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A Multidisciplinary Approach to the Treatment of Alcoholism

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Treatment of the alcoholic, to be successful, must be multidisciplinary. The use of psychotherapy or counseling, disulfiram (Antabuse), Alcoholics Anonymous, group therapy, psychodrama, occasionally LSD, sometimes hypnosis, and treatment of the families concurrently will enhance the results. In many cases the clergy may also be helpful. For the social isolation of the alcoholic, and often for his employment difficulties, it will be necessary to use the many ancillary resources of the community.

ALCOHOLISM ranks as the fourth most important public health problem in the United States; five to six million persons are afflicted with this disease. It is exceeded in importance only by heart disease, mental illness, and cancer. For every individual suffering from this disorder, there are five or six other persons related by family or business who are adversely affected. One out of every 13 male adults over 20 years of age is an alcoholic. The cost to industry is estimated to be about two billion dollars a year. There are probably nearly one-quarter of a million individuals entering the ranks of alcoholism every year.

The social consequences of this disease are incalculable. In addition to a high morbidity and mortality rate, there is a high rate of divorce, desertion, poverty, promiscuity, illegitimate pregnancies, physical abuse, and cruelty—both mental and physical. The disruption of family and social life often leads to severe maladjustment in the children and contributes to present and future delinquency, school dropouts, psychopathy, crime, neurosis, psychosis, alcoholism, inadequate personality, etc. Significantly, 52 percent of a large series of alcoholics had one or both parents who were alcoholic.

The stereotype of the alcoholic as a worthless derelict is incorrect; only three percent of the total alcoholic population is on skid row. Most persons suffering from alcoholism are found in homes, offices, places of business, in every walk of life without regard to social standing, occupation, intelligence, education, national origin, color, or race. A small percentage have an underlying psychosis or psychopathy, many have an underlying personality disturbance, but many are not noticeably different from the rest of us except in their addiction to alcohol. Many alcoholics after recovery prove to be gifted, talented, generous, responsible, and idealistic people, good parents and good citizens.

Since alcoholism is a complex illness with sociological, psychological, and physical components, no one form of treatment will be suitable in every case. Since it is an addiction, with both emotional and phys-

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iological dependence, both of these aspects must be considered in treatment. The plan of therapy will vary depending on the type of individual involved.

Where alcoholism is superimposed on an underlying psychosis, treatment in a psychiatric hospital, private or public, may be necessary. For the vast majority of cases, however, treatment can be successfully carried out on an outpatient basis after a preliminary short period of "drying out" at home, in a hospital, or at an Alcoholics Anonymous rest home. Detoxification is aided enormously by tranquilizing drugs, so that these patients can now be successfully treated even in the open wards of a general hospital(9) without causing any disruption of the normal routine of the hospital. A plan of rehabilitation should be worked out before the patient leaves the hospital—a plan which can be carried out in a doctor's office, an aftercare clinic, or an outpatient department especially geared to the alcoholic.

Definition

Alcoholism is a behavioral disturbance in which the excessive drinking of alcohol interferes with the physical or mental health of the individual. It is usually accompanied by a disturbance in the interpersonal relationships within the family, in the work life, and in the social environment. It is also an addiction, which means that there is both an emotional and a physiological dependence on the drug alcohol.

Psychiatric Aspects

As an individual finds that some drive is satisfied by alcohol, he tends to repeat the experience of drinking more and more often so that drinking gradually becomes his chief source of pleasure, as well as his chief tranquilizer. He often fails to use other avenues of self-expression, may not develop the necessary skills of living through trial and error techniques, and may avoid facing and dealing with his difficulties realistically as they arise. Through constant repetition of this behavior an individual may become dependent and addicted. This can readily happen to the shy, introverted, anxious, and conflicted adolescent or young person because alcohol at first seems to solve all his problems. As his drinking increases, his performance may begin to suffer early, with consequent school dropout, poor work record, and unsatisfactory personal relationships. There is a failure of the maturation process.

