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A COMPARATIVE STUDY OF DRUG ABUSE IN SENIOR CLASSES
OF LOGAN HIGH SCHOOL AND TOOELE HIGH SCHOOL

by

Hal R. Hale

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Health, Physical Education, and Recreation

(Health Education)

UTAH STATE UNIVERSITY
Logan, Utah

1972

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The writer specially wishes to acknowledge his appreciation for the assistance and service rendered by Dr. Lanny Nalder. The writer also wishes to express his appreciation for the time and assistance granted by Dr. W. Whitney Smith, and Miss Lois Downs.

Hal R. Hale

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ABSTRACT

A Comparative Study of Drug Abuse in Senior Classes
of Logan High School and Tooele High School

by

Hal R. Hale, Master of Science
Utah State University, 1972

Major Professor: Dr. Lanny Nalder
Department: Health, Physical Education, and Recreation

The purpose of the study was to determine the incidence of drug abuse among seniors of Tooele High School, Tooele, Utah, and Logan High School, Logan, Utah. The following sub-problems were investigated as a part of this study.

1. The relationship of the incidence of abuse between males and females.
2. The possible influence a university may have upon a neighboring high school, in reference to drug abuse.

The data for the purpose of analysis was obtained from answers to the questions used in the questionnaire. The questionnaire consisted of 47 questions. The number of participants included 201 high school seniors at Logan High and 219 from Tooele. The Logan group registered 102 males and 99 females, while the Tooele group accounted for 112 males and 107 females. Those students that were absent on the day the questionnaire was administered were eliminated from the study.

DD-5081 punch cards were obtained and used as a means of collecting descriptive analytical data for this study. The results of the questionnaires were recorded upon IBM answer sheets and were statistically analyzed by the use of computers. Based on analysis of 420 responses the computer provided specific correlation coefficients by use of the Two Way Independent Chi-Square.

(85 pages)

CHAPTER I
INTRODUCTION

Drug abuse is not a new problem. Various types of drug problems have been going on for years. It would be impossible to historically review and discuss all of the problems relating to drug use and abuse, but some of these problems will be mentioned in the review of literature in Chapter II.

Today, with the publicity and the gigantic production of drugs, it is important that people not only agree that there is a problem, but that they will strive to mitigate it. Our society should attempt to educate the public to the drug prevention needs of their communities, and to know whether certain concepts about drugs which they have established are correct. Our civilization should be made fully aware of the entire gamut of effects, physical and psychological, that dangerous drugs and narcotics can produce. The public should be informed that drugs may offer some thrills and temporary escape from problems, in the long run they may destroy the individual and all that he endeavors to be.

The drug abuser comes from all walks of life, and from various social and economic strata. Drug abuse ranges from taking too many pain killers or sleeping pills to becoming turned on to LSD or heroin, and encompasses the self-diagnosed straight person and the individual demonstrating the drug abuse life style.

Statement of the problem

The purpose of the study was to determine the incidence of drug abuse among seniors at Tooele High School and Logan High School. The following sub-problems were investigated as a part of this study.

1. The relationship of incidence of abuse between males and females.
2. The possible influence a university may have upon a neighboring high school, with reference to drug abuse.

Basic assumptions

It was assumed that each individual who participated in the questionnaire would answer the information to the best of his or her ability. It was also assumed that the high school educators responsible for administering the test would allow sufficient time for the students to answer the questionnaire.

Justification of the problem

Any topic such as drug abuse which has been known for its detrimental effects on people and society should be considered a justification in itself on why it should be studied. The only means for determination of the presence or absence of a drug problem among high school seniors from these two areas would be to survey them. Based upon data provided, suggestions and recommendations could be made for possible improvement if necessary.

Methodology

The instrument used in the survey was a questionnaire consisting of 47 questions. Ideas for questionnaire construction came from resources discussed in the review of literature in Chapter II. All questions were original. The questionnaire was administered to the senior class at Logan and Tooele High School by selected high school educators in the schools.

Groups of convenience were used as subjects for comparison in this study. Some difficulty was experienced in obtaining the cooperation of schools in the Logan area. For this reason Tooele was selected as part of the study. Some comparability exists between the senior students of Logan and Tooele. For instance, both areas are removed from the cosmopolitan influence of Salt Lake City and both are rural communities. The number of participants included 201 high school seniors at Logan High and 219 from Tooele. The Logan group registered 102 males and 99 females, while the Tooele group accounted for 112 males and 107 females. Those students that were absent on the day the questionnaire was administered were eliminated from the study.

DD-5081 punch cards were obtained and used as a means of recording descriptive analytical data for this study. The results of the questionnaires were recorded upon IBM answer sheets and were statistically analyzed by the use of computers. Based on analysis of 420 responses the computer provided specific correlation coefficients by use of the Two Way Independent Chi-Square.

Delimitations

The educational level was delimited to seniors at Logan and Tooele High School. The category of abused drugs was not represented in its entirety in the questionnaire.

Limitations

The following were limitations of this study:

1. Individual reaction to questions.
2. Fear that the guarantee of anonymity would not be upheld.
3. Clarity in making respondents understand the difference between a drug of abuse and prescriptive drugs.
4. Those characteristics which are inherent weaknesses of questionnaires.

Definition of terms

Acid: Nickname of LSD.

Acidhead: Frequent abuser of LSD, also known as cubehead.

Barbs: Barbiturates

Bennies: Benzedrine (Amphetamine).

Blue angels: Amytal (Barbiturate), also known as blue heavens and blue devils.

Codeine: A derivative of opium.

Cokie: A cocaine addict.

Cross-tolerance: Taking of one drug which creates tolerance to another.

Crystal: Methedrine (Amphetamine), also known as speed and meth.

Delusions: False beliefs.

Dexies: Dexedrine (Amphetamine), also known as hearts.

Downers: Barbiturate.

Drug Addiction: Periodic or chronic intoxication produced by repeated consumption of a drug. Characteristics include an overpowering desire or need (compulsion), tendency to increase the dosage (tolerance), psychic and physical dependence, and the detrimental effect can be on both the individual and society.

Drug Abuse: It is the chronic self-administration of drugs, which cause the individual to deviate from approved social patterns of the society.

Drug Dependence: Periodic or continuous use of a drug which develops into a state of psychic or physical dependence, or both.

Drug Habituation: Repeated consumption of a drug. Characteristics include a desire, but not a compulsion, only psychic dependence develops, and the detrimental effects are concerned mainly with the individual.

Goofballs: Sleeping pills.

Grass: Marihuana, also known as pot, weed, hay and Mary Jane.

H: Heroin, also known as horse, hard stuff, and smack.

Hallucinations: Abnormal sensory perception.

Joint: Marihuana cigarette, also known as stick, Jays, and reefers.

M: Morphine, also known as Morpho, Unkie, and dreamer

Mainline: Injecting drugs intravenously.

Mesc: Mescaline (Peyote).

Red Devils: Seconal (Barbiturate).

Roach: Marihuana butt.

Score: Make purchase of drugs.

Snow: Cocaine.

Uppers: Amphetamines.

Yellow Jacket: Nembutal (Barbiturate).

CHAPTER II
REVIEW OF LITERATURE

People today rely on drugs more so than any other generation. Many people cannot face life without the help of a chemical support. We have pills to cheer us up and pills to relieve our anxieties; pills to lose weight and pills to gain weight; pills to keep us awake and pills to put us asleep.¹

James L. Goddard, the immediate past Commissioner of the U. S. Food and Drug Administration stated:

More and more of us are becoming dependent on drugs, hiding from the realities of life--or using them just for thrills. Drug abuse can not be connected only with narcotics users. The alarming rise in the abuse of stimulant, depressant and hallucinogenic drugs cuts across all strata of society.²

Americans are a drug oriented society. People take pills (both prescriptive and non-prescriptive) for every imaginable reason. The argument over whether people or pills are the problem is academic. The drug problem exists and of these drugs many have medical usage. The wounded soldier in the battlefield may be given morphine sulfate to alleviate the shock inducing pain. Pain can increase the severity of shock, and shock can be fatal. Thus

¹Sidney Cohen, The Drug Dilemma (New York: McGraw-Hill Book Company, 1969), pp. 5-6.

²Otis R. Bowen, "The Medico-Legal Conflict in Drug Abuse," The Journal of School Health, XXXIX (March, 1969), 165-166.

a drug is given to prevent death. In life outside of the military a woman may be dying from excruciating pain caused by a cancer infected body. To relieve her pain, morphine is given so that she will be able to maintain her composure and some degree of productivity until the end comes.

