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Date 25 May 1972

A REVIEW OF LITERATURE OF THE HISTORY, LEGAL AND ILLEGAL
ASPECTS AND METHODS OF TREATMENT OF DRUG ABUSE

by

PAUL EDWARD FUNK

A professional paper submitted to the Graduate Faculty in
partial fulfillment of the requirements for the degree

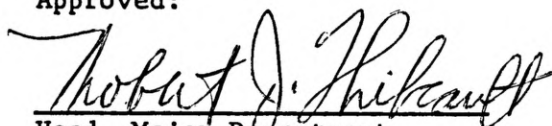
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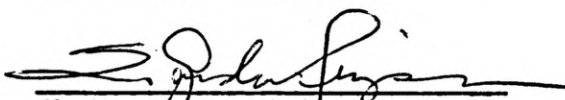
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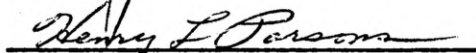
with concentration in

Counseling

Approved:


Head, Major Department


Chairman, Examining Committee


Graduate Dean

MONTANA STATE UNIVERSITY
Bozeman, Montana

June, 1972

ACKNOWLEDGEMENT

It is with the strongest admiration, deepest sincerity and greatest pride that I acknowledge the wise counsel, challenging force, and brilliant academic prowess of Dr. S. Gordon Simpson whose contribution to my life and my education is immeasurable.

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ABSTRACT

Reviewing the literature of the history of drug abuse, those drugs most commonly abused, aspects of legal drug abuse and some of the methods of treatment for drug abusers is the problem of this paper. The latest figures from the National Commission on Marijuana and Drug Abuse indicate that over ten million people in the United States have either illegally experimented with or used the drugs covered in this paper. The vast number of people involved points up the seriousness of the problem of drug abuse.

A review of the related literature was the method used to help describe the history of drug abuse, the legal abuse of drugs and some of the methods of treatment for drug abusers.

The more important conclusions resulting from this study were: (1) Man has constantly been engaged in a search for ways and means of transcending the realities of self and of the world. Drug abuse has played a major role in the escapist's search for a more rewarding and satisfying life. (2) No specific culture, race or class of people has a corner on the drug abuse problem. (3) Technology, science and modern methods of research which have produced drugs with potential for abuse can also be viewed positively as agents of assistance in the battle against the misuse of drugs. (4) There is some evidence that abuse of one drug may lead to the introduction and abuse of other drugs. (5) The association of LSD with intellectualism may have led to an increase in the use of the drug by those aspiring to be intellectuals. (6) While methadone appears to be a promising agent in the battle against heroin addiction, there is insufficient research to glorify or condemn use of the drug. (7) The success of Synanon, Daytop and other organizations is significant, but this writer believes that such treatment centers are effective for only a certain type of drug abuser. (8) Some rather specific methods used by Daytop can be traced to Conditioned Reflex Therapy, which was developed by Andrew Salter. (9) Until recently, there has not been enough emphasis upon the problems of drug abuse as they exist here and now. (10) Legal drug abuse is a serious problem in the United States and may already surpass illegal drug abuse in terms of numbers of people involved. (11) Historical and modern research seem to reveal that the drug abuse problem is really a "people problem" or, perhaps, a series of personality problems unique to each individual. (12) There seems to be little basis for the conclusion that only a reformed drug abuser can provide therapy and guidance for the present user of drugs. (13) Concern for the individual and his uniqueness seems to be growing in searching for new alternatives and new treatment approaches to drug abuse.

Chapter I

INTRODUCTION

"The desire to take medicine," wrote the great Osler, 'is perhaps the greatest feature which distinguishes man from animals (DeRopp, 1961:1).'" Man's search for both physical and mental health as well as a seemingly innate desire to discover the "fountain of youth" seems to be behind his willingness to experiment with and rely upon medicines, herbs, and potions of all sorts. The problems created by this search for a more perfect self or for a less demanding reality seem to have reached serious proportions in the United States, today. The search for a "cure" for drug abuse and drug related problems of all sorts is far from over, and, in fact, there seems to be no adequate solution in sight. Sonnedecker (1958) and Milbauer (1970) point out that even an adequate conception of the nature of drug abuse and drug addiction has not been agreed upon. These authors further state that there is no universal agreement upon what constitute the major problems within the field. With these thoughts as background, this study is undertaken in hopes that the data collected and synthesized will provide some insight into the frightening and sometimes overwhelming problems of drug abuse.

Statement of the Problem

Reviewing the literature concerning the history of drug abuse,

those drugs most commonly abused, aspects of legal drug abuse and some of the methods of treatment for drug abusers and drug addicts is the problem of this paper.

Definition of Terms

The following terms are defined as they will be used in this paper.

A drug is a chemical substance taken to prevent, cure, relieve, or otherwise affect a person's mental or physical state.

A narcotic is a class of drugs or other substances that affect the senses, produce euphoria, and in large amounts become habit forming. Narcotics are a class of drugs, but not all drugs are narcotics.

Addiction is the compulsive use of a drug with definite psychic dependence on that drug, a craving for it, and a relapse to using it after it has been withdrawn. This may apply to any drug, not just narcotic drugs (Milbauer, 1970:11).

Tolerance refers to the resistance developed to a drug by the body so that dosage must constantly be increased to achieve the desired effects.

Drug abuse and drug dependence will be used interchangeably in this study and are defined as "constant drug use or desire for a drug but not to the degree of full-fledged addiction (Milbauer, 1970:11)."

Limitations

The chief limitation of this paper is that certain drugs such as alcohol, marijuana, tranquilizers, methedrine and others are not specifically explored.

Chapter II

REVIEW OF LITERATURE

Introduction

"That humanity at large will ever be able to dispense with Artificial Paradises seems very unlikely (Huxley, 1954:62)." This cryptic and pessimistic view by Aldous Huxley concerns all forms of escape, including chemical means, used throughout history by man. The view of man as traditionally downtrodden, universally suffering and basically weak seems to have prevailed in most of the major religions, institutions, and philosophies of the world from the beginning of recorded history. The focus of this paper will be upon the abuse of drugs perpetrated by man in his attempts to transcend the realities of this world. This researcher will attempt to provide insight into some of the problems created by the abuse of drugs in the United States, today.

Historical aspects will be explored first, followed by a description of some of the drugs most commonly abused. Thereupon, some of the very significant problems of so called legal drug abuse will be explored. Finally, a portion of the treatment methods and centers now in existence will be examined.

History

At least two authors, Sonnedecker (1958) and Brill (1970) have

pointed out the lack of an adequate, comprehensive history of drug abuse. Nevertheless, literature and medical writings do make frequent mention of drugs and some related problems concerning their usage. This writer will attempt to bring together some of these historical references in an attempt to provide perspective for the abuse of drugs, today.

Greek mythology tells that in the underground kingdom of the dead, ruled by Hades, runs the river Lethe. A drink of its water produced oblivion. Thus, long ago, the Roman poet Vergil wrote of 'poppies steeped in Lethe's slumber (Kogan, 1970:390).'

Even earlier use of the juice of the poppy was found in Egypt where mothers gave it to restless children twenty centuries before Vergil (Kogan, 1970). Chaucer in The Knight's Tale spoke of "narcotikes and opie" (line 1472). Shakespeare's Othello expounded upon the poppy and "all the drowsy syrups of the world (III. iii: 331-32)."

It may be conjectured that playwrights and novelists were somewhat more attuned to the use of drugs than the scientific community. This seems especially true of the description of the effects brought on by the use of drugs by man. The historical examples mentioned above seem to precede any medical writings concerning the euphoria producing effects of drugs (Brill, 1970). Eugene O'Neill provided more contemporary insight into the literary world's preoccupation with drugs when he wrote in his play Long Day's Journey Into Night that opium "hides you from the world and the world from you (Kogan, 1970:390)." In

fact, it seems to this writer that many authors have glorified and promoted experimentation with and use of drugs through their graphic and vivid descriptions. Milton wrote of "death's benumbing opium as my only cure (line 630)" in Samson Agonistes with an almost reverent state of awe. Milton, as well as those authors of literature mentioned heretofore, seemed to be promoting the use of drugs for escaping the realities of a not-too-pleasant world. Emphasis was upon the pleasurable promises of drugged escapism. Adler (1969) wrote that drugs have been a tradition of escapism for the poor, downtrodden, declassed and despairing people of the ghetto. He also stated that for some men of all classes "drugs have been the escape from an intolerable present and a future without promise (p.7)." It seems to this researcher that there has been a universal and historical appeal in the philosophy that man can escape this world for something more pleasurable and fulfilling. To the tortured, oppressed, bored or defeated individual the promise of a better life has tremendous appeal.