A neurotic individual may find that alcohol gives him surcease from pain, obliterating or deadening feelings of inferiority, isolation, anxiety, panic, rage, anger, obsessive rumination, conflicts, depression, sexual problems, etc. Borderline or overt psychotics may also turn to alcohol and add addiction to alcohol rather quickly to their already excessive mental and emotional burdens.

But there is another group of persons, not noticeably immature, neurotic, or psychotic, who also can become alcoholic. These are the excessive social drinkers whose drinking gradually increases over the years, though it may take ten to 15 or 20 years of this excess before the addictive process takes over. These individuals differ markedly from the immature or neurotic or psychotic alcoholics in that they have in the past used normal avenues of self-expression to which they can revert after giving up alcohol.

As the addictive process grows, all alcoholics, no matter what their background, tend to become very much alike in their behavior(20). It is as though the disease of alcoholism molds them into a stereotyped type of reaction. Starting off with merely a mild social or psychological dependence, a physiological dependence is added—the true addictive state—with the factors of tissue tolerance, adaptive cell metabolism, withdrawal phenomena, and "craving" occurring, which leads to a loss of control over drinking.

Added to this emotional and physiological dependence, there may develop certain organic diseases such as cirrhosis of the liver, polyneuropathy, chronic brain syndrome, Korsakoff's psychosis, etc., either as a result of the toxic effect of alcohol over many years or as a result of the unhygienic way the alcoholic lives, with neglect of food and rest, frequency of

accidents, etc. These diseases are not per se a part of the addictive process but are really by-products or consequences of the addiction which may cause the individual to feel so ill that recovery is often difficult.

The many psychological studies on alcoholics have failed to reveal a specific prealcoholic personality. These studies, of course, have all been done on individuals who are already addicted and may reflect the regression in the personality due to the addictive process rather than the basic character structure of the individual. During an active addiction there is no doubt that the addict is a seriously disturbed person, unable to cope with the realities of life. As the addiction increasingly controls his life, the individual's behavior becomes grossly nonadaptive. To obtain more of the drug may be the most important thing in the world, so that responsibilities toward family, job, and society no longer matter. The lying, sneaking of drinks, and the use of household money are not, however, measures of the moral integrity of the alcoholic but are rather an indication of his very great need to maintain his addiction and to prevent the almost unbearable withdrawal symptoms which are bound to occur after cessation of heavy drinking.

When sober the alcoholic feels trapped, afraid, alone, and deeply guilty—unless, of course, he is psychopathic, when anxiety replaces guilt. Convinced that he cannot live without alcohol, he builds up an elaborate defense system in which he denies that he is alcoholic and ill, rationalizes that he needs to drink for business or health or social reasons, and projects the blame for the trouble he is in on the persons nearest to him, usually the spouse or the boss. The normal longings for recognition, prestige, and love become less and less attainable as the addiction advances, so that the alcoholic feels less and less worthy, less and less secure, and less and less loved. This downward spiral is intolerable to the alcoholic, so that he resorts to drinking again unless he can get the outside help he needs.

Personality Assessment

A battery of psychological tests done on 300 consecutive private patients showed gross disturbance in each case. Though not conforming to any one personality type, these patients showed markedly similar character traits. Characteristic of them all was low frustration tolerance and an inability to endure anxiety or tension. All showed depression, with withdrawal, sense of isolation, extremely low self-esteem, sensitiveness, and a masochistic type of self-punishing behavior. Dependency strivings were very marked, frustration of which led to depression or hostility and rage. Most showed impulsive, repetitive acting out of conflicts, with little or no insight. In all cases there was a marked hostility and rebellion, conscious or unconscious, with defiance against authority figures, and almost all showed problems in the sexual area. These tests were administered after a few weeks of sobriety and represent either a fixation at an immature level or a regression to such a state. Many of these traits were markedly improved after therapy(15).

Treatment

With such gross disturbance in the psyche, we can see that each individual will need therapy of some sort, but what kind of therapy cannot be decided upon until sobriety has been attained and a personality assessment undertaken. Psychiatrists can then use their traditional skills with marked benefit to the patient, provided they also recognize and treat the addiction itself. To analyze a patient while he is still drinking is usually a waste of the analyst's time and the patient's money—unless motivation to abstain completely is accomplished.