Barbiturates are drugs of therapeutic value which are extensively abused. These drugs can be used to control epilepsy, insomnia, and hypertension to name only a few conditions which justify their medical existence. People experiencing periodic convulsions and mental problems can be controlled and treated by the help of barbiturates. After a person has been through a terrifying experience, his personal life may be threatened by insomnia, but he finds sleep by taking a prescribed amount of barbiturate from a doctor.

There have been many cases where people depending on a soporific effect of barbiturates have taken an overdosage and died. On various occasions people have taken barbiturates in conjunction with alcohol. This combination of barbiturates and alcohol potentiates the effect on the metabolism of the body and may cause death.

Amphetamines are still one of the better drugs for counteracting the effects of depressant drug overdose.

A physician maintains an all night vigil at the bedside of a sick child with the aid of an amphetamine. Amphetamines are useful in the treatment

of an individual with Parkinson's Disease (shaking palsy) and also in the treatment of mild mental diseases.³

Visual and auditory delusions of taking amphetamines are two symptoms of abuse which could result in tragedy. For instance, a person operating a vehicle under the influence of amphetamines not only endangers his life, but also the life of the innocent.

Early research revealed that LSD has some promise in the medical sense: (1) treatment of alcoholics, (2) treatment for certain types of psychosis, (3) rehabilitation of the social delinquent, but at the present time, as far as medical use the drugs are only available to investigators exploring medicinal use and not for prescriptive use by the public.⁴

Some studies have evidenced that individual patterns in drug abuse are common. Literature on drug abuse alludes to several distinguishing characteristics which causes a person to be somewhat more vulnerable to the illicit drug pusher. First, curiosity with drugs can cause much disharmony, both with the individuals involved and their surroundings. Usually the individual who indulges for this reason rarely becomes a chronic and persistent user.⁵ Second, a psychotic feeling of not being needed or wanted. Having a sense

³U. S. Department of Health, Education, and Welfare, Fact Sheet, Food and Drug Administration, From the Bureau of Drug Abuse Control, July, 1967 (Washington, D. C. : Government Printing Office, 1967), n.p.

⁴Richard R. Lingeman, Drugs from A to Z: A Dictionary (New York: McGraw-Hill Book Company, Inc., 1969), pp. 132-134.

⁵Bowen, pp. 165-166.

of being severely inadequate has caused the individual to reach out for any magical type solution. It would be hard for a person in this state of mind to kick the habit.⁶ Third, peer group pressures influence your decisions. If a social group is constantly trying to persuade others to indulge in drugs, the chances are they will.⁷ Fourth, escape from reality is a method used when people become frustrated with various situations in life. Escape from responsibilities, from anxiety and from solitude are some common modes of denial of reality.⁸ Fifth, people sometimes turn on because of the idea of becoming spiritually enlightened by super-natural relationships. Many abusers under the influence of LSD have related stories of mystic and visionary experiences. These people believed they had seen the Almighty God, and had communicated with him.⁹

Many of the chief dangers to the individual arise from the psychological effects. Some people have the misconception that if a drug is psychologically

⁶ Cohen, p. 110.

⁷ S. S. Radin, "Psychosocial Aspects of Drug Addiction," Journal of School Health, XXXVI (December, 1966), 481-487.

⁸ U. S. Department of Health, Education, and Welfare, Drugs of Abuse, Reprint from Food and Drug Administration Papers. From the Bureau of Drug Abuse Control. July-August, 1967 (Washington, D.C.: Government Printing Office, 1967), n.p.

⁹ Lycorgus M. Starkey, Jr. "A Clergyman Looks at Drug Abuse," Journal of School Health, XXXIX (September, 1969), 478-486.

dependency producing and not physically dependency producing then it would be perfectly alright to abuse.¹⁰

Psychic dependence is a drive that demands repeated administration when needed to avoid discomfort or produce a feeling of well being. The state of mind is a most powerful factor in the picture of drug addiction.¹¹

Personality disorders have been considered for many years as the prime explanation of drug dependency, but now through research people are finding out that there are more and more pieces to this growing problem.

* As far as social pressures, a personality problem would be the most likely characteristic leading to drug abuse. For example, the reason behind why some people succumb, while other under the same pressures or similar ones do not. The possibility or hypothesis that narcotic addicts suffer from personality disorders that predispose addiction has been expressed by the late Dr. Kenneth W. Chapman of the Lexington, Kentucky, Federal hospital: "The potential addict is emotionally unstable and immature . . . the ordinary human being has normal defense machinery with which to meet life's disappointments, frustrations, and conflicts. But the potential addict lacks enough of this inner strength . . ." ¹²

¹⁰ N. B. Eddy, et al., "Drug Dependence: Its Significance and Characteristics," Bulletin World Health Organization, XXXII (1965), 721-733.

¹¹ ibid.

¹² Jules Saltman, What We Can Do About Drug Abuse (New York: Public Affairs Pamphlets, The Public Affairs Committee, 1967), p. 14.

A solution of the illicit drug problem which has been suggested quite frequently lately, is that drugs should be made more available through medical channels. In the study of Illicit Amphetamine Drug Traffic in Oklahoma City, John Griffith believes if this proposal went through that the underworld market for drugs would collapse.¹³

Even more hopeful than to try to maintain legal control has been the development of facilities which focus directly upon the treatment of the addict. Devoted individuals, such as doctors, psychiatrists, social workers, religious leaders, and former addicts themselves, are giving a tremendous effort in searching and learning more effective ways of dealing with this illness.¹⁴

Not long ago the only places for the addict to seek help was the federal hospitals at Lexington, Kentucky, and Fort Worth, Texas. Today, places are being made available in all parts of the country.

But, inspite of their growing number, all the present facilities together are no more than a few grains of sand trying to stem the vast tide of drug abuse. None has any clearly conclusive answers--particularly to the problem of the addict who does not have what it takes to benefit from even the best treatment and aftercare or from the rugged discipline of Synanon.¹⁵

Although this process of treating the addict is not completely successful in all cases we at least have a good start in the right direction.

¹³ John Griffith, "A Study of Illicit Amphetamine Drug Traffic in Oklahoma City," American Journal of Psychiatry, CXXIII (November, 1966), 560-569.

¹⁴ Saltman, pp. 21-22.

¹⁵ Ibid., p. 28.

These are the principle drugs that have therapeutic medical value that are abused on a prescriptive and non-prescriptive basis. Clearly drugs can be miracle workers when used properly and they can also be catastrophic when they are abused. Illegal drug use is a major problem today both physically and socially.¹⁶ The evidence clearly exists for the need of more adequate rehabilitation facilities.

The remainder of this literature review was devoted to consideration of the principle drugs of abuse: (1) Narcotics, (2) Barbiturates, (3) Amphetamines and finally, (4) Hallucinogens.

Narcotics

Technically a narcotic is a drug that is used to relieve pain and produce sedation. Opiates are derivatives of opium which are derived from the resin of the poppy (Papaver somniferum). Opium had been in use for thousands of years before its addictive properties were discovered. In the late eighteenth and early nineteenth century in England the upper and middle-class people indulged in eating opium. A century ago in the United States many of the medicinal drugs contained opium. This resulted in many household problems since many of the patent medicines were tinctured with opium. It was toward the end of the nineteenth century that it was estimated that 1 in 400 Americans were dependent upon this type of medicine. The main offenders

¹⁶ Cohen, pp. 123-125.

were housewives. This situation is somewhat similar to the reaction of psychedelics that we are presently caught up in.¹⁷

Main derivatives of opium that will be discussed in the following paragraphs are: Morphine, Heroin (diacetyl morphine), Codeine.

Morphine was isolated by F.W.A. Serturmer in 1803. The hypodermic syringe was invented in 1858, and with this new invention and the ease in availability of morphine the problem of addictiveness intensified. It was thought to be a wonder drug for various different ailments. Hypodermic syringes were given out freely during the civil war and with the availability of morphine the addiction problem became a disaster. This resulted in three hundred thousand addicts. The dependence on the injection of morphine became known as the "soldier's disease."¹⁸

Heroin is a synthetic alkaloid formed from morphine. The color is a white or off-white crystalline powder. In 1898 morphine was acetylated to form heroin. It was received with such enthusiasm that its name was derived from the word hero. It was thought at the time to be both a cure for opium and morphine addiction. As history repeats itself the problem was more devastating than ever. Heroin has no legitimate medicinal use. Any usage, manufacturing and importation are restricted by law.¹⁹

¹⁷ Lingeman, pp. 188-191.

