

Illicit Drug Usage: Hazards for Learning Disability Students

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Introduction

In this article, the author discusses the effects of various drugs in current illicit use (e.g., amphetamines, heroin, LSD-type drugs, alcohol, barbiturates, hashish, marijuana). The hazards of illicit use for the learning disabled are presented and are illustrated with case histories. Among the possible problems which may arise from drug usage are perceptual disturbances, conceptual confusion, loss of emotional control, psychotic episodes and drug dependence. These potential hazards are discussed in terms of physiological, psychological and sociological factors.

system and/or internal biochemical etiology. It is recognized that many other problems in school have cultural, emotional, intellectual or sensory (peripheral nervous system) etiologies.

The etiology of illicit drug usage appears to be multi-determined, reflecting physiological, psychological and sociological factors (Blum, et al.,^{1,2}). As such, the use of illegal drugs presents potential hazards for young people with learning disabilities.

The fact that learning disability students have a neurological and/or biochemical dysfunction (Frierson and Barbe³)* may lead them to use illicit drugs as "self-medication." The fact that many learning disability students have concomitant emotional problems (Griffin⁴) makes it possible that drugs may offer a means of escape or compensation. The fact that learning disability students are often socially immature (Ames⁵) and unduly influenced by their peers may predispose them to be open to external suggestion and pressure by drug sellers or drug users.

No formal studies have been completed regarding the use of illicit drugs by people with learning disabilities. However, enough is known about the characteristics of these individuals and about the effects of the drugs in most common use to propose the hazards that exist and to suggest fruitful lines for future exploration. I have added several case histories to the discussion of these hazards that further clarify the issues involved.

* For the purposes of this paper, "learning disability" refers to academic underachievement with a central nervous

Krippner and his associates⁶ surveyed 102 drug-using students and 11 non-users in four New York City area high schools. The drug-using students completed the Ludwig-Levine revision of the 89-item Linton-Langs questionnaire (Linton and Langs;⁷ Ludwig, Levine and Stark⁸) either during or immediately after a drug experience. The non-drug-using students, as well as nine of the drug-users, completed forms while they were free from the influence of drugs.

For the sample surveyed, it was found that the drug-user's non-drug state of consciousness was more profoundly altered than the regular state of the non-user. It was also found that amphetamines altered consciousness more profoundly than any other illicitly-used drug, followed by heroin, LSD-type drugs, alcohol, barbiturates, hashish and marijuana. The findings of this study will be used as each drug is discussed in its possible relationship to learning disability students.

Amphetamines

Amphetamines (e.g., amphetamine sulphate or Benzedrine, dextroamphetamine sulphate or Dexedrine, methamphetamine hydrochloride or Methedrine) are central nervous system stimulants sometimes used in the medical treatment of fatigue, depression, narcolepsy, obesity and (among children) hyperkinesia. Among the sample tested, amphetamine usage typically produced changes in thinking (e.g., one idea "coming back again and again," thoughts moving "faster than usual"), changes in meaning (e.g., things taking on "meanings they never had before," a reported increase in the user's power of understanding), dryness of the mouth and feelings of happiness.

Students suffering from undiagnosed neurological dysfunction (e.g., brain injury) or undiagnosed biochemical dysfunction (e.g., hypothyroidism, hypoglycemia) may find that

amphetamine usage appears to enhance their mental functioning. Students with brain dysfunction often are diagnosed as hyperkinetic and demonstrate excessive physical activity (Cruickshank⁹). This hyperactivity is typically associated with poor concentration, distractibility and a short attention span (Thomas¹⁰).

The child with brain dysfunction often demonstrates EEG readings indicative of low levels of alertness in the central nervous system (Satterfield and Dawson¹¹). To compensate for this faulty alertness mechanism in the brain, these children are compelled to keep active to avoid mental sluggishness much as other children often arouse themselves from lethargy by physical activity. The amphetamines and other stimulants (e.g., Ritalin) assist these children by raising the brain's level of alertness, thus calming their external hyperactivity.

