these PTA members are typical of the average citizen, then it would appear that the people favor stricter enforcement of present laws regarding drugs and more drug educational programs in the schools.

The questions concerning personal use of drugs indicated that a drug abuse prevention program is needed throughout the community. Nearly one-half of the PTA members reported themselves to be, by their own definition, abusing alcohol and tobacco, and about one-fourth reported using tranquilizers and patent drugs.

It is hoped that the survey results, which were sent to each participating PTA, will provide them with factual groundwork for analyzing adult attitudes toward drug abuse and spur future efforts at drug prevention. A successful drug prevention program will require teachers, students, and parents working together to change the attitudes and values which allow drug abuse to flourish.

(Results of questionnaire pages 36-45)

PTA TESTING: SOME CONCLUSIONS

1. The PTA members who filled out the questionnaire were not very familiar with terminology or problems associated with drug abuse.
2. Most of the members favored stricter law enforcement and drug-abuse educational programs as a means for reducing drug use.

RECOMMENDATION

1. That a prevention program be developed which would go beyond the traditional brief educational session and include the active participation of parents and students.

Drug-Related Arrests

According to records at Juvenile Court and the Metro Narcotics Division of the Memphis Police Department, arrests for possession of drugs have been increasing at a rapid rate. The table below shows the yearly percentage increase in drug-related arrests among juveniles over the past 4 1/2 years. Also shown is the yearly increase among adults for 2 1/2 years.

See table on page 35.

Although the percentages vary somewhat, the overall increase in drug-related arrests during the last few years is consistent with the increase in drug use reported by the Student Survey and the 24-Hour Survey.

The arrest patterns of juvenile offenders was used to estimate the number of drug-related arrests that would occur during this year.

The projection indicates that the number of drug-related arrests among juveniles will be as high as 267 for the year 1972.

DRUG ARRESTS: SOME CONCLUSIONS

1. Adult and juvenile drug-related arrests increased during the last twelve months in Memphis.
2. It is anticipated that the number of arrests will continue to increase during 1972.
3. The number of persons arrested on drug-related charges make up a very small percentage of the total number of students who report using illegal drugs.

RECOMMENDATIONS

1. Develop a criminal justice follow-up program.

One of the major goals of the Drug Research Center was to evaluate the influence of the criminal justice system on selected drug offenders. An extensive plan was designed whereby an individual would be followed from the day he was arrested on drug charges, through the court system, and finally, if convicted, to the prison system. In this manner the Research Center hoped to gain information concerning the percentage of drug abusers arrested who are convicted and the percentage of those released who return to their drug-related activities.

The individuals were to be classified according to certain characteristics such as whether they were "Dealers" or "Users", and if possible, the staff was to determine what type of person profits from the various forms of treatment such as parole, prison, etc. The term "profit" in this case was to be defined by the offender's actions after being released from prison. If he were arrested after being released, then obviously he had not profited from the experience.

In the end it was hoped that the accumulated information would provide a more complete picture of the type of treatment most successful for each type of offender, and more selective treatments could be used in dealing with these individuals. Also, in this manner, any new method of treatment could be evaluated.

Number and Percentage Increase in Drug Arrests
Among Juveniles and Adults

	Juveniles	Adults	Juveniles	Adults
1968	8	Not Available	-----	-----
1969	42	Not Available	425.0%	-----
1970	119	429	183.3%	-----
1971	169	1008	42.0%	135.0%
1972 (6 mo.)	132	648	56.2%	28.6%

SUMMARY TABLE DRUG USE IN MEMPHIS

(Table misplaced - should be on page 56)

DRUG	STUDENTS (Median Rank for Incidence for Both Years)	24-HOUR CENSUS (Median Rank for Contacts Per Day for Both Years)	PHYSICIANS (Rank for Contacts Per Month)	PTA (Rank for Incidence)	DRUG ABUSERS Personality Study (Rank of Incidence)
Alcohol	1	1	1	1	6
Marijuana	2	7	5	5	3
Halluciongens	5.5	5	7	8	2
Amphetamines	3	4	3	3	1
Barbiturates	4	3	4	4	5
Tranquilizers	NI	6	2	2	NI
Narcotics	7	2	6	7	4
Inhalants	5.5	8	8	6	7

NI=Not included in survey.

PTA QUESTIONNAIRE RESULTS

(Pages 36-45)

	City Wide Percentage
I. General Background Information	
1. Age	
A. 10 - 19 years	2.4
B. 20 - 29 years	13.7
C. 30 - 39 years	49.9
D. 40 - 49 years	26.0
E. 50 - 59 years	5.9
F. 60 - 69 years	1.9
G. 70 years and above	.1
2. Sex	
A. Male	19.1
B. Female	80.9
3. Race	
A. Black	12.9
B. White	86.4
C. Other	.7
4. Marital Status	
A. Single	5.6
B. Married	88.4
C. Separated	1.3
D. Divorced	2.6
E. Widowed	2.0
5. Education (Circle Highest Completed)	
A. 8th grade or less	1.4
B. Some high school	6.0
C. High school graduate	34.1
D. Some college	25.8
E. College graduate	22.5
F. Advanced degree	10.1
6. Religious Preference	
A. Catholic	6.7
B. Jewish	2.4
C. Protestant	81.0
D. Other	8.0
E. None	1.8
7. How often do you attend organized religious services?	
A. Every week	65.9
B. About twice a month	12.9
C. About once a month	5.8
D. Two or three times a year	9.9
E. Do not attend	5.4

	City Wide Percentage
8. How many children in your family attend public or private schools?	
A. None	12.0
B. 1	20.6
C. 2	34.9
D. 3	19.1
E. 4 or more	13.4
II. Drug Knowledge	
1. Which drugs are called "downers"?	
A. Hallucinogens	7.7
B. Amphetamines	23.8
*C. Barbiturates	60.1
D. Narcotics	8.4
2. Which drug is most often injected?	
*A. Heroin	88.1
B. Marijuana	1.6
C. LSD	8.3
D. Barbiturates	2.0
3. To "drop" means:	
A. To loose money on a deal	5.9
*B. To take drugs orally	58.7
C. To sell impure drugs	18.6
D. None of the above	16.8
4. Which drug is most often smoked?	
A. Heroin	1.0
B. LSD	2.0
*C. Marijuana	96.8
D. Barbiturates	.1
5. What does it mean to "rush"?	
A. Hurry to make a deal	10.9
*B. Feeling the first effects of a drug	56.5
C. To melt drugs for injection	22.6
D. None of the above	10.0
6. Which drug would cause increased activity?	
A. Alcohol	10.8
*B. Amphetamines	76.2
C. Opium	8.0
D. None of the above	5.0
7. What does it mean to be "busted"?	
A. To be overcharged for drugs	2.4
B. To be out of drugs	23.5
C. To have overdosed	13.8
*D. To be arrested	60.2
* Indicates correct answer	

	City Wide Percentage
8. Withdrawal symptoms occur when an addict suddenly stops using:	
A. Alcohol	2.7
B. Heroin	34.2
C. Barbiturates	5.2
*D. All of the above	57.9
9. Which drug is called "smack"?	
A. LSD	28.4
B. Marijuana	8.9
*C. Heroin	36.3
D. None of the above	26.3
10. Hashish is a form of:	
A. Cocaine	18.6
*B. Marijuana	35.4
C. Opium	42.0
D. None of the above	3.9
11. Diet pills are:	
*A. Amphetamines	76.9
B. Barbiturates	16.2
C. Narcotics	3.3
D. All of the above	3.7
12. Which drug is used medically as a substitute for heroin?	
A. Marijuana	2.8
B. Cocaine	18.4
*C. Methadone	72.0
D. Dilaudid	6.6
13. Which drug causes pupil dilation?	
A. Marijuana	16.1
*B. LSD	40.4
C. Heroin	33.5
D. Alcohol	10.1
14. Which drug is most likely to be found in pill form?	
A. Alcohol	.6
B. Heroin	3.1
*C. Amphetamines	94.7
D. Hashish	1.5
15. Which is a sedative?	
A. Alcohol	1.5
B. Barbiturates	16.5
C. Tranquilizer	56.2
*D. All of the above	25.8

* Indicates correct answer

	City Wide Percentage
16. Which drug is known as "speed"?	
A. Heroin	11.7
B. LSD	47.3
*C. Amphetamines	36.1
D. Barbiturates	4.8
17. Which drug is most often used by high school students in Memphis?	
A. Marijuana	58.2
*B. Alcohol	21.5
C. Heroin	1.8
D. Amphetamines	18.4
18. Use of which drug can result in hallucinations?	
A. Alcohol	1.1
B. Amphetamines	1.5
C. LSD	79.2
*D. All of the above	18.2
19. What percentage of Memphis high school students report having ever used marijuana?	
A. 57%	30.2
B. 27%	45.3
*C. 17%	19.4
D. 7%	5.2
20. Which drug comes from poppy seeds?	
A. LSD	1.5
B. Marijuana	6.7
*C. Opium	87.7
D. None of the above	4.1
21. What does it mean to "shoot"?	
A. To take an overdose	3.6
B. To catch someone selling bad drugs	1.3
*C. To take drugs intravenously	93.4
D. None of the above	1.7
22. Which drug causes the pupils to become smaller?	
A. Marijuana	13.6
B. LSD	24.6
*C. Heroin	45.2
D. Alcohol	16.6
23. Which of the following narcotics is a synthetic?	
A. Opium	3.8
B. Heroin	2.9
C. Demerol	62.5
*D. Dilaudid	30.7

* Indicates correct answer

	City Wide Percentage
24. Which drug is called "acid"?	
A. Methamphetamine	8.5
B. Acetic Acid	9.9
*C. LSD	77.9
D. None of the above	3.7
25. What percentage of Memphis high school students who have tried marijuana are likely to stop using it?	
A. 70%	19.9
*B. 50%	21.7
C. 30%	29.5
D. 10%	28.9
26. How much does an ounce of marijuana cost in Memphis?	
A. \$5	42.9
*B. \$15	34.5
C. \$35	14.5
D. \$50	8.1
27. Which drug is most associated with criminal acts?	
A. Marijuana	8.3
*B. Heroin	66.3
C. LSD	18.9
D. Amphetamines	6.5
28. What is the most dangerous drug to take in conjunction with alcohol?	
*A. Barbiturates	68.1
B. LSD	15.7
C. Narcotics	8.8
D. Cocaine	7.4
29. What is the street price of one amphetamine pill?	
A. 25¢	15.6
*B. 75¢	37.9
C. \$1.50	36.1
D. \$2.50	10.3
30. Which disease is most often associated with drug abuse?	
A. Pneumonia	3.8
*B. Hepatitis	82.2
C. Impetigo	4.3
D. Tularemia	9.7
31. Which institution is known for its rehabilitation work with narcotic addicts.	
A. Leagues for Spiritual Discovery	5.9
*B. Synanon	57.4
C. W.C.T.U.	13.4
D. All of the above	23.2

* Indicates correct answer

	City Wide Percentage
32. What is the maximum penalty in Tennessee for possession of marijuana on first offense?	
A. 30 days imprisonment	35.7
B. 11 months, 29 days imprisonment and \$250 fine	24.8
*C. 11 months, 29 days imprisonment and \$1000 fine	17.5
D. 2-5 years imprisonment and \$1000 fine	21.9
33. What is the maximum penalty in Tennessee for possession of heroin on first offense?	
A. 30 days imprisonment	12.9
B. 11 months, 29 days imprisonment and \$250 fine	22.4
*C. 11 months, 29 days imprisonment and \$1000 fine	20.8
D. 2-5 years imprisonment	43.9
34. What is the maximum penalty in Tennessee for sale of heroin on first offense?	
A. 2-5 years imprisonment	35.3
B. 2-5 years imprisonment and \$5000 fine	38.2
*C. 5-15 years imprisonment and \$18,000 fine	23.1
D. Life imprisonment	3.4
35. Which act provides for involuntary treatment for addicts rather than prosecution?	
A. Narcotic Control Act of 1956	4.6
*B. Narcotic Addict Rehabilitation Act of 1966	35.1
C. Drug Abuse Prevention and Control Act of 1970	46.5
D. None of the above	13.9

* Indicates correct answer

III. Opinion

1. Indicate the amount of use you consider abusive. (low score indicates a small amount of use was considered abusive.)

<u>Drugs (Listed in order of amount)</u>	<u>Average Score</u>
A. Hallucinogens (LSD, Mescaline, etc.)	1.32
B. Narcotics (Heroin, Dilaudid, etc.)	1.49
C. Inhalants (Glue, Gasoline, etc.)	1.56
D. Cannabis (Marijuana, Hashish)	2.14
E. Amphetamines (Dexedrine, Benzedrine, etc.)	2.21
F. Barbiturates (Seconal, Nembutal, etc.)	2.46
G. Tranquilizers (Valium, Librium, etc.)	3.20
H. Tobacco (Cigarettes, Cigars, Pipe)	3.88
I. Alcohol (Beer, Wine, Whiskey, etc.)	4.10

Scoring:	1 time only	= 1 point
	Once a month	= 2 points
	Once a week	= 3 points
	3 times a week	= 4 points
	Once or twice a day	= 5 points
	3 or more times a day	= 6 points

2. Rank the following drugs in terms of how dangerous you consider them to be, both to the user and the community. Place a "1" by the category you consider to be most dangerous, a "2" by the category you consider second most dangerous, and so forth. The drug you consider to be least dangerous will receive a rank of "7".

