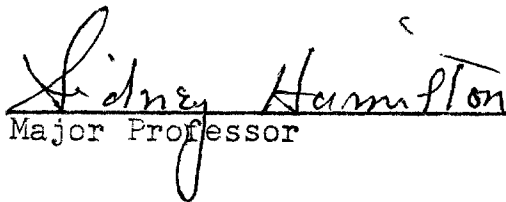


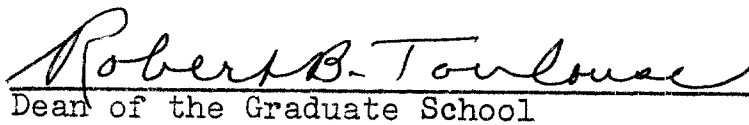
A STUDY OF THE RELATIONSHIP BETWEEN CERTAIN VARIABLES
AND DRUG USAGE

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Stroube, Hugh A., A Study of the Relationship Between Certain Variables and Drug Usage. Master of Science (Clinical Psychology), May, 1972, 24 pp., 4 tables bibliography, 17 titles.

The purpose of this study was to identify some environmental and overt behavioral factors which are characteristic of drug users. This was attempted to enable individuals who work with adolescents to identify potential users. If such an identification is possible, the limited available manpower can be better utilized by concentrating on those individuals who would most probably turn to chemical escapism before they reach the addiction stage.

The following hypotheses were investigated.

1. Drug usage is significantly greater in males than in females.
2. Drug usage is significantly greater in the middle socio-economic level than in the upper or lower economic levels.
3. The initiation of drug usage is significantly greater in high school than in college.
4. The initiation of drug usage is influenced significantly more by peer group pressures than by curiosity, flight from personal problems, or other reasons.

The subjects for this study were students in three introductory psychology classes at Navarro Junior College in Corsicana, Texas. The data were obtained with a questionnaire developed by the investigator for this study.

From the total population sample, twenty-one percent of the subjects indicated that they had used drugs. To test the four hypotheses, the data were subjected to a chi-square analysis. At the .05 level of significance, three hypotheses were accepted while one was rejected.

The analysis of the data indicated that males use drugs more frequently than females and that initiation of drug usage occurs most frequently in high school. However, in this population sample, there was no relationship between drug usage and socio-economic level. The majority of the drug users stated that they initially experimented with drugs to satisfy curiosity.

Hypotheses one and three were significant in the direction predicted, while hypothesis two was not significant. Hypothesis four was not significant but evidenced a trend toward the predicted direction. Possible intervening variables were discussed which might have affected the results.

From the data collected, three characteristics of drug users were identified. They were sex, time of initiating drug usage, and the primary reason for initiating drug usage. The list of characteristics was compiled so that through

early identification it is hoped that potential drug users can be warned of the detrimental effects of drug usage before they become addicted.

A STUDY OF THE RELATIONSHIP BETWEEN CERTAIN VARIABLES
AND DRUG USAGE

THESIS

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

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Denton, Texas

May, 1972

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CHAPTER I

INTRODUCTION

Statement of Problem

For centuries man has been turning to mind-altering substances and techniques to provide an escape from the pressures and conflicts of his existence. Illusions to the use of hemp and opium have been found in some of the earliest writings. Drug usage has not been limited to a particular locale nor to a particular time in history. The areas most associated with drugs are India and the Orient, but drugs have been an important part of cultures throughout the world. The coca leaf was essential to the Andean Indians to enable them to work in the thin atmosphere two miles high. The Australian aborigines also used drugs to extend their working capacity. They chewed a combination of the pituri plant for its energizing properties. In Central Africa, the Iboga and Oubanghi tribes used the iboga bean in their rituals for its mind altering effect.

Drug usage has not only been prevalent in different cultures, but also in different periods of man's development. Ours is not the only period to be plagued by drug abuse. The tales written about the Roman orgies are an example of how drug users were prevalent in an ancient culture. In the nineteenth century, Great Britain used opium addiction as an

excuse to wage war on China during the Opium War. The students of nineteenth century America were drug abusers long before "uppers" and "downers" were the fad. They got their "highs" by inhaling the new anesthetics chloroform and ether. Nitrous oxide furnished them psychedelic "trips" before science knew that LSD existed.