Psychotic alcoholics may need prolonged hospitalization, although borderline schizophrenics may often be carried successfully on an outpatient basis providing they maintain sobriety. The neurotic alcoholic may need prolonged psychotherapy, often psychoanalysis. The immature alcoholic may need support for a long time as he matures, while the individual who has become addicted in later life and has a better inte-

grated personality may do extremely well with a minimum of therapy provided he can be convinced that he is alcoholic and can therefore never drink again. Even in these cases a few weeks or months of therapy may be needed while he is learning about his illness and adjusting to a life of sobriety.

Alcoholism has become a way of life which is no longer tenable, and therapy is largely directed toward helping the individual find a new way to live. The prevailingly negative, fearful, and hostile feeling tone must be replaced by a more positive attitude with hope, self-confidence, courage, a faith in himself, and a feeling of belonging.

Most patients are not motivated to stop drinking, since alcohol has given rewards they are unwilling to give up(13). Most patients refuse to face their alcoholism for many years, using the defensive mechanisms of denial, rationalization, regression, and projection of the blame onto the persons closest to them. When finally confronted with the threat of divorce, loss of employment, or loss of health and prestige, they may be forced to undergo therapy.

One of the most important aspects of the doctor's job is to help the patient accept his illness. This requires sympathy, tact, firmness, perseverance, but above all, respect for the individual as an ill person but a worthwhile one. He must be helped to believe that life can be more rewarding without alcohol than with it.

As with any other long-time chronic disease, relapses are to be expected early in treatment, and the doctor should show the same patience and understanding that he would if an asthma or gastric ulcer patient relapsed. A calm discussion as to why the relapse occurred can help in understanding the dynamics underlying the case. As therapy progresses the relapses will occur less frequently and will be of shorter duration. We cannot force the alcoholic to stop drinking, but we can create a climate in which he can recover.

Attention must be paid to every aspect of the patient's life and rehabilitation must be physical, psychological, social, and spiritual—a task which is too great for any one person to undertake. Since the alcoholic frequently drinks instead of eating, he is more often than not in a state of marked deficiency of essential vitamins, minerals, amino acids, and essential fatty acids. His diet must be carefully supervised, with emphasis on high protein foods(26). It is for this reason that the team approach is often used in clinics and hospitals for alcoholics.

Alcoholics Anonymous

What are some of the ways to help in treating the individual patient? Of first importance is Alcoholics Anonymous, and it is good to find out at the very first meeting what the individual knows about it and how he feels about it. Though he may vehemently reject it at first, a doctor who understands A. A. can often correct misconceptions about the fellowship.

A. A. is a pragmatic, simplified, spiritual approach to life, a prescription for living. With its 12,444 chapters in 90 different countries and hundreds of thousands of recovered alcoholics, it has probably reached and helped more persons than all the rest of us together. For patients who can and will accept it, it may be the only form of therapy needed. How one refers a patient to A. A. is important. Just to say "You need A. A." is not sufficient and may make the patient feel that you too are rejecting him. I make a personal contact with an individual member known to me, introducing the patient to him over the telephone. There can be an immediate amelioration of symptoms as the isolated alcoholic feels that there is hope for him.

It is wise for you as a doctor to keep contact with the patient even after he goes to A. A., for there may still be many problems to iron out and, of course, not all persons are amenable to the A. A. type of experience. A. A. relieves the patient of the need to prove that he can drink. When in an all-drinking group he tries again and again to prove that he is not different—only to meet with failure. In A. A. the norm is not to drink.

Another helpful thing about A. A. is the fact that the patient finally accepts the need for outside help. Many of the Twelve Steps are of great value against the rationaliza-

tions and projections and denials of the alcoholic. The sharing of problems reduces anxiety and guilt, the helping of others to recover strengthens the weakened ego, and, of course, the constant examples of others who have recovered give courage and hope(1).