Drugs (Listed according to rank)	Average Rank
A. Narcotics (Heroin, Morphine, Demerol, etc.)	1.90
B. Hallucinogens (LSD, Mescaline, etc.)	1.99
C. Amphetamines (Dexedrine, Benzedrine, Escatrol, etc.)	4.04
D. Barbiturates (Seconal, Nembutal, etc.)	4.05
E. Cannabis (Marijuana and Hashish)	4.15
F. Alcohol (Beer, Wine and Distilled Spirits)	4.96
G. Tobacco (Cigarettes, Cigars, Pipe)	6.30

3. Check the one statement that best describes your feelings about the issue.

	City Wide Percentage
A. Drug abusers, addicts, and alcoholics, are generally morally irresponsible person. Severe punishment and imprisonment is the best way to treat them.	4.5
B. Alcoholics can be treated best by family, medical, and community efforts, such as A.A. Abusers of other drugs, however should be legally prosecuted.	10.1
C. Drug abusers, addicts, and alcoholics should be considered ill. Family, medical, psychiatric, and community efforts provide the best types of treatment for these people.	66.4
D. People who wish to use drugs should be allowed to do so. No treatment, medical or otherwise, should be imposed on them. Personal choice should be respected.	1.2
E. I don't know enough to form an opinion on what kind of treatment drug abusers should receive.	17.7

4. Check the one statement which best describes your feelings about the issue.

A. Use of all drugs, including tobacco and alcohol, should be prohibited.	25.5
B. The present laws governing drug use are adequate.	18.2
C. Use of alcohol, marijuana, tobacco, and tranquilizers should be legal for adults. Use of barbiturates and narcotics should be prohibited.	18.0
D. All drugs should be available to those who wish to use them. An individual should be subject to penalties only if his drug use leads to injury of another person.	4.0
E. I don't know enough about drugs to have an opinion on legal restrictions on drugs.	34.1

5. Do you think drug use among students is increasing or decreasing?

A. Increasing	85.2
B. Decreasing	4.8
C. Staying about the same	9.8

6. Which is the greatest factor causing drug use among students?

A. It's the "in" thing to do	74.7
B. They like the effects	11.2
C. To get back at the parents	5.2
D. There is something wrong with them to begin with	8.9

City Wide Percentage

7. Do you think drug use among adults is increasing or decreasing?

A. Increasing	61.1
B. Decreasing	9.0
C. Staying about the same	29.9

8. Who do you think is most qualified to provide drug information?

A. Doctors	53.2
B. Teachers	1.9
C. Former users	43.0
D. Parents	1.2
E. Ministers	.7

9. Do you think the present law prohibiting use of tobacco by minors should be enforced?

A. Yes	81.9
B. No	9.8
C. No opinion	8.4

10. If the use of marijuana were legal, would you consider using it?

A. Yes	4.0
B. No	95.2
C. No opinion	.8

11. Should tobacco have higher taxes to discourage smoking?

A. Yes	57.4
B. No	32.1
C. No opinion	10.5

12. Do you think doctors too often prescribe more drugs than necessary?

A. Yes	59.4
B. No	26.9
C. No opinion	13.7

13. Do you think the school systems should include drug education in their curriculum?

A. Yes	92.2
B. No	4.8
C. No opinion	2.9

14. What would you be most willing to do to help combat the drug problem?

A. Participate in an education program	53.1
B. Work a few hours a week with a volunteer agency	27.0
C. Donate money to an agency	8.7
D. Help raise money	6.4
E. Would prefer no involvement	4.7

15. In which area would you most like to see your tax dollar spent?

A. Drug education programs	37.0
B. Better police methods to control the drug supply	30.7
C. More treatment and rehabilitation facilities	18.3
D. Expansion of traditional recreational facilities	9.5
E. Would rather see money spent elsewhere	4.5

16. Rank these problems in order of their importance to you. Place a 1 beside the problem which concerns you the most, 2 beside the one which concerns you second most, etc.

Subject (listed according to rank)	
A. Drug Abuse	2.04
B. Inflation	2.83
C. Vietnam War	2.99
D. Pollution	3.09
E. Over Population	3.87

17. Rate the following agencies, departments, and offices on their efforts in combating drug abuse in Memphis. (Low score indicates high rating)

Agency (Listed according to rating)	
A. Alcoholics Anonymous	1.67
B. Metro Narcotics Squad	2.04
C. Memphis House	2.27
D. Memphis Alcohol and Drug Council	2.40
E. Memphis Police Department	2.48
F. Half and Half Coffee House	2.50
G. Local Physicians	2.57
H. P.T.A.	2.60
I. Local Pharmacists	2.66
J. Memphis City Officials (Mayor, City Council, etc.)	2.76
K. City Hospitals	2.82
L. State Officials (Governor, State Legislature)	2.88
M. Federal Officials (President, Congress, etc.)	3.02
N. City and State Courts	3.08
O. City Schools (Public and Private)	3.10

Scoring: Excellent = 1 point
 Good = 2 points
 Fair = 3 points
 Poor = 4 points

IV. Drug Use

Circle the letter which best describes your use of these drugs.	City Wide Percentage
1. Alcohol	44.4
A. Never use	20.6
B. Use monthly	14.9
C. Use weekly	10.3
D. 3 or more times a week	7.6
E. Tried a few times and stopped	2.1
F. Tried 10 or more times and stopped	
2. Tobacco	55.8
A. Never use	1.9
B. Use monthly	7.4
C. Use weekly	21.6
D. 3 or more times a week	6.0
E. Tried a few times and stopped	7.3
F. Tried 10 or more times and stopped	
3. Marijuana	97.5
A. Never use	.4
B. Use monthly	.3
C. Use weekly	.1
D. 3 or more times a week	1.3
E. Tried a few times and stopped	.4
F. Tried 10 or more times and stopped	

	City Wide Percentage
4. Hallucinogens (LSD, Mescaline, etc.)	
A. Never use	99.5
B. Use monthly	.3
C. Use weekly	.0
D. 3 or more times a week	.0
E. Tried a few times and stopped	.3
F. Tried 10 or more times and stopped	.0
5. Piroline	
A. Never use	99.6
B. Use monthly	.1
C. Use weekly	.1
D. 3 or more times a week	.1
E. Tried a few times and stopped	.0
F. Tried 10 or more times and stopped	.0
6. Amphetamines (Dexedrine, Mathadrine, Obedrin, etc.)	
A. Never use	92.0
B. Use monthly	1.2
C. Use weekly	.4
D. 3 or more times a week	.1
E. Tried a few times and stopped	4.1
F. Tried 10 or more times and stopped	2.1
7. Tranquilizers (Librium, Valium, Milltown, etc.)	
A. Never use	77.8
B. Use monthly	7.1
C. Use weekly	2.1
D. 3 or more times a week	4.0
E. Tried a few times and stopped	7.4
F. Tried 10 or more times and stopped	1.6
8. Barbiturates (Seconal, Tuinal, Phenobarbital, etc.)	
A. Never use	95.8
B. Use monthly	1.3
C. Use weekly	.5
D. 3 or more times a week	.4
E. Tried a few times and stopped	.6
F. Tried 10 or more times and stopped	.3
9. Narcotics (Heroin Dilaudid, Morphine, etc.)	
A. Never use	99.2
B. Use monthly	.5
C. Use weekly	.0
D. 3 or more times a week	.0
E. Tried a few times and stopped	.1
F. Tried 10 or more times and stopped	.1
10. Inhalants (Airplane glue, gasoline, lighter fluid, etc.)	
A. Never use	99.1
B. Use monthly	.3
C. Use weekly	.3
D. 3 or more times a week	.0
E. Tried a few times and stopped	.4
F. Tried 10 or more times and stopped	.0
11. Patent drugs (Antihistamines, caffeine tablets, or other drugs available without prescription)	
A. Never use	71.4
B. Use monthly	15.4
C. Use weekly	4.2
D. 3 or more times a week	2.6
E. Tried a few times and stopped	5.1
F. Tried 10 or more times and stopped	1.2

Unfortunately, the project was never completed. There was no way, in the length of time of this research grant, to gain access to the required records at the Police Department, courts, or prisons. Yet, the criminal justice system is still

An In-Depth Personality Study of Young Abusers

Drug abuse by an ever-increasing number of young people in Western society is such a new development and has such a variety of socio-cultural complications that the problem has been subjected to comparatively little reported research. The early phases of investigation emphasized epidemiological factors. Now there is a need for an in-depth investigation of the personality structure and social history factors of drug abusers. This information could be used to identify some of the etiological factors and the consequences of drug abuse.

The present study constitutes a first step in describing the personality structure of drug abusers. The majority of the subjects in this study were attempting to stop their abuse of drugs by participating in an in-patient program conducted at two institutions.

PROCEDURE

The Rorschach and Projective Wishes techniques, Bender Visual Motor Gestalt Test, and Wechsler Adult Intelligence Scale were administered by two interns in clinical psychology to almost all individuals who were admitted to these two services over a ten month period. In addition, a psychiatric case worker obtained a detailed social history from most of these patients.

There is a discrepancy between the number of patients seen for the social history and psychological tests. Every attempt was made to see all patients admitted to the participating institutions during the ten month period, but, because of staff limitations and the short duration of some patients' treatment, the psychological tests and social histories could not be administered to every eligible patient. Twenty-six patients were included in both the psychological and social history aspects, thirty-five patients were given only the psychological examinations, and thirty-nine were studied only for a social history. (Sixty percent of the subjects were males)

After each Rorschach was obtained and scored by means of the Klopfer-Kelly system, a complete psychological report was written. Then these reports were examined for lowest common denominators such as findings of organic brain damage, psychosis and anxiety. The Rorschach scores were used to determine a modal personality structure. Analysis of the Rorschach data, then is at both the individual and group level. The first and most superficial level discussed is the median number of scores occurring in each location, determinant, and content category of the Rorschach which is used to describe the modal personality structure of these drug users. Then, at a deeper and more comprehensive level, the hypotheses and conclusions generated by the scores of the individual percentage of this population has defective ego control.

The social histories were then examined in the same way to find those social events which are most frequent in the backgrounds of this population.

