CLINICAL CONTRIBUTION TO DRUG ADDICTION: THE STRUGGLE FOR CURE AND THE CONSCIOUS REASONS FOR RELAPSE

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The facility with which "cured" addicts relapse is one of the most strikingly observed phenomena about drug addiction, and it is also largely responsible for the low esteem in which addicts in general are held. Prison physicians, police magistrates, judges and others interested in law enforcement see a procession of healthy looking addicts return to them time after time and physicians who treat addicts in hospitals and sanitariums know that most of those who now come to them are repeaters.

Relapse is much more common today than formerly. There are two reasons for this: Recently adopted narcotic control measures have been much more effective in preventing the addiction of stable normal persons than of unstable psychopathic persons, and the coercive features of narcotic laws have already forced the cure of the more hopeful of the curable cases. In other words, it is chiefly those who by nature are more predisposed to relapse who now become addicted, and the more curable of the older cases have in the main been cured, leaving a class of addicts which is peculiarly liable to relapse. However, the relapse of cured addicts has always been very frequent; but relapse has not been so frequent nor has permanent cure of addicts been so difficult as is commonly supposed. The widely prevalent misconception about the difficulty of permanently curing drug addiction is traceable to two factors: (1) As a rule drug addicts as well as their physicians conceal the addiction as long as it is possible to do so, consequently the addiction of cured cases is seldom heard of before cure is effected and is never mentioned afterwards; (2) the repeated treatments of so many relapsing cases make a one-sided impression on the uninformed and unreflective mind. By a study of the subject we have been led to believe that there are thousands of cured addicts in the United States today, and if we class as former addicts all of those persons who after several weeks of opiate medication suffered for a few days with mild withdrawal symptoms - such as restlessness, insomnia and overactivity of certain glandular functions - the number of cured addicts must exceed those who remain uncured.

The conclusions of this paper are based on a study of 210 addicts embracing all classes of society, from successful professional men to habitual criminals. They had relapsed a variable number of times ranging from one to twenty. The

duration of abstinence from narcotics varied from three days to ten years, but each addict included in this series of cases had abstained at least once for as long as fourteen days. Nearly all of them had been off the drug at one time or another for three months or more and the majority had experienced periods of abstinence for as long as six months. Abstinence was enforced in many instances due to confinement in prison for violations of narcotic laws but all except a few of the prison cases had sought treatment and voluntarily abstained either before or after their prison terms. The first voluntary abstinence was likely to last longer than subsequent ones. As a rule the time would shorten with each attempt at cure until finally there would be nothing but fruitless efforts at treatment with no abstinence at all.

The idea is widely held that opiates bring about a state of moral perversity that renders addicts indifferent to cure and therefore liable to relapse, or that in many cases these drugs produce some physical change that makes their continued use necessary and the impulse to return to them irresistible. It seems plain, however, that induced moral perversity has nothing to do with it and that physical dependence upon opium though important is, except in rare cases of prolonged addiction, only temporary and is second in importance to psychological factors in bringing about relapse to the drug.

It has long been recognized by students of the subject that the addict is generally abnormal from the "nervous" standpoint before he acquires the habit, while some like (1) Block assert that normal persons never become habitues. It is probable that Block does not class as habitues persons who because of certain painful conditions are necessarily addicted in the treatment of them. If his assertion allows for this exception and is limited in application to countries which like the United States have laws that protect people from the consequences of their own ignorance, its accuracy is supported by my own findings. Ninety-one per cent of this group and eighty-six per cent of a group reported elsewhere (2) by me deviated from the normal in their personalities before they became addicted.

The fact that becomes so clear upon the study of cases, that most addicts are in the beginning abnormal, is in the viewpoint of many persons obscured by the more obvious fact that the habitual use of opium creates in any type of person a temporary physical dependence upon it. This dependence being the most striking thing is often erroneously thought to be the most important, if not the only important, cause of addiction and frequent relapse. The passage within recent years of laws making it a penal offense to possess or sell narcotics and the consequent arrest of numerous addicts who for ingrained mental reasons take narcotics but who for social reasons blame the narcotics themselves, and complain about the physical discomfort of treatment that is so often forced on them, has served still further to concentrate attention upon the less important factor of physical dependence.

A study of these 210 cases has shown that psychic causes produced their peculiar susceptibility to opiates and cocaine and that the cause for relapse was primarily the same seductive mental influence that was responsible for the original

addiction. This primary psychic factor was reinforced later on by memory associations and habit and by the induced physical dependence that gradually developed. The memory associations and habit were in part created by the physical dependence. The primary psychic factor remained fairly stable throughout the entire period of addiction whereas the other three factors increased in intensity with the passage of time and brought about a gradual change in the relative importance of the various factors. The force of physical dependence increased more rapidly than the other two variable factors. In persons who had been addicted for no more than a year the primary psychic factor was almost solely responsible for relapse in those who had abstained from the drugs for as much as fourteen days and the importance of physical dependence was insignificant. In those who had been addicted for fifteen years or more the force of physical dependence equalled, if it did not exceed, the primary psychic factor as a cause of the relapses that occurred during the first few months after treatment with complete withdrawal of the drug. The importance of physical dependence as a cause for relapse increased more rapidly in neurotic patients than in those who were considered to be normal. It was so important in some cases of long-standing addiction of nervous persons as to preclude the possibility of recovery by any means except enforced confinement over long periods of time.