Most men and women lead lives at the worst so painful, at the best so monotonous, poor and limited that the urge to escape, the longing to transcend themselves if only for a few moments, is and has always been one of the principal appetites of the soul (Huxley, 1954:62).

Some sought solace and escape through religion, self-punishment, contemplation, living the "Spartan life" and a variety of other mechanisms. Many have searched for that same escapism in the use of pills, potions, or, more recently, injections of various drugs.

"With the sole exception of alcoholism, which is described in the most ancient records, drug dependence first begins to emerge as a historical fact in the sixteenth century (Brill, 1970:9)." The point should be emphasized that medical history does not document drug dependence in the sense that we define it (except for alcoholism) until the late 1500's. The literary examples mentioned earlier point to the use of drugs, usually in their natural state, by man throughout recorded history. The effects of such drugs as opium and hashish were rather well known, but it was not until the 1500's that drug dependence and abuse were described. Brill (1970) holds that the essentially rural nature of the world until the twentieth century helped hold down drug abuse which he calls an urban problem.

Poor communications, restricted trade and the fact that drugs were rather crude, natural products which were difficult to gather, market and use were all factors restricting drug abuse. Another very real factor was the tendency of those in power or at the head of various religious cults to tightly control drugs to help the leaders hold sway over the people (DeRopp, 1961).

The first historical mention of drug use for altering behavior was by the Chinese emperor Shen-Neing in 2737 B.C. He described the plant now known as marijuana (*Cannabis sativa*), and pointed out its value as a medicine for treating everything from absent mindedness to

female weakness to malaria to constipation (Dohner, 1970). No specific date was mentioned, but the most ancient medical god of Mesopotamia, who was called Sin, was the god of medicinal herbs (Efron, 1967).

The cultivation of the poppy plant dates back to pre-historic times, probably originating in Mesopotamia. The ancient Egyptians and Persians, and later, the Greeks and Romans, used opium extensively for medicinal purposes (Ausubel, 1958:58).

As has already been pointed out, the Egyptians were using opium medicinally as early as 1500 B.C. (Smith, Kline and French, 1967). This powerful drug surpassed all others for hundreds of years in terms of use as an ingredient in medicines. Goulding (1964:10) states that "To this day most physicians would ally themselves with Sydenham who, about 1670, is alleged to have declared that 'without opium there would be no medicine.'"

Ancient Greeks called the opium plant sacred and awarded its favors to Ceres, a goddess. The Middle Ages, however, found opium allied with belladonna, henbane and aconite as an instrument of the devil and witchcraft (Goulding, 1964). DeRopp (1961) attributed witch hunting with the creation of a kind of "mass neurosis" which gripped the populace of Europe with terror and superstition during the Dark Ages. The church seemed more preoccupied with witches and devils than with Christ, and all sorts of atrocities, sexual excesses, and shameful forms of behavior were blamed upon the drugs mentioned above. A vivid account

by DeRopp (1961:273) of one of the incidents around 1600 in Bavaria follows:

The participants, having assembled in their secret meeting place, prepared with suitable incantations a drink of which all partook freely (probably made from belladonna, henbane or thorn apple). Soon after partaking of the drink a frenzy seized them all, including young Lise who, abandoning all restraints of feminine modesty, stripped herself naked and was annointed with the witches salve (crushed belladonna leaves). Next she engaged in a frenzied sexual orgy accompanied by the most in vivid hallucinations, in the course of which she became convinced that every devil in hell had enjoyed her body... So vivid were these hallucinations that she firmly believed them to be real and... related them to her father. The authorities, in an orgy of torture, wrung from all of them confessions of the misdeeds. Thereupon, the entire group was ceremoniously burned alive in the public square.

The same type of neurotic behavior referred to by DeRopp (1961) finally led to the ultimate in savagery when the document Malleus Maleficarium (A Hammer for Witches) was written by a German monk. The document described the methods of discovering a witch, graphic methods of torture, and how she should be burned (DeRopp, 1961). The emotionalism and deep resentment for anyone or anything different by 17th Century peasants is perhaps not unlike the distrust, dislike and downright hostility toward "longhairs or hippies" by the "establishment" (and vice versa), today.

In the late 1600's evidence of drug dependence (opium) was first recounted by travelers in the Middle and Far East. There was also reference to some laws for control of opium, but such laws were

mentioned only in passing (Brill, 1970). Opium smoking was discovered at the same time and probably originated in China. The smoking of opium became so alarming to Chinese officials that in 1796 such smoking carried the death penalty (Brill, 1970). The death penalty seemed to have little effect on the level of opium smoking, and the British (who certainly fostered and fed the Chinese habit) continued to make vast sums of money in the opium trade.

It was not until the eighteenth century that the medical picture of opium addiction was clearly described. Dee Quincey in his Confessions made the disease a matter of common knowledge and, incidentally, showed how great was the literary potential of the subjective side of drug experience (Brill, 1970:15).

"Opium was introduced to the United States by the Chinese labor gangs who worked on the railroads in the 1800's (Adler, 1969:8)." The Chinese were no different from other groups of immigrants each of which contributed to the number of drug users (Adler, 1969).

In Europe, opiate addiction, for reasons difficult to ascertain, never became as serious a problem as in the Orient or for that matter the United States (Ausubel, 1958:59).

Brill (1970) drew several conclusions in following the history of opium which can be generalized to other types of drugs abused. He stated that drugs often existed as medical treatments for a long while before escaping into nonmedical channels of use. Further, governments applied restrictions a considerable time after the appearance of serious problems related to the drugs. This last conclusion is a serious

argument against the theory that the fewer controls the less problems this nation or any other will have with drugs. Brill also pointed out that legislation against one drug may open the way for a more serious drug problem with another drug. The instance he cited to prove this thesis was the ban against tobacco smoking in China. The lack of tobacco led to its being combined in minute amounts with the more readily available opium. This, of course, led to much greater consequences and the enactment of many more laws and penalties.

The opium dilemma was further extended by the discovery of two opium alkaloids, morphine in 1805 and codeine in 1832. Both morphine and codeine were administered to cure the opium habit by short-sighted or ignorant physicians. (Interestingly enough, methadone is now administered to heroin addicts in order to cure addiction to that drug.) Consequently, opium addicts were merely transferred to another physically addicting drug (Smith, Kline and French, 1967). Morphine became even more popular with addicts than opium because it proved to be ten times more potent than its parent. However, the most significant factor influencing narcotic addiction at the time was the discovery of the hypodermic needle in 1843. Brought to the United States in 1856, the hypodermic needle was issued to Civil War soldiers along with their personal supply of morphine. Unfortunately, morphine was used not only as a pain-killer but, also, as a cure for dysentery. The

end result was that many Civil War soldiers became addicted to the opium derivative. Because so many military men were addicted, morphine addiction became known as the "Soldier's Illness." (Smith, Kline and French, 1967).

Other forms of opium and its derivatives orally abused were "laudanum (a mixture corresponding to one grain of opium to twenty-five drops of alcohol), paregoric (one grain to four hundred eighty drops) and Dover's powder (opium mixed with ipecac and milk sugar) (Smith, Kline and French, 1967:18)." An added factor making control of the opiates difficult was the fact that opium and its derivatives could be bought in any pharmacy and many general stores in the United States (Vogel and Vogel, 1967).

The year 1898 saw the development by chemists of a synthetic derivative of morphine called heroin. At the time of its introduction there were still no laws curbing or controlling the use of drugs in the United States. Heroin was administered widely by some members of the medical profession, and one of its primary uses at the turn of the twentieth century was as a substitute for morphine in the treatment of morphine addicts. The addictive qualities of heroin were discovered first by addicts hooked on other drugs, and heroin abuse had spread significantly before medical personnel made the same discovery (Brill, 1970). Brill (1970) also asserted that heroin never achieved

the medical prominence or importance of opium or morphine, but its use in the drug culture spread extremely rapidly. This brief history of heroin hardly does justice to a drug which is said by most authorities to be the most seriously abused in the United States. Heroin is not, however, an ancient drug; and the purpose of this portion of the paper is to bring us up to the early twentieth century. The importance of heroin abuse is further highlighted by the fact that this potent derivative of morphine was almost exclusively responsible for the enactment in 1914 of the Harrison Act by the United States government in an effort to stem the tide of drug addiction (U.S. Government Printing Office, 1966).