DISCUSSION OF RESULTS

The typical drug abuser in this population produces significantly fewer responses than the average person even though he is of average intelligence; therefore this lack of output is likely to result from either guarding or the lack of motivation to give of himself. He shows himself to be

a vital part of the drug abuse picture, and it would be a great loss if a follow-up program of this nature were not undertaken in the near future.

well capable of testing reality sensorily, but does not interpret that reality in keeping with the perceptions of most other people in his society. His low number of popular concepts must therefore be accounted for on the basis of his making idiosyncratic interpretations instead of his being unable to record the sensory stimuli properly.

These young people expend little energy when presented with a problem and tend to accept it without analyzing it. They accept it at face value, either responding only to the most obvious aspects of it or not even bothering to do that much. Their inner resources are inadequately developed, and some of their impulses are of such intensity that they are perceived defensively as emanating from outside themselves and of being therefore beyond their control.

In determining the significance of characteristics or conditions found, it was arbitrarily decided that those which did not apply to at least 10% of the population would be discarded. Twenty psychological characteristics (Table II) and thirty-one social history facts (Table III) qualified for further study from among the original total of 149.

In the table of psychological findings, organic brain damage is the only variable which is found in over 50% of the population. The 7.7% of the population in which possible organicity was found would be added to the 43.6% in whom organicity was more clearly demonstrated. This percentage of organic brain damage is of course unusually high and it might be accounted for by the patients' being examined within the first week, usually the first several days, after their admission. As virtually all of these patients had been using drugs up to the time of being admitted, the acute effects of intoxication were still very much in evidence. We can only hope that after six months' abstinence from drugs, there will be a significant diminution of these findings; otherwise a sizable percentage of this population will presumably suffer chronic brain damage.

An examination of Table III, which includes a list of the major drugs used, also helps us to gain some insight into this finding of organicity. The percentages are so high and sum to far more than 100% because most of the abusers used several or all of the drugs. Moreover, a number of highly toxic substances which had been used by less than 10% of the population and were not included in the table probably contributed more than their share to the final results. For instance, all of those patients who sniffed toluol glues, gasoline, or paint thinner were found to have clear evidence of brain damage. One individual who used battery acid was also found to have such damage.

Some of the behavior and personality findings are consonant with the organicity, such as defective ego control and general acting out, but there is much more here than can be accounted for by brain damage. Even where this factor is not involved, the high percentage of this population who came from a broken home, who ran away, who could not clearly specify any particular place as their own home, who had a mother and/or father with a record of drug or alcohol abuse, and who perceived their parents in unpleasant perspectives are prime candidates for personal instability and suffering.

TABLE I

Rorschach Modal Personality Structure As Scored According to the Klopfer-Kelly Method

W 5	F+ 6	H 2	R 18
W 1	F- 2	Hd 1	+% 72
D 8	M 2	A 7	Reaction to Chrom. 12"
	FM 2	Obj 1	Reaction to Achrom. 15"
	m 1		Total Time 12'6"
		P 3	Av. Time/R 40"

TABLE II

Twenty Psychological Characteristics Found Among At Least Ten Percent of the Drug-abuser Population

Category	Percent
Acting out/defective ego	38.4
Anxiety/tense	41.0
Borderline psychotic	23.0
Cooperative	38.4
Dysphoric	33.3
Hallucinations/psychotic	33.3
Idealistic	13.0
Immaturity and/or regressed	18.0
Insufficient practicality	13.0
Intraversive	18.0
Negativistic	18.0
Needs affection	20.5
Non-organic	48.7
Non-psychotic	43.7
Over-controlled	15.0
Organic	43.6
Pays attention to unusual	15.0
Poor interpersonal	33.3
Rigid ego	10.0
Suicidal	25.6

TABLE III

Thirty-one Social History Facts Found among At Least
Ten Percent of the Drug-abuser Population

Category	Percent
"Acts crazy"	13.0
Addicted	23.1
Broken Home	38.4
Chief drug amphetamines	13.0
Dominant mother	15.0
Dominating-authoritarian father	28.2
Drugs used alcohol	20.5
Drugs used amphetamines	61.5
Drugs used barbiturates	41.0
Drugs used marijuana	51.3
Drugs used narcotics	48.7
Drugs used psychedelics	59.0
Father alcohol/bad/drugs	25.6
First drug alcohol	15.0
First drug smphetamines	23.1
First drug marijuana	23.1
First drug psychedelics	13.0
Last child	18.0
Left home	25.6
Location unstable	20.5
Middle child	38.4
Mother alcohol and/or drugs	18.0
Mother bad	30.8
Passive father	23.1
Passive mother	10.0
Reason for continuing - enjoyment	13.0
Reason for using - curiosity	23.1
Reason for using - friends	13.0
Reason for using - social suggestibility	30.8
Sexual acting out	41.0
Sexual problems	18.0

The social history facts enumerated above give one cause to expect serious personality upheaval, and the findings unfortunately corroborate the worst expectations. There is a high incidence of anxiety, dysphoria, immaturity, negativism, affectional deprivation, poor interpersonal relationships, sexual acting out, suicidal impulses, and psychosis. If the borderline psychotics are added to those found to be psychotic, 56% of this population is found to fall within the psychotic range. Although, of course, it is impossible to determine exactly how many patients are psychotic as the result of organicity, the constellation of the psychological and social history findings suggests that these young people would have an unusually high incidence due to purely psychogenic factors.

The favorite drug is clearly amphetamines although it is followed closely by the hallucinogens. Central nervous system depressants are not nearly so popular with this population. Certainly this study fails to support the hypothesis that marijuana leads to other drugs, as only 23% began with it. Moreover, social suggestibility played the major role in initiating drug usage, followed closely by desire for a new experience and curiosity about it. Although many reasons were given for continuing to use drugs, only one reason for continuing was given sufficiently frequently to be included here, enjoyment, and that was expressed by only 13%.

In general, the psychological picture revealed here of the average young drug abuser is one of an unhappy, tense, severely disturbed individual whose background is likely to produce the type of personality maladjustment demonstrated in the projective evaluations.

An analysis of the data in terms of the two most frequently found conditions, organicity and psychosis, reveals that 18% were both organic and psychotic, 26% were organic but not psychotic, 15% were psychotic but not organic, and 41% were neither psychotic nor organic. These findings give added support to the hypothesis that the high incidence of psychosis is due to more than brain damage, specifically a disturbed personality adjustment brought about by an extremely poor home condition and mentally sick parents.

Intellectually, the drug abusers are holding up well overall although there are several specific areas of intellectual operation which are significantly below average. The mean Wechsler full-scale intelligence quotient is 104 with a verbal I.Q. of 102 and performance I.Q. of 103. The standard deviations are 12.9, 13.3 and 12.0 respectively. There are two subtests whose scale scores are significantly below normal, vocabulary with a mean-scale score of 7 and block design with a mean-scale score of 8. The standard deviations of both of

these subtests, 6 and 5 respectively, are approximately double the standard deviations of the other subtests. As the patients are drawn from a predominantly middle and upper socio-economic and educational level, their poor showing cannot be accounted for on the basis of cultural factors. And their poor showing on the block design subtest correlates well with the other signs of organicity on the Bender-Gestalt.

CONCLUSIONS

This population of drug abusers, most of whom are in their late teens or early twenties, have experienced a disproportionately high incidence of familial disturbance, insecurity, and anxiety-provoking situations. These incidents continue to exert a profound influence upon their lives and result in personality disorganization and in some cases psychosis.

The sense of relief from their unhappy lives which comes when they intoxicate themselves appears to be one of the major factors which perpetuates the practice although most individuals began to use drugs as a result of their extreme social suggestibility and curiosity. After they were exposed to this experience, they appeared to equate their numbed consciousness with "enjoyment" or "pleasure" because at least in that state they were not suffering as much as they had otherwise.

Unfortunately, many of the substances they chose or the extent to which they used them to produce this anaesthetic effect are sufficiently toxic to produce brain damage. The number of drug abusers in whom this organicity is acute and the number in whom it will prove to be chronic cannot be ascertained in this study.

These individuals' personality problems are found in their social histories to antedate their drug abuse, therefore, it appears reasonable to conclude that the drug abuse is only additional symptom of an already disturbed personality.

RECOMMENDATIONS

1. Those patients who show signs of organic brain damage and/or psychosis should be followed up to ascertain the stability of these conditions.
2. Much larger sample of drug abusers should be taken in future studies of this type, particularly in view of the number of highly significant findings made here.
3. The drug abusers who are taken into various forms of therapy should be studied longitudinally in order to ascertain which methods are most effective.

Some Factors Associated with Student Drug Abuse

INTRODUCTION

The questionnaire used in this study was developed on the in the early 1970's describing illegal drug users. At that time young drug abusers were characterized as being alienated from society and responsive to slogans such as "tune in, turn on and drop out." The cultural center for that generation of users was the Haight-Ashbury area of San Francisco. Some of the cultural pre-requisites for membership in this society were drug abuse, a distinctive pattern of dress, and other "anti-establishment" attitudes and behavior.

Items were selected for inclusion in this study on the basis of these early stereotypes. Groups of items were utilized

which hopefully would tap attitudes towards the family, institutions, drug culture, delinquency, self and others, drug knowledge, drug use, et cetera. Items which reflected the negative side of the "drug culture" were included for the purpose of evaluating their meaningfulness in 1971. goal of this study was to determine if these characteristics were associated with student drug users at educational levels from seventh grade through graduate school in Memphis, Tennessee.

THE SAMPLE

The sample in this study consisted of the students from seventh grade through graduate school who participated in the

school survey mentioned elsewhere in this report. To facilitate the analysis incomplete questionnaires were eliminated, and every third complete record was included in this sample (N-5295). An overall drug score was obtained for each subject by multiplying a number assigned for frequency of use by the weight given to each drug. The numbers used for frequency of use were: 0-have never used, 1-tried a few times and stopped, 2-used many times and stopped, 3-use about once a month, 5-use about once a week, 9-use 3 or more times a week. The weight assigned to the substances were 1-alcohol, 2-marijuana, 3-amphetamines and barbiturates, 4-inhalants, and 5-heroin, morphine and cocaine. For example a student who reported using heroin three or more times a week would receive a score of 5x9=45. If the same student reported using any other substance the score would be calculated and added to 45 to produce a total score. The higher the overall score the more serious and/or frequent the reported drug use.

THE VARIABLES

The items from the student questionnaire (contained in Appendix A) are the variables used in this study. The "L" scale reliability check was excluded, along with other items which could not be scaled: questions 39, 41, 45, 47, 51, 62, 64, 66, and 67. The four questions on Drug Knowledge (42, 43, 49, and 57) were combined into one score. Thus, the total number of items included for factor analysis was 54.

The direction of scoring was assigned with the intention that statements, beliefs, and practices with "bad" connotations in society would receive high scores. For example, agreement with the statement, "I have a lot in common with most of the students at my school," would receive a low score. Agreement with, "My parents expect too much from me," would be assigned a high score. This scoring convention also holds for interpretation of the first order factors and their intercorrelations. Weights were assigned to the different drugs and the degree-of-use categories.

ANALYSIS OF THE DATA

The 54 variables were intercorrelated over the N of 5295. An examination of the correlation matrix for obvious clusters led to the estimate that 12 factors should be evaluated. The battery was then factored to the principal axis solution with 12 factors and rotated to the Varimax solution. The Varimax matrix is presented in Table 1. The Varimax solution was then used as the input to the Maxplane program (Eber, 1966). The Maxplane results are given in Table 2, the transformation matrix that carries the Varimax matrix into the Maxplane matrix is presented in Table 3, and the intercorrelations of the primary factors are given in Table 4.

The selection of a solution for a factor study is a matter worth some comment. Burt (1941) distinguished between analyses of the "casual explanation" and the "scientific description" types, and Thurstone (1947, pp. 503-510) made essentially the same distinction. The distinction, as well as the methodological consequences, has been commented upon many times since then, for example by Hartley (1945), Henrysson (1957), Cattell (1952) and others.

