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Treatment Planning for Chronic Inhalers of Volatile Solvents

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This paper was prepared for and presented at the first South Dakota Solvent Abuse Conference sponsored by the Division of Drugs and Substances Control, South Dakota Department of Public Health, held September 20-21, 1977. William White is a Dangerous Drugs Specialist in the Planning, Research and Evaluation Section of the Illinois Dangerous Drugs Commission and Lecturer, Department of Psychology, Chicago State University. Roger Krohe is a family therapist at the Drug Dependence Program, Institute of Psychiatry, Northwestern Memorial Hospital, Chicago, IL. The material in this paper is based on the authors' clinical experiences from 1969 to 1977 with the Illinois Department of Mental Health and Developmental Disabilities, the McLean County Juvenile Probation Office, the McLean County Mental Health Center, and the McLean County Alcohol and Drug Assistance Unit, Inc.

Although there is early note of the inhalation of such substances as nitrous oxide, chloroform, ether and gasoline (Nunn et al. 1934, Nagel 1945, Nagle 1968) for purposes of mood alteration and intoxication, modern concern regarding this practice can be dated to reports in 1959 of adolescent glue sniffing in a number of western cities (Brecher, 1972). The reports which followed depicted a pattern of increased solvent inhalation primarily among pre-teen and teenage males in tandem with an increase in the number of substances inhaled (primarily plastic model cement, household cements, fingernail polish removers, various petroleum products such as gasoline, kerosene and lighter fluid, and a number of aerosols). A large body of literature has since described the manner of inhalant use and the serious and sometimes fatal medical consequences of such use. Readers interested in researching this background material are referred to The Deliberate Inhalation of Volatile Solvents (National Clearinghouse for Drug Abuse Information, Report Series 30, No. 1) which provides a concise bibliography of this literature up to 1974. While this body of growing knowledge about the effects of solvent abuse is invaluable, little has been reported which can aid the helping person as he or she intervenes in the life of the solvent user.

The use of solvents for a short period of time is not uncommon during pre-adolescence and adolescence. The majority of these users are not in need of treatment services and will cease use without any such intervention. The purpose of this paper is to share the authors' experience with those children and youth for whom solvent abuse becomes chronic and problematic. We will describe the following four sub-populations of users distinguished by the primary etiology of the use:

- I. Peer-oriented solvent use;
- II. Family-oriented solvent use;
- III. Solvent use as a reflection of individual psychopathology; and
- IV. Solvent use as part of a broader pattern of polydrug use.

Distinguishing characteristics, etiology, recommended methods of treatment and prognosis will be identified for each category and a representative case study will be provided. While such categorization of clients is always arbitrary and overlapping, the model may be useful as the most effective methods of intervention differ significantly for the respective populations.

An added introductory note is important as this paper will focus on non-medical intervention. Solvent use, like the excessive use of any psychoactive substance, carries with it inherent risks and consequences to health. A review of Bass' case reports on deaths following inhalation of solvents (Bass, 1970) and Glaser's work on the inhalation psychosis (Glaser, 1966) should sufficiently sensitize the reader to this issue.

I: Peer Oriented Solvent Abuse

A. This subgroup of solvent abusers is usually aged nine to fourteen, is almost completely male, and its members are generally white, Latino, and American Indian from low socio-economic neighborhoods of both urban and rural areas. Although solvents are the primary drug choice, alcohol is also used quite frequently and often in conjunction with the inhaled substance. These clients tend to come from large multiple problem families. Rarely are both natural parents in the home. Family members as a group, often going back a number of generations, have long histories of alcohol abuse and alcoholism, low educational achievement, divorces, desertions, separations, illegitimate births, and criminal activity. Children of these families usually fend for themselves with oldest brothers and sisters usually bearing the primary parental functions. Children often leave the family via pregnancy/marriage, arrest, institutionalization, or the gaining of marginal employment. The social and economic deprivation of these families leaves little family energy to assist one of the members who is in crisis.

The individual clients making up this group have often been involved in truancy, vandalism, curfew violations, gang activity, and petty crimes. They usually come to the attention of juvenile law enforcement authorities before they come to the attention of any social agency. Solvent use almost always occurs in a group setting, usually a delinquent or pre-delinquent group with a "macho" image. Vandalism and other property crimes may be committed by the group while members are intoxicated. Personal violence tends to be the exception unless the group leader brings a particular penchant for violence. These individuals also bring with them to treatment a high rate of educational failure. Many have specific undiagnosed learning disabilities which make adequate participation in school impossible without special services.