Disulfiram (Antabuse)

Disulfiram is another form of therapy helpful in deterring the well motivated, not too neurotic alcoholic from drinking. This is a medication given orally which interferes with the metabolism of alcohol so that even one drink will cause a toxic reaction of a shock-like nature. When not on disulfiram the alcoholic fighting the urge to drink may have to say "no" to this impulse several hundred times a day. When on disulfiram he needs to make but one decision, and that is on the taking of the pill. The effect lasts four days, which of course abolishes all impulsive drinking. Since the pill is taken every day, the ability to drink safely is well in the future. It also abolishes the preoccupation with drinking, which frees the mind for other things. Then, too, it helps the distressed family to know that the patient is even temporarily safe from alcohol. Most patients get a great lift from feeling that they *can* live without alcohol.

The dose of disulfiram is one pill (.5 gms.) daily for five days, then one-half pill (.25 gms.) for an indefinite period of time. One of my patients is in excellent health after 15 years on the drug. Most patients should take it for at least two years while undergoing psychotherapy or adjusting to A. A. There are no contraindications to its use except a decompensated heart or a psychosis. Disulfiram is not a dangerous drug provided the patient understands thoroughly the consequences which would ensue if he did drink and if the dosage is kept at the level suggested above(8).

Psychoanalysis

Although one cannot underestimate the value of psychodynamic concepts in understanding the neurotic constitution, psychoanalysis alone as a technique has produced meager results with alcoholics. As an example I can tell you of one case, a psychoanalyst himself, whose drinking grew steadily worse during 17 years of analysis. Disulfiram, after one short slip at the end of one year, helped him attain a complete and productive sobriety until his nonalcohol-connected death seven years later. After attaining sobriety he said, "I had all the *insights* I needed but I couldn't utilize them as long as I drank. Now, with sobriety, they are a great help."

I believe psychiatrists are in error in considering that alcoholism is *merely* symptomatic of an underlying personality disturbance and that treatment of the latter will cause the excessive drinking to cease. Unless the addiction itself is recognized and help given to the patient to attain sobriety, there cannot be a successful outcome. After sobriety has been attained, the patient may then be responsive to the various techniques of psychotherapy.

Group Therapy

Group therapy is perhaps the most effective type of treatment for the alcoholic aside from A. A. There is almost immediate identification and mutual support, which makes the alcoholic feel immediately accepted. The group represents a nonthreatening, socially rewarding yet challenging atmosphere in which their many problems can be discussed. Problems about drinking, their jobs, and their families come up first, but soon they begin to discuss and show their deeper feelings of anger, resentment, sensitivity, guilt, distrust, loneliness, depression, fear, sense of inferiority, and worthlessness. When met with the sympathetic warmth and understanding tolerance of the group, many of these painful feelings are drained off.

The various interactions between members of the group, both negative and positive, give a chance for analysis of typical modes of reaction in the outside world, many of which are found to be of an irrational or transference variety. Typical maneuvers or defenses, such as denial, rationalization, and projection become evident and are discussed in nontheoretical terms. Many strong and lasting friendships grow up in the group(10).

Group therapy of the spouses of alcoholics has also been found to be of great help. Several studies of the wives of alcoholics have shown them often to be greatly disturbed individuals. Some of their neurotic traits antedated the marriage, but many are a direct result of the crisis of living with an alcoholic. The organization called Al-Anon Family Groups, an offshoot of A. A., is a fellowship for the family members of the alcoholic and has proved extremely helpful, as has Alateen for the teen-age children of alcoholics. So many spouses have become bitter, lonely, vindictive, and punishing—attitudes which militate against recovery of the sick alcoholic. Many times the wife has to be helped to cease overprotecting the alcoholic, for he must eventually learn to accept the consequences of his actions(19).

Psychodrama

Psychodrama has been found to be especially effective for many patients(24). One individual is picked or picks himself to be the star or the protagonist of the evening. He soliloquizes first about some problem of the past, present, or future until a scene evolves, with other patients playing the roles of significant others—the wife or husband, boss, parent, child, or friend. Psychodrama requires direction by an especially trained psychodramatist[1] able to use the various techniques such as auxiliary ego, doubling, or role reversal, all of which help to clarify the true underlying feelings.