The utility of medically prescribed stimulants for hyperkinetic children is controversial; its rationale has been supported by Ellingson¹² and Giffen,⁴ but questioned by Rodale¹³ and Ladd.¹⁴ An alternative to stimulant drugs has been proposed by the New York Institute for Child Development¹⁵ which has been using perceptual-motor training, dietary alterations and vitamin treatment to decrease the hyperactivity level of brain damaged children.

Jim is an example of a student I have seen with an undiagnosed brain dysfunction who began using amphetamines illegally. He had a short attention span and complained of excess motor activity. When Dexedrine was offered him by a high school friend, he tried a pill and claimed it helped him to study for longer periods of time and to concentrate. He took a large number of Dexedrine tablets before an examination and produced an essay in minuscule writing which was crammed into a few lines on the sheet of paper. At this point, he was referred to a school psychologist who diagnosed his learning disability and concluded

that his use of Benzedrine had been for purposes of "self-medication."

Illegal use of stimulants may also be associated with students suffering from biochemical dysfunctions such as hypoglycemia (low blood sugar). According to Rodale¹⁶ the hypoglycemic adolescent "is a much easier mark for the continued use of drugs than the teenager who enjoys robust vigorous good health." Rodale continues, "Hypoglycemia is probably the greatest cause of what we call neurosis, nervous breakdown, nervous exhaustion, depression . . . , an inability to 'cope.' These are some of the conditions which the user of drugs seeks to forget. . . ."

Martin, a college student who was a frequent illicit Ritalin user claimed that the drug improved his concentration and memory. Upon working with him, I detected symptoms of biochemical dysfunction and referred him for a glucose tolerance test. Martin was diagnosed as hypoglycemic, was put on a special diet and given large doses of vitamins (e.g., B₃, C). His school work improved, as did his concentration and self confidence.

I have tested other high school students using illegal stimulants (e.g., amphetamines, cocaine) and have found many of them to display symptoms of brain injury, hypoglycemia, hypothyroidism and/or narcolepsy. "Self-medication" is not the only factor in the illegal use of stimulants but may be a more important factor than previously suspected. Unfortunately, continued use of the amphetamines is often associated with sleep disturbance, loss of appetite, delusions and drug dependence (Smith¹⁷).

Constant usage at high dosage levels may lead to irreversible brain damage (Le-mere¹⁸) and may progress from taking pills to compulsive intravenous usage (Smith¹⁷). In this instance, the individual typically "shoots speed" (i.e., methamphetamine hydrochloride) from

one to ten times per day and is known as a "speed freak" to members of the drug subculture.

Heroin

Heroin is a central nervous system depressant and is classified as an opiate or narcotic. Heroin usage, among the high school sample studied, was associated with alterations in thinking (e.g., events seeming illogical and disconnected, forgetting a question while attempting to answer it, the user's mind becoming a blank with "no thoughts at all"), somatic changes (e.g., numbness, tingling, chills, coldness), loss of control (e.g., the feeling that things were unreal and dreamlike), disturbed time sense (e.g., time stopping or coming to a "standstill") and feeling as if one "were a different person." All of the students queried were either "sniffing" or "snorting" heroin; Lindesmith¹⁹ notes that the subcutaneous ("skin-popping") and interavenous ("mainlining") methods of use produce a more noticeable impact. Heroin has no current medical use but other opiates (e.g., morphine, Demerol) are used to treat severe pain.

Opiate dependency is a complex phenomenon; the authorities in this field do not agree on the mechanisms which produce a heroin "addict." Lindesmith¹⁹ presents a sophisticated position which is useful when the hazards of heroin for the learning disability student are considered. Lindesmith's studies have convinced him that the essential processes behind dependence on heroin are linguistic and conceptual in nature. It is through the use of the social symbols of language in conversation with himself and with others that the personality changes involved in becoming an "addict" are initiated and developed. The individual, when he uses the symbols which society provides him, also assumes the attitudes appropriate to those symbols when he applies them to himself. He considers himself to be "hooked on smack" and seeks the company of other heroin dependent people because they can help him cope with the problems arising out of addiction (e.g., how to raise the



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money through theft or prostitution to maintain his or her "habit") and because he feels more comfortable with them.

