

Narcotic Drug Addiction

SCOPE OF PAMPHLET

Much has been learned in recent years about the nature of addiction, the factors edging a person into addiction, and the effective treatment of persons who have become addicted. Very much more remains to be learned. This pamphlet surveying the new findings is intended primarily for those who, in the course of their professional duties, occasionally come face to face with an addicted individual or his family and wonder what can and should be done. It is intended also for teachers—in particular those charged with preparing material on health problems. But it should be of interest to almost anyone looking for a short report on our present knowledge of the subject.

The pamphlet deals for the most part with addiction to narcotics—principally the opiates and synthetic drugs with opiate-like reactions. Problems associated with other drugs are, however, briefly discussed.

BACKGROUND OF PROBLEM

Narcotic drugs have been used to relieve pain and induce a feeling of well-being as far back as man has records, and probably a good deal farther. Opium is listed on Assyrian medical tablets dating to the 7th century B.C. and on an Egyptian list of remedies drawn up probably in the 16th century B.C. The Sumerians had a word for it even earlier—about 6,000 years ago.

Until very recent times, opium in one form or another was mankind's principal medicine because all through the centuries when little

was known about the causes of illness, doctors naturally concentrated on the symptoms—and opium could dull the pain and discomfort of almost any disorder.

For many people, particularly in eastern countries, opium had social as well as medicinal values. They used it for much the same reasons that other people have used alcohol.

Drug addiction began to be a sizeable problem in the United States following the Civil War. Three main factors were at work:

1. The occurrence of the Civil War just a few years after the introduction of the hypodermic syringe, which made it possible to administer morphine, opium's principal ingredient, through the skin and thus relieve pain more rapidly. Of the wounded soldiers given injections of morphine to ease pain, so many became addicted that their condition was described as "army disease." Many civilian patients, too, given injections for any one of dozens of disorders, found that they had to keep on getting them.

2. The introduction of a great variety of patent medicines containing opium or opiates and sold freely, without prescription, in every drugstore and even in crossroads general stores.

3. The introduction of opium smoking by the Chinese who had been brought in to help build the railroads of the West. Though the immigrants themselves were in general an orderly crew, the Americans who picked up the opium habit represented the shadier elements among the adventurers. As the practice of opium-smoking spread eastward, after 1870, it appealed mostly to the same elements.

By 1900, according to one estimate, the United States had 264,000 narcotic addicts—

more than 5 times as many as the current Bureau of Narcotics estimate, though the country then had less than half as many people. Many of the addicts were people who had taken or been given opiates as a medicine, and most of these were decent, working members of the community. By and large, however, the opium smokers were not.

THE INTRODUCTION OF HEROIN

About 1900 a drug closely related to morphine and known chemically as diacetylmorphine was developed in Germany and offered under the name of heroin as a safe replacement for its relative—one that could be employed, even, to cure addiction to morphine. Doctors welcomed it, used it enthusiastically, and then discovered that, contrary to the original claims, it was highly addicting. Opium-smokers discovered something else: they could get the same effects from snuffing heroin as from smoking several pipes of opium, and faster, without fuss, and with little danger of detection.

Today, heroin is the only opiate available to most addicts. The illicit trade prefers it to morphine because, since it is three times as powerful, a given quantity is worth three times as much, and also because heroin can be more easily diluted.

WHY THE PROBLEM IS IMPORTANT

Measured only by the number of addicted persons, the problem is considerably smaller than it was in 1900. Addiction reached an alltime low during World War II, when the underworld found it extremely difficult both to obtain narcotics abroad and to smuggle them in; then addiction increased for a few years and again began declining.

According to the Bureau of Narcotics, the

number of addicted persons, which may have reached 60,000 during the early 1950's, dropped during the next decade to about 46,000. These numbers refer to known addicted persons and are subject to error. On the one hand, not all addicted persons are known to the Bureau; on the other hand, a person is continued in the files as an addict for 5 years after the last report indicating that addiction is present, and some of the persons who continue to be listed are no longer addicted. Some authorities consider the figures too low.

In part, the great decline in the number of addicted persons has occurred because medical knowledge and education have greatly improved; medical textbooks have been warning against the indiscriminate use of narcotics since the beginning of the present century. Most importantly it has occurred because a growing worldwide campaign against the opium trade led to the passage in 1914 of the Harrison Narcotic Act. In the early 1920's, following Supreme Court interpretations of this law, addicted persons were cut off from legal supplies of narcotics.

Measured by its total effect on society, however, the problem of addiction may have grown worse. Today's addict must spend most of his time scheming to get his drug and the money to pay for it. As the cost of maintaining his "habit" mounts from a few dollars a day to as much as \$75, he impoverishes his family and, typically, resorts to crime. In New York City alone, it has been estimated, addicts must raise between \$500,000 and \$700,000 every day—most of it through shoplifting, burglary, forgery, prostitution, and other illegal activities.

The burden of addiction falls not only on the individual and his family, but also on the police and the courts, hospitals, welfare departments, and other agencies serving the community. Most addicts—going through a seemingly endless series of "cures" and relapses—impose the burden again and again and again.

The Effect of Narcotics

WHAT HAPPENS WHEN NARCOTICS ARE TAKEN

The typical addict prefers to take heroin, morphine, or a similar drug intravenously. A few seconds after the injection, his face flushes, his pupils constrict, and he feels a tingling sensation, particularly in his abdomen. The tingling soon gives way to a feeling that everything is fine: as the addict expresses it, he is "fixed." Later he may go "on the nod," drifting into somnolence, waking up, drifting off again, and all the while indulging in daydreams. The effects of the drug wear off in 3 or 4 hours.