B. Etiology

The social and economic realities confronting these clients make chronic intoxication a seductive alternative to a world they experience with a sense of impending doom. Our work with these clients suggests a fourfold explanation for the choice of solvents as a drug of abuse.

1. Solvents are cheap and readily available.
2. The choice of solvents is in many ways seen as an anti-social choice by these clients. Both alcohol and solvents tend to be consistent with their "macho" images; whereas other polydrugs are seen as being for "hippies," which for them carries an effeminate connotation.
3. Nearly all of these clients have described their ability to control and shape the hallucinations (guided fantasies) produced by solvent intoxication. Most describe themselves as the central character of these hallucinations usually in roles of great importance. The rescue of women in danger, the performance of great feats which women

would admire and sexual encounters with women are also common themes in these hallucinations. The hallucinatory experience of success and recognition and the ability to control the hallucinatory content provide powerful reinforcement for solvent intoxication among these clients.

4. The high risks involved in solvent use (which all our clients were knowledgeable of) may in itself make solvents an attractive drug choice. The use of solvents is often only one of a large number of risk taking behaviors these clients are involved in. Such risk taking behaviors have important meanings within the peer group (such as symbols of status, manhood, and fearlessness.) The risk of the drug, separate from the drug's effect, produces its own sense of excitement. In listening to these youth, who have experienced little sense of personal importance or success, the choice of solvents (as a high risk drug) to experience themselves as worthwhile can easily be seen as an act of defiance and rage against the culture at large.

C. Treatment

Treatment approaches with this group must be seen in the social and economic context in which the abuse occurs. One is dealing primarily here with social pathology, not psychopathology. The initial task whether from the role of a community worker, probation officer, therapist, or teacher is to address some of the most immediate reality issues in the life of the client and his family. Developing the family as a resource in the treatment process is only possible to the extent that the worker can bring resources to assist the family with survival issues, thus freeing emotional energy to focus on the manner in which family members can support each other. Traditional treatment services may be offered but only after the therapist has established his or her usefulness on other grounds.

Since most of the solvent abuse of this group takes place in the context of an adolescent group, a detached worker or "streetwork" model has been utilized well as a method of intervention. The key to successful intervention here lies with the ability of the worker to form an alliance with the leader of the group, and through this relationship begin to shift the activity of the group away from anti-social behavior. Reviewing the outreach model for delinquency work (Carney, Mattic, Callaway, 1969) may be very helpful to anyone attempting this method of intervention.

Admission to residential therapeutic communities has not been extensively used with these clients as they are often precluded from admission due to their age and many programs cannot tolerate the degree of acting out these clients often bring to the treatment setting. Our experience has been that the most effective method of intervention initially involves the therapist in varying roles of advocate, big brother, and role model. This early stage focuses on linking the client with services that the client perceives he needs, i.e. medical services, jobs, housing, etc. The major focus in this period is establishing a relationship with the client and interacting in ways that enhance their self-esteem and sense of power. As the relationship develops, the client can be involved in more structured individual or group therapy even though in the majority of such cases the client agrees to these activities merely to please the therapist.

Treatment, whether individual or group, is effective to the extent that it teaches the client nonchemical methods of experiencing self-worth. Two methods are particularly useful here. The first involves the use of role playing, psychodrama, and guided fantasy exercises as a substitute for the positive feedback exercises and task assignments or contracts (i.e. "my contract for the week is to go to at least three job interviews and help Bob (a fellow group member) paint his mom's house.") Positive feedback exercises and group or individual task assignments are aimed at moving the client from experiencing self-esteem through fantasy to experiencing self-esteem through relationships and non-drug activities.

The most important long-term benefit from the treatment relationship rests on the therapist's ability to encourage and support the client in acquiring some marketable skill. Education and/or vocational training/placement are the primary determinants of future social

adjustment. The use of alternative schools special education programs should be considered as these clients find the structure and sense of failure they experience in most public schools almost intolerable.