Just as the ebb and flow of conquest and expanding world trade fostered the spread of opium abuse in Asia and Europe, the Spanish conquistadores helped expose the world at large to the properties of cocaine. Brill (1970) wrote that the chewing of cocoa was already well established but strictly controlled among the Incas when the Spanish conquered Peru in the 1500's. The Incas controlled cocoa chewing through the power of their religion and its priests. The Catholic Church and the government established by the Spaniards worked diligently in writing and enforcing laws against use of the drug found in cocoa. Educational programs and preaching against the use of cocoa were instituted, but the end result was an increase rather than a decrease in the use of the drug. By driving the religion of the Incas underground and reducing the

hold that Inca priests had over the population the Spanish only succeeded in freeing cocoa for use by the population at large. There was now little religious mysticism surrounding the drug, and the natives began chewing and enjoying the cocoa leaves indiscriminately (Brill, 1970).

The users saw the leaf as harmless, a necessity of life, an agent which alleviated stress and made it possible to endure the prevailing hunger, exposure, and inordinate labor in the high altitudes in which they lived (Brill, 1970:10).

Word of the euphoric properties of cocoa spread to Europe along with some of the leaves of the plant. In 1860 a Viennese named Niemann isolated a new alkaloid from cocoa leaves, called cocaine. There was little enthusiasm for cocaine until 1884 when Sigmund Freud experimented with the drug upon himself. Rogers (1971) believes that Freud helped make cocaine popular by touting its use against depression, typhoid fever and alcoholism. According to Brill (1970) the most attractive features of the drug to Freud personally were the vivid hallucinations and euphoric effects of the derivative of cocoa. Freud believed the drug to be non-addicting and blamed those who abused it rather than the drug itself for the damage done. Cocaine was being administered to morphine addicts to help "cure" them, but the addicts became psychologically addicted to cocaine. Brill (1970:12) concluded that "Freud was by that time under

increasingly bitter attack. His opponents were soon fully vindicated, and he retired from psychopharmacology ...and went on to found a branch of psychiatry."

Cocaine was well known by addicts in the United States by the beginning of the twentieth century and was classed with morphine as a narcotic drug under the Harrison Act. The drug began to disappear from the drug abuse scene in the 1920's. Authorities believed cocaine to be greatly feared by addicts and users because of the often violent reactions it precipitated in adherents. This fear caused addicts to leave the drug alone or so officials thought. However, there was a resurgence of abuse of cocaine in the 1960's (Jones, Shainberg and Byer, 1969).

The discovery of the effects of peyote is buried in antiquity, but it is a cactus native to the deserts of Mexico and the southwest United States. DeRopp (1961) speculated that some lost, desperately hungry soul devoured one of the cactus plants in a frantic attempt to stay alive.

We can envisage that long-forgotten man, Aztec or pre-Aztec, chewing the nauseous, bitter cactus tops and lying down to rest, then, in a rising tide of astonishment, finding himself ringed on all sides with fantastic visions, with shapes, colors, odors of which he had never dreamed. Small wonder that, when he found his way back to his tribe, he informed them that a deity dwelt in the cactus and that those who devoured its flesh would behold the world of the gods (DeRopp, 1957:28).

Upon conquering Mexico the Spaniards outlawed the use of peyotl (peyote), but the Indians continued to gather and utilize this sacred, hallucinogenic plant. As communications became easier the peyotl rite spread across the United States border to the "Apaches, Omahas, Kiowas, Comanches, and was employed even by tribes as far north as Wisconsin (DeRopp, 1961:30)." Missionaries among the Indians continued to press for laws prohibiting the use of peyote even though there was no firm evidence that the plant produced violence or anti-social behavior in those using it. The use of peyote is legal in the United States when taken in religious ceremonies within an "intertribal organization called The Native American Church of the United States (DeRopp, 1961:32)."

Indians ingested "wrinkled brown discs more or less covered with tufts of short white hairs known as mescal buttons (DeRopp, 1961:30)," in their peyotl rites. These distasteful discs were often vomited from the stomach of the uninitiated, and this seemed to help control the use of peyote. However, in the late 1889's European chemists extracted the active hallucinogenic alkaloid from peyote, and called it mescaline. The powder mescaline was much more popular than peyote if only for the fact that the user could swallow it without so much danger of becoming nauseous. When diluted with water the drug could be injected, and because of its rather simple chemical composition, it could be readily synthesized in the laboratory.

Havelock Ellis, a European famed for his pioneer studies in the field of human sexual behavior, experimented with peyote while Aldous Huxley tried taking mescaline in order to judge its effects. Neither Huxley nor Ellis reported derogatory effects upon themselves, and, in fact, they were both favorably impressed by the vividly heightened sensations they experienced. Huxley summed up his experiences and perhaps those of nearly all drug experimenters with the following passage:

But the man who comes back through the Door in Wall will never be quite the same as the man who went out. He will be wiser but less cocksure, happier but less self-satisfied, humbler in acknowledging his ignorance yet better equipped to understand the relationship of words to things of systematic reasoning to the unfathomable Mystery which it tries, forever vainly, to comprehend (Huxley, 1954:79).

The rapid scientific advances of the twentieth century included the creation of many new synthetic drugs. Some of the drugs produced for medical use have ultimately become abused illegally, in street drug traffic. However, there has been an alarming trend in so-called legal drug abuse via the physician's prescription pad (Rogers, 1971). The following account traces the brief history of some of the most recently synthesized and most often abused drugs of the twentieth century.

The first amphetamine was synthetically produced by Alles in 1927 (AMA Committee on Alcoholism and Addiction, 1966). In the 1930's a case involving a London bartender produced the first evidence of

amphetamine abuse when the man testified that the drug was being used in bars as an intoxicant (Brill, 1970). Methamphetamine, another stimulant, was produced by the Germans during World War II, and the Germans documented some addictive hazards while placing the drug on their narcotic list. Psychotic episodes following abuse of the drug occurred, but the dangerous correlation between psychosis and abuse of amphetamines was not public knowledge until 1958. The debate continues as to whether or not methamphetamine, whose slang name is "speed", is addicting (Brill, 1970).

The Japanese experienced a particularly revealing crisis concerning methamphetamine following military defeat in World War II. Large stocks of methamphetamine were released for general use by a population suffering through a period of chaos, low morale and serious social upheaval. The result was a near epidemic of methamphetamine abuse directly correlated with a sharp rise in antisocial acts committed by users of the stimulant. By 1954 it was estimated that there were two million users in Japan ten percent of whom were "serious abusers." A sharp rise in the number of patients treated for psychosis attributed to the drug was reported by mental hospitals. Stringent laws were passed and enforced, and the amphetamine epidemic was controlled although abuse of the drug was not eradicated (AMA Committee on Alcoholism and Addiction, 1966). In another study Brill (1970) pointed out that the abuse of methamphetamine was followed in Japan by

the abuse of other drugs, and that, for the first time, the Japanese had a heroin problem.

LSD (lysergic acid diethylamide) was first synthesized in 1938 by a Swiss scientist (Milbauer, 1970) although the discoverer did not realize the drug's hallucinogenic or mood altering effects until 1943. The drug was put to use medically in the treatment of mental disorders, and there seemed to be no reason to believe that LSD would produce dependence of any sort in the light of controlled experiments (Brill, 1970). In fact, mental patients who were administered the drug seemed anxious not to have the experience repeated (AMA Committee on Alcoholism and Drug Dependence and Council on Mental Health, 1967).

It remained for street users to discover LSD and to remind physicians that many, though by no means all, hallucination-producing drugs can create a state of mind or an experience which is of reinforcing value and can lead to drug seeking behavior of the classical pattern. By 1960, the drug was widely used and recognized as a problem. It was vigorously defended as being not harmful... The chief defenses were its harmlessness when properly used and its intellectual values; never has any drug been so surrounded by intellectualisms as has LSD (Brill, 1970:20).

The discovery in 1903 of the first barbiturate, whose trade name was Veronal, produced another class of drugs which soon came to be abused. The first documented report of barbiturate abuse was in 1928. However, it was not until the 1940's that the medical profession in general realized that barbiturates could create tolerance and physical dependence (AMA Committee on Alcoholism and Addiction, 1965).