¹⁸ Cohen, p. 71.

¹⁹ ibid.

Codeine resembles morphine, but is less addicting and milder in its action. It is the weakest derivative of opium. Codeine is used in a number of cough syrups for the treatment of irritating and non-productive cough. In some states you can purchase codeine cough syrups without a prescription. Often when there is a scarcity of heroin and morphine the addict will resort to codeine cough syrups to parry the abstinence syndrome until the hard stuff arrives.²⁰

The potency of the narcotic determines the effects it has on the user. The more potent the narcotic, the more intensified the effects will be. Both physical and psychological dependence occurs. Primary effects such as a feeling of contentment and well being (euphoria) are generally realized. Other effects such as the relief of pain, constriction of pupils, daydreaming, tingling sensation, and drowsiness, but with a clearness of mind are important facts to know. These primary effects subside in about 4 hours.²¹

Abuse dangers are particularly centered around the depressive effect it has on the respiratory system and central nervous system. Some of the main dangers are: loss of appetite, constipation, temporary impotency or sterility, stopor, coma, blocking or blunting of the senses, and over dosage and death.²²

²⁰ Lingeman, p. 46.

²¹ James C. Coleman, *Abnormal Psychology and Modern Life* (Chicago, Illinois: Scott, Foresman and Company, 1964), pp. 437-440.

²² Fresno County Department of Education, *A Cooperative Endeavor in Drug Abuse* (Fresno City, California: Fresno County Department of Education, 1969), p. 10.

Barbiturates

Barbiturates depress the central nervous system and induce sleep, produce a sedative effect and relieve tension. The medical significance of the substance was discovered by a couple of German chemists in 1903. The substance was named Veronal. Nine years after Veronal, Luminal was discovered. Medicinally these drugs are used the most. Today there are approximately 2,500 different types of barbiturates. It is believed that at least half of the barbiturates produced fall into illegal channels.²³

The shorter-acting Pentobarbital (Nembutal), Amobarbital (Amytal), Secobarbital (Seconal), and the longer-acting Phenobarbital are the most often abused barbiturates.²⁴

Abuse of barbiturates cause both physical and psychological dependence. The abstinence syndrome is seen within a day of abrupt removal of the barbiturate to the individual who is dependent upon this drug. Some of the main dangers of abuse are: Suicidal tendencies, accidental death, loss of emotional control, impaired judgment, slurring speech, and reaction time is retarded.²⁵

Amphetamines

Amphetamines are mood producing agents which stimulate the central nervous system to create a state of sleeplessness and alertness. The

²³ Lingeman, pp. 15-17.

²⁴ Cohen, p. 83.

²⁵ Dorothy Gildersleeve, Darkness on Your Doorstep (2nd ed.; San Fernando Valley, California: Department of Community Services, 1969), pp. 1-10.

amphetamine benzedrine was first developed or synthesized in 1927 by Smith Kline and French Laboratories. In 1932 it was first used as an inhalant decongestant. German paratroopers used benzedrine as part of a survival kit in the Spanish Civil War. Frontline soldiers of both sides during World War II used this drug to help counteract fatigue. Methamphetamines were used for missions requiring a tremendous amount of exertion by the Germans.²⁶

Amphetamines are also useful in combating obesity, narcolepsy, Parkinson's Disease (shaking palsy), and some cases of minor mental depression. Drugs such as amphetamine sulfate (benzedrine), dextroamphetamine (dexedrine), methamphetamine (methedrine); fall under the title of the most abused central nervous system stimulants. Chronic use of these stimulants lead to various dangers such as: Malnutrition, heavy sweating, suicidal impulses, paranoid behavior, high blood pressure, increasing dosage, and abnormal heart rhythms. These stimulants may produce psychological dependence, but no physiological dependence.²⁷

Hallucinogens

The best know Hallucinogens are mescaline, taken from the buttons of the peyote cactus; psilocybin, chemical extracted from Mexican mushrooms, and Lysergic Acid Diethylamide-25, the last stated being the most talked about of these hallucinogens.²⁸

²⁶ Lingeman, p. 22.

²⁷ Fresno, p. 5.

²⁸ U. S. Department of Health, Education, and Welfare, Drugs of Abuse, . . . From the Bureau of Drug Abuse Control, July-August, 1967, n.p.

The effects of LSD are more intensified, because it is the most potent abused drug of the hallucinogens. It was developed in 1938 by Albert Hofmann, who five years later accidentally ingested some of it and experienced its psychic properties. LSD is derived from an alkaloid found in the rye fungus ergot. Common effects caused by the indulgence of this drug are: dilation of pupils, distortion of sensory perception, unpredictable mental reaction, suicidal impulses, nausea, increased blood pressure and heart rate. Most likely the main dangers of chronic abuse of LSD: possible alteration or change in the chromosome structure, psychosis, and possible brain damage. LSD causes psychological dependence, but not physiological dependence.²⁹

Marihuana was first introduced into the United States by merchant seamen from Latin America by way of the Port of New Orleans around 1920. At approximately the same time mexican laborers also brought marihuana into the United States. The legal use of marihuana for research purposes are regulated under the Marijuana Tax Act, which was passed by Congress in 1937. Marihuana is a resinous substance taken from the flowering tops of the female Cannabis sativa plant. It is more commonly known as the Indian hemp plant. It generally is cut, dried, crushed, and then rolled into a home made cigarette. The habitual use of marihuana leads to severe psychological dependence. Marihuana is a milder type hallucinogen. It has many of the characteristical effects of other hallucinogens, but in a more mitigated degree. Primary effects of the intake of marihuana would be: increase in appetite

²⁹U. S. Department of Health, Education, and Welfare, LSD: the False Illusion, 1967 (Washington, D. C.: Government Printing Office, 1967), n. p.

(especially sweets), dryness of throat and mouth, light headed feeling, and burning and blurring of the eyes, plus a relaxed feeling. Also ringing or pressure may be present in the ears. With long use and chronic intake the abuser may develop dangerous effects such as: personal hygiene (susceptibility towards diseases), distortion of perception, and becomes negligent in his goals, not wanting to accomplish anything.³⁰

³⁰Lingeman, pp. 142-151.

CHAPTER III
ANALYSIS OF DATA

The data obtained from this study was summarized and interpreted in this chapter. The findings of the questionnaire are presented in percentages, numbers, and other statistical information for descriptive and analytical reason. The computer analyzed 201 questionnaires from Logan and 219 from Tooele. The Logan group registered 102 males and 99 females, while the Tooele group accounted for 112 males and 107 females.

The analysis of data was divided according to those questions in the questionnaire that dealt with (1) Inhalants, (2) Narcotics, (3) Barbiturates, (4) Amphetamine, and (5) Hallucinogens. Appendix A presents the questionnaire in its entirety.

Questions on inhalants

Questions 1, 2, and 3 dealt with various aspects of the use of inhalants. There was a great similarity in the pattern of responses to the use of inhalants between the Logan and Tooele senior class. This homogeneous response was especially noted in the initial use of inhalants between the respondents of the two groups. It was evident in this study that the majority of the seniors in both groups that used inhalants were not using them now, and have not used them in more than a year. Eighty-three per cent of the Logan senior class indicated that they had not used inhalants, while

87 per cent of the Tooele senior class illustrated that they had never used inhalants. There was only 3 respondents in the Logan group and 4 respondents in the Tooele group that could possibly be labeled as heavy users of inhalants, and they were the respondents that indicated that they indulged in the use of inhalants more than 10 times.

Questions on narcotics

Questions 11, 12, 13, 14, 15, 16, and 17 dealt with various aspects of the use of narcotics. The use of narcotics appeared to be limited to a very small minority in both school groups. The results of question 11 (I have used narcotics) indicated that 92 per cent of the Logan senior class stated that they had never used narcotics. The responses of the Tooele senior class indicated that 98 per cent of its class had never used narcotics. The majority of the students who had used narcotics had only used them a very few times.

The responses to question 12 (My age when I first used narcotics) showed that there were 3 individuals from the Logan senior class who had used narcotics before the age of 16. The Tooele senior class did not have any responses stating the use of narcotics before the age of 16.

Table 1, question 13 (I last used narcotics) illustrates the length of time in which the narcotic user last used this drug. It was evident from the responses that the Logan senior class has more exposure to the use of narcotics, than that of the Tooele senior class.