Attitude of Addicts Toward Their Addiction and Toward Treatment

An understanding of the attitude of addicts toward their addiction and their real motives for seeking cure adds much to our knowledge of why treatment of them so often fails. Some relapsing addicts have always regarded their addiction as beneficial rather than harmful to them. This class is extremely rare. Others, much more numerous, feel that having progressed to their present state they would be better off if left alone and no effort were made to cure them. The former accept treatment only under physical restraint and relapse as soon as they regain their liberty. The latter seek treatment only because of the urging of friends, the difficulty of maintaining themselves as addicts or because of their fear of the law. Their efforts are half-hearted and they usually relapse promptly, because the unfavorable state of mind into which they have slumped is further accentuated by the mental depression and physical discomforts incident to the early period of abstinence. The hope for cure in these cases is to keep them away from the drug until they learn that they are not dependent upon it, and until their realization of this, together with their improved social and physical condition, brings about a change in their mental attitude towards the whole situation.

The relapsing addict who has given up the struggle for cure and only attempts it half-heartedly thinks he is very much misunderstood and abused. This is especially true of those who have served prison sentences for possession of narcotics. Some of them frankly say "If I were left alone and allowed to have drugs I could work," and many of them feel that they would be better citizens than they are if the law and their friends would accept their addiction as final and necessary. Many others who denounce the peddlers who sell them drugs and reproach themselves for buying them and bringing themselves to their present pass plainly show, when their confidence is gained, that their denunciation of the

peddlers and themselves is a thinly disguised outlet for the resentment they feel toward the forces that interfere with their normal inclination.

The relatively tolerant attitude that society has towards chronic drunkards, a more troublesome and dangerous type of individual, furnishes the complaining addict with bitter reflections that expose his real feelings about his own habit. The attitude to which they object is reflected even in the air of superiority that some drunkards assume toward them. One of these in a ward with three addicts who were intellectually, morally and industrially superior to him looked with contempt upon them and said to the writer "I used to take that stuff but was cured twenty-five years ago. My doctor said when I stopped I would drink and I have been doing it ever since." He was a repeater in the alcoholic ward and had been arrested often for drunkenness. The addicts observe that patients like this who are arrested while drinking and disturbing the peace are commonly given small fines or a few days in jail for disorderly conduct even though they are found in possession of liquor in violation of the law, whereas drug users are liable to be searched for narcotics while going peacefully about their business, and given a year or more in the penitentiary if any is found on them. Discrimination such as this causes resentment in those seeking for an excuse to continue their addiction. They consider it to be unjust and pose as martyrs to their weakness or ideals of personal liberty. "We are much better than these drunkards but are not given half the consideration" is an observation that many of them make. They fail to see that justice as administered by law is often an abstract thing depending upon social customs to which all members of society must conform if they would be acceptable in it.

Most persons who become addicted to opium or its preparations through medical means become alarmed as soon as they become aware of their dependence upon the drug and adopt strenuous methods, if necessary, to throw off the habit. This is easily done in the beginning; those who fail have physical diseases that make the use of the drug desirable or necessary at certain times, or they have psychopathic traits that render them especially susceptible (2) (3). The medical cases that remain uncured belong to one of these classes. They are always ashamed of their addiction although they often defend it. Shame is a sentiment which affects even the deliberate dissipators; and practically all addicts, except the worst of the criminal psychopaths, would like to be cured. This is true even of those who have given up the struggle and who would spend the rest of their lives without giving a serious thought to another treatment but for the coercive measures that are brought to bear on them.

That this attitude of indifference to treatment is a late development is shown by the fact that of those who were addicted before the passage of the Harrison Law, comprising 40 per cent of the total number of addicts in this series of cases, all but three had taken treatment at least once, and some had taken it several times before the law was passed. It is also significant of an earnest desire for cure that 20 per cent of the entire number had at some time during their addiction careers voluntarily abstained from the drug and without assistance from physicians, hospitals or prisons succeeded in breaking the habit. Many of these

simply "lay around home and kicked it out" without telling members of the family the real cause of their discomfort. These successful self-treatments occurred usually during the first two years following the beginning of addiction but they sometimes occurred later, especially in patients who were addicted to cocaine and an opiate at the same time. One of the latter who had been addicted off and on for twenty years got off the drug at home with very little discomfort and without any assistance whatever. One physician, after two years of addiction to morphine, repaired to the woods with a camping outfitand a servant and returned in three weeks cured. He relapsed two years later because of a painful illness and was cured twenty years after this because of the activity of narcotic agents.

Though the sincerity of addicts who seek cure is for the time being beyond question, the motives which prompt many of them are fundamentally inadequate and therefore usually ineffective.