About two dozen different barbiturates have been produced and marketed to provide the estimated three or four billion doses of the drugs dispensed through prescriptions by physicians each year in the United States (Jones, et al., 1969). Rogers (1971) points out that legal abuse of barbiturates far exceeds abuse by street users.

Trends in Drug Use During the Twentieth Century

In concluding the historical portion of this paper the writer believes it will be helpful to point out some trends concerning drug abuse in the United States in this century. Glaser and O'Leary (1960) listed six prevailing tendencies among drug addicts and drug abusers. Before the 1940's drug addiction occurred most often among middle or high income persons who were thought to have been introduced to drugs through medical sources. Included in this number were many nurses, pharmacists and doctors as well as a group of artists searching for vicarious experiences through drugs.

The second trend saw an increase in the use of drugs after World War II by those of a lower economic status. Third, and closely correlated with the second trend, was the increased drug usage by persons in minority groups. A concentration of drug abuse in the nation's large cities was a fourth trend while the fifth development was the wide divergency in the kinds of drugs abused. The 1940's and 1950's saw the development of a sixth trend which was the

increasing correlation between crime and drug abuse. The high cost of drugs and the low income of many addicts combined to push the drug abuser into crime as a way to feed his habit.

Summary

In summary, it can be seen that the abuse of drugs has existed insofar as medical records are concerned since the 16th century. The use of drugs, however, has been documented almost since the beginning of recorded history. For many centuries man had to depend upon natural drugs for medical purposes and to feed his addictions. As the scientific revolution ushered in the twentieth century, man's knowledge about drugs and his ability to synthesize new and potent drugs increased dramatically. Whether man will ultimately find satisfactory alternatives to drug abuse or come to terms with himself in such a way as to eliminate the need to try to find his happiness in pills seems to be the unanswered question behind the history as well as the future of drug dependence.

Drugs Illegally Abused

Opiates. Opiates are depressants, and these drugs trap the abuser in two ways. The opiates are physically addicting, and the body develops tolerance to them rather quickly (Kogan, 1970). Opium, the first of the opiates to be refined by man, is taken from the Oriental

poppy, Papaver somniferum. This drug is composed of dried juice refined from cutting the unripe pods of the poppy (Jones et al., 1969). The majority of the world's opium is grown in India, Turkey, Russia, China, Egypt and Mexico, and in its raw state opium is not widely used in the United States. Opium is a narcotic in both the medical and legal sense of the word. The important opiate derivatives are morphine, which is derived directly from opium, and codeine, which is obtained through chemical modification of morphine (Jones et al., 1969). Opium is usually smoked in a pipe, but the drug is sometimes sniffed, taken orally or diluted for injection.

Morphine, the chief derivative of opium is about ten times stronger than the parent narcotic. The strength of morphine brings on a swift and strong addictive attack upon the mental and physical capabilities (Jones et al., 1969). There are no large, illegal sources of morphine in the United States. Therefore, the narcotic is usually obtained through the robbery of medical facilities or pharmacies. Morphine may be taken orally, but most users inject it. Acting upon both the central nervous system and the bowels, morphine reduces suffering by raising the body's ability to withstand pain while relieving tension and fear relating to the pain. The drug reduces pain without putting the user to sleep. However, morphine depresses respiration, and when taken in such quantity as to be an overdose, respiration becomes so depressed that death may result. Tolerance for morphine develops very

quickly, and withdrawal becomes more severe as physical dependence increases. An interesting but grim sidelight is that some amphetamines reduce the derogatory side effects of depression and weakness suffered by morphine addicts while increasing the euphoric effects of the narcotic. Unfortunately, some addicts know of the combined effects of morphine and the amphetamines, and they take the two drugs in tandem (Milbauer, 1970).

Heroin is a much more powerful and much faster acting (than its parent) synthetic derived from morphine (Taylor, 1966). The first use of heroin in the United States was by post Civil War physicians who treated morphine addicts with the drug. By 1900 heroin had surpassed opium and morphine on the addict "Hit Parade", and, in desperation, the government outlawed the manufacture and sale of heroin which created an illegal market exploited by the underworld (Milbauer, 1970).

Physical addiction and tolerance to heroin are developed quickly; and because the drug is illegal for any use in the United States, there is added pressure on the abuser in terms of resupply. Withdrawal from the drug is extremely painful, and the fear of going through withdrawal helps goad the heroin abuser to the most extreme lengths to feed his habit. Consequently, heroin is the drug most associated with crime and other forms of antisocial behavior. Finally, obtaining and using the drug becomes an end in itself, and the addict lives only for his habit (Milbauer, 1970). The most common methods for taking heroin are

sniffing (snorting), injection into the skin and injection into a vein. Kogan (1970) estimates that there were over 100,000 new heroin abusers in the United States in 1970, and the same author points out that ninety percent of those abusing opiates are heroin users. Even more revealing are statistics released by the National Committee on Marijuana and Drug Abuse which estimates that 2.1 million Americans have experimented with or are on heroin (1972).

Codeine is best known for its use in seemingly harmless cough syrups. The drug, however, is an opium extract with somewhat milder properties than morphine in that codeine produces both a mild high and a mild sedative reaction. Even though codeine is physically addicting, withdrawal symptoms from the drug are milder than those experienced by heroin or morphine abusers. There is a definite tolerance developed by steady users, and some codeine addicts have been known to ingest as many as fourteen bottles of codeine-containing cough syrup per day. Codeine addiction and abuse is not considered to be a serious problem in the United States, today (Milbauer, 1970).

Barbiturates. These drugs depress the central nervous system thereby relieving anxiety and tension in the user. Barbiturates produce hypnotic and sedative effects, and if taken in large enough doses, they may put the user to sleep. As is the case with many drugs, barbiturates may produce an opposite effect than the one desired. This

phenomenon alone would seem to be reason enough to take drugs under a doctor's orders, only. Milbauer (1970) indicates that certain individuals may become agitated rather than sedated by barbiturates. Regular users of barbiturates develop a tolerance for the drug, and the abuser is further trapped by the physically addicting properties of the drug. A tolerance limit or point of saturation is reached with barbiturates as is the case with other dangerous drugs. If the tolerance limit is surpassed, death usually results according to Jones, et al. (1969).

The effects produced by the abuse of barbiturates are very similar to those of alcoholic intoxication. According to Milbauer (1970) the barbiturate abuser or addict seeks sensations of euphoria, excitement, and emotional highs very similar to those described by the abuser of alcohol. Speech may become slurred, movements slowed or sporadic, and the person may lose consciousness. Interestingly enough, barbiturates lessen the effects of an alcoholic hangover, and alcohol tends to lessen the withdrawal symptoms for barbiturate addicts. The practice of taking barbiturates with alcohol is extremely dangerous, to the point of death, and this deadly combination of drugs is being used more and more by younger drug abusers. "Such a combination interferes with the body's normal disposal of both alcohol and barbiturates through the liver, causing a toxic or lethal level of each to be reached very quickly (Jones, et al., 1969:45)." Jones (1969) goes on to

point out that the two drugs together have a synergistic effect. That is, the total of depressant effects is significantly increased over the effects of either alcohol or barbiturates taken alone.

Even though withdrawal from heroin is more widely publicized, Taylor (1966) points out that barbiturate withdrawal symptoms are more intense and more often lead to death in the patient. Therefore, it is imperative that barbiturate addicts be withdrawn slowly. In fact, Milbauer (1970) points out that the barbiturate addict must go through withdrawal in a hospital and be certified by a physician before an addict will be admitted to most treatment centers.

LSD. Lysergic acid diethylamide is a tasteless, colorless, and odorless substance derived from the ergot fungus of rye. There are many ergot alkaloids which can be changed into lysergic acid, but the most famous is LSD 25.

Jones, et al. (1969:58) point out that:

LSD is such a potent drug (over eight hundred times more potent, on similar dosage levels, than mescaline) and abused in such small dosages (as low as one microgram per kilogram of body weight in man) that it is almost impossible to produce anything but an extreme reaction when taking illegally prepared dosages. The average abusive dose is between one hundred and two hundred fifty micrograms.