A user of factor analysis must decide which of the two types to employ and choose his methodology accordingly. The goal of this study was to make inferences to the underlying pattern of factors, or "functional unities," that resulted in the

observed pattern of correlations. As a result an inferential procedure that will yield a maximally plausible inference concerning the underlying pattern of factors was desired. Thurstone's concept of rotation to simple structure appears to be the most defensible inferential procedure available.

Eber (1966) has offered the Maxplane program based upon the earlier work of Cattell and Muerle (1960). This procedure maximizes the number of variables lying in the hyperplanes, and provides a good approximation to the efforts of a visual rotator to maximize the number of near-zero loading in the factor matrix. A comparison, by one of the present writers, of Maxplane solutions to a Thurstonian visual rotator's solutions indicates a high degree of correspondence. Maxplane is the best machine approximation to the Thurstonian simple structure solution.

Even though Maxplane will not yield a Thurstonian simple structure correct in all details, the approximation is generally very good. In the remainder of this paper the Maxplane solution, presented in Table 2, is accepted as the "correct" factor solution.

INTERPRETATION OF THE FACTORS

Since the order in which Varimax or Maxplane presents the factors is arbitrary, the custom of discussing the factors in order from the best defined, structurally, to the worst will be followed. If, however, a factor has some items in common with another factor it will be discussed in association with this factor, even though out of turn.

The items listed as loaded on each factor were selected by visual inspection of the plots as being just those variables that clearly stood out of the plane. This procedure, subjective as it seems is preferable to any of the proposed tests of significance which seem especially dubious in cases where the battery has been rotated to oblique simple structure. The reader who finds unusually low loading being listed as "significant" should also remember that this study has a very large N to work with, hence very stable correlations.

FACTOR K

In terms of high loadings, number of variables loading on the factor, and a strongly defined plane this factor is undoubtedly the best defined in the battery. The items loading on this factor and their loadings are presented below.

ITEM	FACTOR LOADING
(12) My family is a very happy one.	.584
(25) My parents love each other very much.	.488
(34) I do not love my parents very much. (R)	.454
(28) My father and I do not get along well together. (R)	.436
(37) My mother is very close to me.	.394
(19) My parents expect too much of me. (R)	.318
(44) How many friends do you have whom you can tell almost everything about yourself? (R)	.284

A subject scoring high on the idealized factor K will tend to assert (34) (19) and (28), deny (12), (25), (37), and claim few or no friends on (44). Items for which the scoring direction is opposite that appearing on the questionnaire are

designated by (R). With the exception of item (44) these items were written as a group to assess something of the quality of family life. As such, they were thought of as an "Attitude toward Family" scale. It is interesting to find that these items, conceptually all of a kind, turn out empirically to be all of a kind. The presence of (44) on this factor may give a clue as to the psychological quality of the factor. The loading for item (44) is low but due to definiteness of the plane and the very large sample used in this study it clearly seems significant. The loading, however, does not indicate a large contribution to the variance of item (44) from this factor. Factor K is interpreted as indicated family disharmony and a lack of familial affection. With (44) in mind this harmony-disharmony polarity takes on the dimension of emotional support. This factor may reveal the presence or absence of an emotionally supportive home environment.

FACTOR B

Factors M and J are, from a structural standpoint, the next best factor, but item (44), with a small loading in factor K, also has a small loading on B and for this reason factor B will be discussed next.

ITEM	FACTOR LOADING
(33) I enjoy myself most when I'm alone, from other people. (R)	.342
(18) I have a lot in common with most of the students at my school.	.334
(53) Do you see the world as basically a friendly place?	.332
(23) I don't get along well with most people. (R)	.305
(35) One soon learns to expect very little from other people. (R)	.300
(44) How many friends do you have whom you can tell almost everything about yourself? (R)	.248
Missing No. 14	

An individual scoring high on this factor would assert (33), (23), (35), deny (18), (43), and claim few friends on (44). As with factor K these items, specifically (33), (18), (23), (35), and (44), initially formed a scale though of as "Self and Others." Of the original scale only (14), "I would like to have more close friends", is missing from factor B. Again, as with K, the effort of this scale was to assess a state of isolation this time, as distinct from K, as isolation from other than the family. This quality of isolation is probably why (44) is present on both factors. In this case B resembles introversion but since this was not a personality battery there is not enough material to make sure an identification. Factor K is labeled as "Isolation from family" and B as "Isolation from non-family."

According to the intercorrelations of Table 4, the factors are only slightly related. This indicates that these two factors are relatively independent of each other.

FACTOR C

Factor C will be considered next because item (19), appearing

on K, also loads on this factor. The definition of this factor is not impressive and one must keep in mind the possibility of a residual factor.

ITEM	FACTOR LOADING
(54) How often do you attend church or church-related activities?	.386
(1) What is your present grade in school?	.330
(50) How many school-related activities do you take part in?	.277
(19) My parents expect too much from me. (R)	-.257

A subject scoring high on this factor will be older (1), will report few church (54) or school (50) activities, and will think that his parents do not expect too much of him (19). Lightly loaded as it is this factor gains stature inasmuch as the two questions concerning formal activities are both on this factor. Beyond this one can observe that the subject's parents are not demanding (perhaps indifferent?) and that this pattern is more pronounced the older the subject.

FACTOR L

This factor has one good loading and a series of very low loadings. If one considers the one good loading as significant, one is in the position of claiming that the communality of the variable was seriously overestimated as a loading for a singlet. With a battery of such size this is an unlikely effect and, in view of the large sample, it seems plausible that these lower loadings are meaningful. In any event, this factor, like C previously, is marginal.

ITEM	FACTOR LOADING
(3) What is your race?	.429
(24) Going to school is a waste of time.	.204
(37) My mother is very close to me.	.190
(60) Do you like yourself?	.176
(34) I do not love my parents very much. (R)	.160
(26) I usually do well in most things that I do.	.147

Subjects scoring high on this factor are white, disagree that school is a waste of time, do not like themselves, do not do things well, do not love their parents nor are they close to their mothers.

FACTOR M

After factor K, factors M and J are the best defined. Let us turn first to M.

ITEM	FACTOR LOADING
(5) Do you use marijuana or THC (pot, grass)?	.552
(59) How many people have you given marijuana to or "turned on"?	.480

* Tables 1-4 not included in this preliminary report.

(46) Have you ever used two or more drugs (including alcohol) at the same time to get high?	.410
(58) How many of your 5 best friends use marijuana?	.397
(32) Use of marijuana very likely leads to use of drugs like heroin.	.238
(6) Do you use LSD (acid)?	.214
(53) Drug knowledge score combined.	.210

A high score on this factor would show frequent use of marijuana (5), and of LSD (6), of two or more drugs (46); would claim a number of friends under (58) and (59); would score high on the drug knowledge score (53) and disagree with (32).

Clearly this factor can be regarded as indicative of marijuana usage and association with others who use marijuana. There is also, but less pronounced, in (6) and (46), some aspect of other drug usage.

FACTOR J

ITEM	FACTOR LOADING
(9) Do you use barbiturates?	.433
(8) Do you use amphetamines?	.397
(10) Do you use heroin, morphine, or cocaine?	.369
(6) Do you use LSD?	.340
(63) Have you ever injected a drug to get high? (R)	.301

This is clearly a pattern of "hard" drug usage and a high scorer on this factor probably has a serious drug problem.

At this point a general characteristic of the data should be discussed. The questionnaire contained items aimed at developing the psychological background of drug usage. It was possible that factors would have developed in which both drug usage and psychological items would have occurred together. It is now clear that in the first order the drug usage factors and the psychological factors are going to be distinct and the psychological concomitants of drug usage will be revealed in the correlations between factors.

Although the correlations in Table 4 can be expected to change if the battery is rotated from the Maxplane solution to full simple structure their general size and sign are reliable. One interesting observation contained in Table 4 is the correlation of .606 between factor J and M. Thus, although marijuana and hard drug usage are distinct patterns, they have a lot in common. This result suggests that the claim that the marijuana and "hard drugs" have nothing in common is simply not true.

The best psychological factor, K (isolation from family) correlates negligibly with drug usage and the same is true of B (isolation from non-family). In terms of drug abuse isolation, by itself, seemed to have little predictive value. Factor L is suggestive of a relation but further rotation could easily change the picture. Only C, against M, looks predictive but is not well defined and one must bear in mind the shaky nature of C in interpretation.

However, an examination of correlations contained in Table 4 will reveal that all of the remaining factors, A, D, E, F, G, H, show promise in predicting both types of drug use.

FACTOR D.

Of the above list of factors D is probably the most important.

ITEM	FACTOR LOADING
(21) The more education a person has, the more he will enjoy life.	.384
(2) What is your sex?	.345
(22) Most judges are honest.	.297
(36) We would have less crime if our laws were more strict.	.287
(17) In America there are still unlimited opportunities for those who are willing to work hard.	.259
(27) People who use LSD regularly are not responsible people.	.236
(15) Draft dodgers should be sent to prison.	.226
(26) I usually do well in most things that I do.	.210
(54) How often do you attend church or church-related activities?	-.221

A high scorer on this factor disagrees with (15), (36), (21), (22), (17), (27), is female, feels she doesn't do well at things, and attends church. (54) is already rotated off this factor and it seems that (2) may follow. Such a person might be typified as anti-establishment and permissive whereas a low scorer on this factor would believe that the current state of affairs was essentially correct and would be repressive in his defense of the status quo. The positive correlations of this factor with J and M seem quite sensible. This factor reflects one of the major belief patterns of the "counter culture."

FACTOR F

After D the best defined of the remainder is F.

ITEM	FACTOR LOADING
(16) The use of LSD is a valuable new experience. (R)	.417
(20) Use of heroin and LSD should be legalized. (R)	.402
(29) LSD users are more creative than other people. (R)	.319
(27) People who use LSD regularly are not responsible people.	.285
(30) A person should obey only those laws that seem reasonable. (R)	.242

Items (24), (32), (34), and (38) may develop loadings on this factor with further rotation.

A high scorer on this factor agrees with (16), (20), (29), and (30) and disagrees with (27). Obviously this is a drug approval factor but (30) and the possibility of loadings of (24), (34), and a minus (38) suggest that these radical attitudes are expressed on a background of anxiety.

FACTOR G

This factor, though less heavily loaded, is still well enough defined to avoid being classified as a residual.

ITEM	FACTOR LOADING
(51) What was your grade average in all subjects last term?	.383
(26) I usually do well in most things that I do.	.337
(56) About how often are you absent from school for any reason?	.270
(60) Do you like yourself?	.227

A high scorer on this factor has low grades, is absent a good deal, feels that he does not do well and does not like himself very well. It would seem possible to include (61) in this factor. All told, a miserable picture and obviously a factor delineating one who is failing in his role of student. It appears that (4) and (55) may have also been included indicating tobacco and alcohol usage is related to this pattern. Frequent use of these two substances is often indicative of anxiety.

FACTOR E

In size of loadings E comes next, but the fact that it is essentially a doublet indicates that all of the well defined factors have been nearly exhausted.

ITEM	FACTOR LOADING
(48) Have you ever been arrested for any reason?	.346
(40) Have any of your friends ever been arrested for any reason?	.299
(24) Going to school is a waste of time. (R)	.196

Although three of the items have dropped off, the appearance of (24) gives it the feel of hospitality and this factor will be named "delinquency." The negative loading of (27) appears to be a defect of the Maxplane solution and will apparently rotate off with further moves.

FACTOR H

Between H and A there is little to choose.