It was interesting to note in the responses to question 14 (I know people who could get me narcotics) that 30 per cent of the Logan group, as compared

TABLE 1

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 13 (1 LAST USED NARCOTICS)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
More than a year ago	6	2.99	3	1.37
Few months ago	7	3.48	0	0.0
Few weeks ago	0	0.0	1	0.46
Less than a week	2	1.00	1	0.46
Never	186	92.54	214	97.72

with 32 per cent of the Tooele group were able to obtain narcotics appeared to create similar answers in both groups. The possibility of knowing where to obtain narcotics received the most answers from both the Logan senior class and the Tooele senior class.

Table 2, question 15 (The main reason I have never used narcotics) was evidence of why personal beliefs was significant in accomplishing your goals in life. Pre-adolescence and adolescence social environment influence greatly in shaping character and personal beliefs. "Personal beliefs" accounted for 80 per cent of Logan class seniors and 84 per cent of Tooele class seniors who did not use narcotics for this reason. The next most popular answer in both the Logan and Tooele group for not using narcotics was "health reasons."

Some high school students at this age apparently have a special susceptibility to the involvement with illicit drugs, including narcotics. The peer group relation appeared to be a strong social influence at this time of life, because his friends might be users it was difficult for him to resist their persuasive powers. In addition to the kicks and dare tactics, there seemed to be some people with a build-in compulsion for trying anything at least once. Table 3, question 16 (The primary reason I used narcotics) points out that "curiosity" was the most frequent reason why narcotics had been used in the two groups.

With regard to the principle source for obtaining narcotics, it was observed in Table 4, question 17 (My principle source of obtaining narcotics)

TABLE 2

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 15 (THE MAIN REASON I HAVE NEVER
USED NARCOTICS)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
My personal beliefs	160	79.59	183	83.54
I have used narcotics	15	7.46	5	2.28
Fear of arrest	1	0.50	0	0.0
Health reasons	23	11.44	30	13.70
My parent's view	2	1.00	1	0.46

TABLE 3

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 16 (THE PRIMARY REASON I USED NARCOTICS)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
On a dare	1	0.50	0	0.0
Spiritual enlightenment	2	1.00	1	0.46
Kicks	1	0.50	1	0.46
Escape from frustration	0	0.0	1	0.46
I have not used it	186	92.54	214	97.72
Curiosity	7	3.48	2	0.91
Friends use them	4	1.99	0	0.0

TABLE 4

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 17 (MY PRINCIPLE SOURCE OF
OBTAINING NARCOTICS)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
University student	7	3.48	2	0.91
Students at school	11	5.47	18	8.22
Another high school student	3	1.49	6	2.74
A non-student	3	1.49	2	0.91
No source	177	88.08	191	87.21

that Logan seniors named "university student" much more often than Tooele seniors. This would be somewhat expected due to the nearness of Logan High School to Utah State University. "Students at school" was the main source for obtaining narcotics in both groups.

Questions on barbiturates

Questions 32, 33, 34, 35, 36, 37, and 38 dealt with various aspects of the use of barbiturates. The results of question 32 (I have used barbiturates) indicated the great similarity in the frequency and use of barbiturates by the Logan and Tooele senior class.

The responses to question 33 (My age when I first used barbiturates) indicated the answer of "17 years or older" registered the most marks in both the Logan and Tooele senior class, regarding the first use of barbiturates. The Logan group appeared to use barbiturates to a greater extent at an earlier age, than did the Tooele group.

The similarity in the responses of the Logan senior class and the responses of the Tooele senior class which dealt with the frequency of use of the barbiturates are presented in Table 5, question 34 (I last used barbiturates).

The responses to question 35 (I know people who could get me barbiturates) indicates that barbiturates seem to be easily available in both the Logan and Tooele group. In the Logan senior class, 37 per cent knew where to obtain barbiturates. The Tooele senior class stated that 42 per cent of its group knew

TABLE 5

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 34 (I LAST USED BARBITURATES OR DOWNERS)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Never	177	88.06	200	91.32
Few weeks ago	8	3.98	6	2.74
More than a year ago	6	2.99	4	1.83
Less than a week	3	1.49	2	0.91
Few months ago	7	3.48	7	3.20

where to obtain barbiturates. Only a minority in both groups did not know where to obtain barbiturates.

Table 6, question 36 (The main reason I have never used barbiturates) indicates that the individual's "personal beliefs" was by far the biggest reason for both groups in refraining from the use of barbiturates. "Health reasons" was the next most popular response given by both groups in reference to the main reason you would never use barbiturates.

Table 7, question 37 (The primary reason I used barbiturates) indicates that the primary reason for the use of barbiturates in the Logan and Tooele senior classes was due to an overwhelming compulsion of trying anything at least once, known as curiosity. The response, "on a dare," was the only answer selected by no student in either group, relative to the reasons why barbiturates were used.

It was pointed out in Table 8, question 38 (My principle source of obtaining barbiturates) that the Logan senior class, with its neighboring university, answered "university student" more often than did the Tooele seniors as a source to obtain barbiturates. The other responses were somewhat similar in both groups.

Questions on amphetamines

Questions 18, 19, 20, 21, 22, 23, and 24 dealt with various aspects of the abuse of amphetamines. The results of question 18 (I have used amphetamines) illustrated that the Logan senior class apparently used more amphetamines than the Tooele senior class. The non-use of amphetamines

TABLE 6
 COMPARISON OF LOGAN AND TOOEE SENIOR STUDENT RESPONSES TO
 QUESTION 36 (THE MAIN REASON I HAVE NEVER
 USED BARBITURATES OR DOWNERS)

	Logan		Tooee	
	Number	Percentage	Number	Percentage
My parent's view	3	1.49	0	0.0
Health reasons	26	12.94	24	10.96
Fear of arrest	0	0.0	1	0.46
My personal beliefs	149	74.13	175	79.91
I have used downers	23	11.45	19	8.68

TABLE 7
 COMPARISON OF LOGAN AND TOOEELE SENIOR STUDENT RESPONSES TO
 QUESTION 37 (THE PRIMARY REASON I USED
 BARBITURATES OR DOWNERS)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Friends use them	4	1.99	2	0.91
Curiosity	10	4.98	8	3.65
Kicks	6	2.99	3	1.37
On a dare	0	0.0	0	0.0
Spiritual enlightenment	0	0.0	1	0.46
I have not used it	177	88.06	201	91.78
Escape from frustration	4	1.99	4	1.83

TABLE 8
 COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
 QUESTION 38 (MY PRINCIPLE SOURCE OF OBTAINING
 BARBITURATES OR DOWNERS)

	<u>Logan</u>		<u>Tooele</u>	
	Number	Percentage	Number	Percentage
Another high school student	10	4.98	14	6.39
University student	7	3.48	2	0.91
Students at school	15	7.46	15	6.85
A non-student	10	4.98	14	6.39
No source	159	79.11	174	79.45

was recorded at 84 per cent of Logan senior class, as compared with 89 per cent of the Tooele senior class. The Logan group, in comparison with the Tooele group, appeared to have twice as many of the heavy users (more than 10 times) of amphetamines.

The responses to question 19 (My age when I first used amphetamines) indicated that the answers "16 years" and "17 years or older" was the most popular response for both groups concerning the age when amphetamines were first used. More Logan seniors replied, "15 years" or "14 years or under," for their first use of amphetamines than did the Tooele group.

The use of amphetamines appeared to be a recent dilemma in both of the senior classes. Eight per cent of the Logan senior class and 7 per cent of the Tooele senior class reported using amphetamines within the last few weeks or less. The frequency of use of amphetamines is illustrates in Table 9, question 20 (I last used amphetamines).

It appeared that amphetamines were very much available to the public, if they really wanted to acquire them. The responses to question 21 (I know people who could get me amphetamines) indicated that only 27 per cent of the Logan group and 24 per cent of the Tooele group definitely did not know people who could get amphetamines. The biggest percentage representing both groups stated that they knew people who could get amphetamines for them.