It has been found that patients reach a high level of emotional involvement rather quickly in psychodrama. One short example may serve to illustrate what can happen. One patient, a middle-aged social worker, had lost his job through drinking and went into a deep depression. After a few weeks of nonparticipation in the group, this patient began to talk about the time his drinking became excessive. This was immediately following the unexplained death of his son in college; it had never been clear whether this was a suicide or not. Another younger patient immediately went over and sat down by his side, playing the role of the now dead son. The younger man insisted that his death had been due to a heart attack and was not suicide. He further showed that he had had great love for his father and admired him greatly.

Role reversal was needed, with a recall of many things the two had done together. This gave an opportunity for the younger man, who had been fighting with his father all of his life, to become friendly with an older man and say many of the things he had never been able to say in reality to his own father. The older man was able to give up many of his guilt feelings as he related affectionately to his "son." This little psychodrama helped jar both persons out of their frozen, nonadaptive roles and helped initiate a recovery in both which has been maintained for years.

Lysergic Acid Diethylamide

Although my experience with lysergic acid diethylamide (LSD) in alcoholism has been limited to only 20 severe, recalcitrant alcoholic cases, the results are sufficiently promising to lead me to hope that it can be studied with much larger groups. Extensive studies have been made on alcoholics by Dr. Abram Hoffer(17) of the University Hospital in Saskatoon, Saskatchewan, Canada, and Dr. Keith Ditman(5) of the Alcoholism Research Clinic at the University of California Medical Center in Los Angeles, with claims of marked improvement in a sizable proportion of alcoholic patients.

My final impression on a three-year follow-up of the 16 patients (out of 20) who showed improvement was that LSD was but one of the factors which helped in their very considerable over-all improvement. It does seem that LSD, by breaking down the barriers between the conscious and the unconscious mind and by uncovering early traumatic events in their lives, allows the patients to reassess and reevaluate many of their experiences. Many get a new concept of themselves and others, giving up many of their rigid defenses in favor of a more open and optimistic view. LSD does seem to make

[1] All of my sessions were conducted by Miss Hannah Weiner of Brooklyn, N. Y.

the patient more willing to undertake the total program necessary for his recovery. After LSD most of the patients who formerly had refused to cooperate were willing to take disulfiram, attend group therapy and psychodrama, and to affiliate with A. A. Those who at the same time were undergoing an analytic form of therapy seemed to make more rapid progress(14).

One disturbed young man who had blamed his "cruel" parents for his drinking, and who had refused to speak to them for ten years, had flashbacks of memories from early life of his parents taking him and his brother swimming, fishing, to the circus, etc. He realized that he had been loved by them and felt flooded with affection and understanding for them. One week after LSD he went to see them and the following summer took them on a vacation to Ireland. They are still good friends, and the abstinence attained is still present after four years.

It cannot be overstressed that a patient undergoing LSD treatment must not be left alone for at least eight to ten hours while under the drug and must be given constant support during the treatment. Several individual sessions after the LSD must be held in order to integrate the material uncovered into the total therapy program.

Aversion Treatment

Aversion treatment of alcoholism still continues in a few places in the United States and more generally in England and Russia. Aversion can be produced chemically by giving the patient emetine or apomorphine(16, 22), which produces vomiting within seven to eight minutes. One or two minutes preceding the vomiting the patient is given many types of alcoholic drinks, which he vomits. He then associates the sight, smell, and taste of alcohol with vomiting. This aversion to alcohol in some cases may last for many years.

A new type of conditioning is being carried out in a few places using succinylcholine. This preparation causes muscle paralysis so that the patient is unable to breathe for 30 to 40 seconds. Just preceding this he smells and tastes alcohol. The paralysis of breathing is associated with profound fear, which is then associated with drinking(3, 21).

Other techniques using learning theories are under investigation by the behavior therapists. One of these is the use of moderately painful electrical stimulation to the hands or head at the time of drinking. Treatment by reciprocal inhibition also shows promise(27).