ITEM	FACTOR LOADING
(31) The Vietnam war has been a waste. (R)	.286
(13) Our basic form of government needs to be changed. (R)	.270
(30) A person should obey only those laws that seem reasonable. (R)	.209
(35) One soon learns to expect very little from other people. (R)	.189
(15) Draft dodgers should be sent to prison.	.186

The high scorer here agrees with (31), (13), (30), (35) and disagrees with (15). In spite of the low loadings it makes sense and this fact, coupled with the stability of the correlations, leads to the naming of this factor as "radical attitude."

FACTOR A

Along with C and L this factor is the weakest of the list.

ITEM	FACTOR LOADING
(4) Do you use alcohol (Beer, wine, whiskey, ect.) to get high?	.310
(1) What is your present grade in school?	.218
(53) Drug knowledge score (all items)	.197
(2) What is your sex?	-.321

That both alcohol use and drug knowledge increase with age and that this increase is most noticeable in males seems plausible enough; hence Factor A may not be residual. This factor could be a masculine-feminine one produced by the tendency for boys to be less sheltered and "tougher" than girls. Factor A seems similar to the MMPI masculinity-femininity scale.

SUMMARY

The main item of interest that emerges from this analysis has to do with the appearance of two drug usage factors, one for marijuana and the other for the so-called hard drug (heroin, barbiturate, amphetamine, etc.). The existence of these two factors indicates that there are two basic modes of student drug use, one relating to the use of marijuana and the second to the use of harder drugs.

However, the sizable correlation ($R = .605$) between the two factors implies that many students use both types of substances. This correlation calls into question the frequently heard comment that these two kinds of drug usage are unrelated.

Positively related to these two main factors are a series of factors: "D" or "anti-establishment" views, "E" or "delinquency", "F" or "drug approval", "G" or "failure", and "H" or "radical attitude." Of these D, E, G, and H all correlate fairly well with M whereas E and F correlate with J better than do the rest.

The most prominent factor of the battery, "K", or "isolation from family" and a somewhat similar factor "B" or "isolation from non-family" rather surprisingly fail to have much relation to drug usage.

Nevertheless the results of this study support the stereotypes. An illegal drug user is indicated as being more likely to hold anti-establishment views, having broken the law and having problems in school and not participating in extra-curriculum activities. The hard drug user is indicated as being more strongly committed to drug culture values and delinquent behavior.

CONCLUSIONS

- Those who abuse marijuana and "hard drugs" constitute separate groups in many respects.
- In both the marijuana and hard drugs-abusers, there is likely to be radical attitudes, failure in school, delinquency, and approval of drugs.
- The drug-abuser has a strong tendency to hold an "anti-establishment" philosophy, particularly permissiveness.
- In expressing and holding to the philosophy reported in point three, the drug-abuser is likely to be anxious and threatened by his own views.

5. Those individuals who perform poorly in school are likely to abuse tobacco and alcohol.

4. It is possible that the drug-abuser's family tends to be indifferent towards him and expect little of him.

7. The finds of this study are supported by similar results in the in-depth personality study reported separately.

RECOMMENDATIONS

1. In order to decrease the incidence of hard drugs abuse it would be helpful to concentrate educational or correctional programs upon those individuals who are delinquent in other areas of life, hold radical attitudes, approve of drug-abuse,

have a permissive family history, fail in school, and smoke marijuana. The greater the number of these traits which an individual possesses the greater the likelihood that he will abuse drugs.

2. Because these individuals are in part threatened by their own views enumerated in point one, any psychotherapeutic endeavor should focus upon that weakness and build upon it.

3. Insofar as the drug-abuser has been over-indulged much of his life, a remedial effort should emphasize self-denial and all of those qualities which contribute to maturation of personality and adequate reality testing.

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SECTION III TREATMENT

Memphis House

In order to facilitate treatment of drug abusers in Memphis, the Commission entered into an agreement whereby Memphis House, an existing residential treatment center for drug abusers, was to receive \$1,000 of the LEAA grant per month for 11 months. In exchange, the Director of Memphis House, the Reverend Barry Boggs, agreed to share existing data and allow the staff of the Drug Research Center extensive time with each resident for social histories and psychological testing.

Memphis House is located in the heart of Memphis at 2262 Union Avenue. Its residential capacity is 8-10 persons ranging in age from 15 to 25. As a direct result of the funds provided by LEAA, one additional staff person was hired, bringing the present total of full-time staff to three. The general operational budget runs about 2,300 monthly, approximately \$8 per patient per day.

During the course of the LEAA grant period, one of the staff members of the Drug Research Center gathered social histories on residents at Memphis House. Psychological tests, including the Rorschach Projective Technique, Bender Visual Motor Gestalt Test, Wechsler Adult Intelligence Scale, and Projective Wishes, were administered. In addition, questionnaires were completed by members of the staff at

Memphis House concerning each resident's behavior in a group and his adjustment to the community at Memphis House.

Black Community Center

At the Drug Research Center became established, one of the first needs recognized by all concerned was that of a treatment/referral center in the black community. The existing facilities, Memphis House and Highland House, were being frequented by white drug users, but very few of the black citizens were seeking help at these two facilities. Information concerning drug abuse in the black community was almost non-existent.

In order to alleviate this problem two part-time workers were employed to help establish a crisis intervention center in the black community. The center was to have two major functions: First, it was to provide the community a treatment and referral center which would act as a coordinator of other centers in the area, and secondly, the center would gather information concerning abusers in the black community.

For about 6 months the two part-time personnel worked to establish such a center. However, no funds could be located to assist in this endeavor, and the project had to be put aside until a time when it could be implemented in a more successful manner.

SECTION IV EDUCATION AND PREVENTION Memphis Alcohol & Drug Council

The Memphis Commission on Drug Abuse was interested in facilitating educational as well as treatment efforts in regard to the drug abuse problem. To supplement existing educational facilities, the Commission agreed to provide the Memphis Alcohol and Drug Council with funds to hire two part-time personnel for a period of 10 months. Mr. Robin Kirk and Mrs. Jane Zussman have aided the Council considerably in expanding its efforts in the community. As a result of their contribution, the Memphis Alcohol and Drug Council has been of service to over 11,000 persons in the Memphis area during the past 10 months.

The Council has trained 564 persons who have been involved in helping professional groups such as the Tennessee Department of Employment Security, The CAA Urban League, Family Planning, the International Group of Memphis, Board of Education Administration Interns, The United Nation Association Volunteers, Teachers in the Memphis City Schools, and S.C.O.P.E. In evaluating the results of two of these professional training programs, it was found that the programs did, in fact, improve general knowledge regarding the use and abuse of drugs and cause a considerable amount of attitudinal change.

The Council has also been of great service to the community through the media of radio and television. With the aid of additional funds provided by the Commission, Mrs. Zussman produced a 30-minute documentary film called "Steven, Human Being #39741". The film was such a successful project that it has been requested for use as a community education program. The Council is currently seeking avenues which will incorporate the film into the Memphis City School education projects as an honest and objective program exploring the legal aspects of drug abuse.

As the critical needs of the community have increased, the Memphis Alcohol and Drug Council has been increasingly sought consultants to other agencies and mental health centers. Mr. Kirk has assisted the Council's director in writing proposals for community needs for a number of organizations including U.T. Mental Health Center, Summer Avenue Mental Health Center, and the Juvenile Delinquency Task Force for rehabilitation of youthful drug abusers.

The Council has completed a multitude of educational projects during the 10 months of funding, and the staff of the Council has hopes of continuing the projects after the grant expires. In fact, plans for the continuation of some of the projects are already underway. The Memphis Board of Education has set dates for two on-going seminars for the Professional Growth Series for the school year 72-73. With this and other projects already underway, hopefully the Memphis Alcohol and Drug Council will be able to continue its efforts in providing the community valuable assistance in the field of drug abuse education.

SCHOOL PROGRAMS FOR DRUG ABUSE PREVENTION

With growing concern for the health and well-being of the young people of Memphis, a joint project in drug abuse education

was launched by the Memphis Commission on Drug Abuse and the Catholic Schools Office of the Diocese of Memphis. A committee, composed of administrators, educators, and guidance counselors was formed in December of 1971 to develop a curriculum that might aid all Memphis-area students in making their way through the nightmarish world of drug abuse.

Under the leadership of Msgr. Paul J. Morris, Superintendent of Catholic Schools in the Diocese of Memphis, and Dr. Herbert W. Smith, Research Coordinator for the Memphis Commission on Drug Abuse, the Drug Abuse and Education Committee has begun the first phase of its task: to determine what should be included in a drug abuse curriculum. A review of the already existing curricula has been undertaken by committee members. In addition, a second survey of students in the Memphis area (from 5th grade through graduate school), undertaken by the Memphis Commission on Drug Abuse in February, 1972, has provided data on the extent and nature of the drug problem in Memphis. It is hoped that the information obtained from this questionnaire concerning the personality type of young drug users will be used by the curriculum committee to develop a drug prevention program which would get beyond the drugs to the real psychosocial causes of drug abuse.

Perhaps, more importantly, the Drug Abuse and Education Committee has received the cooperation of many of the area's most knowledgeable authorities on drug abuse. The committee has already received valuable guidance from Dr. Alan Battle, a clinical psychologist who has been working in the drug-related areas for the past 5 years, Rev. Barry Boggs, director of Memphis House; Dr. James Eoff, assistant clinical professor of pharmaceuticals, and Mr. Allen McMurtry, director of Highland House, as well as many other professionals, parents, and students concerned about drug abuse in Memphis.

The second phase of activity for the Drug Abuse and Education Committee will entail the actual writing of curriculum or curricula to be introduced on an experimental basis. For this purpose, the committee will solicit the advice of a special consultant in curriculum development. The talents and advice of educators and students is also vital to the success of this phase of program development.

While the content of the curriculum is still in the planning stage, several points of consensus within the committee have been established. The committee agrees that a strictly informational approach to drug abuse education is not its goal. Rather, a drug abuse curriculum should seek to get beyond the symptoms to the real causes of drug abuse and, hence, should be value-oriented. A conclusion from the National Conference on High School Students and Drugs perhaps comes the closest toward describing what the committee members envision as the end result of their efforts. Conclusion #6 states: "School districts should consider establishing a course in the general area of 'human development'. The problem of living, including all forms of drugs in context, could be handled in a comprehensive course on

psychological growth and development." (I/D/E/A Report, 1970) In addition, the committee recognizes the need to start early with drug abuse education and plans to have at least two programs -- one for elementary school and another for high school students -- which will vary according to content and approach.

The Memphis Commission on Drug Abuse has already conducted a valuable pretest of the target schools in the Catholic school system and plans extensive and on-going evaluation throughout the course of the study. Control groups will be used to determine the effects of the drug abuse curricula. Different approaches toward drug abuse education may be tried for comparison and evaluation, and variables such as the effects of parental involvement in a drug-education

program may also be tested.

In summary, the committee hopes to determine the effectiveness of any and all programs it institutes and thus provide valuable information for the battle against drug abuse both in Memphis and in the nation at large.

RECOMMENDATIONS

That the project be continued and expanded to include an evaluation of several prevention programs during the 1972-73 school year. An effective prevention program must be developed in the Memphis schools in the very near future.

SECTION V

SUMMARY TABLE AND OVERALL RECOMMENDATIONS *

FINAL RECOMMENDATIONS

1. That the Commission continue and expand its activities in the following areas:

a. The aim of this project would be to develop several approaches to the prevention of drug use by means of a curriculum introduced into a school system in Memphis. Three different approaches in the areas of science, social studies, and guidance would be developed during the 1972-73 school year. The programs in each curriculum area would be presented to various socio-economic groups so that the results would be applicable to all students in Memphis. Both elementary and junior and senior high school students would be included in the program. At the end of the school year the drug use of the students who participated in each program would be compared to that of a control group on several measurements of drug abuse. Those programs which resulted in a decrease in drug use could be adopted by other schools in the city.

