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Date 8 August 1972

HEROIN ADDICTION: AN EXAMINATION OF SOME MAJOR COMPONENTS

by

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

of

MASTER OF EDUCATION

with concentration in

Counseling

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Bozeman, Montana

August, 1972

ACKNOWLEDGEMENT

The investigator wishes to express her appreciation to Dr. S. Gordon Simpson, Ellen Feldman, and her husband Bob for their consultation and continued patience during the preparation of this paper. Gratitude is also given to her mother, Mrs. Dorothy Forsell, and her sister, Mrs. Patricia Shisker, without whose typing assistance punctual completion of this paper would have been impossible.

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ABSTRACT

The purpose of this study was to survey recent research on heroin addiction, in the hope of gaining an understanding of the functional components involved. The factors of addiction which received particular attention were the subjective effects of heroin use, the reasons given by addicts for beginning use, definitions of the pattern of addiction, personality variables of the heroin addict, and treatment modalities now in use for the rehabilitation of addicts.

The researcher found that self-concept, attraction to the "street" life style, and pattern of communication played a significant role in each of the above factors, and recommended that further research be done in each of these three areas. It was also recommended that researchers in the area begin to view the addict as a person for whom heroin use once served some adaptive role. The hope was expressed that if the addict is indeed treated as a unified, unique human being, he can be helped to find alternative sources of satisfaction and more effective means of relating to his environment. Finally the investigator recommended that counselors working with heroin addicts examine their own attitudes toward addiction in order that conflicting values not hinder the therapeutic relationship.

CHAPTER I

INTRODUCTION

The seriousness of the problem of heroin addiction is an obvious one. In terms of harm to the individual, not only does addiction involve dependence on a drug for physical and psychological maintenance, a condition which is less than enhancing, but the expense of maintaining his habit dictates to all but the very wealthy addict a life style involving illegal means of procuring money, with the concomitant threat of discovery, reducing the time and inclination available for other pursuits to a minimum (20:609). As heroin addiction affects the society as a whole, the desperate measures taken by the addict to support his habit cause an increase in the crime rate and thus contribute to the feelings of insecurity and apprehension present in the larger cities of our country.

The history of attempts at treatment of heroin addiction has not been one of unheralded success. In the 1930's the United States government recognized heroin addiction as a sickness rather than merely another form of illegal, immoral activity, and set up the United States Public Health Service Hospitals at Lexington, Kentucky, and Fort Worth, Texas (41:289). Since that time the medical model has prevailed in the treatment of addiction, and its success has been marginal. A number of different treatment approaches have been used, but a truly effective means of treatment is yet lacking.

The counselor faced with the prospect of working with heroin addicts is confronted with a multifaceted problem. Not only is no truly effective treatment of addiction known, but many of the secondary effects of addiction, such as those arising from the illegality of the use of the drug, are beyond the counselor's control. The actual counseling of the addict is often done under conditions of coercion, e.g., in situations where the addict is in prison or on probation and counseling is required regardless of the feelings of the addict. In addition, the addict frequently views the addiction itself as his only problem (44:747), or the source of all of his other problems (8:233), so that he is unwilling to enter into an open therapeutic relationship with the counselor (34:32).

Finally, the counselor himself may be faced with conflicting feelings concerning addiction. The counselor's knowledge of the addictive properties of heroin may make it difficult to understand how anyone could have gotten involved with the substance. Also, heroin addiction is composed of many factors, some of which may be quite foreign to one familiar with a different life style (41:291). Not only will the counselor in most cases be unacquainted with the subjective reaction to heroin injection, but the life style of the addict, with its mystery and accompanying moral status in today's society (50:50) may serve to increase the subjective distance between the counselor and the addict. Though the counselor may strive to provide an accepting,

nonjudgmental atmosphere in which the addict can grow, his ability to do so congruently may be affected by the degree to which he has absorbed society's attitudes toward addiction.

Therefore, the investigator will, in this paper, attempt to clarify some of the major components in heroin addiction in the hope that clearer understanding of the factors involved will reduce the mystery surrounding addiction and thus contribute to more satisfactory perspective concerning the heroin addict.

STATEMENT OF PROBLEM

The purpose of this study was to survey the findings of researchers and thus clarify some of the major components of heroin addiction. Particular attention was given to the functional aspects of addiction, and a brief discussion of the major treatment modalities was included to illustrate the directions now being taken in rehabilitation.

The following questions are considered in Chapter II.

What are the major components of heroin addiction?

What are the subjective effects of heroin?

What theories have evolved concerning the dynamics of addiction?

What reasons are given by addicts for heroin use?

What personality variables are present which may yield information concerning reasons for use?

What is the role of inhibition in the addiction pattern?

What is presently being done to treat heroin addicts?

PROCEDURE

This study consisted of a review of recent research concerning the major components of heroin addiction. Professional journals and books in the fields of psychology and sociology were utilized. Articles in medical and psychiatric journals containing information of psychological interest were also used.

LIMITATIONS

Articles and books published since 1960 and contained in the library of Montana State University were the primary source of information. Occasionally, however, the reviewer referred to a major work done prior to 1960. Unpublished dissertations were not utilized.

DEFINITION OF TERMS

The terms user and addict were used interchangeably throughout this review. All of the literature reviewed concerned persons defined as addicts, but the term user was used occasionally to avoid repetition.

The term drug, as in drug-user and drug use, was used to refer to heroin rather than any of the other illegal and/or narcotic drugs.

The term fix referred to a dose of heroin which had been

liquified and drawn into a syringe in preparation for injection.