However, saying that ours is not the only culture or era to be plagued by drug abuse does nothing to alleviate the present situation. Steps must be taken by everyone involved to arrive at an acceptable solution. If parents discover that one of their offspring is a user, they need to help and support him with as much compassion and understanding as they can. They do not have to condone the act, but they should not overtly condemn the child. Love and understanding are two of the most powerful weapons they have on hand.

Educators can also play an important role in helping a drug user. They are often the first to notice aberrant behavior due to drugs and can therefore take important initial action. The teacher can often supply factual information about drugs and their usage to combat misinformation obtained from the streets or in back alleys.

Another individual who should be aware of the drug dilemma and who should be prepared to offer his assistance is the therapist. He must first realize that all too often he is dealing with an individual who was forced into therapy by irate parents or by some other authority figure. In this

case, the patient is probably not motivated toward therapy, and all the therapist can do is to turn his attention toward the parents to try to help them. However, when he does encounter an individual who enters into therapy on his own accord, the therapist must be ready to help him become more reasonable, help him find more significant goals, and initiate a process of psychological growth either through individual or group therapy.

Finally, the last person involved in finding a solution to the drug problem is the user himself. He must come to realize by himself that perpetual ecstasy is not obtainable through drugs without paying the price. The price is an ever developing drug tolerance. No longer will one "joint" give him a "high," but he will need a couple of "uppers;" he begins to mix "acid" with his "pot" or finally arrives at the quiet rapture through heroin.

Once the user arrives at this realization, where does he go? He must begin to understand that there are non-chemical means to achieve a working relationship with his environment. This happiness is harder to obtain without drugs, but it is possible. It takes endurance and maturity, but once it is obtained, it is much more rewarding because it is a state of mind he has accomplished by himself without the use of drugs.

A partial solution to drug abuse is to eliminate the addict, but this can only be done after an individual has

started using drugs and admits to himself that he wants to quit. What about drug prevention? Why not try to help an individual before he exposes himself to the possibility of physical harm or legal action?

Once again many of the same people would be involved in drug prevention. Parents would need to provide as healthy a home environment as possible. They should try to show their children that there are solutions other than drugs to stressful situations. The teacher could begin drug education before he sees actual signs of drug usage.

Here, another problem arises. Ideally, children should be cautioned as to the dangers of drugs, but in many instances this is not possible. Many children are in a situation where it has not been possible for some adult to communicate with them about the negative side of the drug scene. Possibly there has been no parent to offer them assistance in times of conflict, or they may be school dropouts that have missed the opportunity for drug education.

The children are not always at fault. Often the number of qualified adults to assist them is limited. Many parents are often as naive about drugs as their children and consequently are of little help. Educators are over-worked as it is and frequently cannot devote as much time to their students as they should. There are just not enough adults available who are sufficiently qualified or concerned enough to help the potential drug user.

This does not mean that drug prevention should be abandoned. A possible solution is to work with the available manpower and concentrate the efforts toward those adolescents who would most probably turn to chemical escapism. But this raises the question of which adolescents have the highest potential toward drug usage. This is the question with which this paper will deal. The method will be the compiling of behavioral and environmental characteristics which will be helpful in identifying the possible addict.

Significance of Problem

Since the drug problem has been receiving increased attention over the past few years, several studies have attempted, with some success, to identify potential drug users (1, 2, 3, 4, 5, 6). These studies have concentrated primarily on personality characteristics (3, 4, 5, 6) and on self concepts (1, 2, 5).

Lombardi (4) used the MMPI (Minnesota Multi-Phasic Personality Inventory) as a means of early identification of a drug user. He found that there were significant differences on nineteen items between drug addicts and a control group of non-addicts. Kleckner (3) differentiated psychedelic drug users and non-users according to personality characteristics as determined by the Cattell 16 PF Test and a predictive scale for delinquency. Psychedelic drug users manifested lower superego strength and indicated a

closer resemblance to juvenile delinquents than did the non-users.

The second method of identification, self concepts, was examined by Shetterly (5) using interviews, the Mooney Problem Check List, and the High School Personality Questionnaire. He found that forty marijuana users exhibited a communication breakdown between themselves and their parents along with a clash of opinions. They were functioning below their expected level in school and had a conventional orientation toward society.

After further examination, additional information will probably be found to support these hypotheses. This could be valuable information for a therapist who works with drug users. The major disadvantage with these studies is that they are oriented toward the professional. Most of these identifying traits can only be revealed through the administration of a psychological instrument which is not available to the laymen.