An estimate of the cost of this beginning program is \$10,000. The sum of money is about the amount required for the inpatient treatment of two drug addicts for a one year period. A meaningful prevention program is the most important ingredient in any community's drug abuse program.

b. That the research operation continue to reflect the extent of the drug problem in Memphis. The school survey, 24-hour census, and physicians view would be continued on a yearly basis. Additional information such as the number of drug arrests would be obtained to improve the accuracy of the prediction made on drug use.

In addition a central facility for the analysis of unknown drugs should be made available to the community, and an existing agency should assume the responsibility for

providing drug abuse information to practicing physicians and other professionals.

c. The Commission should establish a program to follow the drug abuser through the criminal justice system and obtain information concerning the most successful form of treatment for each individual. A person would be followed from the day he was arrested on drug charges to the court system and eventually, if convicted, to the prison system.

As it is now, there is very little information exchanged between the Police Department, courts, and prison systems. The arresting officers never know what happens to their prisoners after they go to court, and likewise, officials of the other systems do not know what happens before or after an offender is sent to their systems. For this reason, one of the goals of the city should be to establish a program to follow these subjects and see what percentage come back through the system as soon as they are released, and most importantly what, if anything, can be done to improve the system so that the abusers may be successfully rehabilitated.

d. That a treatment/referral center be established in the black community. Aside from treating drug abusers, the center should act as a coordinating agency for other community centers and gather information concerning abuse in the black community so that the exact needs of this community can be determined.

2. To establish a climate of understanding of drug use in Memphis. A fact that has become abundantly clear during this 12 month period is that drug abuse is defined by many people as something someone else is doing. Adults point toward college students' use of marijuana, LSD, and other illegal drugs, while younger citizens point toward their parents' use of alcohol, tranquilizers, barbiturates, and amphetamines. Each group maintains its own drug use practices. In this community, drug use is widespread and transcends age, social class, and education.

APPENDIX A

Student Questionnaire

Student Questionnaire Test Booklet

(Drug Research Center)

Please read the following instructions before proceeding:

The use of drugs in each of these questions refers to drugs used to get high or for pleasure or kicks. We are not asking about drugs used in connection with an illness.

Do not put your name anywhere on the answer sheet or test booklet. Please answer all questions honestly. There are no code numbers or any other means of identifying an individual's answer sheet.

Please do not mark on this test booklet. Record your answer by circling the number of your choice on your answer sheet. Be sure to read the entire list of choices before marking your selection and please circle only one answer for each question.

1. What is your present grade in school?

1. 5th grade
2. 6th grade
3. 7th grade
4. 8th grade
5. 9th grade
6. 10th grade
7. 11th grade
8. 12th grade

9. College Freshman
10. College Sophomore
11. College Junior
12. College Senior
13. 1st yr. Graduate school
14. 2nd yr. Graduate school
15. 3rd yr. Graduate school
16. 4th yr. Graduate school

2. What is your sex?

1. Male
2. Female

3. What is your race?

1. Black
2. White
3. Other

4. Do you use Alcohol (Beer, Wine, Whiskey, etc.) to get high?

- | | |
|---------------------------|---|
| 1. Have never used | 4. Use 3 or more times a week |
| 2. Use about once a month | 5. Tried a few times and stopped |
| 3. Use about once a week | 6. Used many (10 or more) times and stopped |

5. Do you use Marijuana or THC (Pot, Grass)?

- | | |
|---------------------------|---|
| 1. Have never used | 4. Use 3 or more times a week |
| 2. Use about once a month | 5. Tried a few times and stopped |
| 3. Use about once a week | 6. Used many (10 or more) times and stopped |

6. Do you use LSD (Acid)?

- | | |
|---------------------------|---|
| 1. Have never used | 4. Use 3 or more times a week |
| 2. Use about once a month | 5. Tried a few times and stopped |
| 3. Use about once a week | 6. Used many (10 or more) times and stopped |

7. Do you use Cyladil (Grit)?

- | | |
|---------------------------|---|
| 1. Have never used | 4. Use 3 or more times a week |
| 2. Use about once a month | 5. Tried a few times and stopped |
| 3. Use about once a week | 6. Used many (10 or more) times and stopped |

8. Do you use Amphetamines (Uppers, Speed, Pep Pills)?

- | | |
|---------------------------|---|
| 1. Have never used | 4. Use 3 or more times a week |
| 2. Use about once a month | 5. Tried a few times and stopped |
| 3. Use about once a week | 6. Used many (10 or more) times and stopped |

9. Do you use Barbiturates (Downers, Reds, Blues, Yellows)?

- | | |
|---------------------------|---|
| 1. Have never used | 4. Use 3 or more times a week |
| 2. Use about once a month | 5. Tried a few times and stopped |
| 3. Use about once a week | 6. Used many (10 or more) times and stopped |

10. Do you use Heroin, Morphine, or Cocaine (Horse, Miss Emma, Snow)?

- | | |
|---------------------------|---|
| 1. Have never used | 4. Use 3 or more times a week |
| 2. Use about once a month | 5. Tried a few times and stopped |
| 3. Use about once a week | 6. Used many (10 or more) times and stopped |

11. Do you sniff glue, lighter fluid, gasoline, or paint thinner?

- | | |
|---------------------------|---|
| 1. Have never used | 4. Use 3 or more times a week |
| 2. Use about once a month | 5. Tried a few times and stopped |
| 3. Use about once a week | 6. Used many (10 or more) times and stopped |

Below is a list of statements with which you may or may not agree. On your answer sheet, mark the number which best describes the way you feel about each statement. There are no "right" or "wrong" answers. We are interested in your opinion.

12. My family is a very happy one.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

13. Our basic form of government needs to be changed.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

14. I would like to have more close friends.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

15. Draft dodgers should be sent to prison.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

16. The use of LSD is a valuable new experience.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

17. In America there are still unlimited opportunities for those who are willing to work hard.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

18. I have a lot in common with most of the students at my school.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

19. My parents expect too much from me.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

20. Use of Heroin and LSD should be legalized.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

21. The more education a person has, the more he will enjoy life.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

22. Most judges are honest.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

23. I don't get along well with most people.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

24. Going to school is a waste of time.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

25. My parents love each other very much.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

26. I usually do well in most things that I do.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

27. People who use LSD regularly are not responsible people.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

28. My father and I do not get along well together.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

29. LSD users are more creative than other people.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

30. A person should obey only those laws that seem reasonable.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

31. The Vietnam war has been a waste.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

32. Use of Marijuana very likely leads to use of drugs like Heroin.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

33. I enjoy myself most when I'm alone, away from other people.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

34. I do not love my parents very much.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

35. One soon learns to expect very little from other people.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

36. We would have less crime if our laws were more strict.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

37. My mother is very close to me.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

38. My failures are usually my own fault.

- | | |
|-------------------|----------------------|
| 1. Strongly agree | 4. Disagree |
| 2. Agree | 5. Strongly disagree |
| 3. Undecided | |

39. Do you think drug use among students is increasing or decreasing?

- | | |
|---------------|---------------------------|
| 1. Increasing | 3. Staying about the same |
| 2. Decreasing | 4. Don't know |

40. Have any of your 5 best friends ever been arrested for any reason?

- | | |
|-----------------|-----------------|
| 1. None of them | 3. Two or three |
| 2. One | 4. Four or five |

41. When you have a problem with whom do you most often talk it over?
(circle only one)

- | | |
|------------------------|-------------------------|
| 1. A parent | 4. A minister or priest |
| 2. A brother or sister | 5. No one |
| 3. A friend | 6. Other |

42. Which drug is called "Smack"?

- | | |
|--------------|----------------------|
| 1. LSD | 4. None of the above |
| 2. Marijuana | 5. Don't know |
| 3. Heroin | |

43. Hashish is a form of:

- | | |
|--------------|---------------|
| 1. Peyote | 4. Cocaine |
| 2. Opium | 5. Don't know |
| 3. Marijuana | |

44. How many friends do you have whom you can tell almost everything about yourself?

- | | |
|---------|------------------|
| 1. None | 4. Three or four |
| 2. One | 5. Five or more |
| 3. Two | |

45. How many times have you used Marijuana in the past two weeks?

- | | |
|-----------------------|------------------------|
| 1. Did not use | 4. Four to six times |
| 2. Once | 5. Seven or more times |
| 3. Two or three times | |

46. Have you ever used two or more drugs (including Alcohol) at the same time to get high?

- | | |
|---------------------|------------------------|
| 1. No | 3. Three or four times |
| 2. One or two times | 4. Five or more times |

47. From the following list, mark the one thing that usually makes you happiest.
(circle only one)

- | | |
|---------------------|------------------|
| 1. Visiting friends | 4. Dating |
| 2. Reading | 5. Watching T.V. |
| 3. Daydreaming | |

48. Have you ever been arrested for any reason?

- | | |
|---------------------|------------------------|
| 1. No | 3. Three or four times |
| 2. One or two times | 4. Five or more times |

49. Which drug causes the pupils of the eyes to become smaller?

- | | |
|--------------|---------------|
| 1. LSD | 4. Alcohol |
| 2. Heroin | 5. Don't know |
| 3. Marijuana | |

50. How many school-related activities do you take part in? (athletic teams, service clubs, fraternity or sorority, musical group, and so on)

- | | |
|---------------|------------------|
| 1. None | 3. Three or four |
| 2. One or two | 4. Five or more |

51. What was your grade average in all subjects last term?

- | | |
|------|------|
| 1. A | 4. D |
| 2. B | 5. F |
| 3. C | |

52. How many times have you used Alcohol to get high in the past two weeks?

- | | |
|-----------------------|------------------------|
| 1. Did not use | 4. Four to six times |
| 2. Once | 5. Seven or more times |
| 3. Two or three times | |

53. Do you see the world as basically a friendly place?

- | | |
|---------------------|-----------|
| 1. Most of the time | 3. Seldom |
| 2. Some of the time | 4. Never |

54. How often do you attend church or church-related activities?

- | | |
|-----------------------|------------------------------|
| 1. Almost every week | 3. Two or three times a year |
| 2. About once a month | 4. I don't attend |

55. How many cigarettes do you smoke each day?

- | | |
|----------------------|----------------------|
| 1. None | 3. About a pack |
| 2. About half a pack | 4. Two or more packs |

56. About how often are you absent from school for any reason?

- | | |
|------------------------------|------------------------------|
| 1. Less than two days a year | 4. Two or three days a month |
| 2. Three to six times a year | 5. Four or more days a month |
| 3. About one day a month | |

57. What is the maximum penalty in Tennessee for simple possession of Marijuana on first offense?

- 30 days imprisonment
- 11 months, 29 days imprisonment and \$250 fine
- 11 months, 29 days imprisonment and \$1000 fine
- 2 - 5 years imprisonment and \$1000 fine
- Don't know

58. How many of your 5 best friends use Marijuana?

- | | |
|-----------------|-----------------|
| 1. None of them | 3. Two or three |
| 2. One | 4. Four or five |

59. How many people have you given Marijuana to or "turned on"?

- | | |
|---------------|------------------|
| 1. None | 3. Three or four |
| 2. One or two | 4. Five or more |

60. Do you like yourself?

- | | |
|---------------------|-----------|
| 1. Most of the time | 3. Seldom |
| 2. Some of the time | 4. Never |

61. Do you have thoughts which you wish you didn't?

- | | |
|---------------------|-----------|
| 1. Most of the time | 3. Seldom |
| 2. Some of the time | 4. Never |

(The word "drug" in the following questions is intended as any drug or substance used to get high, not including Alcohol or Tobacco).