The terms street world or street life were used to refer to the life style of the heroin addict as it differs from the daily life of the nondrug-user. The terms connote a value system and pattern of activity which are regarded as outside that of the mainstream of our society, i.e., those involving illegal activities, manipulative behavior, and lack of interest in working to improve one's financial status.

The terms straight life and straight world referred to the life of the nondrug-user, that life regarded as normal in today's society.

SUMMARY

The investigator discussed the fact that heroin addiction is a serious problem both for the individual addict and for society as a whole. The point was made that to date no truly effective means of rehabilitation has been found for addiction. Also discussed was the fact that working with heroin addicts may present unusual difficulties for the counselor because of the mystery and moral indignation with which society views addiction.

CHAPTER II

SOME PERTINENT LITERATURE

INTRODUCTION

The following is a review of the literature pertaining to some of the major factors in heroin addiction and the rehabilitation of the heroin addict. It consists of five general sections: (1) a description of the subjective effects of the use and withdrawal from use of heroin, (2) some components involved in the addiction pattern, (3) reasons given by heroin users for the onset of use, (4) an overview of research concerning the personality characteristics of heroin addicts, and (5) a discussion of the various methods now in use for the treatment of heroin addicts. The reviewer will focus primarily on those facets of addiction which may be of importance in a counseling relationship, rather than on the medical and legal components of the problem.

The investigator will explore the descriptions given by heroin users of the subjective effects of the injection of heroin in the hope of giving some insight into that which the user is seeking in heroin and not finding elsewhere. The effects of withdrawal will be briefly mentioned since the avoidance of this state plays a significant role in the addiction pattern (2:464).

The second section of this chapter will be addressed to the

components of the pattern that is termed addiction. Some of the predominant theories concerning the basis of addiction will be presented. Also, because the context of the problem must be obtained before one can hope to deal with it, some of the more peripheral elements of the addiction problem, e.g., the street life and the results of viewing oneself as an addict, will be discussed.

In discussing the reasons for heroin use the reviewer will concentrate on the reasons given by the addicts themselves. Not only are these reasons important in themselves, but it seems that any correlation or contrast between these reasons and those put forth by researchers may shed some light on the dynamics of addiction.

The next section, that concerning the personality variables of heroin addicts, will consist of the results of personality tests administered to addicts, as well as subjective opinions of researchers who have worked with addicts. In order to present a complete picture of the personality variables, such factors as self-concept, patterns of communication, and interpersonal relationships will also be included.

Finally, attention will be given to the general forms of the major treatment programs to date, in order that the reader may gain some knowledge of the steps that are presently being taken. The treatment approaches which will be discussed are: (1) the general medical model and recent variations on it, (2) cyclazocine treatment, (3) methadone treatment, and (4) therapeutic communities.

SUBJECTIVE EFFECTS OF HEROIN USE

The subjective effects of heroin are difficult for non-users to discern, due both to the variability of the effects on different people and also to the lack of an accurate vocabulary in our culture for a description of feeling states. However, the author feels that a brief discussion of the reported effects of the drug may provide some understanding of what the addict is seeking, what he finds pleasant in the use of heroin.

The subjective effects of heroin seem to arise from a decrease in the release of norepinephrine and seratonin in the brain (14:145), producing a decrease in sensory perception, hence a lowered response to threatening stimuli (28:166), as well as the impression of satiation (48:145), of having all of one's needs fulfilled. The euphoria induced by heroin has been described variously as a surcease, lifting of a weight, a feeling of peace and rising self-confidence (8:174), combined with a physical sensation of warmth (16:1501). Many addicts report a feeling of greater poise (8:227), possibly arising from the impression that one knows the inner experiences of the others present (10). As described by Walker, "When you're high on heroin, you're at the top of the world, because you make your own world (9)," and thus there is no perceived need to change one's situation. The capacity of heroin to provide relief from pain and depression has been noted by a

number of investigators, (23:126, 2:462) and the use of heroin toward this end was described particularly by Kadushin: "The addict acts as if any tension were a dangerous trauma. His aim is the discontinuance of pain, rather than the seeking of pleasure. Tension is felt by the addict as a threat to his very existence (26:387)."

A carefully designed study by Haertzen, et al., implied that the pleasant, euphoric effects reported by addicts might be more a function of the addict's memory of his first administration of the drug than of the actual effects of continued use. Addicts who had been withdrawn were systematically readdicted and given the Addiction Research Center Inventory (ARCI) twice: once while under the effects of the first administration of the drug, and once again after physiological dependence had been produced. At the time of the first administration, subjects reported "feeling more changed, more pleasant physically and mentally, more popular, excited, less discouraged or worried, patient, more mature, self-controlled and acceptant of others, energetic, interested, analytical, memory seems better, thoughts come more easily, more perceptive of the actions of others, time passes quickly (5:609)." However, during the chronic administration phase of the experiment, these reactions were reported with significantly less frequency, with more unpleasant reactions than pleasant reported. The experience of the addicts was reported as "involving less motivation for physical, mental, social and sexual activity; plans were less likely to be

carried out, requests for activity arouse irritation, which is more likely to be expressed, social affairs become a waste of time, people seem less friendly and too "nosy," resentment is felt over being questioned, the ARCI is less interesting, individual pursuits are preferred, and boredom with people increases (20:609)." Though the effects reported on the second administration of the tests do not seem to be those for which one would strive, the subjects continued to request the "experimental drug" though they knew there was no threat of a painful withdrawal, implying that possibly the pleasant memory of the first administration may be a factor.