According to Jones, et al. (1969) LSD increases reflex strength by action on the synapses and stimulates cerebral sensory centers while blocking the inhibiting ability of the reticular formation. Sensory perceptions of all types are increased dramatically, but the drug doesn't

effect anyone the same way twice. Many experiments have been conducted with LSD to create a so called "model psychosis" supposedly resembling schizophrenia. Since not everyone can agree upon a definition of schizophrenia, it seems to this writer that such experiments are overly optimistic in attempts to "create" an indentifiable psychosis.

Highly charged reactions such as acute anxiety, panic, delerium, convulsions or "flash backs" where psychotic episodes reoccur without use of LSD occur with some frequency in abusers (Kogan, 1970). It is difficult to determine whether the drug perpetuates psychotic episodes or whether LSD merely brings out latent psychoses in the individual. Cohen (1966) and Lauria (1971) believe that the tendency to abuse LSD as well as other drugs is indicative of some personality disorder to begin with.

A recent study by McGlothlin and Arnold (1971) of two hundred forty-seven persons who had received, ten years ago, LSD in either an experimental or psychotherapeutic setting sheds some light on the effects of this hallucinogen. The study concludes that:

There is little evidence that measurable, lasting personality, belief, value, attitude or behavior changes were produced in the sample as a whole. Compulsive patterns of LSD use rarely developed; the nature of the drug effect apparently is such that it becomes less attractive with continued use and, in the long term, is almost always self-limiting (1971:233).

Mescaline. Even though medically it is not defined as a narcotic, mescaline is termed as a "habit-forming narcotic drug

(Treadway, 1958:34)" under federal law. Treadway (1958) goes on to point out that mescaline is not physically addicting, but he makes no mention of possible psychological addiction to its euphoric producing effects. In truth, little was known until recently about mescaline, which is produced from a low growing cactus native to the southwest United States and Mexico. Certain Indian tribes used it in religious ceremonies and knew of mescaline's effects, but there had been little scientific investigation until the 1960's.

Today, mescaline has all but become a household word in and out of the drug culture. Earlier in this research paper the historical use of peyote from which mescaline is derived was discussed. The chemical relationship of mescaline to epinephrine, which is a natural substance in the human body, seems to be responsible for the effects produced by mescaline on the autonomic nervous system (Jones, et al. 1969). Before psychic reactions are manifested, the chemical connection between mescaline and epinephrine seems to promote "flushing, vomiting, cramps, sweating, increased pulse rates, elevated blood pressure, muscle twitching and other autonomic reactions (Jones, et al., 1969:55)." These effects place some limitations upon the use of the drug, especially by the less dedicated. The autonomic effects are followed by twelve to eighteen hours or even several days of visual hallucinations, dramatic loss of time and space judgment, and feelings of depersonalization.

Mescaline is, like LSD, an hallucinogen, but it requires much

higher doses to achieve the desired effects. The high doses lead to increased danger from strong reactions of the autonomic nervous system (Taylor, 1966). One factor complicating control of mescaline abuse is the fact that the drug is legal when used in religious ceremonies by the Native American Church.

Miscellaneous Potions, Brews and Drugs. While the "major" drugs mentioned thus far have achieved particular notoriety in many different parts of the world, it might be of interest to mention some drugs peculiar to certain cultures.

In northeastern Asia (Siberia in particular) the Tungus, Yakuts, Koryaks and other primitive peoples have a particularly interesting custom built around a crimson fungus called fly agaric (Amanita muscaria). DeRopp (1961) says that natives call the fungus muchamor and eat it to produce intoxicating highs during the tiresome and lengthy winter months when the lack of daylight and entertainment lead to intense boredom. DeRopp's (1961) description of an agaric "happening" follows:

The active principle in fly agaric is excreted in the urine and can be used again. Thus an agaric orgy among the Koryaks is started by the women, who chew the dried fungus and roll the chewed substance into sausages which are then swallowed up by men. As the party warms up participants grow lively. Some shout and sing, some hold conversations with imaginary beings, some relate with delight that they have made vast fortunes, some leap to and fro across the room--- Then, when the initial jollity has somewhat worn off, there are shouts of 'pass the pot', and one of the women enters

with a tin can into which all present urinate with enthusiasm. The can is then passed around and each partakes of the still warm urine, gaiety is restored to the party, and the leaping and singing recommence (1961:279).

It goes without saying that fly agaric is difficult and expensive to come by in Siberia resulting in this efficient but distasteful refining process.

The betelmorsel is used by southeastern Asiatics to achieve feelings of well being and to produce a small amount of stimulation. Interestingly enough; the drug also helps make up for calcium deficiencies and cuts down the incidence of intestinal worms (DeRopp, 1961).

Kat is used by many citizens of Yemen to promote great excitation and the having of a good time. KAT has been taken for ages by soldiers and desert cavalrymen to help sustain them on long, arduous journeys. The drug appears to stimulate the central nervous system and pushes aside the need for sleep or food. Notable drawbacks to the regular use of Kat are overstimulation of the heart, restlessness to the point of sleeplessness and a drop in sexual desire and performance (DeRopp, 1961).

Iboga is a stimulating drug used by natives living on the Gabon coast of French Equatorial Africa. The drug is derived from a plant containing at least two alkaloids, and it is used by warriors and messengers to ward off fatigue. Little has been published about this drug (DeRopp, 1961).

Legal Drug Abuse

"Legal drug abuse--just what the doctor ordered--is a larger and more threatening problem to society than illegal drug abuse by youth (Rogers, 1971:16)." That we have essentially avoided the issue of legal drug abuse is proved by the substantially greater number of articles, books and news items on illegal drug abuse as compared with those concerning legal drug misuse. It occurs to this writer that much more is heard about illegal drug abuse because of our adult preoccupation with youth and its problems, our tendency to view the medical profession in general as incapable of making mistakes and the emphasis of the news media on the spectacular. American, in general, have a particularly awe-stricken approach to the medical profession, and we always want to believe that any disease or condition can be cured with the proper medication. Doctors as well as the pharmaceutical industry have fostered this feeling and, perhaps unintentionally, have nursed it into a booming business.

The range of disorders (beyond common diseases and ailments) treated with drugs by some physicians is very broad. "Depression, social inadequacy, anxiety, apathy, marital discord, children's misbehavior and other psychological and social problems, are treated as diseases to be solved by physicians with prescription pads (Rogers, 1971: 17)." That all of the afore mentioned categories are problems of

significant magnitude so as to require attention by a physician or therapist goes without saying. However, to designate them as medical problems to be solved with drugs seems rather short-sighted. No research this writer has found actually calls them purely medical problems; and yet, that is how they are often treated. It may very well be that we have forced our physicians into prescribing drugs for solving psychological and social problems, but that point is moot. Did doctors, the drug industry or the people foster these attitudes? Perhaps, none of us is blameless.

Physicians who overuse psychoactive drugs (stimulants, sedatives, tranquilizers, antidepressants) are wedded to an obsolete medical model of human behavior--the concept that psychological problems have medical causes (Rogers 1971:17).

Physicians, if they are to retain their exalted (in many people's eyes) position must be more aware of their own fallibility.

Last year, 202 million legal prescriptions for psychoactive drugs were filled in pharmacies for persons who saw their physicians first, and this does not include prescriptions in hospitals and clinics. ...From time to time warnings have been issued to the effect that the increased use of such drugs represents a very serious public health problem. Such warnings have gone largely unheeded, and the prescribing and taking of psychoactive drugs have not abated (Lennard and Associates, 1971:vi).

The fact is that the FDA and the government as well as most politicians are also at fault for failing to adequately inform the public of the dangerous legal drug abuse trend. Measures taken thus far have been inadequate. For instance, "the FDA has warned that Ritalin seems to

promote dependence and that it breeds contempt of self (Rogers, 1971)."
And yet, about 250,000 children now take Ritalin daily.

Quite another alarming trend is the use of methadone in treatment of heroin addicts. Methadone is a so-called legal drug, but it is also addictive. Furthermore, a review of some of the literature (Rogers, 1971) (Lennard and Associates, 1971) reveals that withdrawal symptoms are equally as painful for the methadone addict as for the individual trapped by heroin. Not enough is known about methadone, but there are those who hail it as an absolute solution for heroin addiction treatment. Interestingly enough, heroin itself was introduced as a cure for opium addiction and cocaine was introduced in a paper by Sigmund Freud for use against "depression, typhoid fever and alcoholism. (Rogers, 1971)." The point, of course, is that we cannot be stampeded into wide usage of a new addictive drug without adequate research. In the case of methadone, we may see the creation of yet another "miracle" drug monster.