D. Prognosis

If treatment success is measured by the cessation of solvent use, long term prognosis is good. Most of these clients will stop the abuse of solvents by age seventeen. Overall prognosis is very guarded due to the high probability of excessive alcohol use following the cessation of solvent use and limitations of these clients which have resulted from severe social and economic deprivation.

E. Case Study Number One

A 13 year old adolescent male, John B., was first contacted by one of the authors via "streetwork" with a delinquent drug abusing gang in 1971. John B. was the youngest child of seven (including step-brothers and sisters from previous marriages of the mother) in a family whose members had been notorious for anti-social and dysfunctional behavior for three generations in this community. No male member of this family has yet graduated from high school and most are unemployed or working in marginal and temporary jobs. There is a long history of psychiatric admissions, alcoholism, and incarcerations particularly among male family members. Significant losses include the father (desertion when client was 3), the next oldest brother (death at age 9 from a congenital heart defect), the oldest natural brother (incarceration for armed robbery), and at least three intimate peers (remanded to juvenile institutions for delinquent behavior.) The solvent abuse began at age 10 when the client first became involved in a pre-delinquent peer group, and also coincided with the incarceration of his oldest brother who he greatly admired. At age 12, John was declared in need of supervision for truancy and vandalism and was placed in the custody of the state child welfare agency, but was allowed to continue living at home.

The early contacts (first six months) with John, his family, and his peers included such things as: 1) getting increased financial assistance for the family; 2) arranging visitation privileges for John to see his brother at the state prison; 3) negotiating with the local school to get John and two of his peers transferred in a special remedial reading program; and 4) working to decrease the delinquent behavior of the gang John was involved with. Although John's delinquent behavior decreased significantly during this period the frequency of solvent intoxication was only minimally decreased. This period did facilitate the development of a relationship which brought John (and 4 of his peers) into outpatient treatment over the next 2 years.

Although John would utilize individual sessions only during periods of emotional crisis, he did utilize an on-going group experience. Solvent intoxication decreased to approximately one episode every three months for John during this period and primarily resulted from the group 1) providing an alternative to solvent intoxication to regulate his self-esteem; 2) providing a substitute family experience which was particularly enhanced by the use of male and female co-therapists; and 3) providing an alternative adult role/"career" model other than his incarcerated brother.

By age 16, John had ceased the use of solvents, although he continued to episodically abuse alcohol following experiences of failure. John did learn to read during this period, but dropped out of school at 16 to go to work in an auto-body shop. This client broke off contact at this time but contacted this worker two years later and reported that he was getting married, was employed in a low paying job, still was not using any "drugs," and that if his drinking did not slow down after the marriage he would call to "get dried out."

While it is doubtful there will be any return to solvent abuse, the probabilities are high that this client will encounter continued difficulties with his use of alcohol and that his overall social adjustment will be marginal at best.

II. Family Oriented Solvent Abuse

A. Population Characteristics

This subgroup of solvent users ranges in age from nine to sixteen with most thirteen or fourteen, are nearly all males, and are mostly white from working and middle class families. Females who are involved usually are inhaling solvents with a brother who is still in the home. These clients come from mostly intact families and are usually the middle or younger child. The families are marked by distant relations between father and children and mothers who tend to be excessively attached to the children. These adolescent clients usually have no history of pre-delinquent or delinquent behavior, are of average intelligence, and are average performers in school. They have rarely been described as problem children, and the solvent abuse at first impression seems to have emerged out of an otherwise normal development. The use of solvents occurs alone or occasionally with one other peer which may often be a brother or sister. Use quite frequently occurs in the home.

B. Etiology

The etiology of the solvent abuse for this group is twofold. First, the onset of solvent use for the majority of these clients coincides in time with the loss of a family member, most often an older brother or sister who had taken on a number of parental functions within the family and were highly idealized by the clients. Solvent abuse here is a response to an acute loss of self-esteem triggered by the loss of a significant family member. This loss most often occurred when the older brother or sister left home to marry or go to school. The client's response to this change in the family constellation could easily be described as a grief and mourning process. The drug becomes a substitute for the lost loved one. This lost person is nearly always thought about while intoxicated or is a central character in the hallucinatory experience.