In contrast to the satiated feeling induced by heroin, the predominant effect of withdrawal from the drug seems to be one of "hyperexcitability of all responsive tissues...marked by increase in all somatic and autonomic activity (40:1265)." As described by Salter, withdrawal is characterized by "feelings of weakness and anxiety, goose pimples, perspiration, short breath, trembling, shooting pains, vomiting, and diarrhea (39:214)." Thus, the addict not only seeks the euphoric state of heroin use, with its perceived positive effects on his mood, but also must avoid the contrasting negative effects which ensue upon cessation of prolonged heroin use.

THE PATTERN OF ADDICTION

Since obviously the solution of a problem can be greatly aided

by a precise definition of that problem, a variety of attempts to define the pattern of addiction have arisen. As with heroin itself, the phenomenon of addiction has both physiological and pyschological components.

Physical dependence has been described by Seevers as "a state of latent hyperexcitability (40:1265)," in which the continued use of heroin is necessary for the maintenance of apparently normal physical functioning. Contrary to popular opinion, however, achievement of a state free from physical dependence can now be a fairly simple hospital procedure, made painless through the administration of decreasing doses of methadone (16:1500). Therefore, physical dependence, due to its short range significance (8:27) is but a fairly minor step in the rehabilitation of the addict.

Rosenberg defines addiction as composed of three factors: physical dependence, over-powering desire to continue use of the drug, and a marked tendency to increase one's intake (38:907). A somewhat similar paradigm has been put forth by Chein, et al. (8:237) in which he describes the dimensions of addiction as: (1) the degree of physiological dependence, (2) the degree of total involvement with the drug, i.e., the degree to which one's self concept and life style are comprised of his perceptions of himself as an addict, and (3) the degree of craving or intense desire to use heroin to cope with any minor pain, a desire characterized by its singularity, and independent of the

involvement and dependence of the person. Using these dimensions, Chein describes four patterns of addiction for which he feels different treatment approaches may be necessary: (1) totally involved, but without craving, (2) craving, but not totally involved, (3) craving and totally involved, and (4) having a history of repeated dependence without total involvement or craving, whether or not currently dependent (8:27). He feels that one may at a given time be physically dependent on heroin but not necessarily addicted to the substance (8:6).

While the importance of craving has received little attention in the literature, the importance of involvement has been treated rather extensively (4,8). Seymour Fiddle, in Portraits from a Shooting Gallery, placed a great deal of emphasis on the differences between the straight world and the world of the heroin addict as addiction affects his life style, pointing out that to one adjusted to one world, adjustment to the other becomes a monumental, nearly impossible, task (4). It is to this problem that the occupational therapy programs (43) and therapeutic communities (29, 38, 50) of drug addicts, as well as those programs employing ex-addicts as members of the therapeutic team (26), address themselves. In an Adlerian interpretation of the concept of involvement, Laskowitz feels that not only is the addict adjusted to the world of the street, but that the excitement and competition inherent in such a life provide the addict with

"a deceptive sense of achievement and self-importance (28:168)" which for him may have no parallels in the straight world. Thus, from this functional point of view, the addiction itself serves some need in the life of the addict, apart from the actual subjective effects of the drug. Were it not for the addiction, this need for self-definition, excitement, etc. might be filled in some other way, but it is necessary that it be filled.

Approaching addiction from a nearly polar point of view, a learning theory of heroin addiction describes the pattern of addiction in terms of variable reinforcement. This theory, espoused by Seevers (40) and Akers (2), and implied by Chein in his statement that "assuming that other conditions are favorable, the probability of addiction is greater if the person experiences changes in his situation in connection with his use of opiates which may be adaptive, functional, ego-syntonic" (8:227) gives heroin the role of both a positive and a negative reinforcer. As a positive reinforcer, it increases the likelihood that a person will repeat its use because of the pleasant effects of the drug (40:1266, 2:464, 8:227). Also, as a negative reinforcer, it reinforces continued use of heroin through the ubiquitous threat of withdrawal symptoms upon cessation of use. Thus, according to this theory, though the possibility of painless withdrawal is available, so also is the possibility of "cold turkey" withdrawal, a possibility sufficiently threatening to the addict to motivate him to continue

seeking the drug to avoid or, if withdrawal is already in process, escape the situation through any immediate means. A person is an addict when the learning is sufficiently strong that he is no longer able to sustain a decision to discontinue use.

Akers (2) felt that the high relapse rate of detoxified heroin addicts can be largely accounted for by the fact that the escape - avoidance conditioning in this case is based on a variable schedule of reinforcement, which has been shown to produce a high degree of retention. Treatment modalities involving primarily cyclazocine and, to a somewhat lesser degree, methadone maintenance, seem to be based on this definition of the pattern of addiction. Thus, in contrast to a more functional theory, the learning theory of addiction would imply that heroin becomes associated in one's mind with the feeling of need fulfillment, but that addiction itself is not actually filling a need for the addict.

Andrew Salter (39), in presenting a theory based on conditioned reflexes, defined addiction as an artificial means of producing excitation. According to this theory the person who has been strongly conditioned to suppress his natural excitatory feelings and responses eventually becomes unable to express or even feel these responses, a condition termed "inhibitory" by Salter. Because excitation is the natural state, the organism will sometimes seek artificial means of inducing this state after a learned inhibitory pattern has been established.

Thus the addict was seen by Salter to use heroin in order to induce an excitatory state.

It is, therefore, apparent that the definition of the pattern of heroin addiction is as yet an unresolved question, in which the importance of physical dependence and the pleasant subjective effects of the drug are commonly recognized, but in which the impact of these components and a number of others is not yet understood.