Rogers, (1971) as well as Lennard and Associates (1971) likens some physicians to pushers who "condone escapism-which we condemn in the young" by indiscriminately prescribing psychoactive drugs. The adult culture seeks to hide behind (and does so rather effectively) "respect-able" drugs prescribed by a doctor; but in fact, they also are seeking to escape the pressures of living.

Tranquilizers which were originally developed for psychotics are now used more and more in normal life spheres... For example, when someone dies, physicians often prescribe tranquilizers for the next of kin. The drugged family is then denied the opportunity to resolve a vital human experience (Rogers, 1971:18)."

The "forced pacification" of elderly patients in rest homes by understaffed, untrained or unfeeling attendants puts many older people in bed--and keeps them there so that they will be out of the way. In fact, forced drug use makes some geriatric patients invalids when there is really nothing wrong with them save encroaching age. Still, we continue to increase our usage of psychoactive drugs.

Parents and the young need specific information about drugs, but it is difficult to get. Research is still limited. For every vehement claim and presentation there is another of equal vehemence proposing a contrary point of view. The more one knows, the less is clear; there are no easy judgments, no simple moral stands (Marin and Cohen, 1971:94).

The use of psychoactive drugs on children from grade school through high school is increasing alarmingly. Figures on the use of Ritalin (estimated 250,000 children) have already been noted. Most of the drugs administered are given to the so called hyperkinetic child. At first glance, this usage appears fairly straightforward. However, there is a very significant difference in definition of the hyperkinetic child or at least in the diagnosis of such behavior. McConnell (1968) states that the hyperkinetic child is described as unable to sit quietly or to concentrate for a reasonable interval, failing through

this lack of concentration, to master the skill of reading. Proper use of an effective drug can bring about increased concentration and consequent learning. This is an amazingly vague definition of something to be treated so specifically. Rogers (1971) condemns the use of the term hyperkinetic because of its vagueness. Doctors readily admit that the symptoms of minimal brain damage (often said to be the reason for a hyperkinetic child) cannot be detected with current tests or machines, and that these same symptoms are so vague that they border on the normal hyperactivity of children. (McConnell, 1968).

Amphetamines are the most widely used stimulants in the treatment of hyperactivity, and yet, there is some evidence that they produce dependency. Writing generally about psychoactive drugs McConnell (1968) states that scientists feel they know relatively little about the fate of drugs in the body. Pharmacologists say that too many physicians use drugs without understanding how or why the drugs behave as they do. For instance, certain claims are made on behalf of the amphetamines. They are said to tend to increase the attention span and reduce impulsive and explosive behavior in children. The hyperkinetic child treated with such drugs is said to become quieter and more subdued while showing more initiative and general activity. McConnell (1968) points out, however, that most of the so-called studies in this area are not experimentally controlled but rely for the most

part on clinical observations without the application of statistical analysis to the results. Those controlled studies conducted showed no real improvement in the hyperkinetic child's performance. It is this writer's suspicion, moreover, that the children become much more manageable and behave in a more "socially" acceptable manner for their teachers and parents leading to false conclusions about their improved academic prowess.

What seems especially significant is that McConnell recommended that in no instance should drugs be used as a substitute for psychological, psychiatric or social help. He states that families and children need counseling with both the parents and the child being seen regularly and often along with chemotherapy.

Dr. Laufer at Emma Pendleton Bradley Hospital states that the side effects produced by these drugs--the amphetamine look--pale and pinched with dark hollows under the eyes, sometimes loss of appetite or difficulty in getting to sleep are considered unimportant except that they may disturb parents. ...drug administration alone was insufficient as the children outgrew the hyperkinetic effects. ...Dr. Richard Curran (a psychiatrist) does not approve of the use of drugs with over-active children. He feels that at best this is a stopgap measure and prefers counseling for the child and family. He feels that drugs are often prescribed to placate teachers and or parents because they cannot cope with the child (McConnell, 1971:49-51)."

Ill effects are often observed by parents but in an example cited by McConnell (1968) the mother, even though the child appeared "apathetic and listless" and the dosage had to be increased periodically to

maintain the desired behavior, believed the good effects from the drug outweighed the bad. From these studies, books and articles it would appear that the use of chemotherapy for treatment of so-called hyperkinetic children has not proven to be truly effective and should be much more tightly controlled until scientifically sound results are achieved. In a personal example, this writer counseled a fourteen year old boy who had been taking amphetamines under a doctor's prescription for four school years. According to his mother, the child received no regular counseling by the physician or anyone else; and, insofar as the researcher knows, therapy of no type was recommended by the doctor.

One possible reason for the growing use of psychoactive drugs by physicians is the pressure, sometimes subtle and sometimes not so subtle, exerted by the pharmaceutical industry on the medical profession. In 1970 according to Rogers (1971) the drug industry spent over \$4,200 per physician in the United States on direct advertising. Ads in medical journals strongly encourage doctors to use certain drugs which will cure fear of the dark, anxiety brought on by school, weddings or other normal happenings. Many physicians are extremely busy and have little time for even minimal research save reading of such journals. Such ads as Rogers (1971) states perpetuate the myth that better psychological living can be achieved through chemistry--rather than by coping.

That there is a serious drug abuse problem among the youth of the nation cannot be denied. However, it appears that the problems brought on by legal drug misuse may become of even greater consequence. Virtually no one is really aware of the ramifications or the numbers involved in this problem. Many doctors appear to be complacent, unaware or unconcerned of the dangers involved in legal drug misuse. There is some encouragement, however, in that apparently many young doctors are more cautious than some of their older compatriots in prescribing psychoactive drugs (Lennard and Associates, 1971). The trend is still not good, however. Rogers (1971) states that the London office of Health predicts that by 1990 every individual may be taking psychotropic medicine either continuously or at intervals. Someone, according to Rogers (1971), has even suggested the use of drugs to control crime in the streets (now that's quite a switch as many law enforcement officers believe that illegal drugs are one of the primary causes of our present problem of street crime). Perhaps, it is time to educate the citizenry to the bad as well as the good in the use of psychoactive drugs. Certainly, more intense, controlled research is necessary especially in determining the long range effects of such drugs.

Methods of Treatment

According to Byrd (1970:259) "The customary rehabilitation rate for drug addicts is two to five percent." These distressing and alarming

figures point up the reason for the generally pessimistic outlook expressed by those in and out of the drug abuse field whenever methods of treatment are mentioned. It is this writer's impression that until recently there has been a defeatist attitude in medical, psychological and governmental fields concerning rehabilitation of those addicted to or dependent upon drugs. Very little could be found in the literature concerning new or innovative ideas or successful treatment of drug cases. The last few years, however, have seen an infusion of talent and, lately government money into the search for successful methods to halt the escalating drug abuse problem. This writer will present information concerning some of the programs which appear to be more successful than those producing the customary two to five percent rehabilitation rate.

Many of the more recent drug abuse programs are combining past methods and adding new wrinkles in searching for success in rehabilitation. Torda (1970) wrote of success in rehabilitating LSD abusers by providing intensive group and individual (psychoanalysis in this case) therapy. The unique feature of this combined approach was that LSD abusers were added to open groups of subjects who were not drug users. The author was not specific about success rates except to say that rehabilitation rates were above normal. One conclusion reached was that the process appeared to be specific for the LSD abuser and that there was reason to believe that treatment of heroin addicts was not as

successful.

An interesting study by Thrasher (1970) evaluated four treatment approaches to drug addiction rehabilitation. No treatment or therapy was provided one group, the second group received methadone (substitute drug for heroin), treatment, the third group was provided with group therapy, and the fourth group received both group therapy and administration of methadone. Based on an evaluation of improving self concepts Thrasher (1970) concluded that "treatment groups receiving methadone were significantly better adjusted in terms of days they used illegal drugs and in frequency of arrests (p. 7)." Group therapy without methadone treatment was better than no therapy whatsoever.

A recent study by Wikler (1971) analyzes the development of drug cults as a conditioning or learning process. The euphoria producing effects of hallucinogens such as LSD are believed by Wikler to be reinforcing especially when graphically described by leaders within the cult. It was further hypothesized that the close connection between drugs and certain rituals helped some users to perceive and experience specific drug effects defined by the cult without benefit of the drug itself.