When the withdrawal distress, the injection of heroin and the drug's ability to alleviate the distress have been united into a single conceptual scheme, the individual no longer reacts to them separately but sees them as an integrated whole, one reaction implying the others. The conceptualization of these events not only puts the various parts into relationship with each other but also relates them to the individual's self-concept and to the subcultural pattern of his group.

The student with learning disabilities typically displays problems in concept-formation and linguistic symbolization (Adler²⁰). It is a simple matter for him to adopt the concepts and symbols of a peer group or a subcultural group. Should he enter into contact with a group of heroin users, he runs the risk of adopting their point of view, their style of life and their dependence on opiates.

The process is closely linked with psychiatric and psychological data on other types of dependency, especially the measures of "field-dependence" and "field-independence" devised by Witkin and his associates.²¹ We would expect both heroin addicts and learning disability students to be "field-dependent," to lack a sense of separate identity and to fall

more easily under the influence of other people (Barclay and Cusumano;²² Chein, et al.,²³ Witkin, et al.²⁴).

Although men tend to be more "field-independent" than women (Witkin²⁵), more males are dependent on heroin than females (Cohen²⁶) and more males than females have learning disabilities (Stanch-field²⁷). Therefore, it should come as no surprise that a large number of boys with these types of difficulties also exhibit a pattern of sexual confusion (Kurtzberg, et al.,²⁸ Mussen and Distler²⁹).

Being "masculine" is closely tied, in contemporary American culture, to a concept of the self as having power, strength and competence. The young man dependent on heroin may seem to exhibit power superficially because of his role as a robber and thief, but typically demonstrates psychological passivity and dependence; further, he is characteristically disturbed in his sexual identification (Chein, et al.²³).

The male student who is doing poor academic work frequently demonstrates disturbed sexual identification (Mann³⁰); this factor may be the chief etiological factor in his underachievement or it may be a contributing factor in cases where neurologically and/or biochemically-based learning disabilities are the major etiological factors.

These factors may be brought into focus in the cases of Don and Mark, two brothers from a low income area of New York City. Don did poorly in school from the time he was in first grade. He developed a pattern of truancy and was virtually a non-reader upon entry into seventh grade. He had frequently used such drugs as alcohol, marijuana and tobacco, but it was not until the age of 12 that he was exposed to heroin.

A high school friend at school taught him how to "snort" it and emphasized that "snorting smack" was something that separated "men" from "kids." Over the next several months, Don shifted from "snorting

to "skin-popping" to "mainlining." When arrested for theft at the age of 13, he stated that he was a "junkie" and confessed that he had introduced heroin to his younger brother, Mark, a sixth grade student who was also having difficulties in school. Both boys underwent diagnostic testing and were found to manifest severe perceptual problems resembling the cases of "congenital word-blindness" described by Hermann³¹ and felt to have a hereditary component.

The cases of Don and Mark also parallel the findings of Chien and his associates.²³ Boys from low income areas of New York City who become dependent on heroin differed in several ways from those who did not. Both groups had experimented with other drugs (e.g., alcohol, marijuana) and large numbers of boys in both groups were offered heroin, in the main at the age of 16.

However, the boys who did not develop heroin dependency were more likely to stay in school, reported that they enjoyed reading, reported using the public library, engaged in extra-curricular activities at school, reported pleasure at learning "some new skill" and had vocational plans for the future.

The boys who became heroin users talked more frequently about material possessions (e.g., cars, clothes, money), had fewer long term friendships and spent *less* time engaging in sports or community activities. Very few of them read books, discussed current events or professed to have artistic interests; a typical comment was, "One of my friends quit high school because he didn't want to be seen with books" (Chien, et al.²³).