The responses located in Table 10, question 22 (The main reason I have never used amphetamines) indicated that the individuals "personal

TABLE 9

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 20 (I LAST USED AMPHETAMINES OR UPPERS)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Less than a week	10	4.98	7	3.20
Few weeks ago	7	3.48	8	3.65
Few months ago	11	5.47	7	3.20
More than a year ago	6	2.99	3	1.37
Never	167	83.08	194	88.58

TABLE 10
 COMPARISON OF LOGAN AND TOOEE SENIOR STUDENT RESPONSES TO
 QUESTION 22 (THE MAIN REASON I HAVE NEVER USED
 AMPHETAMINES OR UPPERS)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Health reasons	21	10.45	24	10.96
My parent's view	1	0.50	0	0.0
I have used uppers	32	15.92	16	11.87
Fear of arrest	1	0.50	1	0.46
My personal beliefs	146	72.62	168	76.70

beliefs" were by far the most frequent answer for both groups, in regards to the non-use of amphetamines. "Fear of arrest" and "parent's view" or criticism did not appear to produce a deterrent to amphetamine abuse. It was observed that health reasons played an obvious role in helping reduce the use of amphetamines in the Logan and Tooele senior classes.

The primary reasons for the abuse of amphetamines in the Logan and Tooele senior class is presented in Table 11, question 23 (The primary reason I used amphetamines). "Curiosity" was the primary reason why the senior high students of Logan and Tooele used amphetamines. In neither group was the answer, "on a dare," selected.

Table 12, question 24 (My principle source of obtaining amphetamines) indicated that "students at school" was the principle source of obtaining amphetamines in both the Logan senior class and the Tooele senior class. All of the answers received a considerable number of responses. Logan seniors and Tooele seniors accredited "university student" least often with being a source of amphetamines. Eight seniors in Logan and 2 in Tooele indicated this source.

Questions on hallucinogens

Questions 25, 26, 27, 28, 29, 30, and 31 dealt with various aspects of the use of LSD. The responses to question 25 (I have used LSD) pointed out that the use of LSD showed a resemblance between the two senior classes. Seven individuals in the Logan group indicated that they had used LSD more than 10 times, while 6 individuals in the Tooele group recorded that they had.

TABLE 11
 COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
 QUESTION 23 (THE PRIMARY REASON I USED
 AMPHETAMINES OR UPPERS)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
I have not used it	169	84.08	194	88.58
Friends use them	3	1.49	2	0.91
Curiosity	13	6.47	8	3.65
Spiritual enlightenment	3	1.49	6	2.74
Escape from frustration	5	2.49	3	1.37
On a dare	0	0.0	0	0.0
Kicks	8	3.98	6	2.74

TABLE 12
 COMPARISON OF LOGAN AND TOOEE SENIOR STUDENT RESPONSES TO
 QUESTION 24 (MY PRINCIPLE SOURCE OF OBTAINING
 AMPHETAMINES OR UPPERS)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
A non-student	15	7.46	18	8.22
No source	152	75.60	165	75.32
University student	8	3.98	2	0.91
Students at school	18	8.96	23	10.50
Another high school student	8	3.98	11	5.02

The results of question 26 (My age when I first used LSD) pointed out that the "14 years or under" category entails a minute amount of usage of LSD in both of the senior classes. It was interesting to note that in the Tooele senior class, more students first used LSD at age 16. The Logan senior class, more first used LSD at age 17 or older.

Table 13, question 27 (I last used LSD) observed that the last individual use of LSD appeared to be somewhat similar in all the categories for both groups. Only slightly more abuse was indicated by the Logan seniors.

The responses to question 28 (I know people who could get me LSD) pointed out that only a minority of the respondents in both senior classes did not know exactly where to obtain LSD. This potent hallucinogen was obviously available to a great extent in both Logan and Tooele.

It was indicated in Table 14, question 29 (The main reason I have never used LSD) that 11 per cent of the Logan senior class have used LSD as compared with 8 per cent from the Tooele senior class. The most popular reason for not using LSD was registered by both groups as being the individual's "personal beliefs." The next most popular answer for not using LSD for both groups was "health reasons."

It was evident from Table 15, question 30 (The primary reason I used LSD) that "curiosity" ranked highest main reason why LSD was used. "Spiritual enlightenment" and "on a dare" received no responses in the Logan senior class as to the reason to use LSD.

TABLE 13
 COMPARISON OF LOGAN AND TOOEELE SENIOR STUDENT RESPONSES TO
 QUESTION 27 (I LAST USED LSD)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
More than a year ago	4	1.99	5	2.28
Less than a week	6	2.99	2	0.91
Few weeks ago	5	2.49	2	0.91
Few months ago	8	3.98	9	4.11
Never	178	88.56	201	91.78

TABLE 14

COMPARISON OF LOGAN AND TOOEELE SENIOR STUDENT RESPONSES TO
QUESTION 29 (THE MAIN REASON I HAVE NEVER USED LSD)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
I have used LSD	22	10.95	17	7.76
Health reasons	29	14.43	30	13.70
Fear of arrest	1	0.50	0	0.0
My personal beliefs	149	74.13	171	78.08
My parent's views	0	0.0	1	0.46

TABLE 15
 COMPARISON OF LOGAN AND TOOEE SENIOR STUDENT RESPONSES TO
 QUESTION 30 (THE PRIMARY REASON
 I USED LSD)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Escape from frustration	4	1.99	4	1.83
Kicks	5	2.49	1	0.46
I have not used it	178	88.56	202	92.24
On a dare	0	0.0	1	0.46
Spiritual enlightenment	0	0.0	3	1.37
Friends use them	1	0.50	1	0.46
Curiosity	13	6.47	7	3.20

Table 16, question 31 (My principle source of obtaining LSD) indicated that the category "students at school" most commonly served as the principle source of obtaining LSD in both groups. It was not surprising that the Logan group used "university students" more often than the Tooele group in regards to obtaining LSD from a university student. The proximity of Utah State University to Logan High School apparently contributed to abuse at Logan High.

Questions 39, 40, 41, 42, 43, 44, and 45 dealt with various aspects of the use of peyote. Rounding off the percentage of responses to question 39 (I have used peyote) indicated that 2 per cent of Tooele seniors had used peyote more than 10 times as opposed to 1 per cent in Logan. Both groups recorded responses which were very much alike.

The results for question 40 (My age when I first used peyote) pointed out that the most frequent initial use of peyote in the Logan senior class occurred in the "17 years or older" category. The Tooele senior class indicated the answers of "16 years" as often as they did "17 years or older" as the age when peyote was first used.

The incidence of abuse or the last time peyote was used by both the Logan and Tooele senior class is illustrated in Table 17, question 41 (I last used peyote). One individual in the Logan group had used peyote within the last week, while 3 individuals in the Tooele group indicated use of peyote within the last 7 days.

TABLE 16

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 31 (MY PRINCIPLE SOURCE OF
OBTAINING LSD)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
No source	154	76.62	173	79.00
Student at school	17	8.46	25	11.42
Another high school student	11	5.47	6	2.74
A non-student	11	5.47	13	5.94
University student	8	3.98	2	0.91

TABLE 17
 COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
 QUESTION 41 (I LAST USED PEYOTE)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Never	186	92.54	201	91.78
Few months ago	7	3.48	8	3.65
Few weeks ago	3	1.49	4	1.83
More than a year ago	4	1.99	3	1.37
Less than a week	1	0.50	3	1.37

The responses to question 42 (I know people who could get me peyote) pointed out a significant difference in noting that 43 per cent of the Logan senior class and 33 per cent of the Tooele senior class definitely did not know where to obtain peyote. Only 27 per cent of the Logan group as compared with 31 per cent of the Tooele group knew where to obtain peyote.

The individual's "personal beliefs" as observed in Table 18, question 43 (The main reason I have never used peyote) elicited the most replies in both groups concerning the reasons why peyote was not used. The answers, "fear of arrest" and "parent's views" received very few responses in both groups as reasons for not using peyote.

Table 19, question 44 (The primary reason I used peyote) indicated that the reasons for using peyote appeared to be quite numerous in both groups. The most frequent answer given by the Logan senior class was curiosity, in reference to the reason why peyote was used. The Tooele senior class observed that the most popular reason for using peyote was for kicks.

Table 20, question 45 (My principle source of obtaining peyote) illustrated the obtaining of peyote by Logan high seniors was decisively higher than the Tooele senior class, in response to the answer "university student" as being the source. This was to be somewhat expected due to the neighboring university in the Logan area. The source of obtaining peyote that recorded the highest number of responses in both groups was the answer of students at school.