What is needed is a list of characteristics typical to drug users which do not have to be discovered through psychological evaluation. These characteristics should be observable by any semi-intelligent individual. The indicators should come from the potential user's environment and overt behavior.

Since there is evidence to support the hypothesis that drug users have particular personality patterns and self

concepts (1, 3, 4, 5), the present study will attempt to show that there are certain environmental and behavioral factors that are characteristic of drug users.

Hypotheses

The following hypotheses were investigated:

1. Drug usage is significantly greater in males than in females.
2. Drug usage is significantly greater in the middle socioeconomic level than in the upper or lower levels.
3. The initiation of drug usage is significantly greater in high school than in college.
4. The initiation of drug usage is influenced significantly more by peer group pressure than by curiosity, flight from personal problems, or other reasons.

CHAPTER BIBLIOGRAPHY

1. DeMeritt, Mary W., "Differences in the Self-Concept of Drug Abusers, Non-users, and Former Users of Narcotics and/or Non-narcotic Drugs," Dissertation Abstracts, XXXI (October, 1970), 1008-A.
2. King, Francis W., "Users and Non-users of Marijuana: Some Attitudinal and Behavioral Correlates," Journal of the American College Health Association, 18 (February, 1970), 213-217.
3. Kleckner, James Herber, "An Investigation into the Personal Characteristics and Family Background of Psychedelic Drug Users," Dissertation Abstracts, XXIX (May, 1969), 4380-B.
4. Lombardi, Donald N., Brian J. O'Brien, and Frank W. Isele, "Differential Responses of Addicts and Non-addicts on the MMPI," Journal of Projective Techniques and Personality Assessment, 32 (1968), 479-482.
5. Shetterly, Henry Titus, "Self and Social Perceptions and Personal Characteristics of a Group of Suburban High School Marijuana Users," Dissertation Abstracts, XXXI (January, 1971), 3279-A.
6. Torda, Clara, "Comments on the Character Structure and Psychodynamic Processes of Heroin Addicts," Perceptual and Motor Skills, 27 (1968), 143-146.

CHAPTER II

METHOD

Subjects

The subjects used in this study were students in three introductory psychology classes at Navarro Junior College in Corsicana, Texas. The classes had a total enrollment of 139 students. Because of insufficient information provided by the students on the questionnaire, eleven had to be discarded, leaving a total of 128 subjects. Of the 128, sixty-six were males and sixty-two were females. The ages ranged from seventeen to forty years.

The subjects came primarily from a semi-rural environment of a hometown population of 20,000 inhabitants or less. Ninety-three of the subjects, or seventy-five percent of the population samples, came from such a semi-rural environment.

Apparatus

The only instrument used in this study was a questionnaire on drug usage developed by the investigator (Appendix A). The questionnaire was divided into two basic parts, the biographical data and the drug-related questions. Questions II, III, VI, and VIII were specifically related to the

hypotheses, and the remaining four questions were included to support and help define the other questions.

Definition of Terms

The following terms are defined for the purpose of clarification in this study.

Drugs: those substances listed on the questionnaire (Appendix A) in question IV. This is a list of drugs more commonly used for the purpose of obtaining an euphoric state. These are not the only drugs used for this purpose but are some of the more popular ones.

Drug user: anyone who admits on the questionnaire to having used drugs one or more times.

Upper socioeconomic level: parental income above \$15,000.

Middle socioeconomic level: parental income of \$8,000 to \$15,000.

Lower socioeconomic level: parental income below \$8,000.

Initiation of drug usage: the period in time in which a subject first used any drug. These periods are pre-high school, before grade 10; high school, grades 10 through 12; and post-high school, which is any time after completion of grade 12.

Procedure

The questionnaire was administered to the students in the three separate classes of introductory psychology by the

investigator. Each class was administered the questionnaire on a different day of the same week.

Before the questionnaire was distributed to the classes, they were instructed by the investigator that the study was being conducted to partially fulfill the requirements for a master's degree at North Texas State University. They were informed that the questionnaire was strictly anonymous and that there was no means of identifying any individual. It was pointed out that the study was not being conducted at the request of Navarro Junior College and that no action would be taken by the college as a result of this study. The students were requested to answer the questions honestly and truthfully.

CHAPTER III

RESULTS

From the total population sample of 139, 128 of the questionnaires contained sufficient information to be used as subjects in this study. Twenty-seven or twenty-one percent of the subjects indicated that they had used drugs. Thirty-eight subjects came from the lower socioeconomic level, fifty-nine came from the middle level, and thirty-one came from the upper socioeconomic level.