REASONS FOR USE

Hekimian, et al., (23) found that the reasons for the onset of heroin use seemed to fall into four categories: (1) curiosity, (2) influence of friends, (3) influence of the environment, and (4) desire for euphoria. Responses indicating to him a desire for euphoria included desire to "get high," relief of depression, and desire to feel normal. Poplar, in her study of nurse addicts found also that relief of depression was the major reason given for use by the nurses, whereas the addicts in the control group (non-nurses) reported a desire for "kicks" or escape as the predominant reason, without mention of depression (35). Depression also seems to have been a factor in a study by Ball (3) in which he concluded that the Chinese addicts in the U.S. studied by him seemed to have turned to heroin after realizing the impossibility of their fulfilling their purpose in coming to the U.S.

There seem to be somewhat conflicting opinions on exactly what are the roles of peer and environmental influences and the interaction of the two. Walker (10) in discussing the high rate of addiction in her home neighborhood stated: "If I were to go home now without a professional job, I'd become a junkie almost for sure. If you work in a factory, shooting up is just the thing to do on Friday night, instead of going out somewhere. Then you start wanting it on Wednesday and before long you're a junkie." Thus Walker felt that environmental influence, e.g. lack of a professional job, and boredom with factory work, combined with the peer influence of acceptance of drug use favored a pattern of addiction. On the other hand, surveys by Short (42) and Chein (8) indicated that though groups may accept drug use, the users surveyed did not feel pressured to use heroin but rather felt some disapproval on the part of peer group members. It seems that given a group attitude which is accepting, whether or not approving, of heroin use, and a condition of discomfort arising from disturbing feelings, (45:103), the temptation to seek acceptance and/or escape through the use of heroin could be quite strong even with no overt pressure placed on the individual to begin use (8:210).

Concerning the influence of curiosity, Chein felt that this particular proneness to drugs was a manifestation of the adolescent desire for kicks, which he regarded as the polar extreme of the innate need for new experience (8:245). In other words, he seemed to

feel that the youths with which he had come into contact were sufficiently divorced from their innate selves that what was once a healthy desire for new experience manifested itself in the less than enhancing behavior of drug use.

Therefore, the reasons given by addicts for the use of heroin seem to indicate vague awareness that one is seeking some means of satisfaction and finding it only in drugs. In general, the person seems to have originally said to himself something similar to the following: "This (a good job, excitement, comfort) is lacking in my life. Heroin is convenient so I'll take it, but just once in a while. I don't need heroin, but why not feel good for a while?" Therefore, even in the reasons given for use, one can see some elements of the theories of Chein and Salter, and of the learning theory of addiction, though, of course, the conscious awareness of one's reasons for heroin use may protect the person somewhat from what his real reasons may be. Further insight into the reasons for use may be gained by an examination of the personality characteristics of heroin addicts.

PERSONALITY VARIABLES OF HEROIN ADDICTS

It must be kept in mind that there is no such personality as "the addict" which can be examined, disected, and, from these findings, repaired (7:35). There are, rather, people who have become addicted to heroin, and each of these people is in fact a separate, functioning

entity with his unique personality. It is hoped, however, that through research into the personality variables of heroin addicts, possibly some factor or constellation of factors can be found which is common to heroin addicts specifically, which might give those in the helping professions some insight into the reasons why these people choose heroin as a means of need fulfillment, while others do not. If such understanding can be gleaned, it is assumed that with further research more effective means of rehabilitation and prevention of addiction can be found. However, the investigator wishes to emphasize that while summary descriptions of the personality variables of heroin addicts may give the appearance of a complete description of a personality, there is little probability that any one addict will closely resemble the description.

The personality inventory most commonly used to define the characteristics of heroin addicts has been the Minnesota Multiphasic Personality Inventory (MMPI) and its derivatives. Gilbert (1967), in comparing the MMPI profiles of young male drug addicts with those of non-addicted young males of similar socio-economic background, found that the addicts were significantly more maladjusted on the Depression, Psychopathic Deviate, and Psychasthenia scales, as well as on the Social Desirability, Hysteria, Masculinity Interest Pattern, and Lie scales than were the nonaddicts. On the whole, Gilbert considered the most outstanding characteristics of the addict to be his psychopathic

traits, describing him as somewhat more willing to admit to socially undesirable characteristics, lacking the persistence to achieve a goal, irresponsible and egocentric. In addition, the following description is given:

> He tends to be hypersensitive, tense, apprehensive, insecure, and self-conscious, and he has trouble forming warm and lasting emotional relationships. He becomes depressed readily, lacks confidence in himself, has poor morale, and finds it difficult to achieve a normal optimism with regard to the future; thus, the use of drugs may seem to him to be the only realistic solution of his problems--at least it offers him a temporary relief from the pain of living (17:538).

The psychopathic traits of the addict were substantiated by Hill (25), who found that regardless of the general MMPI profile of the addict, he invariably showed an elevation of the Psychopathic Deviate scale. However, on the Lexington Personality Scale, which was derived from the MMPI but adapted for addicts to control for behavioral indices which may have resulted from the addiction rather than being underlying personality traits, conflicting results were found. Berzins (5:180), found that the addicts showed psychotic tendencies, with no psychopathic orientation. It must be remembered that the label "psychopath" is relative to the norming group on which the test is based and/or to the moral and cultural stance of the researcher and therefore communicates relatively little concerning the etiology or therapy of the subject in question. The one description which the researchers shared in common was that of the addict as having a character disorder, whether

neurotic, schizoid, or psychopathic in origin. The label "character disorder" has been clarified by Kaufman, as follows:

> Persons suffering from character disorders are fixated at pre-genital levels of development and express their conflicts primarily by behavioral manifestations. This behavior may include stealing, getting pregnant, getting job difficulties or becoming involved in some social crisis. They operate at infantile levels and defeat themselves in nearly all aspects of life. Although some may have partial control, they are usually so impulse-ridden that they tend to pursue the wrong ends or else the right ends at the wrong time (27:6).