TABLE 18
 COMPARISON OF LOGAN AND TOOEELE SENIOR STUDENT RESPONSES TO
 QUESTION 43 (THE MAIN REASON I HAVE NEVER
 USED PEYOTE)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
I have used peyote (mescaline)	15	7.46	18	8.22
My personal beliefs	161	80.10	179	81.74
Health reasons	22	10.95	18	8.22
Fear of arrest	2	1.00	2	0.91
My parent's views	1	0.50	2	0.91

TABLE 19

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 44 (THE PRIMARY REASON I USED PEYOTE)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Spiritual enlightenment	3	1.49	5	2.28
Escape from frustration	2	1.00	2	0.91
I have not used it	186	92.54	201	91.78
Kicks	2	1.00	6	2.74
On a dare	1	0.50	1	0.46
Friends use them	1	0.50	0	0.0
Curiosity	6	2.99	4	1.83

TABLE 20

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSE TO
QUESTION 45 (MY PRINCIPLE SOURCE OF
OBTAINING PEYOTE)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
A non-student	8	3.98	18	8.22
University student	10	4.98	3	1.37
No source	165	82.09	172	78.54
Another high school student	6	2.99	6	2.99
Students at school	12	5.97	20	9.12

Questions 4, 5, 6, 7, 8, 9, and 10 dealt with various aspects of the use of marihuana. Much research is being done in regards to the actual extent of usage of marihuana. Future research should be of considerable value in combating and understanding the use of drugs. The responses to question 4 (I have used marihuana) determined that the incidence of marihuana experimentation of only using the drug once was 4 per cent in the Logan group and 6 per cent in the Tooele group. Nine per cent of the Logan group and 7 per cent of the Tooele group used marihuana more than 10 times.

Question 5 (My age when I first used marihuana) pointed out that both groups used marihuana more frequent in the "17 years or older" category. Two per cent of the Logan group had used marihuana at the age of "14 or under," as compared with 1 per cent of the Tooele group.

The Logan group showed that only 3 per cent used marihuana more than a year ago, as compared with 4 per cent usage of the Tooele group. Table 21, question 6 (I last used marihuana) indicated that the use of marihuana is an up-to-date issue in both schools.

Marihuana appears to be quite easily available to young people. The responses to question 7 (I know people who could get me marihuana) indicated that only 14 per cent of the Logan school seniors and 12 per cent of the Tooele school seniors definitely did not know where to obtain marihuana. The majority of senior students in both groups answered yes to the question of knowing people who could get them marihuana. Approximately 62 per cent of Logan seniors and 59 per cent of Tooele seniors answered with a positive reply concerning the availability of marihuana.

TABLE 21
 COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
 QUESTION 6 (I LAST USED MARIJUANA)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Less than a week	8	3.98	13	5.94
Few weeks ago	15	7.46	3	1.37
Few months ago	17	8.46	15	6.85
More than a year ago	6	2.99	9	4.11
Never	155	77.11	179	81.74

The individual's "personal beliefs" was the main reason why they had never used marihuana. It was observed from the Logan senior responses that there was 70 per cent who never used marihuana because of personal beliefs. The Tooele senior responses showed that there was 74 per cent who also never used marihuana because of personal beliefs. Also noted in Table 22, question 8 (The main reason I have never used marihuana) was that 22 per cent of the Logan group had used marihuana, as compared with 18 per cent use of marihuana by the Tooele group.

Table 23, question 9 (The primary reason I used marihuana) illustrated that "curiosity" was the prime reason why marihuana was used. Curiosity represented 33 of the 45 individuals who stated that they had used marihuana from the Logan group. In the Tooele group, curiosity was selected by 22 of the 41 individuals who stated that they had used marihuana.

Table 24, question 10 (My principle source of obtaining marihuana) pointed out that "students at school" seemed to be the principle source in both schools. In the Logan group 17 per cent of the senior class obtained marihuana from fellow classmates. The Tooele senior class was similar in that it recorded 15 per cent of its users obtained marihuana from "students at school." Because Logan High School is located near a university and Tooele High School is not, it was interesting to note that 6 per cent of the Logan group obtained marihuana from a university student, while 2 per cent of the Tooele group obtained their marihuana from university students.

TABLE 22

COMPARISON OF LOGAN AND TOOEELE SENIOR STUDENT RESPONSES TO
QUESTION 8 (THE MAIN REASON I HAVE NEVER
USED MARIJUANA)

	Logan		Tooeele	
	Number	Percentage	Number	Percentage
Fear of arrest	3	1.49	3	1.37
Health reasons	11	5.47	13	5.94
My parent's views	2	1.00	2	0.91
My personal beliefs	140	69.55	162	73.97
I have used marijuana	45	22.39	39	17.74

TABLE 23

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 9 (THE PRIMARY REASON I USED MARIJUANA)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Curiosity	33	16.92	22	10.05
Kicks	5	2.49	7	3.20
On a dare	0	0.0	1	0.46
Friends use them	4	1.99	2	0.91
Escape from frustration	2	1.00	5	2.28
Spiritual enlightenment	1	0.50	4	1.83
I have not used it	156	77.61	178	81.28

TABLE 24

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 10 (MY PRINCIPLE SOURCE OF
OBTAINING MARIJUANA)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Students at school	34	16.92	32	14.61
No source	130	64.64	154	70.30
Another high school student	11	5.47	10	4.57
University student	12	5.97	4	1.83
A non-student	14	6.97	19	8.68

Questions 46 and 47

Questions 46 and 47 dealt with all drugs encompassed in the questionnaire. Table 25, question 46 (Do your friends take drugs that are not prescribed for them) showed that 40 per cent of the Logan senior class indicated that their friends used drugs that were not prescribed for them. The Tooele senior class indicated that 41 per cent of their group had friends who used drugs without a prescription.

Table 26, question 47 (It is very important to this study that each item be answered to the best of your knowledge) illustrated that this study can be considered at least 93 per cent valid, if the assumption that people or in this case senior class students in high school are basically honest. Only one Logan respondent out of the 420 observations in both groups indicated that his or her answers should be disregarded.

In regards to the use of the Two Way Independent Chi-Square, the only significant difference at the .05 level was found in questions 6, 13, 15, and 16 between the two senior classes. There was no significant difference at the .05 level between male and female responses, or the total response averages of the two senior class groups.

TABLE 25

COMPARISON OF LOGAN AND TOOEELE SENIOR STUDENT RESPONSES TO
QUESTION 46 (DO YOUR FRIENDS TAKE DRUGS
THAT ARE NOT PRESCRIBED FOR THEM)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
No	80	39.80	71	32.42
Yes	80	39.80	90	41.10
Not sure	41	20.40	58	26.48

TABLE 26

COMPARISON OF LOGAN AND TOOELE SENIOR STUDENT RESPONSES TO
QUESTION 47 (IT IS VERY IMPORTANT TO THIS STUDY
THAT EACH ITEM BE ANSWERED TO THE
BEST OF YOUR KNOWLEDGE)

	Logan		Tooele	
	Number	Percentage	Number	Percentage
Disregard my answers	1	0.50	0	0.0
Most of my answers are accurate	14	6.97	15	6.85
You can rely on my answers	186	92.54	204	93.15

CHAPTER IV

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

It is important that people become aware of the growing drug problem. People should attempt to educate the public to the needs of their society, and to know whether certain ideas which they have established in life are correct.

Summary

The purpose of the study was to determine the incidence of drug abuse among seniors of Tooele High School and Logan High School. The following sub-problems were investigated as a part of this study.

1. The relationship of incidence of abuse between males and females.
2. The possible influence a university may have upon a neighboring high school, in reference to drug abuse.

The data for the purpose of analysis was obtained from answers to the questions used in the questionnaire. The questionnaire consisted of 47 questions. The number of participants included 201 high school seniors at Logan High and 219 from Tooele. The Logan group registered 102 males and 99 females, while the Tooele group accounted for 112 males and 107 females. Those students that were absent on the day the questionnaire was administered were eliminated from the study.

DD-5081 punch cards were obtained and used as a means of collecting descriptive analytical data for this study. The results of the questionnaires

were recorded upon IBM answer sheets and were statistically analyzed by the use of computers. Based on analysis of 420 responses the computer provided specific correlation coefficients by use of the Two Way Independent Chi-Square.

Findings

1. Fifteen per cent of the Logan senior class indicated that they had experienced a change in feeling or conduct from having inhaled (sniffed) glue, aerosols, paint thinner, lighter fluid, or gasoline. Thirteen per cent of the Tooele senior class recorded that they had experienced a similar feeling from having inhaled (sniffed) one or more of these same inhalants. Eleven per cent of the Logan senior class who used inhalants have abstained from its use for more than a year. The Tooele senior class notes that 9 per cent who used inhalants have not used them in over a year.