Many of the treatment approaches which are achieving better than average results in the drug abuse field are oriented toward group therapy. This writer will provide brief descriptions of some of the better known group treatment facilities.

Daytop Village (New York). Dr. Daniel Casriel, Medical

Psychiatric Superintendent at Daytop describes the organization as "a community of ex-addicts; people living together, helping each other recover through responsible love and concern (1970:1)." An essential part of the program appears to be providing the drug abuser with man's number one need - affection. True affection may be experienced for the first time by the addict accepted into Daytop. It should be emphasized that affection does not connote fawning indulgence nor a phony type of superficial acceptance. The drug abuser receives a calculated, firm indoctrination which at times may appear brutally frank. However, the subject is frequently reminded that others have succeeded in "kicking their habit" and that all members at Daytop are concerned with his returning to a drug free life. There is at Daytop a highly antagonistic attitude toward drugs, but a sincere acceptance of people whose problems revolve around drugs.

Casriel (1970) states that from the beginning attempts are made at Daytop to avoid the negative image associated with many institutions such as hospitals, prisons or schools. Addicts are usually referred from one of the several Special Project Against Narcotic (SPAN) storefront induction centers located in the different areas of the community. The candidate signs in and is then escorted to the "prospect's chair" to wait for an interview.

In-take interviews are challenging, direct and can be

provocative, sarcastic and hostile depending upon the individual. 'We aren't just a place to dry out' or 'Scores of dope fiends are trying to get in' are sentences often used by interviewers. (Casriel, 1970:5).

Reality and a no-nonsense attitude toward helping the addict cure his habit are emphasized.

The interviewers continue to ridicule the now devastated addict before beginning a 'clean-up' operation. They explain they are not social workers, as he had previously thought, who can be fooled, bamboozled and conived. On the contrary, they are reformed addicts who only a short time before would have behaved exactly as he did. But now they are living in an environment where honesty, reliability and responsibility are the watchwords. Here one gets nothing for nothing. You have to earn everything. You can lie and cheat no more (Shelly and Bassin, 1965:293).

Casriel (1970:2) indicates that "most frequently, prospects are motivated toward making an investment." Such investments would constitute giving up the unrealistic derogatory self image possessed by the addict or even giving up some particularly meaningful material object. The investment is, in effect, a contract. The interview proceeds with the addict being assured that the members of Daytop will help him to give up his "medicine" even though at times he may definitely not want to live without drugs. Honesty is demanded as the interviewers point out what is wrong with the candidate; but more important, the addict is told how to change. He is told that he must not believe or say "once an addict always an addict (Casriel, 1970:5)."

The daily program is rather rigidly structured although time is allowed for personal items. During the first week the addict is often

advised that he is a three year old in an adult's body and that Daytop "will try to help him grow up and be an adult instead of the whining, snivelling, lying brat that he is (Casriel, 1970:7)." All members are continually reminded of the two cardinal rules:

1. There is to be no use of narcotics, pills, medicines of any kind whatever, including alcohol, and no chemicals of any toxic nature.

2. No physical violence, or even a threat of it.

Schooling at various levels is available to those who wish to continue their education. Everyone has a job of some sort, everyone attends a morning meeting and everyone participates in an afternoon seminar.

The principle formal therapeutic medium of the community is the provocative encounter. Instead of the polite and inconsequential type of group therapy procedure he may have experienced at clinics or in prison where the rule 'don't pull the covers off me and I won't pull them off you' prevails, the group therapy process at Daytop is based on authentic human encounters of the here and now. This means that the group concentrates on the daily behavior of the group member rather than becoming bogged down in speculation about possible early childhood trauma which may explain why a resident became an addict (Casriel, 1970:9).

Groups are composed of seven or eight members and meet three nights weekly. Emphasis is placed upon "honesty, integrity, and group interaction for the creation of aggressive and provocative interchange (Casriel, 1970:9)." Members are encouraged to "spew out their garbage"

instead of confining and bottling up their emotions. Petty disputes or quarrels of the day are worked out through a process very similar to the emotional honesty espoused by Andrew Salter (1961). Emotions are worked out (Salter, 1961) through a sharing with other members of the group.

Attendance is required at the group sessions, and the fact that all members have equal rights with no restrictions on the use of exaggeration, sarcasm or ridicule helps members reach a "gut level" in discussions (Shelly and Bassin, 1965). Again, the author is reminded of Salter (1961) whose emphasis upon participating in and describing of feelings and emotions is basic to his therapeutic approach. Other group techniques are the periodic probe where one problem shared by all the group members is intensely explored, and the marathon which may last thirty to sixty hours and where members learn the "basic problem that all people have in common - the inability to accept love (Casriel, 1970: 10)."

The idea behind job assignments is to promote the importance of holding a job in society and to help the addict want to work. Lower status jobs are assigned to newcomers or to older residents being disciplined. "Prevailing values conform with the so-called Protestant Ethic; hard work, family responsibility, regard for others, thrift and concern for the future (Casriel, 1970:12)." Status organization, the

social system and the issuing of such privileges as letters and visits or calls from relatives are utilized to effect behavioral change and to make the individual want to reform.

After about twelve months residents of Daytop may go into "Re-entry" via one of the community SPAN operations where they teach or induct drug abusers into rehabilitation. These same residents meet with community leaders and members to further help overcome the seemingly uniform antisocial attitudes possessed by addicts and abusers of drugs. Addicts then pass to Stage 2 which is a working out, while living in at Daytop, arrangement. Meanwhile, parents and relatives of residents have usually been participating in their own program to help develop understanding for addicts and to receive training in how to assist continuation of the rehabilitation.

Graduation usually occurs about twenty months after admission to Daytop. Casriel (1970) points out that the original expected stay for a Daytop resident was three years. The goal is to reach an average of fifteen months or less. Many graduates return to Daytop to work and help others as they themselves have been helped. "Daytop's graduates number over one hundred with a success rate of ninety-two percent. That is, not only are ninety-two percent of those who graduated free of drugs, but they are living a mature, productive and responsible life (Casriel, 1970:4)."

Synanon. The forerunner of the successful drug addiction treatment centers in the United States is Synanon. A review of the operational functioning of Synanon would be redundant since this organization is the model for so many other centers including Daytop Village which we have explored in depth earlier in this paper. Daytop was itself first administered by an individual trained at Synanon (Shelly and Bassin, 1965). The establishment of Synanon, as is the case with most radically different ideas, was extremely difficult.

But Synanon, in the business of human survival, has itself learned to survive. Under the determined leadership of its remarkable founder, Chuck Dederich, it grew from a handful of desperate people living in an old storefront to an organization of over nine hundred members, with facilities in New York, Detroit, San Diego, Los Angeles and San Francisco.

And in the final analysis, the pros and cons of Synanon's unorthodox methods, the questions of why and how it works becomes relatively unimportant; it does work (Endore, 1969:1).

To examine all facets of Synanon beyond the treatment methods already discussed at Daytop is beyond the scope of this paper. Synanon has had a tremendous impact upon the treatment of drug abusers. Over one hundred fifty drug treatment centers now exist in the United States according to the National Institute of Mental Health (Cohen, 1970), and many of them are modeled after Synanon.

According to both Endore (1969) and Yablonsky (1967) the credit for this remarkable community belongs to its founder. Yablonsky

(1967:vii) states that:

A central part of the Synanon story is an account of the fortitude and creativity of Chuck Dederich in starting a new social movement. Chuck, almost miraculously, first led a handful of addicts out of their formerly encapsulated lives of drug addiction, crime and prison. With the help of this core group of remarkable people, he has produced a new social constellation of hope which has the potential of benefiting many more people caught in the morass of crime, addiction, and other problems.

Alternatives to Drug Abuse. One approach which holds promise in the field of drug education for drug abuse prevention is that of providing alternatives to the abusing of drugs.

To be acceptable and attractive, any alternatives we offer must be realistic, attainable and meaningful. Any proposed alternative must assist people to find self-understanding, improved self-image, feeling of significance, expanded awareness, or new experiences which they seek through drugs (Dohner, p. 6, 1972).