The second dynamic often seen with these clients is the use of solvents to escape (through intoxication) an overly intrusive mother. This often occurs at the time of early adolescence when the client is trying to shift his primary interests, involvements, and attachments from the family to his peer group. Solvent abuse is often part of the client's anger toward the mother for trying to prevent him from making this separation.

C. Treatment

This group of clients can be effectively treated in individual, group, or family therapy. Rarely should residential placement be considered for this group as extrusion from the family to drug treatment may reinforce a deviant role for the client out of what was a short lasting transitional crisis of adolescence. The initial role of the therapist regardless of modality or philosophical orientation is to take the place of the lost family member. In this phase all solvent use stops after the first or second session and the client identifies with and idealizes the therapist. The client will take on mannerisms of the therapist, the language of the therapist, similar style of dress, smoke the therapist's brand of cigarettes, etc. It is crucial that the therapist allow this idealization to occur as it is an essential part of the treatment process. The other noteworthy part of the early treatment process is the client's almost constant presentation of grandiose fantasies. The client/therapist relationship and the client's flight to fantasy are the primary substitutes for the drug experience and cannot be removed until the self-esteem of the client is increased.

The second phase of treatment with these clients can be descriptively called a grief and mourning process. Grandiose fantasies subside and the client begins to share his feelings about the loss of the family member. This often coincides with the client showing his feelings about the unavailability of the father as an idealized model to the client. It is a short but important process for the client to share this sense of loss in the safety of the treatment relationship.

The third phase of treatment is much more active with the therapist's primary role being to guide the client in increasing peer relationships, increasing relationships with adult role models, re-establishing contact with the lost family member, (i.e., letters, visits, etc.) and attempting to establish closer contact with the father. It is during this phase that the therapist will

be most involved with the family unit. Either through family meetings (or in some cases meeting with father and son only), the therapist helps increase the bonds between father and son, and supports the mother in an effort to allow her to loosen the bonds between herself and the client. This is not usually a difficult process as such family restructuring has immediate payoffs for most family members and generally reflect changes the family wanted to make but was unsure of exactly how to change existing relationships.

The final or termination phase of treatment should focus on the separation between the client and therapist. This process should be done gradually over time with a clear message on the future availability of the therapist if needed by the client. We usually preferred to move from weekly, to every other week, to monthly, and then to meetings as needed by the client. It is not unusual for the client to have thoughts about getting high, or to get intoxicated during this period. It is the therapist's job here to support the client by pointing out what has been accomplished and to reinforce the strengths and self-esteem of the client that have developed during the treatment relationship. A recurrence of drug intoxication can usually be avoided here if the therapist allows the client to verbalize the sense of loss, downplay the importance of the relationship, and express anger toward the therapist. The previous loss of the family member gets replayed during this stage in metaphor.

D. Prognosis

The prognosis for this group is excellent and clearly the best of the four subgroups of solvent users described in this paper. These clients bring more personal and family strengths into the treatment process, have a much lower degree of overall risk taking behavior, and are not handicapped by economic factors. Most of these clients will cease solvent abuse, will not move to the abuse of a secondary substance, and will make an adequate long term social and vocational adjustment.

E. Case Study Number Two

A 15 year old young man, Paul R., was referred to one of the authors by the juvenile probation office after several recent episodes of glue-sniffing with the patient's former girlfriend in a city park. The middle child in a sibship of three, Paul lived with both parents and a younger brother in a comfortable middle-class suburban neighborhood. The older brother, whom the patient had emulated throughout his childhood, had entered college out of the state and Paul had broken up with his girlfriend, both only days before the first glue-sniffing incident. Although obvious marital conflict was not evidenced with the parents, Paul's mother had retained into his adolescence a high level of solicitous interest in all areas of his life, even compared to the two other brothers; his father, conversely, spent many additional hours at his work as a sales manager, having done so since Paul's early childhood. Paul had no prior juvenile record, nor any personal or family history of other chemical dependencies.