Thus the picture of the addict which emerges from the MMPI studies is that of a person who, while he may not be a true psychopath, definitely has difficulty functioning in the larger society in which he finds himself. He tends toward depression, feels somewhat out of control, and is lacking the pattern of interests which is generally found in persons of his sex in our society.

Looking more closely at specific factors in the function addiction plays in the maintenance of the individual, Alfred Adler, in Social Interest: A Challenge to Mankind, stated that: "They (opportunities for becoming addicted) will, however, only have a serious effect in situations where the sufferer is confronted by an apparently insoluble problem (1:140)." The relationship between an insoluble problem and heroin addiction was clarified by Laskowitz, an Adlerian therapist, in his statement that the use of opiates "provides a safeguard against feelings of inadequacy (28:166)." Thus by escaping the situation through heroin use, the addict need not admit he cannot

handle the problem.

The role of feelings of inadequacy does not, however, seem to be a simple one. Chein found that when a Q-sort was administered to adolescent users and non-users and to adult users who became addicted during adolescence, no difference in self-esteem was found. In addition, the self-esteem of those groups was found to be higher than that of adult nonusers and adult users who became addicted after the age of twenty-one (8:191). In apparent contrast, when asked in self-report form about their self-concept, addicts reported having low opinions of themselves throughout their lives, which might possibly indicate that those prone to addiction have a greater need for protection from threatening opinions and find heroin use a means of providing such protection. This role of protection is suggested also by Mann, who using the Kahn Test of Symbol Arrangement (KTSA), found that addicts experienced a sense of weakness and inadequacy, but at the same time manifested a "disproportionately high level of aspiration with superiority feelings, expansiveness and grandiosity (31:879)." He then suggested that such manifestation might act as a buffer for the avoidance of threatening communications.

The possible role of the self-concept in addiction was further implied in a statement by Walker (9), concerning her young brother Mike, and her addicted brothers Herman and Robert: "Mike won't become a junkie because he's already got everything going for him: he's

big and he's smart and he's already excited about life. Herman was always the oldest in the family but not as good at anything. Robert's team was All-City Champs, but he wasn't the best on the team." Thus, Walker seemed to feel that there must be something, whether it be school or athletics or something else, on which one could base a positive self-concept before heroin appeared unattractive. Supporting Walker, Short stated that he felt that the difficulty in equipping lower class boys with the skills necessary for adjustment to today's society led to a deprecation of the youngsters at the hands of socializing agents and a concomitant loss of self-esteem on the part of the children (42:179).

Therefore, the literature was found to contain several implications concerning the role of the self-concept in addiction. These implications were, however, rather fragmented and inconclusive, and were further complicated by the consideration of a narcissistic trait, a tendency to regard "others as instrumentalities or even extensions of self (8:207)," which was found to be characteristic of the addicts with whom Chein came into contact.

One factor which seems to be closely correlated with a low self-concept is Salter's inhibitory personality. As previously mentioned, the inhibitory person tends to be out of touch with his feelings and to shun self-expression. Though the possibility of inhibition was not treated in any of the literature other than Salter,

Torda (48) gave a description of the addict personality which seems to substantiate Salter's theory. Torda found by means of the Biological Personality Assessment Test that the addict had feelings of helplessness, hopelessness and worthlessness, and that he had a need to keep distance between himself and others and to externalize hostility in covert form (9:144). He had restricted his curiosity, aspirations, goal-directed and pleasure-seeking activity, he possessed underdeveloped sexual skills, and he denied having needs. Not only were the characteristics of the addict similar to the inhibitory personality, but his mother's emphasis on passive submission is the type of environmental influence suggested by Salter as one producing inhibition, which lends further support to the Salterian theory, and may hopefully shed further light on the "addictogenic" pattern.

Concerning the pattern of communication of addicts, a general evasion of discussing feelings was found (8:209). Berzins (4) found that greater self-disclosure was elicited when the addict was told to expect a clever, manipulative interviewer than when told to expect a warm, friendly interviewer, even though no such personality difference existed, and though the interviewers had no idea that such preconditions had been arranged. Similarly, Walker (10) and Hammerschlag (22) found that addicts seem to have difficulty communicating with the stereotypical example of the "helping person" in America today, a difficulty which Walker (10) attributed to the addict's dislike of the idea that

someone really understands him, and which Slobetz (41) seemed to feel arose from a language conceptualization barrier between the street world and the straight world. Possibly it was a perception of the expected, clever manipulative interviewer as familar with the street world that made the communicative barrier under that condition less effective and permitted self-disclosure.

In addition to the personality factors of the addict, the existence of hostile dependency relations within the primary group of the addict seemed to be an outstanding feature of his pattern of interpersonal relations. Though the pattern of relationships in general was found to be a marginal one, (8:210, 35:118, 48:144), characterized by suspicion and lack of empathy, (8:210) the frequency of a relationship in which the addict was dependent, but hostile and resentful toward this dependency prompted Little to state that the possibility of such a relationship should never be ignored in a therapeutic relationship with an addict (30:556).

Thus an examination of the personality variables of the heroin addict yields a description of a person who has difficulty functioning in society, in terms of both immediate interpersonal relationships and society at large. He is defensive, may have a low self concept, and exhibits the pattern termed inhibition by Salter. Finally, he tends away from personal communication with others and lacks the pattern of sexual identification which is considered normal in our society.