The motive for cure in newly created addicts is the instinctive revolt they feel and the vague fears that arise when they find themselves victims of a habit they cannot control. They discover that they are in a situation that they have been taught to regard with contempt and this creates the alarm above referred to. If cure is not immediately and permanently effected the instinctive fears wane and later on are replaced as motives for cure by well defined fears of the law, by fear of social ostracism or financial dependence, and to a less extent by fear of the physical harm that the drugs might do to them. The discomfort and physical depletion caused by inability to secure at all times an adequate supply of drugs has furnished an added motive for cure to many of those who repeatedly relapse. These addicts after struggling with the situation for a time seek treatment in disgust. Others, less sincere, seek it in desperation because they have no money whatever to buy the drug they need, or because a successful raid by the authorities on peddlers has temporarily cut off their supply. A large proportion of repeaters give as a reason for seeking cure that they have revolted against the idea of giving so much of their money to drug peddlers. An addict who in his motive for seeking cure illustrates the motives that prompt many others, came home one winter night keyed up for the usual dose that had been delayed only to find that his wife, in a burst of indignation, had thrown his heroin away. The street cars being tied up because of a snow storm he walked to his peddler's, nearly two miles through the snow and returned to find that for two dollars he had bought an innocuous drug; another trip brought the same result, and the third one failed to secure even an interview. In disgust he sought and accomplished a cure, but relapsed in a few months. Four years later a shortage of drugs, following a wholesale arrest of peddlers, prompted him to be cured again. He has been drunk three times during the twelve months following this last treatment, but at present writing seems determined not to relapse to narcotics.

Reasons Given for Relapse

The reasons the addicts gave to account for their relapses often did not furnish more than superficial evidence of the real cause, but there was a tendency to overemphasize the importance of physical symptoms. A large proportion of the

psychopaths, who with full knowledge of its danger, had dissipated with an opiate until they became addicts, were unable to give any reason for the relapses that occurred during the first three years of their addiction. Many of them frankly said that they just started to take the drug again and had no excuse to offer than that they returned to their old environment. This same type of patient would, after eight or ten years of addiction, give weakness or discomfort as an additional reason for their later relapses. Some intelligent psychopaths said they returned to narcotics to get relief from the blues that followed certain difficulties. One highly unstable professional man brooded over the failure he had made of life because of narcotics and traced his final relapse to this brooding.

The frankness of the psychopathic characters (2) (4) contrasted markedly with the evasiveness and self-pity of those who had frank neuroses, and with the complaining attitude of certain temperamental cases. The physical necessity for narcotics loomed large in the minds of the latter. They seized upon any remembered discomfort as an excuse for relapse; a healed wound, a leg broken twenty years ago, a mild hemorrhoidal tendency, an old cured neuritis, and other conditions from which they received no discomfort while taking an opiate were credited with causing pain when the drug was withdrawn.

Ten per cent of the entire number of addicts in this series of cases got under the influence of liquor and took the first dose of narcotics while their inhibitions and judgment were lowered - but only a few of them blamed alcohol. Alcoholic dissipation was apparently a deliberate first step in their relapse, taken in order to give them courage to throw their good resolutions overboard and return to opium.

The medical cases that were considered to be nervously normal attributed their early relapses to the return of the more or less painful physical conditions for which they first took narcotics, and the later ones to this same cause or to weakness and inability to work when not taking the drug.

Physical Reasons for Relapse

Opium, unlike alcohol, does not cause, so far as known, any destruction of tissue or permanent protoplasmic change. It does, however, bring about some very obvious functional changes. These result from the efforts of the body cells to adjust themselves to a drug, the normal effect of which is to inhibit cellular and glandular activity so that when the adjustment is made the cells and organs, though bathed in the drug, perform most of their functions in a degree approximating normality. This functional adjustment becomes strikingly evident when the drug, after having been used continuously over a prolonged period, is suddenly withdrawn. The inhibiting influence having been removed there is an increased functional activity of practically all organs and tissue and the nervous system, being suddenly relieved of a benumbing influence under which it has learned to record impressions with normal intensity, becomes hypersensitive. More numerous and more intense impressions are therefore sent by the tissues and organs to a nervous system, which, because of its hypersensitiveness,

record them with magnified intensity. The net result is the withdrawal symptoms, some of which are very distressing. Collapse which sometimes occurs is probably due to an excessive relaxation of vasomotor control due to sudden removal of the artificial check under which the system has been functioning.

Nearly every addict in this series of cases discontinued one or more treatments upon which they had ventured before the opiate they had been taking was completely withdrawn, or they returned to the drug a few days later. These abortive attempts are not classed as relapses, but failures of treatment. Such failures were due mainly to the acute physical symptoms accompanying withdrawal and to the unfavorable mental reaction resulting from them.

The various types of addicts reacted with different degrees of intensity of physical symptoms, the objective evidence of which was similar. Intelligent persons with outstanding temperamental traits complained more than any others, the purely neurotic and the dull neurotic came next, while the psychopaths complained least of all.