LSD-Type Drugs

Pharmaceutical LSD acts upon the central nervous system and has hallucinogenic effects. It has been used in psychotherapy (Caldwell³²)

as well as in experimental research dealing with perceptual and cognitive functioning, creativity and "mystical" experience (e.g., Masters and Houston;³³ Savage, et al.³⁴). Black market LSD, mescaline and psilocybin may or may not contain the chemicals the dealer claims he is selling (Krippner³⁵); thus, an analysis of the effects of "street acid" is difficult because of the unknown quality and quantity of the chemicals in question. Nevertheless, the sample queried reported that black market LSD and mescaline typically brought about alterations in body image (e.g., feeling like "a different person," the body looking and feeling strange in some way), changes in meaning (e.g., objects taking on meanings they never had before), a disturbed time sense (e.g., time passing faster than usual), having a strange taste in the mouth and experiencing a variety of perceptual changes.

Although the wise use of pharmaceutical LSD in clinical and experimental settings has not produced significant untoward effects (Cohen and Ditman;³⁶ Masters and Houston³³), the use of "street acid" is sometimes associated with panic reactions, nausea, hallucinations, delusions, psychotic episodes and "flashbacks"—the recurrence of symptoms (e.g., Cohen and Ditman;³⁷ Stern and Robbins³⁸). The learning disability student who experiments with LSD-type drugs, therefore, runs the risk of overloading his central processing mechanisms with perceptions and conceptualizations which can not be handled in an efficient way. This overload, in some cases, may produce confusion or lead to a psychotic break (Ungerleider, et al.³⁹).

Ludwig and Levine⁴⁰ point out that the use of LSD-type drugs does not bring about "addiction" in the physical sense but continued use, in some instances, may be "psychologically addicting." Dependence on LSD-type drugs, in my opinion, seems to characterize individuals with introspective and esthetic interests who lack the capacity for spontaneous creativity, visual imagery

and personal insights—all of which can be obtained through ingestion of LSD, mescaline or psilocybin.

It is also my feeling that the "flashback" phenomenon may characterize people with neurological and/or biochemical dysfunctions; thus the learning disability student runs the risk of symptom recurrence even after he discontinues use of these drugs.

This possibility is demonstrated in the case of Mabel, a high school student with a history of academic underachievement. She discontinued a ten-month period involving weekly ingestion of "street acid" upon realizing that it was being used as a "distraction" from her school problems.

However, two months after cessation of drug use, she went to a light show and rock-and-roll concert; toward the end of the concert, she began re-experiencing several hallucinogenic effects, e.g., colors becoming more intense, walls "melting" and "shimmering," and being "enveloped" by the music. These "flashbacks" kept occurring and she sought help. The girl was diagnosed as "pre-schizophrenic" and was given supportive therapy; in addition, large doses of several vitamins (e.g., B₃, C) were prescribed. Not only have the "flashbacks" ceased, but her schoolwork has improved. The rationale for this modality of treatment for certain types of schizophrenic conditions has been presented by Hoffer and Osmond.⁴¹

The problem faced by Mabel may characterize other students suffering from a similar recurrence of symptoms. A detailed examination of the "flashback" phenomenon has been presented by Bieberman.⁴² In addition, Shick and Smith⁴³ advise against chemotherapy (e.g., tranquilizers in the treatment of "flashbacks"), proposing supportive therapy and recommending that the subject discontinue drug use because some "flashbacks" have been triggered by substances other than LSD (e.g., alcohol, amphetamines, marijuana).

Alcohol

Alcohol usage among minors in the State of New York is illegal; thus, alcohol, for the high school sample investigated, was classified as an illicit drug. The effects of beer and wine were not investigated in this study. Most of the respondents reported experiences with whiskey, which typically produced somatic changes (e.g., dizziness, grogginess, nausea), affect changes (e.g., paradoxical feelings of depression, sadness, happiness, silliness), and loss of control (e.g., of the body, of the user's "hold on the real world").

The use of alcohol, a central nervous system depressant, for purposes of "escape" has been described by Hoffer and Osmond.⁴⁴ Fort⁴³ points out that alcohol is the most frequently misused drug in the American society while R. Fox⁴⁶ estimates that between six and seven million Americans are alcoholics.