REHABILITATION OF THE HEROIN ADDICT

The rehabilitation of the heroin addict has been perhaps one of the most puzzling and frustrating tasks assigned to the helping professions. The general form of the rehabilitation process has in the past consisted of medically supervised withdrawal, followed by a period of psychotherapy while the addict remained in inpatient status, and then generally some form of occupational and/or group therapy during gradual or immediate return to the community (47:753).

A number of short-term variations on this general form have arisen. Rosenthall (38) found that location of the treatment centers in high drug-use neighborhoods provided a maximum visibility and thus enhanced the effectiveness of the program. Hammerschlag (22) found that the effectiveness of a program was enhanced by weekly walks by the staff, which provided a feeling of familiarity between the addicts and the staff and also enhanced visibility. Slobetz (43) found that an occupational therapy center open seven days a week with friendly skilled craftsmen but no requirements for attendance offered a means of self-enhancement with minimum threat. Long-term adjustment of the addicts following rehabilitation seemed to be enhanced by participation in multifamily group therapy (24:88), while Torda (47) found that inpatient therapy was shortened by the use of tape recorded questions and answers recorded while the addict was in a hypnagogic state shortly

after retiring at night. Kadushin (26) found that inclusion of an ex-addict as a member of the therapeutic team had a number of advantages, particularly in the ease with which rapport could then be established.

One innovation which Levitt (29) felt offered some hope in the rehabilitation of teenage addicts was the simultaneous treatment of an entire group of youths through all phases of the treatment program. He hoped that the factor of beginning at the same time and sharing each phase of program would build a spirit of cohesiveness and thus peer-group pressure would motivate against relapse. His first experiment with such a program yielded equivocal results, but the desired cohesiveness developed through the inpatient phase, after which community administrative difficulties dealt severe blows to the morale of the group. He concluded that such a program offered hope but must be sufficiently well planned that the momentum developed is not curtailed.

Finally, Thomson (46) found that aversion therapy using injections of scoline, a drug which temporarily induces total paralysis, had excellent results during the short term over which the study was carried out. The scoline was injected approximately one second after the addict inserted, but didn't inject, a fix of heroin into his arm. After paralysis had set in the psychiatrist whispered into his ear, e.g. "This is what heroin can do to you. It can kill you." None of the addicts in the experimental group had relapsed at the time of the writing.

As regards the long-term adjustment of the addicts, however, Ferster stated that "It is impossible to determine in advance and without a detailed analysis of the exact performances whether the aversive consequences of an operant response will totally suppress it if there is no alternative response that can achieve its operant reinforcement without the aversive stimulus (13:18)." The importance of a substitute for the addiction pattern is substantiated by Vaillant (49) and by DeFleur (11) in their long term studies of readjustment. Both found that the readjustment was facilitated by some activity, possibly one in which the addict had engaged prior to his addiction, which could be substituted for the excitatory effects of addiction.

Cyclazocine treatment. Another medical treatment of addiction which is an outgrowth of learning theory is treatment with the narcotic antagonist cyclazocine. Cyclazocine has been shown to effectively block fifteen milligrams of heroin (15:191), as well as producing antidepressant effects in nonaddicted subjects (36:1259). Therefore cyclazocine treatment is based on the theory that, if addiction is in fact an instance of operant conditioning, the repeated injection of heroin with no resultant euphoria should produce extinction.

In the treatment procedure, as carried out by Freedman (16), the addicts were gradually introduced orally to cyclazocine approximately one week after detoxification had been achieved. During this time

group therapy sessions were conducted in which the blocking effect of cyclazocine was discussed. After the desired dosage of cyclazocine had been reached the addicts were given an opportunity to inject heroin in order to confirm the blockage. In the case of a person experiencing a reaction to heroin, the dosage of cyclazocine was increased until no reaction was experienced in a subsequent test. Though some unpleasant side effects of cyclazocine have been reported (21:373-375), Freedman (16) found that with gradual introduction to cyclazocine the side effects could in most cases be eliminated.

Most of the follow-up studies on the effectiveness of cyclazocine have been short-term studies. However Freedman (16) found that it remained effective as long as the addict continued taking it. Resnick (36) found that assigning to the wives of the addicts the task of administering the cyclazocine greatly reduced the possibility of relapse in that it forced the addict to communicate to someone else any tendency to return to heroin use.

Methadone maintenance. A third chemical treatment which has shown promising results has been the maintenance of the addict on the synthetic narcotic methadone (12). Methadone was found to prevent the occurrence of abstinence symptoms while at the same time blocking the effects of heroin (19:338), and "eliminating or greatly reducing drug hunger (12:2709)." Therefore Resnick reported the hope that it would

enable those for whom heroin seemed subjectively necessary for normal functioning to lead a life free from the secondary effects of addiction (36:1259). In its blocking effects methadone has been found to be quite similar to cyclazocine, the primary differences between the two being that methadone is itself an addictive drug, and also that withdrawal is not necessary prior to administration of methadone (16:1501).

A four-year study of a methadone maintenance program carried out by Dole (12) produced encouraging results. The treatment program, similar to most methadone programs, involved a six-week inpatient period during which time the addict was brought to a blockading level of methadone which was not large enough to produce euphoria. During this time the addicts were also given psychotherapy or vocational rehabilitation if they wished. At the end of the six weeks the addicts were granted outpatient status, all therapy was terminated, and they began to report daily for their methadone dose. Eventually they were given sufficient methadone for several days at a time, but were required to ingest it at the clinic at least once each week, and to leave a urine specimen each time they came to the clinic in order that heroin abstinence could be confirmed.

Dole reported that at the end of the four-year period thirteen percent of the original 912 subjects had been discharged for various reasons, but none had returned to heroin use at the time of discharge.