The acuteness of the intellect of the temperamental persons and their natural disgust or distaste for disagreeable things, caused them to exaggerate the importance of physical symptoms as it caused them to exaggerate the every day trifles and inconveniences of life out of all proportion to their significance. There may be some physical reason, in addition to their natural sensitiveness, why temperamental and neurotic addicts suffered more than the others. In any event, it was observed that the complaints of normal persons under treatment were adequate to the situation, and the temperamental addicts who showed few objective signs of suffering whined bitterly, while many of the psychopaths who had made up their minds to undergo treatment complained very little even though they vomited, had dilated pupils and showed other signs of distress. The temperamental addicts who gave up treatment before complete withdrawal was accomplished, did so because of the discomfort which they were unwilling to endure, while the psychopaths merely changed their minds. The depression that resulted from the whole physical situation and the lack of the soothing effect of narcotics on their normal mental unrest gave them a different outlook on the world, and in this state, they came to the conclusion that cure was not worth while. Some of them went through with the treatment, however, seemingly to save their faces; they remained in the hospital until the acute physical suffering was over and then left for the purpose of getting narcotics.

Some of all types of addicts sought treatment with the reservation that cure was impossible. They naturally complained a great deal. An addicted dentist, formerly a drunkard, successful in his practice in spite of the time and money lost in taking eighteen treatments, had himself committed to a state hospital for eight of them but carried in a supply of morphine on each occasion. He nevertheless came dutifully with his wife to me for an opinion as to whether he was curable. The nagging of friends brings about this sort of insincere effort.

The acute symptoms that contributed so much toward failures of treatment had very little to do with relapses that occurred two weeks or more after the opiate had been withdrawn. Almost without exception, the early cases felt comfortable and began to gain weight before the end of this period, but slight insomnia and mild restlessness often persisted for several weeks longer and in some there was an indefinite feeling, probably largely physical in nature, that something was missing. Many also experienced a greater fatigability than had been usual with them, but, as a rule, the early cases said that they had no physical desire or necessity for the drug within two weeks after it was withdrawn. In some instances this attitude was probably an expression of forced optimism. In any event there was in many of these cases some slight physical reason for relapse for as long as two months. These reasons were not in any way compelling, but they added something to the various factors that impelled the unstable to give up the struggle for cure.

The acute stages of glandular and nervous overfunctioning resulting from the withdrawal of opium are also quickly over in long-standing cases of addiction, but in some of these it requires months of abstinence from the drug before all of the body functions return to normal. For the first few weeks after withdrawal of the drug these addicts, although they begin to gain in weight, may have occasional mild pains in the legs and uncomfortable sensations in the abdomen. They are very sensitive to cold and the men at first suffer with excessive seminal emissions which they think weakens them. A feeling of lanquor and and loss of "pep" is very common and many of them get discouraged because of it. If discharged from the hospital during this period the difficulties that they encounter on the outside accentuates their weakness and discontent and prompts them to seek relief in drugs again. Yet many of the patients in this series passed through this critical period outside of institutions and relapsed months later for reasons altogether foreign to the withdrawal symptoms. But in some of the long-standing cases, particularly among the more nervous, there remained fatigability, periodic diarrhea, palpitation of the heart, restlessness and distressing insomnia. Complaints of lack of energy and undue fatigue were very frequent, and some who had been addicted ten or more years claimed that this condition lasted for from six to nine months after cure and was the chief reason for their relapse. "I never had any 'pep' until I took the drug again," was a common statement. Attempts to justify their relapse doubtless caused some to exaggerate the importance of this symptom, but it was so commonly complained of and it bears such a close relation to other symptoms that could be explained by loss of vasomotor tone that it may be considered to be present to a certain extent in a large proportion of cases. A feeling that they would "fly to pieces" was experienced by some of the more nervous types who were deprived of the drug after taking it fifteen years or more. In a few instances the nervous symptoms were so grave as to make a return to narcotics advisable. This is well illustrated in the two cases cited below:

> Case 67. A civil engineer, sixty-five years of age, widower, was given morphine for ten weeks during an attack of rheumatism thirty-five years ago. He did not become addicted then, but a short while later there was a recurrence of pain, and a Chinaman showed him how

to smoke. From that time to the present he has taken opium in one form or another, using as high as 20 grains of morphine per day. The patient's mother was addicted three years before his birth and remained addicted until her death. She was hysterical. One of her brothers is described as being extremely wild, and the patient is said to resemble him. One of the patient's brothers was a drunkard and was killed in a gambling house brawl. Other members of the family were normal, highly respected and successful in a business and professional way. The patient was healthy as a boy, but had several spasms from indigestion. He began to drink at college and drank heavily of a Saturday night up until the time he became addicted to opium, but never neglected his work. He is now living on an income partly derived from an inheritance and partly from the fruits of his own labor.

His emotions have been variable. At times he was extremely pessimistic and fearful of failure. He has always been afraid of lightning and of falling through windows when in high buildings, and, though he has built many railroad bridges, could never cross one until it was fully completed.

Physically he has a large frame, but very small hands like a women's; otherwise there is normal male development. He is feeble but well nourished, and there are tremors of the hand and tongue and he only leaves his room to go after opium. During the past ten years he has had a few fainting spells. His mind is apparently as acute as ever and he passes his time reading Greek and Latin classics and amuses himself with mathematical problems. More than forty years ago he studied medicine for a short period, but when examined was still able to name obscure muscles in different parts of the body.

There have been 20 different attempts at treatment and he actually got off the drug for a period of three weeks six different times. The suffering was always intense and after it was over there was extreme nervousness. Once, after a treatment in Antwerp, he started home immediately and had hysterical spells for two weeks. During the last week of the voyage he calmed himself somewhat by drinking brandy after an abstinence from alcoholics for nineteen years.