The continued use of alcohol can produce many untoward effects (e.g., sleep disturbances, damage to brain and liver, psychotic episodes) but it is the area of diminished self control which is especially hazardous to the disabled learner. The individual with a neurological and/or biochemical dysfunction is often described as "aggressive," "impulsive" and "disinhibited" (e.g., Ellingson⁴⁷). Alcohol, even in moderate amounts, tends to release aggression in such a way that the hostile person does not have to take responsibility for his acts (V. Fox⁴⁸). Thus, the disabled adolescent learner may find, in alcohol, a convenient means of working out hostility that is already under poor control.*

This situation is demonstrated in the case of Barry, now in prison as a result of rape committed when he was under the influence of alcohol. The tests given to him at prison found that he had average intelligence

* Like the heroin "addict," the alcoholic frequently demonstrates confused sexual identification (Wisotsky¹⁹) and unresolved dependency needs (V. Fox¹⁸).

but was able to read at only a first grade level. Neurological dysfunction may underlie Barry's poor self control as well as his reading problem.

Approximately one half of the arrests in the United States are for alcohol-related crimes (U.S. Federal Bureau of Investigation⁵⁰); among these crimes are assault, disorderly conduct, sexual offenses and driving accidents. The link between juvenile delinquency and school failure is well known; Critchley⁵¹ reports that 75% of juvenile offenders in both New York City and France are functionally illiterate. It may well be that improper alcohol usage is related to this dramatic association and provides yet another problem which the disabled learner must face.

Barbiturates

Barbiturates (e.g., Nembutal, Seconal, Phenobarbital) are central nervous system depressants used medically in the treatment of insomnia and tension. The illicit barbiturate users in this study typically reported a disturbed time sense (e.g., loss of time), loss of control (e.g., of movement, of the body, of speech, of emotions and feelings), alterations of thought (e.g., difficulties in concentration, illogical and disconnected thoughts, slowing down of thinking, loss of meaning, finding the mind a blank with "no thoughts at all"), somatic changes (e.g., dizziness, grogginess, numbness, tingling, weakness), body image changes (e.g., "heaviness" of the body, differences in bodily appearance), the impression of "feeling" spoken words and finding it difficult to shift attention. The continued use of barbiturates can bring about psychological and physiological dependence on the drug as well as drowsiness and impairments in judgment, reaction time, coordination and emotional control (Fort⁴⁵).

McGrath⁵² studied 114 "pill using" adolescents in New Jersey whose primary drug usage involved barbiturates. He described his

sample as living more "for kicks" than a control group of non-pill users. There was no difference between the two groups on school drop-out rate. This finding reminds me of a comment made by many barbiturate users I have interviewed: "If I didn't take 'downs,' I wouldn't be able to put up with all the crap they hand us in school." Repeatedly, I have found one of the stated motivations behind barbiturate use the desire to "deaden" the frustration experienced in the classroom.

Marie was 15 years of age when I interviewed her. She had been taking Seconal tablets regularly for six months and had been apprehended when she began selling them. Marie told me that barbiturate usage was socially acceptable among her peers and that she had been less anxious about school and less concerned about her poor grades since initiating the use of "downs." Diagnostic testing demonstrated that Marie had a neurologically-based learning disability which was associated with reading comprehension difficulties. The case of Marie demonstrates the interaction of physiological, psychological and sociological factors in illegal drug use.

Hashish

Hashish is the pure resin of the *Cannabis sativa* plant and acts upon the central nervous system to produce hallucinogenic effects (Goode⁵³). Stronger in its effects than marijuana (a mixture of the leaves and flowering tops of *Cannabis sativa*), one's subjective reactions to hashish depend largely upon the quality and strength of the drug as well as upon the user's personality and the circumstances under which it is taken. For the high school students surveyed, hashish characteristically produced impressions of somatic change (e.g., dizziness, grogginess), alterations in time (e.g., time passing slowly, loss of time sense), a difficulty in shifting attention and feelings of happiness. Recent psychopharmacological studies

have identified delta-1-tetrahydrocannabinol as the chief active ingredient in both hashish and marijuana (Cohen²⁶). Several observers have noted negative effects of long-term hashish use especially among low income groups in Africa and Asia where it is often used "to escape a sometimes barely tolerable reality" (Masters and Houston³³). At the same time, occasional use has been officially or unofficially sanctioned in many parts of the world; a number of experimental youth clubs where hashish and marijuana can be smoked legally have been allowed to operate in Amsterdam (Greenberg⁵⁴).