For this study, a chi-square analysis was utilized to evaluate the data to test the four hypotheses. The first two hypotheses were tested against the hypothesis of independence, and the last two hypotheses were tested for their degree of fit against a normal distribution.

For hypothesis 1, drug usage is significantly greater in males than in females, a 2 x 2 contingency table was constructed. The data in Table I shows that of the sixty-six

TABLE I
RELATIONSHIP BETWEEN DRUG USAGE AND SEX

Usage	Male	Female
User	23	4
Non-User	43	58

male subjects twenty-three had used drugs and forty-three had not. Of the sixty-two female subjects, four had used drugs and fifty-eight had not. From the data in Table I, a chi-square value of 15.49 was obtained. At the .001 level of significance with one degree of freedom, the hypothesis of independence was rejected suggesting that drug usage is related to the sex of the individual.

For hypothesis 2, drug usage is significantly greater in the middle socioeconomic level than in the upper or lower levels, a 2 x 3 contingency table was constructed. The data in Table II shows that of the thirty-eight subjects in the lower economic level, six had used drugs and thirty-two had

TABLE II
RELATIONSHIP BETWEEN DRUG USAGE AND SOCIOECONOMIC LEVEL

Usage	Less Than \$8,000	\$8,000- 15,000	Greater Than \$15,000
User	6	13	8
Non-User	32	46	23

not; of the fifty-nine subjects in the middle economic level thirteen had used drugs and forty-six had not; and of the thirty-one subjects in the upper socioeconomic level, eight had used drugs and twenty-three had not. The calculation of chi-square for Table II resulted in a value of 1.09. With 2 degrees of freedom at the .05 level of significance, the

hypothesis of independence was not rejected, suggesting no dependency of drug usage upon the socioeconomic level of the individual. As seen in Table II and as shown by the chi-square value, the probability of drug usage is more or less equal in each of the three economic levels.

For hypothesis 3, initiation of drug usage is significantly greater in high school than in college, a 3 x 1 contingency table was constructed. Table III shows that of the twenty-seven subjects that stated they had used drugs, two indicated they initially used drugs before high school,

TABLE III
RELATIONSHIP BETWEEN DRUG USAGE AND TIME OF
INITIAL DRUG USE

Usage	Pre-high School	High School	Post-high School
User	2	15	10

fifteen during high school, and ten after high school. The data in Table III was tested for its degree of fit to equal distribution. Following this assumption, the expected frequencies would be equally distributed giving each time period in Table III an expected frequency of 9. A chi-square value of 9.56 was obtained. With 2 degrees of freedom at the .01 level of significance, the hypothesis of independence was rejected, indicating that initial drug usage does not

follow equal distribution for this population sample. When the observed frequencies shown in Table III are compared with the expected frequencies of 9, the category which is significantly above that of equal distribution appears to be the "High School" category. This difference suggests that the initial use of drugs is significantly greater in high school than before or after high school.

The data collected which was related to hypothesis 4, initiation of drug usage is influenced significantly more by peer group pressure than by curiosity, flight from personal problems, or other reasons, was also tested for its degree of fit to equal distribution. A 4 x 1 contingency table was constructed. Although there were again only twenty-seven drug users, two of the subjects gave multiple responses on the questionnaire giving a total of thirty responses as seen in Table IV.

TABLE IV
REASON FOR INITIATION OF DRUG USAGE

Usage	Curiosity of Unknown	Peer Group Pressure	Personal Problems	Other
User	18	4	2	6

Of the thirty responses, eighteen indicated drug usage was begun to satisfy a curiosity for the unknown, four began

because of peer group pressure, two began to help alleviate personal problems, and six responses indicated other reasons for initiating drug usage. Since the fit of equal distribution was being tested, the expected frequencies for each category was 7.5. A chi-square value of 20.67 was obtained. At the .001 level of significance with 3 degrees of freedom, the hypothesis of independence was rejected, indicating that initiation of drug usage is related to one of the four reasons offered. As shown by the observed frequencies in Table IV, the major reason for beginning drug abuse is a curiosity of the unknown and not because of peer group pressure.

At the .05 level of significance, hypotheses 1, 3, and 4 are accepted while hypothesis 2 is rejected. Although hypothesis 4 is accepted, it appears to be significant in a direction other than that hypothesized.