Following the last treatment taken several years ago he stayed away from the drug for three months and was hysterical during the entire period, would laugh and cry without adequate cause, was not able to concentrate or talk coherently, could not work mathematical problems, suffered intensely with insomnia as was the case after each cure. He felt as if he would fly to pieces and as if he could break an iron bar in two. All of these symptoms subsided immediately after he resumed the use of opium.

Case 84. A physician sixty-one years of age, began to take opium for severe periodic headaches. After about two years he became addicted. This was thirty-three years ago and in seven or eight years he was taking 20 grains of morphine daily.

His maternal grandmother and an uncle were addicts. An aunt was addicted but cured herself. His father was normal, but his mother and three of her brothers have suffered severely with migraine. One of the patient's sisters has a psychosis. His three brothers were highly successful in the business world, but one of them, now dead, became an addict through having opium prescribed in the course of treatment for sprees. One of the patient's daughters is subject to headaches, but two others seem perfectly normal and have intelligence above the average. His two sons are doing well in business. The addiction of members of his family never led to delinquency or impairment of business ability. The patient himself had a very open make-up, and apparently no nervousness except that indicated by his periodic headaches. He contracted syphilis in 1900 from an obstetrical case and now has some bony tertiary nodules and a suggestion of an involvement of the nervous system. He was emaciated and anemic when examined but had been operated on for appendicitis less than a month previously. He owns a farm and practices medicine, but in recent years has limited his practice largely to office work.

There were eight treatments in this case. Six were successful in that the drug was temporarily withdrawn. Relapses occurred in from one day to two months. The reasons for relapses varied. In one case he left the hospital in such a weakened state that it was necessary to boost himself with opium in order to get home. In all cases he went to work immediately or within two weeks after returning to his home, but being somewhat weak and suffering with insomnia he found it necessary to resort to morphine again in order to keep going.

After a lapse of years the eighth and last treatment was undertaken several years ago because the narcotic division insisted upon it. Following three weeks in a sanitarium he returned to his home, but was unable to work, so took a short vacation and then attempted practice. He felt well, but could not sleep, was restless, hyperactive and busied himself very much. Among other things, he wanted to lecture and tell addicts how glad he felt over being cured. He says he had a spell of religion, and his wife, an intelligent woman, reports that he expressed himself as having just waked up. She says he was entirely changed and people thought that he had lost his mind. In about a month he resumed the use of morphine and in a few days calmed down. The entire family, including his wife, who urged him to take treatment, were glad to have him relapse this time. It is evident that this man had a hypomaniac attack due to withdrawal of the drug.

These two cases illustrate what happens to a greater or less degree in every case of a certain type of addict from whom opium is withdrawn. Both of them had a bad heredity and a neurotic constitution. They might have been cured by proper treatment before the drug got such a hold upon them, but because of their original instability and lack of resistance they have insufficient reserve to withstand the removal of the inhibiting influence to which their nervous systems had gradually become accustomed.

That the nervous manifestations following the withdrawal of opium are as a rule only temporary, even though the drug has been used for long periods, is shown by the fact that cases are cured after many years of continued addiction. In this series there are some physicians who were cured after twenty years and one after forty years' indulgence, but there was nothing abnormal in their original make-up. The reason for their previous relapses was the lack of sufficient motive to impel them to neglect their work until the withdrawal symptoms had so far subsided as to enable them to pursue it again. The narcotic division by threatening prosecution provided them with the motive they needed. The forty years addict was sixty-five years of age - he was slightly restless at times, but in no way uncomfortable after nine months of abstinence. Another physician not included in this series, because he never relapsed, took 25 grains of morphine daily for most of eighteen years. On five different occasions he tried to treat himself at home by gradually reducing the drug but failed because he would not give up his work in order to do it. Finally he took a cure through the urging of the narcotic inspectors. Insomnia was distressing for about two months and in addition there was for five months some painful bladder condition that he attributed to the medicine given during the course of treatment. He, however, never thought of returning to morphine to relieve this condition and one year after the original treatment he was a perfect specimen of health. These two cases illustrate that for several months after the withdrawal of opium normal addicts do have some symptoms that could be used as an excuse to return to the drugs but that they do not do so when the motive for cure is greater than the motive for relapse.

The motive as well as the desire for cure in many abnormal persons is as great as in normal persons but the motive for relapse is so much greater that the cure motive is less likely to gain a permanent ascendency over it. The motive for relapse is in some of its phases continuous and is subject to exacerbation. This is why certain unstable persons relapse months after all physical reasons for it have disappeared.

Psychic Reasons Given for Relapse

It has already been intimated that in most cases the fundamental basis for relapse is to be found in the faulty mental make-up of the individual addicts and that the cause for addiction and the cause for relapse are in their most important phases basically the same.