He also found a ninety percent reduction in crime and an increase in employment of approximately two hundred fifty percent. Dole's results have been confirmed by the Methadone Maintenance Evaluation Committee (33) who cautioned, however, that since his subjects were older than the average addict some reservation must be exercised in generalization.

Concerning the side effects of methadone, no toxic effects on the liver or kidneys have been found (33:2714), though Sister Raphael McDermott (32) reported that some evidence of impotence and/or loss of interest in sex had been found. Gordon (19) found that those who had been detoxified with the aid of methadone and those on methadone maintenance showed better reaction times than a control group who had never ingested methadone, a subject of concern because of the fact that those on methadone maintenance are in fact addicted to a drug.

Present research on methadone maintenance is being done by Dole (12) to investigate the possibility of a program run solely on an outpatient basis. Such a program would be much less expensive, and the results of this research at the time reported were apparently equivalent to those of his earlier study. However, Laskowitz (28) opined that at least a brief period of hospitalization was necessary to provide a challenge to the addict's flight from social feeling and social responsibility. This opinion was stated also by Hammerschlag (22), who valued inpatient treatment of more than one addict at a time as a means of reducing the addict's feeling of isolation. Thus, the

value of a methadone program with no inpatient period has not yet been established.

Therapeutic communities. The basic philosophy of the therapeutic community was reported by Goldstein as a belief that "the community of residents provide social and psychological support to maintain each other free of drugs (18:499)." Though such support would seem to grow from a functional theory of addiction, one of the basic goals of Synanon, as will be seen, seems to be to change the status-seeking behaviors of the addict from maladjustive to adjustive, and therefore a learning theory of heroin addiction would also seem to play a role.

Since Synanon was in a sense the first of the therapeutic communities and has received substantial public attention, the investigator will consider it as the general form of the therapeutic community. Yablonsky (50) reported that the attitude toward addiction taught at Synanon is that it is "stupid" behavior and therefore the addict must be taught as if a child to manifest more intelligent behavior. Rules are clearly stated, and transgression of these rules is punished by verbal attack, usually in encounter sessions, or in more serious cases by discharging the transgressor from the community. Regular synanon, or encounter, sessions are held in which the addicts are helped to explore their feelings and are encouraged to be completely honest with each other, especially regarding any behavior which is felt to be

against the best interests of any member of the group. Such encounters have been shown by Biase to produce a significant reduction in anxiety, depression, and hostility in addicts in a therapeutic community (6:498). Similarly, Salter found such emotional honesty extremely effective in aiding an individual's return to a natural, excitatory state. Outside of the synanon sessions formal politeness must be maintained, and no references to the street world are permitted.

Yablonsky further reported that in order to help the addict develop the habits needed to function as a full member of society, the addicts are required to take responsibility for various tasks associated with running the community. New members are given the simplest, and often least pleasant, tasks, with more difficult tasks assigned as increases in responsibility are shown. Daily seminars, in which philosophical quotations are discussed, are held in order to develop analytical thinking and communication skills. Finally, open houses, planned and conducted by the residents, are held periodically in order that the addicts might become accustomed to social encounters with the straight world.

Phoenix House, a therapeutic community similar to Synanon, was studied by Rosenthall and Biase (38). The major differences found between Synanon and Phoenix House were that residents are not discharged for isolated relapses to drug use at Phoenix House, and that Phoenix Houses are located in high drug-use neighborhoods, both for

maximum visibility and to help the addict adjust to being drug-free in an environment very similar to the one to which he would probably return. Also, greater emphasis was placed on educational and communication skills, with a variety of seminars, including lectures on such topics as psychology and basic English, debates, and practice in impromptu speaking, offered on a regular basis.

Little information has been found on the actual rate of success of therapeutic communities, partially because of the newness of such programs, but more importantly because of the difficulty in defining success. Obviously, those who leave such facilities early and return to heroin use have failed, but no reports have been found concerning long-term adjustment of those who leave therapeutic communities after either short or long periods of residence. Remaining in a therapeutic community, and thus for the most part drug-free, has been considered at least partial success, but the necessity of remaining in a highly structured communal atmosphere in order to remain free of drugs would seem to indicate that further rehabilitation is required. Nevertheless, the significance of therapeutic communities as a new and at least marginally successful approach to the rehabilitation of the addict cannot be ignored.

CHAPTER III

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The investigator clarified the following factors in relation to heroin use: the subjective effects of heroin, definitions of the pattern of addiction, reasons given for heroin use, personality variables of heroin addicts, and treatment of the addict. In looking at the subjective effects of heroin use it was found that the most descriptive term for this state might be "peaceful," i.e., a state greatly lacking in needs of any sort. It was also found that feelings of confidence and alertness were frequently reported. A study by Haertzen (20), however, indicated that the perceived pleasant effects of heroin injection might be more a function of the memory of one's first administration of the drug than a feeling state induced by each subsequent injection. The state of withdrawal was, on the other hand, found to be one in which one's entire physical system seems to be overreactive, and thus is experienced as intensely unpleasant by addicts.

In the discussion of the definitions of the pattern of addiction, three major theories of addiction were put forth. A somewhat functional theory of addiction, looking at factors such as craving for and involvement with heroin, as well as physical dependence, seemed to be based on the belief that the addiction serves some need for the

addict, which need was thought to very possibly be the maintenance of a degree of self-esteem when faced with apparently insurmountable problems which would, if faced directly, lead to feelings of inadequacy.

Two learning theories of addiction were presented, though each looked at the role of learning in a somewhat different light from the other. A theory espoused primarily by Akers (2) defined addiction as an escape-avoidance type of learning, with positive reinforcement provided by the euphoric effects of heroin use, and negative reinforcement provided by the threat of withdrawal. The importance of the variable reinforcement schedule as a factor in relapse to heroin use was brought out.