Dohner (1972) points out that nearly everyone recognizes that there is a serious drug abuse problem but that little has been done to introduce something meaningful enough to replace use or experimentation with drugs. Furthermore, the alternatives offered by Dohner (1972) do not have to be taken in capsule form or injected. They are non-chemical alternatives which could be chosen by young or old alike. The alternatives to drug use, experimentation, or abuse:

...include personal awareness; interpersonal relationships; self-reliance development; vocational skills; creative and esthetic experiences; philosophical existential explorations, social, and political involvement; religious experiences; sexuality; and mind trips (Dohner, 1972:6).

Dohner (1972) explains the alternatives in depth and concludes by saying:

My basic philosophy is that there are viable, positive, alternatives to drug use. These alternatives can minimize adverse consequences, escalation to stronger or more dangerous drugs, and recruitment of others into the scene. These alternatives can maximize involvement, the quality of life and the life experience, and the responsible use of potentially toxic agents. Involvement with any of the alternatives listed can produce a new state of consciousness for the user and an improved sense of worth (p. 20).

The methods of treatment for drug abusers listed herein are far from comprehensive. For instance, Andrew Salter (who is the only individual therapist that writes specifically about the addictions that this writer could discover) devotes an entire chapter in his book Conditioned Reflex Therapy to the drug abuser. This writer has pointed out certain theoretical similarities between the Daytop approach and the writings of Salter (p. 58). Those drug abuse approaches mentioned provide a cross section of some of the research being done in the field, today. Leon Brill amplified the importance of research and innovativeness in the field of drug addiction when he wrote that:

There has been a growing realization that our perception and management of narcotic addiction have contributed to the severity of the problem and probably constitute its most questionable aspect (1966:7). Brill further hypothesizes that one of the hallmarks of our times and of the addiction problem is the unfortunate disharmony between the individual and his wider society. ...the pervasive sense of lostness, rootlessness, confusion of personal identity and compulsive search for acceptance through automatic conformity (p. 8).

Chapter III

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of Research

The use of drugs by man is as old as recorded history. When used for non-medicinal purposes, drugs became a vehicle by which men could escape the pain, grief, degradation, poverty, and pressures of life itself. Drugs became a source of pleasure, a way to hide, and, in some cases, a way of life. Man's search for a better way of life and a method to escape harsh reality provides a thread by which the shreds of the past can be sewn into the fabric of the present drug abuse scene. A sense of hopelessness, despair, and loneliness seems to be a major motivating force behind drug abuse both now and in the past. The fact that an individual possesses material wealth seems to have little deterrent effect on drug abusers as witnessed by the increasing number of drug abusers among middle and high class Americans.

The 20th Century ushered in a scientific revolution as well as a vast urbanization of the United States. An increasing number of synthetic drugs capable of being abused found a seemingly eager group of potential drug abusers in the sprawling industrial cities of the United States. This writer believes that the depersonalization felt by the big city dweller was a real factor in the increased abuse of drugs in this century. Man's sense of uniqueness was threatened by boring assembly line jobs, giant corporations and the feeling that his life

really counted for very little among the teeming multitudes. The rise of existentialism and the theories of Gabriel Marcel, Carl Rogers, Rollo May, Jean Paul Sarte, and others were, in this writer's opinion a result of man's effort to retain his identity in a world which seemed to be closing in on him. Rather than lose himself in the unreal world of drugs, perhaps man could begin to look for "highs" in his own life.

The richest nation on earth, the United States, has serious drug abuse problems as pointed out in the latest (May, 1972) statistics from the National Commission on Marijuana and Drug Abuse. Calling the findings the most comprehensive ever released the Commission released the following figures:

2.1 million persons in the United States have tried heroin, six per cent of youngsters and 0.5 percent of adults.

9.3 million have tried hashish, ten per cent of young people and five per cent of adults.

4.7 million have tried LSD, peyote or mescaline, eight percent of youngsters and two per cent of adults.

2.6 million have tried cocaine, five per cent of young people and one per cent of adults.

3.7 million have tried methamphetamines or "speed" for non-medical purposes, eight percent of young people and two per cent of adults.

This writer could find no such specific figures for legal drug abuse, but there are some authors (Rogers, 1971) and Lennard and Associates, 1971) who believe that prescription drug abusers are in greater numbers than illegal drug abusers.

Traditionally, it was believed that there was very little hope (two to five per cent cure rate) for curing the drug addict and not much more hope for the serious drug abuser. Currently, however, there is evidence that such approaches as are used by Synanon, Daytop and Phoenix House are producing significantly more cures. In the aforementioned facilities emphasis upon individual and group therapy in a totally controlled but affectionate and supportive environment is producing cure rates as high as ninety-two per cent. This writer believes that the present high interest in re-applying old principles and the search for new and innovative approaches may truly give lie to the old saw that "once a drug addict, always an addict."

Conclusions

The conclusions of this review are reflected in this section and their importance should be measured by counselors, therapists, and interested parties, against the serious drug abuse problems in the United States, today.

1. Man has constantly been engaged in a search for ways and means of transcending the realities of self and of the world. Drug abuse has played a major role in the escapist's search for a more rewarding and satisfying life.

2. No specific culture, race or class of people has a corner on the drug abuse problem.

3. Technology, science and modern methods of research which have produced drugs with potential for abuse can also be viewed positively as agents of assistance in the battle against the misuse of drugs.

4. There is some evidence that abuse of one drug may lead to the introduction and abuse of other drugs.

5. The association of LSD with intellectualism may have led to an increase in the use of the drug by those aspiring to be intellectuals.

6. The use of LSD may be self limiting.

7. Constructing cults around the effects of certain drugs may lead, through conditioning, to the production of certain specific reactions normally attributed to the drug without the presence of the drug itself.

8. While methadone appears to be a promising agent in the battle against heroin addiction, there is insufficient research to glorify or condemn use of the drug.

9. The success of Synanon, Daytop and other organizations is significant, but this writer believes that such treatment centers are effective for only a certain type of drug abuser. That is, there are those whose desire to "kick the habit" may be extremely intense but whose personality is unable to sustain the directness of the Daytop approach. A variety of approaches is necessary in order to reach

different personality types among drug abusers.

10. Some rather specific methods used by Daytop can be traced to Conditioned Reflex Therapy, which was developed by Andrew Salter.

11. This writer concludes that, until recently, there has not been enough emphasis upon the problems of drug abuse as they exist here and now. That is, there has been a dearth of research and money put into the field of treatment. The prevailing attitude seemed to be defeatist in the sense that little could be done to cure addicts, but they were certainly interesting creatures to do historical research upon. That there is and has been a serious drug abuse problem in the United States has been proven many times, but there has not been nearly as much emphasis placed upon finding ways of combatting the problem.

12. Legal drug abuse is a serious problem in the United States and may already surpass illegal drug abuse in terms of numbers of people involved.

13. Historical and modern research seem to reveal that the drug abuse problem is really a "people problem" or, perhaps, a series of personality problems unique to each individual. Research indicates that many drug abusers are antisocially inclined and possess serious personality disorders before they look for escape through drugs. Research in the area of identification of potential drug abusers could be extremely important.

14. There seems to be little basis for the conclusion that only a reformed drug abuser can provide therapy and guidance for the present user of drugs. This writer believes that making an assumption like the one above is very similar to saying that only someone who has committed suicide or attempted the taking of his own life is qualified to work with potential suicides.

15. Concern for the individual and his uniqueness seems to be growing in searching for new alternatives and new treatment approaches to drug abuse. This researcher believes that the success of such organizations as Daytop and Synanon and of individual therapists such as Salter and Rogers, depend upon a basic tenet espoused by Dohner (1972) in his alternatives. Each of us is unique; but we also possess, in common, the need for personal dignity, the need for identity, the need for a feeling of self worth and, most importantly, the need for genuine

Recommendations

As a result of this study the following recommendations are made:

1. Primary emphasis by governmental agencies and others in the field of drug abuse should be placed upon methods of treatment and, perhaps, most importantly, upon methods of prevention.

2. The battle against drug abuse should be oriented toward the individual. No one method is sufficient to treat each unique individual

unless the method takes into account the differences in people.

3. More research of a long term nature should be done with methadone and other substitutes for abused drugs before they are released for general use by physicians.

4. Further research should be done into the possibilities of learned or conditioned patterns of drug abuse.

5. Continued research into the field of alternatives to drug abuse is highly recommended especially as an aid in prevention of drug abuse.

6. People, not drugs, are the problem and research should be done to identify potential drug abusers. Instituting a program aimed at helping those with personality disorders before they turn to drugs is a closely related area recommended for further research.

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