CHAPTER IV

SUMMARY AND CONCLUSIONS

From the data collected, two hypotheses are accepted as stated, one hypothesis is rejected, and one hypothesis is accepted but in a different direction than predicted. In this semi-rural population sample of college students, males use drugs significantly more frequently than females. Drug usage is initiated significantly more frequently in high school than at other academic levels. The socioeconomic level of an individual does not significantly effect his probability of using drugs. Initiation of drug usage is related significantly more frequently to a curiosity for the unknown than for any other reason stated. This conclusion, while significant, is not in the predicted direction.

It was predicted that the initiation of drug usage would be influenced more by peer group pressure than by a curiosity of the unknown or by a wish to alleviate personal problems. However, this prediction was not supported by the data. According to this population sample, the initiation of drug usage is related to a curiosity for the unknown. This may be an accurate conclusion, but there is one variable which was not held constant that may have influenced the drug users' answers. This variable might be called the subject's

egocentricity. By admitting that he began using drugs due to peer pressure, the subject would be revealing a flaw in his personality structure. Few people like to see themselves as a controlled, non-distinct entity who is not capable of thinking for himself. On the other hand, an answer of "a curiosity about the unknown" is an individualistic answer. One who is a seeker of truth, a curiosity seeker, is an individual who controls his own actions. He is not swayed by his peers. He does what he does because he wants to and not because of outside pressure. An answer of "curiosity about the unknown" shows a stronger personality than an answer of "peer group pressure." This situation might have sufficiently affected the subjects to cause an inadequate representation of why people begin to use drugs.

It should be noted that the conclusions drawn from this study are not applicable to the population of drug users as a whole. The data was obtained from a semi-rural population of college students and should not be generalized to a non-academic urban population. Also, the population sample and the number of admitted drug users was small, whereas a larger sample with more users might produce significantly different results.

The findings of this study both support and disagree with other literature in this area. Shetterly (1) found that marijuana smokers first experimented with this drug because they were curious. The conclusions of this study

agree with Suchman (2, p. 149), who found that "males are almost three times as likely as females to be using drugs at least once a week." However, there were also some discrepancies between this study and some of the literature. Suchman (2) found that upper income groups were twice as likely to use drugs than were lower income groups, but this study found no relation between economic level and drug usage. Shetterly (1) stated that in his population sample, marijuana users have their first experience between the ages of twelve and fifteen; however, the data of this study revealed that drug usage was initiated in high school or between the ages of fifteen to eighteen. Again, the contradictions in the different results could be attributed to the differences between the population samples.

The purpose of this study was to attempt to identify some possible behavioral and environmental characteristics which were related to drug usage. Three such characteristics were successfully identified. They were sex, time of initiating drug usage, and the primary reason for initiating drug usage. The attempt to find such characteristics was made in order to help concerned individuals identify the people or groups of people that would most probably turn to drug usage. Through early identification, it is hoped that drug users can be warned of the detrimental effects of drug usage before they become drug addicts.

CHAPTER BIBLIOGRAPHY

1. Shetterly, Henry Titus, "Self and Social Perceptions and Personal Characteristics of a Group of Suburban High School Marijuana Users," Dissertation Abstracts, XXXI (January, 1971), 3279-A.
2. Suchman, Edward A., "The Hang Loose Ethic and the Spirit of Drug Use," Journal of Health and Social Behavior, IX (June, 1968), 146-154.

APPENDIX A

QUESTIONNAIRE ON DRUG USAGE

Sex: M F Age:___ Classification: Fr. Church Affiliation:
Soph. _____
Jr. _____
Sr. _____
Other _____

I. Hometown Population:

- A. 0 - 1,000
- B. 1,000 - 5,000
- C. 5,000 - 10,000
- D. 10,000 - 20,000
- E. 20,000 - 50,000
- F. 50,000 - 100,000
- G. Over 100,000

II. Parental Income:

- A. Below \$4,000
- B. \$4,000 - \$8,000
- C. \$8,000 - \$10,000
- D. \$10,000 - \$15,000
- E. \$15,000 - \$40,000
- F. Over \$40,000

III. Have you ever used any form of marihuana, hallucinogenic drug, opiate, sedative, or stimulant without medical advice? Yes No

If your answer is "No," please answer question VII.