Andrew Salter was found to espouse a somewhat different learning theory of addiction, in which addiction is seen as an artificial means of returning to a natural excitatory state, return to which without artificial means was made difficult by conditioned inhibition.

The reasons given by addicts for the use of heroin fell into four general groups: (1) curiosity, (2) peer influence, (3) environmental influence, and (4) desire for euphoria. The most frequent reason for a desire for euphoria was found to be the depression from which the addict was seeking relief. A discussion of the relationship between peer and environmental influence concluded that apparently the only degree of peer pressure necessary for the onset of use of heroin when environmental factors motivated in that direction was a degree of

acceptance. Curiosity was discussed as a mutation of one's innate need to know.

The personality picture of the addict which emerged from the literature was one of an individual who somehow was unable to learn to function effectively in the larger society and whose self-concept was either quite poor or was being protected by his addiction. His interpersonal relations were lacking in closeness, possibly involving a hostile dependency relationship with someone, his patterns of communication were ineffective with regard to the larger, straight world, and the peace induced by heroin injection seemed to have provided him welcome relief from seriously disturbing feelings present at the onset of use.

Finally, the treatment modalities now in general use were discussed. The basic medical model including a chemical withdrawal, a brief period of psychotherapy, and discharge, with or without continued therapy, was presented, as were a number of recent short-term variations on this basic form. Cyclazocine treatment was discussed as the outgrowth of the learning paradigm of addiction, in which it is hoped that repetition of the operant responses with no forthcoming reward will lead to extinction of the behavior. The use of methadone maintenance in the treatment of addiction was next presented as a substitute addiction with opiate-blocking effects, for those who regard addiction to a narcotic as truly necessary for normal functioning.

Finally, the therapeutic communities such as Synanon were described, and the dynamics underlying such groups explored. Some discussion of the outcome of each of the last three approaches was presented, but the results were rather inconclusive for assorted reasons.

CONCLUSIONS

The literature implied that that which the addict found pleasant in heroin use and could not achieve elsewhere was a state in which he could achieve a modicum of peace, though reasons for the necessity and lack of this peace were not apparent. Possible reasons might have been feelings of inferiority and the ineffective behavior characteristic of those conditions termed character disorders. At that, the reasons for choosing heroin and no other means of finding this peace were not clear, other than Torda's suggestion that the early life of the heroin addict was such that he did not learn to act for his own need fulfillment (48).

It was found that heroin use may play an important role in the preservation of the self-concept of the addict. Such preservation seemed to be achieved both through the choice of a life style greatly different from the one in which the addict may have failed, and through the existence of a physical dependence on which to blame his difficulties and lack of achievement. The properties of the drug itself may also aid this preservation, though the specific means by which this

action might occur was not apparent. The researcher could find only one empirical study of the self-concept of the heroin addict, though the role of the self-concept in influencing behavior is generally recognized today as a substantial one.

References to the patterns of communication and interpersonal relations of heroin addicts were found in the literature, though this is not an area which has been thoroughly investigated empirically. The addict's relations with others were found to be generally marginal and manipulative, with emotional closeness and disclosure of feelings a rare occurrence. There was some evidence, however, that such conclusions on the part of researchers may have resulted from either the language barrier between those of the street culture and those of the straight culture, and/or the addict's perception of the researcher as someone with whom he did not wish to communicate. Therapeutic communities, assuming that behavior change may precede insight, attempt to change such patterns of interpersonal relationships and communication with their insistence upon emotional honesty and refusal to tolerate street jargon.

Though some form of psychotherapy was mentioned as a component of nearly every treatment program, the exact form of the therapy was not often mentioned, so that the literature offered little specific information to one in the counseling profession, other than general information concerning addiction. The therapy of Salter was found to

be the only one which was based on both a theory of addiction and consideration of the personality variables of the addict.

RECOMMENDATIONS

The investigator feels that a basic change is in order regarding the way in which the addict is viewed, particularly by those who purport to want to help him. The attitude to date seems to be that the addict is nothing but an addict, rather than being a human being for whom heroin may have once served some adaptive purpose. The emphasis in treatment should be removed from the addiction and placed on the person as a whole, in order that he might be helped to find more adaptive means of need fulfillment and learn to function more effectively in society. With this sort of orientation it seems that further research using some of the instruments used in research of Rogerian therapy might bring a significant addition to our knowledge of heroin addiction.

In addition, it seems that further research is in order in a number of specific areas. Those areas which seem particularly valuable to a theory of addiction, but in which empirical knowledge is limited, are the following: (1) self-concept of the heroin addict; (2) relationship between self-concept and pattern of communication as it relates to the heroin addict; and (3) role of the street life as perceived by addicts. In addition, the researcher observed a lack of longitudinal

studies of addiction. Such studies are therefore recommended concerning the treatment modalities now in general use, as well as Salter's conditioned-reflex therapy. Possibly longitudinal studies of children and youth in high drug-use neighborhoods would isolate additional factors associated with the proneness to turn to heroin as a means of need-fulfillment.

Next, for reasons both of efficiency and of its potential for shedding light on the problem of addiction, research should be done concerning which of the present treatment modalities seems to be most effective for each type of addict. Though the investigator personally shuns such categorization, it seems that such research would improve the effectiveness of the already overcrowded treatment facilities so that an addict would at least be given the treatment which seemed to offer the best chance of helping him, with the degree of knowledge available at the time.

Finally, the investigator feels that any counselor beginning work with heroin addicts should attempt to be aware of any ways in which a conflict of values may influence him to the detriment of the counseling relationship.

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