At the express request of his parents, the therapist first saw Paul, his younger brother, and Mr. and Mrs. R. together at their home during a school day evening. Paul requested outpatient office visits for himself alone, and was seen on a weekly basis for eight months, until the end of the school year provided a "natural" termination point. Both parents were interviewed conjointly twice and separately once each by the same therapist at the beginning of treatment; Paul and his father were seen twice together about two months prior to termination. The course of treatment was characterized by the patient's immediate cessation of solvent use (which did not reappear during the process) and a gradual concrete identification with the therapist, i.e. mannerisms, clothing. While a vast majority of Paul's individual sessions were spent in reviewing his weekly activities, he also initially worked rather extensively on his reactions to losing his brother and girlfriend. The sessions with both the patient and his father were at the father's request, and involved very simply working with them on some travel plans that involved just the two of them.

About two years after treatment terminated, Paul contacted his former therapist. At that time he was completing his senior high school year, having had no subsequent drug-related problems.

III. Solvent Abuse as a Reflection of Individual Psychopathology

A. Population Characteristics

Clients in this group are primarily white males between the ages of seventeen and thirty. They come from the same socio-economic background as the peer oriented solvent abuser, have minimal vocational and education skills, and although usually of average intelligence have very low aspirations. This group has had extensive contacts with law enforcement authorities usually for arrests for glue sniffing, for disorderly conduct, and for criminal damage to property (usually destroying property at the home of the parent while intoxicated.) Nearly all of these clients come from single parent families with family histories which include desertions, divorces, incarcerations for criminal activities, and alcoholism. The family characteristics which distinguish this group from the peer oriented user in a much higher incidence of psychiatric disorders (institutionalization for psychosis and suicide) and a much higher incidence of tragic deaths via auto and industrial accidents, death from diseases in childhood, etc. (most of these clients experienced at least one such loss between the ages of six and twelve.)

These clients have continued the abuse of solvents as the primary and in most cases the only drug of abuse since early adolescence. Solvent use usually occurs alone or with one other person. This group has made a career of solvent abuse. If allowed to, they can talk endlessly on the different intoxicating properties of various solvents, describe the various rituals used in inhaling the substances, and describe in animated detail the experience of solvent intoxication. Most will enter the treatment setting only under legal pressure and tend to mock the efforts of a large number of people aimed at getting them to stop "sniffing glue."

In terms of psychopathology, most have either attempted suicide or report suicidal ideation. Symptoms of severe and chronic depression are clearly evident and the level of risk-taking behavior, separate from the issue of potential suicide, may at times be life-threatening. This point is illustrated by one 24-year old client who reported on a risk-taking assessment questionnaire the following:

- 11 Automobile accidents (9 single car accidents)
- 8 Motorcycle accidents
- 4 Falls of more than 15 feet
- 6 Broken bones resulting from various "accidents"
- 8 Hospital admissions
- 12 Emergency room visits

Hallucinations are sometimes reported during periods of non-intoxication and delusions of grandeur are not uncommon. The majority of these clients waking hours are spent either intoxicated or in fantasy. During periods of intense intoxication, it becomes difficult for the client to distinguish between what has been experienced in hallucinations while intoxicated and what has actually happened in reality. One such client reported having raped a woman while intoxicated. It was later confirmed that no such event occurred although the hallucinatory experience was interpreted by the client as "fact."

B. Etiology

The etiology for this population of substance abusers is threefold. Solvents are the drug of choice not in spite of, but because of the high reported risks involved. Solvent abuse for this group of clients is part of a broad pattern of risk taking which is a response to chronic depression.

The onset of this depression usually followed the tragic loss of a significant family member and feelings of responsibility for the death on the part of the client.

The pleasure experienced from the intoxication and the ability to control the hallucinatory aspect of the drug experience, the content of which is similar to that described for population I, is a powerful reinforcement for use of the drug. In addition, the drug's short action makes it a convenient drug to use repeatedly during the course of a day.

Solvent abuse may also mask and in some ways medicate acute symptoms of psychosis. Hallucinatory experiences during periods of non-intoxication and bizarre ideation can be attributed by the client and others to peripheral effects of the drug. In short, the identification as a glue sniffer is less threatening to the client than to be considered "crazy."

C. Treatment

It should first be noted that verbal warnings to these clients about the risks to health from solvent abuse are not only ineffective, but counterproductive. Such warnings are by definition impotent to a client group to whom death is both attractive and at times seductive.