The unstable individuals who constitute the vast majority of addicts in the United States may be divided into two general classes: Those having an inebriate

type of personality, and those afflicted with other forms of nervous instability (2). The various types find relief in narcotics. The mechanism by which this is brought about differs in some respects in the different types but the motive that prompts them to take narcotics is in all cases essentially the same. The neurotic and the psychopath receive from narcotics a pleasurable sense of relief from the realities of life that normal persons do not receive because life is no special burden to them. The first few doses, especially if larger than the average medicinal doses, may cause nausea and other symptoms of discomfort, but in the unstable there is also produced a feeling of peace and calm to which they are not accustomed and which, because of its contrast with their usual restless and dissatisfied state of mind, is interpreted as pleasure. These people have in their normal state unusual impulses and disturbing mental conflicts because of them. They feel inadequate or inferior, their usual restlessness and anti-social conduct are expressions of compensatory strivings against this, or specific acts may be pathological outlets for impulses not properly directed. The narcotic properties of morphine and heroin are sufficient for the time being to remove all of this. Inferiority is replaced by confidence, restlessness by calm, and discontent by contentment. The degree of contrast with their usual selves is in direct proportion to their degree of deviation from the normal.

The pleasure derived from opium varies from a slight feeling of calm in persons who approximate normal in their nervous constitution to feelings sometimes approaching ecstasy in the extremely psychopathic. The greater susceptibility to addiction of the more abnormal cases is thus explained. The personality survey and clinical study of the 210 cases that form the basis of this paper shows that their nervous abnormality is the most important cause for the frequent relapse of addicts of the present day. In the psychopaths who make up the larger proportion of them, the pleasurable effect of opium was dulled by the increased tolerance consequent upon excessive indulgence in it and beclouded by the discomfort and uneasiness of their situation. With benumbing of pleasure and increase of discomfort a point was finally reached where they sought release from the distress of their new situation. By resort to cure they would get rid of the physical discomfort and the inconvenience of addiction and improve physically as well as socially for a time, but with cure and the passing of their newly acquired troubles, their former restlessness and discontent returned and sooner or later they sought relief for this by resorting to narcotics again. This cycle of events was repeated time and again in some cases, the final result as to relapse being more certain as the other contributing factors (physical dependence and memory associations)grew in importance with the duration of addiction.

A very large proportion of these addicts deliberately addicted themselves with full knowledge of the difficulties incident to a life of addiction. Many of them had been social problems before they became addicted and the make-up of others was such as to insure that a large proportion would have run contrary to established social customs in some serious way even if they had not become addicts. By inference, then, it may be assumed that such cases relapse for the same reason that they become addicted. The inference is not so clear in the case of certain socially acceptable persons of normal or superior intellect who become addicts. These are

temperamental or very neurotic persons, some of whom are highly useful or gifted citizens. Opium gives them a feeling of relief or contentment far in excess of that experienced by the average normal persons who because of illness are occasionally compelled to take it. The first few doses usually are taken for legitimate purposes; but, as with the psychopaths, the drugs also give such persons a pleasurable sense of calm that impels them to continue the drug - often in ignorance of the danger, sometimes in spite of it, until they become addicted. When such cases finally try to free themselves of the drug the memory of the relief that it gave them from the underlying unrest of which their peculiar traits or symptoms are an expression, is a serious handicap in their struggle to do without it. As before stated, these people also exaggerate the ordinary difficulties of life more than do average normal persons and they register physical discomfort and pain much more acutely. It thus happens that some very useful and even gifted citizens have tried without success to be cured of drug addiction because of the force of the seductive calm that opiates gave them and because the discomfort of withdrawal seemed to them to be unbearable.

The undoubted sincerity previously referred to of some of the psychopaths who seek treatment is an expression of one phase of their variable moods, which, in a measure, explains why they first experimented with narcotics, and why after becoming addicted, they find it so hard to leave them alone. They quickly, and without reason of judgment, develop a high degree of enthusiasm for things that are new or different, whether the excitement promised is dissipation or reform, but, because of their lack of emotional balance and consecutiveness of purpose, the trend of their enthusiasm is quickly changed by some counter-current, or when the newness of the experience wears off they slump back into their normal channels of action and start taking drugs again.

The change in direction of enthusiasm is especially characteristic of the open make-up type of psychopathic addict that we have described elsewhere (2). Floating into addiction is easy for them because it furnishes a thrill and is otherwise pleasant, but to get cured requires effort, and having drifted into a difficulty, they find it hard to keep going in the opposite direction long enough to get out of it. The enthusiasm that some of these psychopaths develop for cure and the facility with which its direction is changed to defeat this end is illustrated by an incident that occurred in connection with the handling of three of them. These addicts voluntarily came to the hospital and the drug was rapidly withdrawn. Their sincerity and determination to get well was shown by the uncomplaining way which they suffered. On the fifth day they had passed through the most severe stages of treatment and were still in high spirits over the prospect of recovery. An interne then refused to grant them a simple request and in doing so make a remark that they construed as insulting. The rebuff in no way affected their physical comfort but it changed their entire outlook and caused them to demand a discharge from the hospital. They came in to escape at any cost from the dependence and despised social position that the addiction had brought to them and, reacting to a slight, the result of their addiction, they faced promptly about and returned to it determined now to assert their rights as free born citizens.