62. Which of the following applies to you?

- I have used drugs and am still using them
- I have used drugs and might use them again
- I have used drugs and will not use them again
- I have not used drugs but might try them
- I have not used drugs and am not going to use them

63. Have you ever injected (shot) a drug to get high?

- Yes
- No

64. Which of the following has been your best source of information about drugs? (circle only one)

- | | |
|---------------|---------------------------------------|
| 1. My family | 4. Doctors, pharmacists, nurses, etc. |
| 2. My friends | 5. Radio, T.V., newspapers |
| 3. Teachers | |

65. How would you rate your school's efforts in helping you to understand about drugs?

- | | |
|--------------|---------|
| 1. Excellent | 3. Fair |
| 2. Good | 4. Poor |

66. Did you fill out the drug use questionnaire at your school last year?

- Yes
- No

67. Are you in a higher grade in school this year than you were last year. In other words, did you pass last year?

- Yes
- No

High School Administration Instructions

1. As the students enter the room, ask that they seat themselves leaving, if possible, one seat between themselves and the other students. As soon as they are seated, read the following introduction:

"PEOPLE ALL OVER THE COUNTRY ARE CONCERNED ABOUT DRUG USE. I'M SURE YOU HAVE PROBABLY HEARD A LOT ABOUT DRUG USE FROM TELEVISION OR READING THE NEWSPAPER. WE ARE ASKING YOU TO FILL OUT THIS QUESTIONNAIRE IN ORDER TO FIND OUT SOME OF YOUR IDEAS ABOUT DRUGS AND SOMETHING ABOUT YOUR DRUG USE."

2. Distribute the answer sheets and test booklets and tell the students to leave the booklets closed until you tell them to open them.

3. As soon as everyone has a booklet and answer sheet, ask them to read the instructions printed on the cover of the test booklet as you read them aloud. Begin reading the instructions very slowly:

"THE USE OF DRUGS IN EACH OF THESE QUESTIONS REFERS TO DRUGS USED TO GET HIGH OR FOR PLEASURE OR KICKS. WE ARE NOT ASKING ABOUT DRUGS USED IN CONNECTION WITH AN ILLNESS -- FOR EXAMPLE, IF YOU HAVE EVER HAD A COLD OR THE FLU AND YOUR DOCTOR GAVE YOU SOME MEDICINE, DO NOT COUNT THAT DRUG USE HERE.

DO NOT PUT YOUR NAME ANYWHERE ON THE ANSWER SHEET OR TEST BOOKLET. PLEASE ANSWER ALL QUESTIONS HONESTLY. THERE ARE NO CODE NUMBERS OR ANY OTHER MEANS OF IDENTIFYING AN INDIVIDUAL'S ANSWER SHEET.

PLEASE DO NOT MARK ON THIS TEST BOOKLET. RECORD YOUR ANSWER BY CIRCLING THE NUMBER OF YOUR CHOICE ON YOUR ANSWER SHEET. BE SURE TO READ THE ENTIRE LIST OF CHOICES BEFORE MARKING YOUR SELECTION AND PLEASE CIRCLE ONLY ONE ANSWER FOR EACH QUESTION."

4. When you have finished reading the instructions on the booklet, begin explaining about the questionnaire in the following manner:

"THERE ARE TWO TYPES OF QUESTIONS IN THIS BOOKLET. THE FIRST TYPE ASKS FOR FACTUAL INFORMATION SUCH AS YOUR AGE, SEX, AND SO FORTH.

IN THE SECOND TYPE WE ARE ASKING HOW YOU FEEL ABOUT CERTAIN THINGS. FOR EXAMPLE, QUESTION 15 ON PAGE 3 STATES 'DRAFT DODGERS COULD BE SENT TO PRISON.'

IF YOU ARE ABSOLUTELY CONVINCED THAT ANYONE WHO ILLEGALLY AVOIDS THE DRAFT SHOULD BE SENT TO PRISON, THEN YOU WOULD CIRCLE CHOICE NUMBER 1 BECAUSE YOU STRONGLY AGREE WITH THE STATEMENT.

IF YOU AGREE WITH THE STATEMENT THAT DRAFT DODGERS SHOULD BE SENT TO PRISON, BUT DON'T FEEL STRONGLY ABOUT IT, CIRCLE CHOICE 2 - AGREE.

IF YOU ARE UNDECIDED OR CAN'T MAKE UP YOUR MIND, MARK 3 - UNDECIDED.

IF YOU TEND TO THINK THAT THOSE WHO AVOID THE DRAFT SHOULD NOT BE SENT TO PRISON, YOU DISAGREE WITH THE STATEMENT AND SHOULD CIRCLE CHOICE 4.

IF YOU ARE ABSOLUTELY CONVINCED THAT A PERSON WHO AVOIDS THE DRAFT SHOULD NOT BE SENT TO PRISON, YOU WOULD CIRCLE CHOICE 5 AS YOU STRONGLY DISAGREE WITH THE STATEMENT.

NOW LOOK AT QUESTION NUMBER 1, WHICH IS A FACTUAL QUESTION 'WHAT IS YOUR PRESENT GRADE IN SCHOOL?' FIND THE NUMBER LISTED BESIDE YOUR GRADE ON THE BOOKLET, AND CIRCLE THAT NUMBER ON YOUR ANSWER SHEET.

(Tell those in the seventh grade to circle 3, those in the eighth grade to circle 4, those in the ninth to circle 5, etc. Note: This is the question which caused most errors in the pretest. Some students will mark their grade rather than the number beside their grade if you do not tell them differently. So please be sure to tell them to mark the appropriate choice on their answer sheets.

QUESTION 2 ASKS FOR YOUR SEX. PLEASE CIRCLE THE NUMBER FOR YOUR SEX ON YOUR ANSWER SHEET. (Pause a few seconds).

QUESTION 3 ASKS FOR YOUR RACE. PLEASE CIRCLE THE NUMBER FOR THAT ANSWER NOW. (Pause a few seconds.)

QUESTION 4 ON THE NEXT PAGE ASKS ABOUT YOUR USE OF ALCOHOL. IN THIS QUESTION WE ARE NOT ASKING ABOUT WINE USED WITH MEALS OR FOR RELIGIOUS PURPOSES. WE ARE ONLY ASKING ABOUT ALCOHOL USED FOR KICKS OR TO GET HIGH. IF YOU HAVE NEVER USED ALCOHOL TO GET HIGH, CIRCLE A - HAVE NEVER USED. IF YOU USE IT ONCE A MONTH, CIRCLE B. CIRCLE C FOR ONCE A WEEK. D - 3 OR MORE TIMES A WEEK. E - TRIED A FEW TIMES AND STOPPED, AND F - TRIED IT MANY TIMES AND STOPPED.

THE REST OF THE QUESTIONS ASK ABOUT OTHER DRUGS YOU MAY HAVE USED SUCH AS MARIJUANA OR THC, LSD, CYLADIL, AMPHETAMINES, BARBITURATES, HEROIN, MORPHINE, OR COCAINE, AND GLUE, LIGHTER FLUID, GASOLINE OR PAINT THINNER. REMEMBER, IN ALL OF THESE QUESTIONS, WE ARE ONLY ASKING ABOUT YOUR USE OF THESE DRUGS FOR KICKS OR TO GET HIGH. ALSO, IF YOU HAVE NEVER HEARD OF A DRUG ON THIS QUESTIONNAIRE, YOU PROBABLY HAVE NEVER USED IT, SO PLEASE CIRCLE A - HAVE NEVER USED ON YOUR ANSWER SHEET.

IF YOU DO NOT UNDERSTAND A QUESTION OR IF FOR SOME REASON YOU CAN NOT ANSWER A QUESTION -- FOR EXAMPLE, IF A QUESTION ASKS ABOUT YOUR PARENTS AND THAT PARENT IS NO LONGER ALIVE -- PLEASE

LEAVE THAT QUESTION BLANK AND GO ON TO THE NEXT ONE. BUT TRY TO ANSWER AS MANY QUESTIONS AS YOU CAN.

NOW YOU MAY CONTINUE WITH THE REST OF THE QUESTIONNAIRE. PLEASE REMEMBER TO MARK ONLY ONE ANSWER FOR EACH QUESTION AND KEEP YOUR ANSWER SHEET COVERED WITH YOUR TEST BOOKLET.

WHEN YOU HAVE FINISHED WITH THE QUESTIONNAIRE, TURN YOUR ANSWER SHEET FACE DOWN ON YOUR DESK AND WAIT FOR ME TO COLLECT IT."

5. After all of the students have completed their questionnaires, please collect the answer sheets and booklets and return them to the appropriate boxes. Please make sure that all the booklets and answer sheets that were handed out are returned.

Thank you for your cooperation.

College Administration Instructions

1. As the students enter the room, ask that they seat themselves leaving, if possible, one seat between themselves and the other students. As soon as they are seated, read the following introduction:

"PEOPLE ALL OVER THE COUNTRY ARE CONCERNED ABOUT DRUG USE. I'M SURE YOU HAVE PROBABLY HEARD A LOT ABOUT DRUG USE FROM NEWSPAPERS OR TELEVISION. I HAVE BEEN ASKED TO ADMINISTER THIS QUESTIONNAIRE IN ORDER TO FIND OUT SOMETHING ABOUT YOUR DRUG USE AND YOUR ATTITUDES TOWARD DRUGS. AS YOU MAY KNOW, A SIMILAR STUDY WAS CONDUCTED LAST YEAR, AND THE INFORMATION FROM THAT STUDY WILL ALSO BE KEPT CONFIDENTIAL. THE DATA COLLECTED FROM THIS STUDY WILL ALSO BE KEPT CONFIDENTIAL. NO INFORMATION REGARDING SCHOOLS OR INDIVIDUALS WILL BE RELEASED. THE INFORMATION WILL BE USED TO HELP ESTIMATE THE NUMBER AND TYPES OF FACILITIES NEEDED FOR TREATMENT OF DRUG USERS."

2. Distribute the answer sheets and test booklets. As soon as everyone has a booklet and answer sheet, begin explaining about the questionnaire in the following manner:

"THERE ARE TWO TYPES OF QUESTIONS IN THIS BOOKLET. SOME OF THE QUESTIONS ASK FOR FACTUAL INFORMATION SUCH AS YOUR AGE, SEX, AMOUNT OF DRUG

USE, AND SO FORTH. THE OTHER QUESTIONS ARE ATTITUDINAL ITEMS AND INCLUDE A SERIES OF STATEMENTS WITH WHICH YOU MAY OR MAY NOT AGREE. FOR THESE ITEMS CIRCLE ON YOUR ANSWER SHEET AND NUMBER WHICH BEST DESCRIBES THE WAY YOU FEEL ABOUT EACH STATEMENT. THERE ARE NO RIGHT OR WRONG ANSWERS FOR THESE QUESTIONS.

FOR QUESTION 1, PLEASE BE CAREFUL TO CIRCLE THE CORRECT NUMBER FOR YOUR GRADE. (TELL COLLEGE FRESHMEN TO CIRCLE 9, SOPHOMORES TO CIRCLE 10, ETC.)

NOW PLEASE READ THE INSTRUCTIONS ON THE COVER OF THE TEST BOOKLET AND THEN YOU MAY BEGIN ANSWERING THE QUESTIONS. WHEN YOU HAVE FINISHED WITH THE QUESTIONNAIRE, TURN YOUR ANSWER SHEETS FACE DOWN ON YOUR DESK AND WAIT FOR ME TO COLLECT THEM."

3. After all of the students have completed their questionnaires, please collect the answer sheets and booklets and return them to the appropriate boxes and envelopes. Please make sure that all the booklets and answer sheets that were handed out are returned.

Thank you for your cooperation.

APPENDIX B

PTA Questionnaire

MEMPHIS COMMISSION ON DRUG ABUSE

Questionnaire II

The Memphis Commission on Drug Abuse is seeking your assistance in an attempt to obtain information concerning the Drug Abuse problem in Memphis. The questions in this booklet are specifically designed to determine the attitudes and general knowledge of the community in regard to drugs, their effects, and the problems associated with their use. Your answers to these questions will give you an opportunity to test your own knowledge of the drug abuse problem, and, at the same time, assist us in making recommendations concerning the types of educational programs and treatment facilities needed to combat this problem.