2. Nine per cent of the individuals in the Logan group used marihuana more than 10 times. In comparison, the Tooele group indicated that 7 per cent of its senior class used marihuana more than 10 times. Both the senior class of Logan High School and the senior class at Tooele High School recorded that 10 per cent of their senior classes initially used marihuana at age 17 or older. Approximately 62 per cent of Logan seniors and 59 per cent of Tooele seniors answered with a positive reply concerning the question of knowing people who could get them marihuana if they wanted it. The individual's personal belief was the principle reason why marihuana was not used. For this reason, 70 per cent of the Logan senior class and 74 per cent of the Tooele senior class

did not use marihuana. The use of marihuana was recorded at the 22 per cent mark in the Logan group and 18 per cent in the Tooele group. Seventeen per cent of the Logan senior class and 10 per cent of the Tooele senior class used marihuana because of curiosity.

3. Both groups selected the answer "personal beliefs" as the principle reason why narcotics, marihuana, amphetamines, LSD, barbiturates and peyote were not used.

4. "Curiosity" was the primary reason for the usage of marihuana, narcotics, amphetamines, LSD, barbiturates and peyote in the Logan senior class. Curiosity was the primary reason in the Tooele senior class for the use of these drugs with the exception of peyote, where the reasons of kicks and spiritual enlightenment were just ahead of curiosity.

5. Both groups indicated that the principle source of obtaining marihuana, narcotics, amphetamines, LSD, barbiturates and peyote was from students at your same school.

6. The Logan senior class recorded a considerable number more than the Tooele senior class in their responses toward the university student as being the principle source of obtaining drugs.

7. Two individuals in the Logan group used narcotics more than 10 times, while only one individual of the Tooele group used narcotics more than 10 times. Three individuals in the Logan senior class had used narcotics before the age of 16. The Tooele senior class did not have any responses acknowledging the use of narcotics before the age of 16. Thirty per cent of

the Logan senior class knew exactly where to obtain narcotics if they wanted or needed to, as compared with 32 per cent in the Tooele senior class. Seven per cent of the Logan senior class indicated that they had used narcotics, while 2 per cent of the Tooele senior class said that they had used narcotics.

8. It was observed that 8 per cent of the Logan senior class had used amphetamines more than 10 times. The Tooele senior class showed that 4 per cent of their group had used amphetamines more than 10 times. Two per cent of the Logan senior class had used amphetamines at age 14 or earlier. One per cent of the Tooele senior class had used amphetamines at age 14 or earlier. It was noted that only 3 per cent of the Logan group had used amphetamines more than a year ago. Only 1 per cent of the Tooele group had used amphetamines more than a year ago. It was pointed out that 39 per cent in the Logan senior class and 42 per cent in the Tooele senior class knew people who could definitely get them amphetamines. Sixteen per cent of the Logan senior class and 12 per cent of the Tooele senior class indicated that they had used amphetamines.

9. Three per cent of the individuals in both groups indicated that they had used LSD more than 10 times. It was also recorded in both groups that 3 per cent had used LSD once. Two per cent of the Logan senior class and 1 per cent of the Tooele senior class indicated that they had used LSD before the age of 16. Three per cent of the Logan senior class and 1 per cent of the Tooele class showed that they had used LSD in less than a week. It was tabulated that 35 per cent of the Logan senior class and 34 per cent of the

Tooele senior class knew people who could get them LSD if they wanted it. Eleven per cent of the Logan senior class and 8 per cent of the Tooele senior class indicated that they had used LSD.

10. Two per cent of the Logan senior class and 1 per cent of the Tooele senior class recorded that they had used barbiturates more than 10 times. Four per cent of the Logan senior class and 2 per cent of the Tooele senior class had used barbiturates before the age of 16. It was indicated that 37 per cent of the Logan senior class and 42 per cent of the Tooele senior class knew people who could obtain barbiturates for them. Eleven per cent of the Logan senior class and 9 per cent of the Tooele senior class had used barbiturates without a prescription.

11. One per cent of the Logan senior class and 2 per cent of the Tooele senior class used peyote (mescaline) more than 10 times. Both groups indicated that 2 per cent of their senior class had used peyote (mescaline) before the age of 16. It was pointed out that 27 per cent of the Logan senior class knew people who could get them peyote (mescaline) as compared with 31 per cent of the Tooele senior class. Seven per cent of the Logan senior class and 8 per cent of the Tooele senior class indicated that they had used peyote (mescaline).

12. "Health reasons" was the second most frequent reason why marihuana, narcotics, amphetamines, LSD, barbiturates, and peyote were not used.

13. In the Logan senior class, 40 per cent indicated that their friends took drugs that were not prescribed for them. The Tooele senior class recorded

41 per cent stating that their friends took drugs that were not prescribed for them.

14. Ninety-three per cent in each senior class indicated that their answers were reliable.

15. A Two Way Independent Chi-Square analysis was used to determine any significant difference between the male and female responses to the questionnaire. It was ascertained from the computer that there was no significant difference at the .05 level between male and female answers.

16. The averages of the Logan senior class responses was compared with the averages of the Tooele senior responses. Through the use of the computer, using the Two Way Independent Chi-Square analysis, it was discovered that there was no significant difference at the .05 level between the two groups.

17. Each question was analyzed using the Two Way Independent Chi-Square analysis to determine any significant difference in any of the questions between the two senior classes. It was ascertained through the computer that only questions 6, 13, 15, and 16 were found to be significantly different at the .05 level.

Conclusions

The findings of this study justify the following conclusions:

1. The sniffing of inhalants was a significant problem with the majority of its detrimental use beginning much before the senior year in high school.

2. The use of marihuana in adolescence was significantly higher than other illegally used drugs.

3. Marihuana was the most readily available drug in and around the school, followed by amphetamines, barbiturates, LSD, narcotics, and peyote.

4. The individual's "personal beliefs" was by far the most significant reason for not using drugs, with the second most popular answer being health reasons.

5. The built-in compulsion of experimenting with the unknown, which can be labeled curiosity was the most significant response given for the use of drugs.

6. Students at the same school were the most likely source for obtaining drugs.

7. Logan senior class recorded more responses of "university student" as being the principle source for obtaining drugs more often than the Tooele senior class. The influence of a nearby university may play a role in the local community, as far as the use of drugs is concerned. In this case the Logan senior class with its neighboring university exemplify this possibility.

8. It was interesting to note that users and great numbers of non-users indicate they are fully aware of how, when and where drugs can be acquired.

9. Narcotics are the least heavily used drug followed by peyote and barbiturates, LSD, amphetamines, and marihuana.

10. There was no significant difference at the .05 level between male and female answers.

11. There was no significant difference at the .05 level between the averages of the Logan senior class and the averages of the Tooele senior class.

12. A significant difference was found at .05 level between the Logan senior class and the Tooele senior class in questions 6, 13, 15, and 16.

Recommendations

1. Control of social conditions that facilitates the drug abuse problem.
2. Control of economic situations which permit the drug abuse problem to continue.
3. Possible change in methods of instructions about drugs and how they are presented.
4. Understanding knowledge and perception of young people toward illicit drugs.
5. Establishment of public health educational programs.
6. Establishment of compulsory programs for the treatment of the addict.
7. Establishment of stronger penalties concerning the unauthorized manufacturer, and the pusher.
8. Drug abuse should be approached socially, medically, and legally to ameliorate the present situation.

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APPENDIX

Questionnaire

DIRECTIONS

Your honest response and cooperation in answering this questionnaire will be greatly appreciated.

This questionnaire is only concerned with drugs that are abused, and not the drugs that you may take under a doctor's prescription.

Age of student _____

If you make a mistake, erase the mark completely and fill in the appropriate answer. There should only be one answer per question.