Hypnosis and/or Relaxation

Although I believe that teaching a tense, nervous person to relax is of great value and will often improve his sleep pattern, I doubt whether the compulsion to drink is much influenced by either relaxation exercises or hypnosis. The good results may well be placebo effects which may or may not be lasting, depending on the *total* therapy situation. If the alcoholic really wishes to drink, he will either resist going into a trance or will subsequently resist the post-hypnotic suggestion of not drinking. If he does wish to stop, suggestions to reinforce this determination will surely help, but this may be done about as well at the conscious level as under hypnosis.

However, Dr. Lincoln Williams, who has had extensive experience using hypnosis as an adjunct to psychotherapy in alcoholic patients, states that if patients can achieve a really deep trance, suggestions that they will henceforth be indifferent to alcohol may be partly successful. He sees the patients daily for ten days and teaches them auto-hypnosis. He stresses the fact that this is only an adjunct to psychotherapy(25).

A report has just appeared in which a well-controlled study of 40 patients carried out at the Maudsley Hospital, London, failed to show any greater improvement in the 20 who were given hypnotic suggestions than in the 20 who were not. All patients were given disulfiram and attended A. A. All received individual psychotherapy, and social rehabilitation and social casework were available to all as required(6).

Probably further work must be done in this field before we discard hypnosis entirely as an effective adjunct. Perhaps the

depth of trance is important, as well as the personality of the therapist and the expectation of the patient.

Treatment of Families

Treatment of the families of alcoholics has been found to help greatly in the recovery of the patient. By early detection and successful treatment, many social ills can be greatly ameliorated, for alcoholism ranks high as a contributing cause in many disturbances of children and adolescents. Having often come from a disturbed family background himself, the alcoholic "disturbs" his own family, so that he helps to pass on a neurotic heritage—a kind of "social contagion." Probably no family in which there is an alcoholic can be considered a happy one. In spite of a brave front, the lives of many are being insidiously and painfully wrecked beyond any possibility of future mental health(11).

The wife of an alcoholic may seem on the surface to be just an innocent victim of her husband's drinking, but a number of studies have shown her to be often almost as neurotically ill as her husband(7). Many are insecure persons who picked their mates to satisfy some neurotic needs of their own and in their disappointment and frustration at the husband's irresponsibility and general inadequacy retaliate by an active or passive type of punishment which renders the husband all the more inadequate and drives him inevitably into further and deeper drinking. Some of the neurotic needs of such a wife may be to be dependent, to control, to dominate, to punish, or to be the long-suffering martyr—character traits which make such a woman not only a poor wife but generally a poor mother as well.

Indeed, sometimes her effect on her children may be more destructive than that of their drinking father. If she is unable to love, this may be even more detrimental to her child's development than her husband's inability to remain sober. Of course, many of the wives were quite normal presons before the alcoholism developed but have become frightened, frustrated, angry, and extremely disturbed due to the ever-recurring crises in an alcoholic family(18).

These woman are badly in need of help and understanding of themselves as well as their husbands. They may need to learn in what way they may be interfering with their husband's recovery. A wife is not responsible for her husband's being alcoholic, of course, for this is his own illness, but she may be totally unaware that her reaction to his behavior is actually making the situation worse. Group therapy for her own neurotic problems, or Al-Anon(19), or both, may give her the insights she needs to help him recover. Alateen is proving of great help to the children of alcoholics.

Clergy

Clergymen have their own important and special contribution to make to the problem of alcoholism by helping in its recognition as a disease, by urging proper treatment in hospitals and clinics for the individuals involved, by supporting the families who are attempting to adjust to the problem, by accepting the alcoholic as part of the fellowship of the church, and by contributing their part to the team of workers—medical, legal, and lay—who will be necessary for the eradication of this devastating illness(4).

Prevention

Since no disease has ever been controlled only by the treatment of the victims of the illness, efforts should be made to prevent alcoholism. This can be envisioned on three levels.

The first is the prevention of further deterioration of the person already alcoholic. The second is early case finding and special care for the population which is most vulnerable, that is, disturbed adolescents and young adults, particularly those who come from alcoholic families. Although there is no definite evidence as yet that alcoholism is inherited, it could certainly be considered contagious.