The use of drugs in each question refers to drugs used to get high or for pleasure or kicks. We are not asking about drugs used in connection with an illness.

This questionnaire is divided into four sections.

- Section I - Background Information
- Section II - Drug Knowledge
- Section III - Opinion
- Section IV - Drug Use

On the multiple choice questions, circle only one answer for each question.

Be sure to read the entire list of choices before marking your answer. An example of why it is important to read the entire list is given below:

How often do you read a newspaper?

- A. Never
- B. Daily
- C. More than once a day
- D. About once a week
- E. About once a month
- F. About once a year

The whole list of choices should be read in order for you to select the best answer. For instance, if you read two newspapers a day, choice B might seem the correct answer unless you continue reading the remaining choices and see that choice C is the best answer.

Please answer all questions honestly. No one will know how you answer any of the questions.

I. General Background Information

Please circle the letter of the response most appropriate to you.

1. Age
 - a. 10-19 years
 - b. 20-29 years
 - c. 30-39 years
 - d. 40-49 years
 - e. 50-59 years
 - f. 60-69 years
 - g. 70 years and above
2. Sex
 - a. male
 - b. female
3. Race
 - a. black
 - b. white
 - c. other
4. Marital Status
 - a. single
 - b. married
 - c. separated
 - d. divorced
 - e. widowed
5. Education (circle highest completed)
 - a. 8th grade or less
 - b. some high school
 - c. high school graduate
 - d. some college
 - e. college graduate
 - f. advanced degree
6. Religious Preference
 - a. Catholic
 - b. Jewish
 - c. Protestant
 - d. other
 - e. none
7. How often do you attend organized religious services?
 - a. every week
 - b. about twice a month
 - c. about once a month
 - d. two or three times a year
 - e. do not attend
8. How many children in your family attend public or private schools?
 - a. none
 - b. 1
 - c. 2
 - d. 3
 - e. 4 or more

II. Drug Knowledge

Please circle the letter of the most appropriate response.

1. Which drugs are called "downers"?
 - a. hallucinogens
 - b. amphetamines
 - c. barbiturates
 - d. narcotics
2. Which drug is most often injected?
 - a. heroin
 - b. marijuana
 - c. LSD
 - d. barbiturates
3. To "drop" means:
 - a. to lose money on a deal
 - b. to take drugs orally
 - c. to sell impure drugs
 - d. none of the above
4. Which drug is most often smoked?
 - a. heroin
 - b. LSD
 - c. marijuana
 - d. barbiturates

5. What does it mean to "rush"?
 - a. hurry to make a deal
 - b. feeling the first effects of a drug
 - c. to melt drugs for injection
 - d. none of the above
6. Which drug would cause increased activity?
 - a. alcohol
 - b. amphetamines
 - c. opium
 - d. none of the above
7. What does it mean to be "busted"?
 - a. to be overcharged for drugs
 - b. to be out of drugs
 - c. to have overdosed
 - d. to be arrested
8. Withdrawal symptoms occur when an addict suddenly stops using:
 - a. alcohol
 - b. heroin
 - c. barbiturates
 - d. all of the above
9. Which drug is called "smack"?
 - a. LSD
 - b. marijuana
 - c. heroin
 - d. none of the above
10. Hashish is a form of:
 - a. cocaine
 - b. marijuana
 - c. opium
 - d. none of the above
11. Diet pills are:
 - a. amphetamines
 - b. barbiturates
 - c. narcotics
 - d. all of the above
12. Which drug is used medically as a substitute for heroin?
 - a. marijuana
 - b. cocaine
 - c. methadone
 - d. dilaudid
13. Which drug causes pupil dilation?
 - a. marijuana
 - b. LSD
 - c. heroin
 - d. alcohol
14. Which drug is most likely to be found in pill form?
 - a. alcohol
 - b. heroin
 - c. amphetamines
 - d. hashish
15. Which is a sedative?
 - a. alcohol
 - b. barbiturates
 - c. tranquilizer
 - d. all of the above
16. Which drug is known as "speed"?
 - a. heroin
 - b. LSD
 - c. amphetamines
 - d. barbiturates
17. Which drug is most often used by high school students in Memphis?
 - a. marijuana
 - b. alcohol
 - c. heroin
 - d. amphetamines
18. Use of which drug can result in hallucinations?
 - a. alcohol
 - b. amphetamines
 - c. LSD
 - d. all of the above
19. What percentage of Memphis high school students report having ever used marijuana?
 - a. 57%
 - b. 27%
 - c. 17%
 - d. 7%
20. Which drug comes from poppy seeds?
 - a. LSD
 - b. marijuana
 - c. opium
 - d. none of the above
21. What does it mean to "shoot"?
 - a. to take an overdose
 - b. to catch someone selling bad drugs
 - c. to take drugs intravenously
 - d. none of the above

22. Which drug causes the pupils to become smaller?
 - a. marijuana
 - b. LSD
 - c. heroin
 - d. alcohol
23. Which of the following narcotics is a synthetic?
 - a. opium
 - b. heroin
 - c. demerol
 - d. dilaudid
24. Which drug is called "acid"?
 - a. methamphetamine
 - b. acetic acid
 - c. LSD
 - d. none of the above
25. What percentage of Memphis high school students who have tried marijuana are likely to stop using it?
 - a. 70%
 - b. 50%
 - c. 30%
 - d. 10%
26. How much does an ounce of marijuana cost in Memphis?
 - a. \$ 5
 - b. \$15
 - c. \$35
 - d. \$50
27. Which drug is most associated with criminal acts?
 - a. marijuana
 - b. heroin
 - c. LSD
 - d. amphetamines
28. What is the most dangerous drug to take in conjunction with alcohol?
 - a. barbiturates
 - b. LSD
 - c. narcotics
 - d. cocaine
29. What is the street price of one amphetamine pill?
 - a. \$.25
 - b. \$.75
 - c. \$1.50
 - d. \$2.50
30. Which disease is most often associated with drug abuse?
 - a. pneumonia
 - b. hepatitis
 - c. impetigo
 - d. tularemia
31. Which institution is known for its rehabilitation work with narcotic addicts?
 - a. League for Spiritual Discovery
 - b. Synanon
 - c. W.C.T.U.
 - d. all of the above
32. What is the maximum penalty in Tennessee for possession of marijuana on first offense?
 - a. 30 days imprisonment
 - b. 11 months, 29 days imprisonment and \$250 fine
 - c. 11 months, 29 days imprisonment and \$1000 fine
 - d. 2-5 years imprisonment and \$1000 fine
33. What is the maximum penalty in Tennessee for possession of heroin on first offense?
 - a. 30 days imprisonment
 - b. 11 months, 29 days imprisonment and \$250 fine
 - c. 11 months, 29 days imprisonment and \$1000 fine
 - d. 2-5 years imprisonment and \$1000 fine
34. What is the maximum penalty in Tennessee for sale of heroin on first offense?
 - a. 2-5 years imprisonment
 - b. 2-5 years imprisonment and \$5000 fine
 - c. 5-15 years imprisonment and \$18,000 fine
 - d. life imprisonment
35. Which Act provides for involuntary treatment for addicts rather than prosecution?
 - a. Narcotic Control Act of 1956
 - b. Narcotic Addict Rehabilitation Act of 1966
 - c. Drug Abuse Prevention and Control Act of 1970
 - d. none of the above

The items in this section give you an opportunity to express your feelings about certain aspects of the drug problem. There are no correct or incorrect answers to these questions. We are interested in your opinions.

III. Opinion

1. The meaning of the term "drug abuse" is often unclear. To help us establish a better definition of drug abuse, please circle the letter which best indicates the amount of use you consider abusive. For example, if you think using heroin one time indicates abuse of that drug, circle "A" beside "Narcotics".

	A 1 time only	B once a month	C once a week	D 3 times a week	E once or twice a day	F 3 or more times a day
Cannabis (1 marijuana cigarette or hashish equivalent)	A	B	C	D	E	F
Alcohol (1 glass of wine or beer, or 1 mixed drink)	A	B	C	D	E	F
Tobacco (1 pack of cigarettes or comparable quantity of cigars or pipe tobacco)	A	B	C	D	E	F
Hallucinogens (1 dose of LSD, Mescaline, etc.)	A	B	C	D	E	F
Amphetamines (1 Dexedrine, Benzedrine, etc.)	A	B	C	D	E	F
Tranquilizers (1 Valium, Librium, etc.)	A	B	C	D	E	F
Barbiturates (1 Seconal, Nembutal, etc.)	A	B	C	D	E	F
Narcotics (1 dose of Heroin, Dilaudid, Morphine, etc.)	A	B	C	D	E	F
Inhalants (1 sniff of airplane glue, gasoline, lighter fluid, etc.)	A	B	C	D	E	F

2. Rank the following drugs in terms of how dangerous you consider them to be, both to the user and the community. Place a "1" by the category you consider to be most dangerous, a "2" by the category you consider second most dangerous, and so forth. The drug you consider to be least dangerous will receive a rank of "7". Please disregard the present legal status of the drug.

- _____ A. Alcohol (beer, wine and distilled spirits)
- _____ B. Amphetamines (Dexedrine, Benzedrine, Escatrol, etc.)
- _____ C. Barbiturates (Seconal, Nembutal, etc.)
- _____ D. Cannabis (Marijuana and Hashish)
- _____ E. Hallucinogens (LSD, Mescaline, etc.)
- _____ F. Narcotics (Heroin, Morphine, Demerol, etc.)
- _____ G. Tobacco (cigarettes, cigars, pipe)

3. The following statements represent a variety of opinions about the type of treatment drug abusers should receive. Please check the one statement that best describes your feelings about this issue.

- _____ A. Drug abusers, addicts, and alcoholics, are generally morally irresponsible persons. Severe punishment and imprisonment is the best way to treat them.
- _____ B. Alcoholics can be treated best by family, medical, and community efforts, such as A.A. Abusers of other drugs, however, should be legally prosecuted.
- _____ C. Drug abusers, addicts, and alcoholics should be considered ill. Family, medical, psychiatric, and community efforts provide the best types of treatment for these people.
- _____ D. People who wish to use drugs should be allowed to do so. No treatment, medical or otherwise, should be imposed on them. Personal choice should be respected.
- _____ E. I don't know enough to form an opinion on what kind of treatment drug abusers should receive.

4. The following statements represent a variety of opinions about the legal restriction of drugs. We are not including drugs which are legally prescribed by physicians for treatment of illness. We are referring only to those drugs used for "kicks" or to get "high". Please check the one statement which best describes your feelings about this issue.

- _____ A. Use of all drugs, including tobacco and alcohol, should be prohibited.
- _____ B. The present laws governing drug use are adequate.
- _____ C. Use of alcohol, marijuana, tobacco, and tranquilizers should be legal for adults. Use of barbiturates and narcotics should be prohibited.
- _____ D. All drugs should be available to those who wish to use them. An individual should be subject to penalties only if his drug use leads to injury of another person.
- _____ E. I don't know enough about drugs to have an opinion on legal restrictions on drugs.

In the following questions, circle the letter of the response which best describes your opinion.

- 5. Do you think drug use among students is increasing or decreasing?
 - a. increasing
 - b. decreasing
 - c. staying about the same
- 6. Which is the greatest factor causing drug use among students?
 - a. it's the "in" thing to do
 - b. they like the effects
 - c. to get back at the parents
 - d. there is something wrong with them to begin with
- 7. Do you think drug use among adults is increasing or decreasing?
 - a. increasing
 - b. decreasing
 - c. staying about the same
- 8. Who do you think is most qualified to provide drug information?
 - a. doctors
 - b. teachers
 - c. former users
 - d. parents
 - e. ministers
- 9. Do you think the present law prohibiting use of tobacco by minors should be enforced?
 - a. yes
 - b. no
 - c. no opinion

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