In the discussion of the inebriate type of addict in another paper (2) we have already indicated one of the most important reasons for the relapse of drug addicts. It was shown that a large proportion of addicts have a so-called inebriate or narcotic impulse to an unusual degree, and that these persons have an indefinite non-specific craving that is appeased by alcohol, opiates, ether, veronal and other drugs having narcotic or hypnotic properties. Forty-four of the addicts in this group of 210 cases fall very definitely in the inebriate class. The business or professional man who at intervals goes on alcoholic sprees, neglects his work for a week or more and brings discredit upon himself has, insofar as the impelling motive for this conduct is concerned, the exact counterpart in many of the cured addicts who suddenly and without obvious cause begin to take drugs again.

It is appreciated that when we say a man goes on sprees of relapses to drugs because he has a periodic craving or phase of depression which narcotics satisfies or lifts him out of, we have stated only an end result and have left the primary cause of the craving or depression undisclosed.

The love of intoxicants or narcotics is an expression of a deep-seated motive that reaches its greatest intensity in adolescence and may find expression in various ways. It is closely related to various excitements, enthusiasm, cravings and related feelings. The normal man can regulate and control this motive or impulse when it tends to take an abnormal direction. In the abnormal man with feelings of inferiority and a highly sensitive or poorly organized nervous system the motive is stronger and the appeasement of it more satisfying. He is always striving for an emotional something just out of his normal reach. Alcohol or drugs brings it within his range and gives him the satisfaction that he does not know how to obtain in any other way.

The periodic alcoholic or opiumist who has an impulse to relapse is traveling on a low and unsatisfactory emotional plane. He meets a disappointment or rebuff or encounters some form of mental or physical pain: These depress him still more and by so doing accelerate his impulse to seek relief and emotional satisfaction by the only means he knows. He brings himself under the influence of intoxicants or narcotics and by so doing relieves himself of mental pain and suffering.

A discussion of various theories as to what may be the underlying cause of the narcotic impulse would lead us too far afield to be entered into here. With the suggestions offered we give the end result as to observed fact, this study clearly shows that having once felt the soothing effects of opium, many of the cases become addicted to it in the first place and relapse time after time because of the force of the impulse.

Memory Association and Habit

In addition to the important etiological factors incident to the type of person who becomes addicted in the first place and the complicating physical symptoms which follow the use of opium over long periods of time, the taking of the drug results in the formation of numerous memory associations which are themselves

potent reasons for continuing the drug or bringing about relapse. In this sense, opium addiction is a real habit. It is a common observation that no man lightly gives up anything to which he has accustomed himself. We see this plainly exemplified in the cured tobacco smoker who relapses after a period of abstinence and feels great relief in doing so. A cured smoker who usually does not crave tobacco may feel an intense desire resembling hunger when he gazes upon a box of cigars or sits in the company of friends who are smoking. The genesis of this desire is apparently wholly mental. The craving is due to memory associations and the habit the smoker has acquired of releasing a certain amount of energy by smoking when placed in certain environments. If smoking is indulged in the aroused but pent-up energy flows smoothly into an accustomed channel, the tension is relieved and relief is obtained. Habitual indulgence in opium creates memory associations similar to those connected with the use of tobacco and adds some of its own. The craving that some cured addicts experience after the state of physical discomfort is over, and the "hankering" for the drug that they speak of, is due largely to these memory associations. The impelling force of habit and the satisfaction derived from gratifying it, is seen in the morphine or heroin addict, who, when deprived of his customary drug, stabs himself with needles or safety pins, so-called "needle addiction."

The addict relieves himself of oncoming discomfort several times each day by taking a hypodermic of morphine or heroin. Due to difficulty in obtaining opiates he is often in actual pain before securing relief, and he worries a great deal about his source of supply. There is thus formed a strong association between distress, both physical and mental, and taking the drug. After a cure the first disappointment or illness he suffers brings forcibly to his mind the method of relief he has learned so well. The impulse to resort to it is strong and the stock from which addicts are recruited insures that resistance to it will be weak. We see this cause illustrated in an addict who said "The winter came on, I was cold all of the time and could not stand it without the drug . . .," and in the one who suffered a mild attack of influenza and gave as his reason for relapse that he was weak and had to boost himself with the drug. It is chiefly memory associations that cause many cured cases to feel discouraged and have the "blues" on a rainy day.

The return of addicts, especially of the unstable type, to their old environment adds greatly to the danger of relapse. Recently cured cases are restless, they as a rule are without employment and they naturally turn for company and diversion to their old companions among whom there are usually some addicts. Nearly all of those who have abstained from narcotics for several months report that they have no desire for the drugs unless they see some one else take them or unless they associate with other addicts in situations which they formerly enjoyed. By arousing memory associations this unfavorable environment creates a craving that the unstable cured cases seldom resist for any great length of time. The power of memory association is illustrated by the case of a patient who voluntarily stayed two months in the hospital and was off the drug five weeks of that time. He thought daily of certain former associates with whom he had been accustomed to take morphine. He complained that he could not get the subject off his mind and

that it kept alive his craving. A small party in which he formerly played poker and took morphine with a few friends, was reenacted several times in his dreams. The result was that the intense desire continued after the physical discomfort had passed.