This group should whenever possible be treated in conjunction with a psychiatrist or with the benefit of psychiatric consultation. The first task with this group is to evaluate the immediate threat of suicide and to assess whether the current level of risk taking behavior is life threatening to the client. If it is the therapist's judgment that such risks are high, psychiatric hospitalization or placement in a controlled living situation, i.e., residential drug program should be the first step in the treatment process. The therapist should also be aware of the potential emergence of additional psychiatric symptoms following the cessation of solvent abuse.

Residential treatment with these clients is best done in programs which can provide a great deal of early attention and tolerate or reduce high levels of acting out in the early stages of the treatment process. There usually is not enough family members to effectively conduct a family oriented treatment regimen and the intense need for attention by these clients make their early participation in groups characterized by either disruption of the group or disengagement. We have seen most of these clients in weekly outpatient individual treatment or day activity programming plus weekly individual sessions.

Treatment of this group is at best difficult and long term. The therapist should proceed slowly in establishing the treatment relationship as these clients have great difficulty tolerating any intimate relationship. The therapist who moves too quickly will find that the client escalates the level of acting out in an effort to get the therapist to reject him. This inability to tolerate intimacy often comes from the client's irrational fear that anyone who gets close to him will die. This kind of magical ideation (if I care about you, you'll die and it will be my fault) usually began shortly after the death of a significant family member and reflects the client's sense of responsibility and guilt for this death.

The middle stages of treatment should focus on treatment of the depression, increasing the interpersonal skills of the client, remedial health care, and vocational training. Relapses to solvent intoxication are not unusual with this group at each new stage of the treatment process. Where possible the client should be given access to long term social (drop-in) and clinical contact with the program. We have had a number of these clients in treatment over five years who received services in small doses (1-2 times per month followed by no contact and then re-involvement.) It is important to let the client determine this pace, as we have found no methods that work for the majority of clients which can condense this process into a single intense treatment experience.

D. Prognosis

This is the most difficult group of all solvent-involved clients to work with. They have a high death rate and a high rate of institutionalization, both correctional and psychiatric. There is some evidence of a maturing out process occurring somewhere between twenty-two and thirty, with a subsequent high percentage moving to alcohol abuse. Maturing out does not seem to be

a function of treatment as much as the client tiring of repeated legal difficulties and incarcerations.

These are very marginally functioning individuals whose adjustment is tenuous with or without the abuse of solvents.

E. Case History Number Three

David W. was referred to one of the authors for a court ordered evaluation subsequent to his third arrest for glue sniffing at the age of 15. David was the oldest of five children in a low-income family. His father was “picked up by the police at the request of my beloved mother and taken to the funny farm” when the client was 10 years old. Although apparently quite psychotic, the father had related well to David and spent a great deal of time with him. The relationship with the mother deteriorated considerably following this incident and the first episodes of solvent abuse occurred within 6 months of the father’s admission to the state psychiatric hospital. The mother’s excessive drinking and frequent dating till late hours left the children to fend for themselves with David thrust into a parental surrogate role as the oldest child.

David’s solvent abuse increased both in frequency and severity of effects and he was involved in repeated automobile and motorcycle accidents, some requiring hospitalization. He was arrested repeatedly between the ages of 15 and 19 with most arrests precipitated by “trashing” the home and threatening violence to his mother while intoxicated on solvents. These repeated legal involvements led to uneventful and short term involvement with four different social agencies, a number of short term incarcerations, and constant supervision by the juvenile and later adult probation offices. Solvents were the sole drug of abuse throughout this period.

When David was expelled from a residential program at the age of 19, his probation was revoked and he was remanded to a psychiatric ward of one of the state penal institutions. Up until this time, most of the psychiatric symptoms (occasional auditory hallucinations, suicidal thoughts while intoxicated with one attempt, and periods of severe withdrawal and isolation) had been seen by most of the social service workers as merely effects from the glue sniffing.

This worker again saw David four months after his release from prison. It was the first time the client had ever been to the agency voluntarily. David reported that he was only sniffing glue once a week but that he was staying intoxicated on alcohol almost daily. He had been sexually molested repeatedly while in prison by older inmates and reported that since his release he was not able to perform sexually with women, was having nightmares, was sure everyone around him “knew” about him, and was sure there were people trying to kill him. Arrangements were made for brief hospitalization in a psychiatric unit of a local hospital. David’s anxiety and paranoid thinking subsided with a low regular dose of anti-psychotic drugs and he was subsequently referred to a residential combined alcohol and drug program. David’s stay at this program was terminated due to his drinking behavior but he was later re-admitted to another residential program where he has currently been in treatment for 10 months. The program he is currently in is utilizing psychiatric consultation and allowing David to remain on medication to control the psychotic symptoms.