IV. If your answer is "Yes," please check below the drugs you have most frequently used.

<input type="checkbox"/> Marijuana	<input type="checkbox"/> Hashish	<input type="checkbox"/> Barbitol
<input type="checkbox"/> Morning Glory Seeds	<input type="checkbox"/> Opium	<input type="checkbox"/> Nembutal
<input type="checkbox"/> LSD	<input type="checkbox"/> Morphine	<input type="checkbox"/> Cocaine
<input type="checkbox"/> DMT	<input type="checkbox"/> Heroin	<input type="checkbox"/> Amphetamines
<input type="checkbox"/> STP	<input type="checkbox"/> Codeine	<input type="checkbox"/> Benzedrine
<input type="checkbox"/> Peyote	<input type="checkbox"/> Amytal	<input type="checkbox"/> Dexedrine
<input type="checkbox"/> Mescaline	<input type="checkbox"/> Seconal	<input type="checkbox"/> Methedrine

V. How frequently do you use drugs?

- A. I have only done it once.
- B. Two to three times a year.
- C. Once a month.
- D. Twice a month.
- E. Once a week
- F. Two to four times a week.
- G. Daily.
- H. More than once a day.

Questionnaire Continued:

- VI. When did you initially use drugs?
- A. Elementary School (grades 1-6).
 - B. Junior High School (grades 7-9).
 - C. High School (grades 10-12).
 - D. College (grades 13-16).
 - E. Other
- VII. Do the people you associate most frequently with use drugs: Yes No
- VIII. Why did you initially begin to use drugs?
- A. To satisfy a curiosity for the unknown.
 - B. Because of peer group pressure.
 - C. To help alleviate personal problems
 - D. Other. Please explain_____

BIBLIOGRAPHY

Books

- Cohen, Sidney, The Drug Dilemma, New York, McGraw-Hill, 1969.
- Einstein, Stanley, The Use and Misuse of Drugs, Belmont, California, Wadsworth Publishing Co., Inc., 1970.
- Goode, Erich, editor, Marijuana, New York, Atherton Press, Inc., 1969.
- Lingeman, Richard R., Drugs from A to Z: A Dictionary, New York, McGraw-Hill, Inc., 1969.
- O'Donnell, John A. and John C. Ball, editors, Narcotic Addition, New York, Harper and Row, 1966.

Articles

- DeMeritt, Mary W., "Differences in the Self-Concepts of Drug Abusers, Non-Users, and Former Users of Narcotics and/or Non-Narcotic Drugs," Dissertation Abstracts, XXXI (October, 1970), 1008-A
- Bells, Kenneth, "Marijuana and LSD: A Survey of One College Campus," Journal of Counseling Psychology, XV (September, 1968), 459-467.
- Johnson, Frank K. and Jack C. Westman, "The Teenager and Drug Abuse," Journal of School Health, XXXVIII (December, 1968), 646-653.
- Keeler, Martin H., "Motivation for Marihuana Use: A Correlation of Adverse Reaction," American Journal of Psychiatry, 125 (1968), 386-390.
- King, Francis W., "Users and Non-users of Marijuana: Some Attitudinal and Behavioral Correlates," Journal of the American College Health Association, 18 (February, 1970), 213-217.

- Kleckner, James Herber, "An Investigation into the Personal Characteristics and Family Background of Psychedelic Drug Users," Dissertation Abstracts, XXIX (May, 1969), 4380-B.
- Lombardi, Donald N., Brian J. O'Brien and Frank W. Isele, "Differential Responses of Addicts and Non-addicts On the MMPI," Journal of Projective Techniques and Personality Assessment, 32 (1968), 479-482.
- Nowlis, Helen H., "Why Students Use Drugs," American Journal of Nursing, 68 (1968), 1680-1685.
- Rosenberg, Chaim M., "Young Drug Addicts: Background and Personality," Journal of Nervous and Mental Disease, 148 (1969), 65-73.
- Shetterly, Henry T., "Self and Social Perceptions and Personal Characteristics of a Group of Suburban High School Marijuana Users," Dissertation Abstracts, XXXI (January, 1971), 3279-A.
- Suchman, Edward A., "The Hang Loose Ethic and the Spirit of Drug Use," Journal of Health and Social Behavior, IX (June, 1968), 146-154.
- Torda, Clara, "Comments on the Character Structure and Psychodynamic Processes of Heroin Addicts," Perceptual and Motor Skills, 27 (1968), 143-146.