Experiments at the Addiction Research Center of the National Institute of Mental Health, the Center is located at the Public Health Service Hospital, Lexington, Ky.) showed that drug users appeared uninterested in any activity, let their living quarters become extremely messy and spent most of their time in bed. A drug user "on the nod" could be awakened easily and would then answer questions accurately. Given a psychological test, he would not score quite as high as usual, and given a task he might perform it somewhat more slowly than usual. He readily lapsed back into somnolence. Smokers frequently fell asleep with lighted cigarettes in their mouths.

Unless he is somnolent, or has taken enough of the drug to make him sick, the person under the influence of an opiate may not behave abnormally, and there is no easy way to show that he is under the influence. But narcotics do upset the body's chemistry. The person who regularly takes a drug like heroin or morphine soon finds that unless he increases the dose, the drug no longer has the same degree of effect. He has developed tolerance. As the months go by, he has to increase the dose again and again, and eventually he finds that even large doses will no longer bring him the feeling of well-being that was once a main

reason for taking drugs. Long before this point is reached, he has become dependent on the drug.

Dependence is both psychological and physical. The addicted person uses drugs to shut out his problems and quiet his anxieties, and the oftener he turns to them for relief, the stronger becomes their hold on him. In this respect, drug taking is like coffee drinking, cigarette smoking, or any other pleasure-giving habit. Addiction is not just "in the head," however; it is a matter also of being physically dependent—so dependent that without the drug the user becomes sick.

THE WITHDRAWAL SICKNESS

A few hours after his last dose, an addicted person becomes nervous and anxious and then, if he can't get more of his drug, develops the withdrawal sickness or the abstinence syndrome. Many of the symptoms resemble those of severe influenza. The addicted person perspires, has chills, suffers waves of goose-flesh. His eyes water and his nose runs. Either asleep or awake, he tosses restlessly. As time goes on, his arms and legs begin to ache and to twitch almost constantly. He is nauseated, vomits, has diarrhea. His nervousness and anxiety increase. He may crawl into a corner, cover himself with a blanket even in the hottest weather, and beg piteously for a "shot."

If he has been taking heroin, the abstinence symptoms reach a peak in 24 hours; if morphine, in from 36 to 48 hours. In either case, within a week after he has last had his drug, the addict has lived through the worst of the withdrawal sickness and, in his words, "kicked the habit." He is weak and nervous, but he has lost most of his physical dependence on drugs. Complete recovery requires from 2 to 6 months.

The withdrawal illness is much less severe when the addicted person is withdrawn or

Physical & mental symptoms that occur after stopping or reducing intake of a drug

detoxified—that is, removed from physical dependence on drugs—under the medical method commonly used today.

THE BODY'S RESPONSE TO NARCOTICS

According to a widely accepted theory, tolerance and the withdrawal sickness are both related to the action of forces that try to keep the body's processes functioning in balance. When a person takes a drug like heroin or morphine, this theory explains, his autonomic nerve centers try to compensate for its effect, which is chiefly depressant. They do this through certain changes in the activity of the central nervous system. But the depressant effect is what the addicted person craves, and in order to get it he must keep the compensatory forces in check by taking more and more of the drug. When he stops taking it, the compensatory forces are suddenly released and the body has to fight for some days to return to an even keel.

Medical observations are in accord with this theory. For instance, morphine constricts the pupils and depresses the respiratory rate; during the withdrawal sickness, however, the pupils dilate and the breathing becomes abnormally heavy.

Experimentation seems to bear out the theory, too. As a notable example, scientists

at the Addiction Research Center have given morphine and allied compounds over extended periods to animals in which the spinal cord has been severed. At first the drug strongly depresses two of the reflexes in the legs of these animals and strongly stimulates another. As the animals develop tolerance, however, these effects tend to disappear. Then when the drug is discontinued, some spectacular changes occur—just opposite to the original effects. The reflex that has been stimulated disappears; one that had been depressed becomes so active that the legs are in constant motion. None of these changes can be ascribed to activity in the brain, because the brains in these animals had been severed from the legs.

Other studies indicate that morphine—presumably again through its action on the nervous system—slows the activity both of the adrenal glands, whose hormones help the body meet stress, and of the sexual glands.

Such experiments and studies help explain the lessened drive of the addicted person and his decreased interest in sexual activity (contrary to a fairly common notion, drugs like heroin and morphine do not lead to the commission of sex crimes; instead they tend to put a brake on desire). They also explain the symptoms of the withdrawal illness. But answers to how narcotics bring about these effects—that is, how they change the activity of the nerve cells—await further research.

The People Who Turn to Narcotics

WHY DO PEOPLE TAKE DRUGS?

Studies of juvenile narcotics users in New York City—and such studies are important because today's addicted persons have generally begun using drugs in their teens—show that a favorite occasion for taking heroin is just before a dance or party. For many of them, perhaps most, the drug serves much the

same purpose as another drug, alcohol, serves in the case of some other youngsters, whether in the New York slums or the Westchester suburbs: it helps the anxious individual feel at ease, mix more freely, and have a good time. Whatever the occasion, some of those who take a shot of heroin—like some of those who take a shot of whiskey—do so only for a thrill or to go along with the gang or to thumb a