Record your answers in the left-hand-side blank that corresponds to the number on the questionnaire. For example: My present grade in school is:

_____ 1 = (9th) 2 = (10th) 3 = (11th) 4 = (12th) 5 = (13th)

 _____ 1 = (Male) 2 = (Female)

-
- _____ 1. Have you ever experienced a change in feeling or conduct from having inhaled (sniffed) glue, aerosols, paint thinner, lighter fluid, gasoline:
 1 = (once) 2 = (5 times or less) 3 = (10 times or less)
 4 = (more than 10 times) 5 = (never)
- _____ 2. My age when I first sniffed glue, aerosols, paint thinner, lighter fluid, gasoline:
 1 = (12 or under) 2 = (13 years) 3 = (14 years)
 4 = (15 years or older) 5 = (never)
- _____ 3. The last time I sniffed glue, aerosols, paint thinner, lighter fluid, gasoline:
 1 = (never) 2 = (more than a year ago) 3 = (few months ago)
 4 = (less than a week) 5 = (few weeks ago)

- _____ 4. I have used marijuana:
1 = (10 times or less) 2 = (5 times or less) 3 = (never)
4 = (once) 5 = (more than 10 times)
- _____ 5. My age when I first used marijuana:
1 = (15 years) 2 = (16 years) 3 = (14 years or under)
4 = (never) 5 = (17 years or older)
- _____ 6. I last used marijuana:
1 = (less than a week) 2 = (few weeks ago) 3 = (few months ago)
4 = (more than a year ago) 5 = (never)
- _____ 7. I know people who could get me marijuana:
1 = (yes) 2 = (possibly) 3 = (no)
- _____ 8. The main reason I have never used marijuana:
1 = (fear of arrest) 2 = (health reasons) 3 = (my parent's view)
4 = (my personal beliefs) 5 = (I have used marijuana)
- _____ 9. The primary reason I used marijuana:
1 = (curiosity) 2 = (kicks) 3 = (on a dare) 4 = (friends use them)
5 = (escape from frustration) 6 = (spiritual enlightenment)
7 = (I have not used it)
- _____ 10. My principle source of obtaining marijuana is from:
1 = (students at school) 2 = (no source) 3 = (another high school student)
4 = (university student) 5 = (a non-student)
- _____ 11. I have used narcotics (heroid, morphine, codeine):
1 = (more than 10 times) 2 = (once) 3 = (10 times or less)
4 = (never) 5 = (5 times or less)
- _____ 12. My age when I first used narcotics (heroin, morphine, codeine):
1 = (14 years or under) 2 = (15 years) 3 = (16 years)
4 = (17 years or older) 5 = (never)
- _____ 13. I last used narcotics (heroin, morphine, codeine):
1 = (few months ago) 2 = (never) 3 = (less than a week)
4 = (few weeks ago) 5 = (more than a year ago)
- _____ 14. I know who could get me narcotics (heroin, morphine, codeine):
1 = (no) 2 = (yes) 3 = (possibly)

- _____ 15. The main reason I have never used narcotics (heroin, morphine, codeine):
1 = (my personal beliefs) 2 = (I have used narcotics)
3 = (fear of arrest) 4 = (health reasons) 5 = (my parent's view)
- _____ 16. The primary reason I used narcotics (heroin, morphine, codeine):
1 = (on a dare) 2 = (spiritual enlightenment) 3 = (kicks)
4 = (escape from frustration) 5 = (I have not used it)
6 = (curiosity) 7 = (friends use them)
- _____ 17. My principle source of obtaining narcotics (heroin, morphine, codeine) is from:
1 = (university student) 2 = (students at school) 3 = (another high school student) 4 = (a non-student) 5 = (no source)
- _____ 18. I have used amphetamines or uppers:
1 = (10 times or less) 2 = (5 times or less) 3 = (never)
4 = (once) 5 = (more than 10 times)
- _____ 19. My age when I first used amphetamines or uppers:
1 = (never) 2 = (16 years) 3 = (15 years) 4 = (14 years or under) 5 = (17 years or older)
- _____ 20. I last used amphetamines or uppers:
1 = (less than a week) 2 = (few weeks ago) 3 = (few months ago) 4 = (more than a year ago) 5 = (never)
- _____ 21. I know people who could get me amphetamines or uppers:
1 = (possible) 2 = (no) 3 = (yes)
- _____ 22. The main reason I have never used amphetamines or uppers:
1 = (health reasons) 2 = (my parent's views) 3 = (I have used uppers) 4 = (fear of arrest) 5 = (my personal beliefs)
- _____ 23. The primary reason I used amphetamines or uppers:
1 = (I have not used it) 2 = (friends use them) 3 = (curiosity) 4 = (spiritual enlightenment) 5 = (escape from frustration) 6 = (on a dare) 7 = (kicks)
- _____ 24. My principle source of obtaining amphetamines or uppers is from:
1 = (a non-student) 2 = (no source) 3 = (university student) 4 = (students at school) 5 = (another high school student)

- _____ 25. I have used LSD:
1 = (5 times or less) 2 = (once) 3 = (10 times or less)
4 = (more than 10 times) 5 = (never)
- _____ 26. My age when I first used LSD:
1 = (17 years or older) 2 = (15 years) 3 = (never)
4 = (16 years) 5 = (14 years or under)
- _____ 27. I last used LSD:
1 = (more than a year ago) 2 = (less than a week)
3 = (few weeks ago) 4 = (few months ago) 5 = (never)
- _____ 28. I know people who could get me LSD:
1 = (no) 2 = (yes) 3 = (possibly)
- _____ 29. The main reason I have never used LSD:
1 = (I have used LSD) 2 = (health reasons) 3 = (fear of arrest)
4 = (my personal beliefs) 5 = (my parent's views)
- _____ 30. The primary reason I used LSD:
1 = (escape from frustration) 2 = (kicks) 3 = (I have not used it)
4 = (on a dare) 5 = (spiritual enlightenment) 6 = (friends use them)
7 = (curiosity)
- _____ 31. My principle source of obtaining LSD is from:
1 = (no source) 2 = (student at school) 3 = (another high school student)
4 = (a non-student) 5 = (university student)
- _____ 32. I have used barbiturates or downers:
1 = (never) 2 = (once) 3 = (5 times or less)
4 = (more than 10 times) 5 = (10 times or less)
- _____ 33. My age when I first used barbiturates or downers:
1 = (17 years or older) 2 = (14 years or under) 3 = (15 years)
4 = (never) 5 = (16 years)
- _____ 34. I last used barbiturates or downers:
1 = (never) 2 = (few weeks ago) 3 = (more than a year ago)
4 = (less than a week) 5 = (few months ago)
- _____ 35. I know people who could get me barbiturates or downers:
1 = (no) 2 = (yes) 3 = (possibly)

- _____ 36. The main reason I have never used barbiturates or downers:
1 = (my parent's views) 2 = (health reasons) 3 = (fear of arrest) 4 = (my personal beliefs) 5 = (I have used downers)
- _____ 37. The primary reason I used barbiturates or downers:
1 = (friends use them) 2 = (curiosity) 3 = (kicks) 4 = (on a dare) 5 = (spiritual enlightenment) 6 = (I have not used it) 7 = (escape from frustration)
- _____ 38. My principle source of obtaining barbiturates or downers is from:
1 = (another high school student) 2 = (university student)
3 = (students at school) 4 = (a non-student) 5 = (no source)
- _____ 39. I have used peyote (mescaline):
1 = (never) 2 = (more than 10 times) 3 = (5 times or less)
4 = (once) 5 = (10 times or less)
- _____ 40. My age when I first used peyote (mescaline):
1 = (15 years) 2 = (17 years or older) 3 = (16 years)
4 = (14 years or under) 5 = (never)
- _____ 41. I last used peyote (mescaline):
1 = (never) 2 = (few months ago) 3 = (few weeks ago)
4 = (more than a year ago) 5 = (less than a week)
- _____ 42. I know people who could get me peyote (mescaline)
1 = (yes) 2 = (no) 3 = (possibly)
- _____ 43. The main reason I have never used peyote (mescaline):
1 = (I have used mescaline) 2 = (my personal beliefs)
3 = (health reasons) 4 = (fear of arrest) 5 = (my parent's views)
- _____ 44. The primary reason I used peyote (mescaline):
1 = (spiritual enlightenment) 2 = (escape from frustration)
3 = (I have not used it) 4 = (kicks) 5 = (on a dare)
6 = (friends use them) 7 = (curiosity)
- _____ 45. My principle source of obtaining peyote (mescaline) is from:
1 = (a non-student) 2 = (university student) 3 = (no source)
4 = (another high school student) 5 = (students at school)
- _____ 46. Do your friends take drugs that are not prescribed for them?
1 = (no) 2 = (yes) 3 = (not sure)

_____ 47. It is very important to this study that each item be answered to the best of your knowledge:

1 = (disregard my answers) 2 = (most of my answers are accurate) 3 = (you can rely on my answers)

VITA

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