The third level of prevention will require vast changes in our cultural attitude toward alcoholism. Recognition that alcoholism is a disease and not a moral weakness will help remove the stigma which prevents so many persons from seeking help. There should

be emphasis on the advisability of moderate drinking, with a de-emphasis on drinking as the only method of coping with problems or as the chief form of pleasure. This would require a change in our system of values.

Aims of Therapy

The aims of therapy of the alcoholic are not only total and complete sobriety for life but a better functioning in all areas of his life. An attempt is made to free him from his fixed and destructive role and to help him develop a greater awareness of self, a greater flexibility and adaptability, and a greater sense of his own potential. If therapy is successful there will be a growth away from the egocentricity of addiction to a social sense and an ability to relate and share with others.

Results of Treatment

Good follow-up studies of treated alcoholics have been rare until the past few years. No attempt will be made here to review this by now considerable literature, since a separate article is being prepared. "Cure" in terms of being able to go back to moderate social drinking is considered impossible by most doctors working with alcoholics, although there may be an occasional patient who can do so. Among my own approximately 3,000 patients not one has been able to achieve this, although almost every one of them has tried to. Total sobriety is usually a necessity before personality growth can occur.

Because alcoholics are an extremely heterogenous group, with very different potentials for recovery, control studies have to be set up carefully at the beginning of any research project.

In general the results of treatment of the homeless alcoholic on skid row with his weak inner resources and his poverty have been poor. Punitive measures have been totally ineffective, while newer techniques using a half-way house approach and/or the enforced giving of disulfiram by a probation officer have made it possible for many to remain sober, learn a trade, and get back into the work force—first steps in rehabilitation(2).

Alcoholics who still live in a family setting and are still employable have a higher recovery rate. This can be shown clearly in the results obtained among the 200 or more large industries which have established programs of early case finding and treatment of their alcoholic employees. In some companies the recovery rate is 70 to 80 percent(12).

Although A. A. keeps no statistics, they claim that of those who sincerely try to use their program, roughly one-third remain abstinent, one-third are much improved, and one-third are not improved.

One of the few well-controlled experiments was done by Dr. Robert Wallerstein in a Veterans Administration hospital. A two-year follow-up of 178 alcoholics showed that 53 percent of those given disulfiram plus group therapy improved; 36 percent of those given hypnotherapy plus group therapy improved; 26 percent of those given "milieu therapy" (group therapy plus individual therapy) improved; while only 24 percent of those given conditioned reflex therapy plus group therapy improved. The authors concluded that disulfiram treatment was best for the compulsive patient, conditioned reflex treatment was best for the clinically depressed patient, and group hypnotherapy was best for the passive dependent patient(23).

I feel that successful results in treating the alcoholic depend on many factors, a few of which are the genes he is born with, the type of family which reared him, his age, his physical health, the number of years of drinking, his ability to endure stressful situations, his motivation to recover, his prealcoholic degree of adjustment, his intelligence, his education, his socioeconomic level, his living arrangements, his marital status, the cooperation or lack of it by spouse or family, his type of work, his employability, the drinking habits of his associates, etc.

Recent biochemical studies in alcoholism may help us to understand how the metabolism of these patients differs from that of normal or social drinkers. Studies on the molecular basis of memory, drives, emo-

tions, etc., may eventually lead to a greater understanding of all human behavior—that of the alcoholic as well as that of the non-alcoholic.

Successful results may depend also on the accepting attitude of the physician he sees, his competence and his knowledge about alcoholism, his willingness to share the treatment with such groups as A. A., the available resources of the community such as hospital beds, rest homes, half-way houses, trained group therapists, etc. Knowledge about local resources can be obtained by consulting the information centers of the affiliates of the National Council on Alcoholism. There are 82 such affiliates in the United States. The national headquarters of the National Council on Alcoholism are at 2 East 103rd Street, New York City.

I believe that 60 to 80 percent of well motivated middle and upper income patients who will undertake such a multidisciplinary type of therapy as described above and who will pursue it faithfully for one to two years will recover. Although relapses can be expected, as in any chronic disease, these will occur less frequently and be more quickly overcome as treatment progresses.

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