It was noted in other types of cured addicts, as well as the cured inebriates, that any frustrated desire or unsatisfied longing was transformed into a desire for narcotics. Some had a craving for narcotics when they were hungry, and others when they wanted to smoke. The craving would be completely relieved by food or tobacco. In some, certain unsatisfied social impulses were directed into the narcotic channel. The craving produced by social longing is more serious than that which is purely physical in origin because it is not so easily appeased. The longing for companionship, for the good will of others, the desire for a position the salary from which would insure the ordinary comforts of life and relieve financial worry, would, when frustrated be directed into the channel that experience had shown would resolve all longings by dulling the faculties that gave rise to them. The cured addict is advised to abandon his old associates, but he too often has no others who look upon him with understanding sympathy. When this is the case, he inevitably gravitates back to them to relieve the tension of his social impulses. This, in itself, is good for him, but the environment arouses memory associations connected with the use of narcotics and affords opportunity to return to them when his resistance is weakened. Without a social environment that satisfies certain emotional impulses and an occupation that diverts the mind while it absorbs the physical energy that is seeking for an avenue of expression, the continued abstinence from narcotics by a former addict is extremely difficult.

Relapse was precipitated in some cases of this series by emotional disturbances incident to financial difficulties that could only be made worse by the return to narcotics; by the nagging influence of a suspicious wife, who, to protect her husband from relapse, watched every move he made; by a loss of position, by a deserved rebuke, and by other seemingly inadequate causes. One man, abstinent for ten years, relapsed because of an injury that kept him in bed for a week. Such relapses, of course, occur in unstable persons, who are in constant danger of falling under the depressing influence of some cause that would impel them to seek relief in narcotics. They know that the remedy will in the end increase that difficulty, but for the time being the relief promised overshadows, in importance, all other considerations.

In addition to the various pathological strivings and impelling memory associations that act independently of the patient's will to bring about a resumption of the use of narcotics, some account has to be taken of the pleasurable physical thrill that large doses of these drugs give to certain addicts. This thrill has been discussed in another paper (3). It is sufficient here to say that striving for a repetition of it causes some psychopaths to inject narcotics directly into their veins, and its intensity may be judged by the fact that a few of them link it with sexual feeling. Some of these cases seem to return to narcotics purely for the physical pleasure the drugs give them aside from a negative feeling of mental relief that is also obtained.

Relapses to Cocaine

What has been said about the causes of relapse to opium applies in a general way to cocaine, but the relative importance of the various factors differ. The force of physical dependence is insignificant as a cause of relapse to this drug. The cocaine addict who has been taking large doses and is suddenly deprived of it goes to sleep and it may be difficult to arouse him at all or to keep him awake for more than a few minutes at a time for the first forty-eight hours. He then passes through a short period of physical and mental languor, during which there is a "hankering" for the drug but no pain. The ease with which some morphine and heroin addicts are taken off these drugs is explained by the fact that they also had been taking large doses of cocaine. The hypersensitiveness resulting from the withdrawal of the opiate is counteracted in them by the sleep and lethargy that results from withdrawal of the cocaine.

The pleasure arising from the narcotic effects of cocaine is less than that from opiates, but the pleasurable physical thrill is greater and it is a general mental and physical stimulant. It differs from opiates in that it produces pleasure more by the elevation of normal feeling than by the suppression of weakness. It is, therefore, a more positive form of dissipation.

A number of persons dissipate with cocaine now and then but never become addicts; their indulgence is comparable with week-end drinking. Those who become addicted to the daily use of cocaine almost invariably take up the use of morphine or heroin sooner or later and then decrease the amount of cocaine, or abandon its use altogether. There is not one pure cocaine addict in this series of 210 cases, but there were a number of mixed opiate-cocaine addicts among them at the time they were examined, and thirty-five per cent of the total number had been addicted to cocaine and morphine, or to cocaine and heroin at one time or another. These mixed cases are on the average more subject to relapses than those opiate addicts who have never taken cocaine regularly. The difference is not due to anything that cocaine or the mixture of cocaine and opium does to them. It is traceable to the fact observed in the study of these cases and others not reported here, that the cocaine addict is more psychopathic in the beginning. He becomes addicted merely through his impulse to dissipation, whereas physical dependence complicates matters for users of opium, and causes more stable persons to become addicted to it.

Summary

The relapse of drug addicts is mainly due to the same cause that is responsible for their original addiction, namely, a pathological nervous constitution with its inferiorities, pathological strivings, etc., from which narcotics give an unusual sense of relief and ease.

The inebriate impulse is one of the most important causes of relapse.

Relapse is more common than formerly because the addiction of more normal and therefore more easily curable persons is less common.

Nearly all addicts make sincere efforts to be cured during the early period of their addiction. Many of the cures taken later on are mere matters of expediency and are insincere in effort.

The hope for cure wanes as time passes and the force of habit, numerous impelling memory associations, and increasing physical dependence upon opiates is added to the original nervous pathology.

Physical dependence upon opiates is unimportant as a cause for relapse during the first two or three years of addiction in those addicts who have been off the drug for two weeks or more.

In some very nervous persons who have been addicted to an opiate for many years, withdrawal of the drug may produce hysterical symptoms of hypomania lasting several months.

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