In my opinion, one of the chief hazards hashish presents to the learning disability student is the possible disturbance in intellectual functioning. Most occasional hashish users will find the hashish-influenced time alterations provocative and amusing, especially when listening to music; they will note the attention difficulties (already cited) with interest. The young person with a learning disability, however, already displays many of these symptoms; he typically lacks mature concepts of time and space (Orton⁵⁵) and his perseveration problems arise from an inability to shift attention (Chalfant and Scheffelin⁵⁶). I would be concerned that the learning disabled student would become even further disoriented and confused if he were to engage in the frequent use of hashish.

Bryan is a high school student with a learning disability that affects his spelling accuracy. Despite this problem, he maintained a B average because of high motivation. Unfortunately, Bryan recently began to use hashish on a daily basis and other drugs (e.g., alcohol, amphetamines) on an occasional basis. When I interviewed him, his grades had fallen to C's and D's. He complained of grogginess, tiredness and problems in concentration. An examination of his written work indicated that his spelling had deteriorated. I told him that his drug use had apparently contributed to these problems and explained my

reasoning to him. Because his motivation for academic success was still high, he agreed to eliminate his usage of other drugs and to smoke hashish only on weekends.

This procedure has been successful in raising his grade average to its previous level; it also demonstrates the wisdom of suggesting a reduction, rather than an elimination, of the less potent drugs in some cases. This is the same reason used by many industrial psychologists who persuade workers to "lay off the booze" during the week and indulge only on weekends. One of the chief motivating factors behind drug usage is pleasure; it is unrealistic to take a completely prohibitive approach if the use of minor drugs can be controlled in such a way that it does not interfere with a person's overall ability to function.

In other cases, however, the use of such drugs as hashish is motivated by the factor of permanent rather than temporary escape. If the drug provides a pleasant respite from academic and social pressures, the young person may be tempted to withdraw from learning encounters and from facing his difficulties; he may drop out of school and his intellectual processes may become seriously disturbed by constant drug use (Cohen²⁶). In a few cases, excessive usage of hashish may even lead to a psychotic episode (Blum²).

Marijuana

Marijuana produces hallucinogenic effects on the central nervous system but may also serve as a depressant or stimulant, depending upon the quantity and quality of the substance, or upon the user's personality and upon the set and setting (Cohen²⁶).

Weil⁵⁷ summarized research done by his laboratory and others, noting that marijuana "does not interfere with the general efficiency of the nervous system" and that its effects "exert no clinically significant

actions on lower brain centers." He reported that its effects are extremely subtle and are confined to such higher mental functions as perception, thought and short-term memory.

The student sample I investigated reported fewer alterations in consciousness from marijuana than from any of the other drugs surveyed. For them, marijuana use was most typically associated with changes in thinking (e.g., repetitive thoughts, difficulties in concentration, thoughts moving faster than usual), loss of time sense and the feeling that certain things were clearer or better understood.

In my opinion, marijuana usage is multi-determined and the American society has not been able to enact legislation or social attitudes that reflect the realities of its use (Krippner⁵⁸). There is now some provocative evidence that high school students who smoke marijuana do not receive significantly lower grades than non-marijuana smokers (e.g., Warner⁵⁹)—although the link between tobacco smoking and poorer grades has long been established (e.g., Dunn⁶⁰). Nevertheless, I see a number of hazards inherent in frequent marijuana use on the part of the student with learning disabilities.

Current research demonstrates that marijuana affects the same higher thought processes that the learning disabled fail to develop. For example, marijuana affects short-term memory (Weil³⁷), a function which is especially deficient among the learning disabled (Chalfant and Scheffel-in⁵⁶). As is true with hashish, marijuana often affects concentration and time sense; here again the disabled learner has difficulties even when he is not under the influence of a drug (Orton⁵⁵). Marijuana appears to induce the perceptual style of "field dependence" (Dinnerstein⁶¹) whereas the disabled learner typically has problems with figure-ground relationships (Chalfant and Scheffel-in⁵⁶).

The feelings of happiness reported in my

survey by high school students using hashish and the feeling that certain things were clearer or better understood reported by marijuana smokers will probably be evaluated by most mature students as pleasant, short-term sensations and impressions, usually illusory in nature. The disabled learner, however, often lacks such powers of judgment and these pleasant feelings may, in some cases, lead to dependence on *Cannabis sativa* derivatives (Eddy, et al.⁶²).

Marijuana usage seems to be especially attractive to hypoglycemic individuals (Ro-dal¹⁶). These individuals often suffer from depression and a lack of energy; marijuana may act as a euphoriant and a stimulant in these instances and may be used frequently as a form of "self-medication." Margaret is an example of this type of adolescent. When she told me that marijuana "gave me a lift" and "increased by energy," I recognized this as an unusual reaction. Upon examination, she was diagnosed as hypoglycemic and is now undergoing a dietary and vitamin treatment program (Cott⁶³).

Multiple Drug Use

Some individuals specialize in the use of one drug or one class of drugs; others appear to take anything that is available when they want to "take a trip," "get high" or "come down." One of the most provocative findings among the high school students surveyed was the fact that the non-drug state of the drug users was considerably more altered than the regular state of consciousness described by the non-drug users. There are many possible reasons for this finding; one may be the presence of learning disabilities among the drug-using group which would affect their typical ways of perceiving and conceptualizing their world even when not under the influence of a drug.

Smith and Fischer⁶⁴ do not accept the

concept that there is a "drug of choice" among most illicit drug users. They feel that the drug one uses is determined by one's social environment and the supply available to him, rather than by physiological or psychological predispositions. Davis,⁶⁵ on the other hand, stresses physiological factors—especially in alcohol and heroin dependence.

A contrasting position is taken by Wieder and Kaplan⁶⁶ who stress psychological factors. They claim that "the fixations and regressions that occurred prior to drug-taking and the unconscious wish to regress to a specific developmental level are among the determinants of drug choice." The user's unique psychodynamic makeup is seen by Wieder and Kaplan, as determining the person's reactions to pharmacological effects and whether or not he will become dependent on that drug:

"The states of intoxication produced by different drugs have certain resemblances to specific developmental phases of early childhood. LSD states were compared with the autistic phase in the sense that LSD . . . resembles 'cracking the autistic shell.' The dreamy lethargy, the blissful satiation and the fantasies of omnipotence, experienced 'on the nod' with opiates, have similarities with the narcissistic regressive phenomenon of the symbiotic state. The effects of amphetamines are reminiscent of the 'practicing period' of the separation - individuation phase. . . . Only alcohol or marijuana can be employed casually without severe regressive consequences, although their continued, extensive use also reflects severe Psycho-pathology. "*

Personally, I agree with Weider and Kaplan's theory in most of those cases where a "drug of choice" is clearly indicated (Krip-pner⁶⁷). However, I would add that there are often

physiological predispositions to both the psychodynamic state they describe and the "drug of choice" that evolves. When there is no "drug of choice" or when an individual is a multiple drug user, I feel that sociological determinants are most important. A disabled learner, for example, who becomes a multiple drug user may do so because of his "field dependence" and lack of judgment which makes him easy prey for a drug dealer or for a group of drug users.

Conclusion

This discussion is exploratory in nature and is based on many personal observations as well as the limited data which exist. It is my feeling that a large proportion of these people who become drug dependent or who develop other drug problems have learning disabilities. In some cases, the neurological and/or biochemical disorders which produced the learning problem also predisposed an individual to untoward drug reaction or drug dependency. In other cases, emotional problems and social factors interact with the learning disability to produce the drug dependence or negative reactions to illegal drugs. In any event, the connection between drug involvement and learning disabilities appears to be important enough to receive immediate attention by professional workers concerned with these critical problems.

* In my opinion, alcoholics and chronic barbiturate users most closely resemble Weider and Kaplan's description of the person dependent on opiates.

ILLCIT DRUG USAGE REFERENCES

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