In retrospect, there is little doubt that solvents performed such multiple functions for David as: 1) an expression of his outrage at his mother’s commitment of the father and her “escapades” with men; 2) an escape from parental responsibilities thrust upon him at an early age; 3) chemical escape into fantasy to avoid the loss and subsequent depression following the father’s hospitalization; and 4) a masking and medication of non-drug induced psychotic symptoms experienced by the client since early adolescence. This latter function was particularly problematic. While solvent intoxication allowed the client to bring his hallucinatory experiences under control and escape much of the delusional thinking, it also lowered his inhibitions and impulse control resulting in expressed rage at his mother.

The prognosis of this client is still very guarded. Long term adjustment will highly depend on continued psychiatric help and the client's ability to refrain from all inhibition lowering intoxicants, particularly alcohol.

IV. Solvent Abuse as Part of a Broader Pattern of Polydrug Abuse

A. Population Characteristics

This group is similar in most characteristics to the last group described (and could be considered a sub-group) but abuse a large number of psychoactive substances, including volatile solvents. There are also a higher percentage of minority group members in this group than in population III. Although the overall risk taking in this group is somewhat less, the probability of death from an acute drug reaction is greater than in other clients due to the combinations and excessive dosages of ingested drugs. There is also high incidence of psychiatric disorders in this group. These clients should be evaluated regularly for suicidal risk. It is our impression that a number of accidental drug overdose fatalities among clients in this group are in fact suicides. This group may also be involved in more serious crime due to their poor impulse control and their tendency to be influenced easily by others.

B. Etiology

The etiology of abuse for this group is very similar to population III. The most impressive clinical feature of this group is the high rate of self-medication of psychiatric symptoms with illicit substances. These clients seek thru self-medication with a variety of psychoactive drugs to maintain some semblance of psychological homeostasis.

C. Treatment

All of the comments on treatment of population III are applicable here with the following additional emphasis. Medical and psychiatric evaluation and consultation are crucial to the treatment of this group of clients. The use of anti-psychotic, anti-mania, or anti-depressive drugs may be absolutely essential to eliminate the random and incompetent pattern of self-medication used by these clients in an attempt to stop bizarre and frightening thoughts and ameliorate emotional distress. While the use of such psychoactive drugs is often not permitted in many drug abuse programs, it is our feeling that a gross disservice is done to the client by such refusal when the client presents severe psychiatric symptoms in addition to the substance abuse. While the use of such medications should be highly controlled given the clients chemical abuse history, it may be the essential first step in involving the client in a long term rehabilitation process.

Therapists who are working with this group on an outpatient basis may also find the need to utilize short term psychiatric hospitalization particularly in the vent of acute psychotic episodes or at times of high suicidal risk.

D. Prognosis

The prognosis for these clients is usually very poor. Most of these clients will be in contact with helping agencies through most of their adult lives. A therapist's primary hope is to bring the client to maximum functioning and then plan for the need to intervene periodically during crisis periods to re-stabilize the client. The exception to this poor prognosis is a small number of these clients who utilize long term treatment in a therapeutic community to establish a relatively sound adjustment. This most successful group usually had psychiatric services provided prior to or during their stay in the residential treatment.

E. Case Study Number Four

Mark A. entered outpatient treatment with one of the authors over four years ago with a history of considerable drug usage. As the eldest child in a large low-income family, he had suffered continuous and massive disappointments from his alcoholic mother, who had been institutionalized during her own adolescence for unspecified behavioral and emotional problems. His father, though socially quite ineffectual and depressed during most of the patient's formative years, was highly regarded by Mark from his immediately preadolescent years on. Mark's parents were divorced during his 14th year, at which time Mark began solitary, regular inhaling

of glue; also at this point Mark lived variously with his maternal grandmother, his father and other relatives – a pattern that continued for three years until he dropped out of school to enter the Army. His drug use expanded during this later military service to hallucinogens and amphetamines with a short period of heroin use but discontinuance of solvents. This all eventuated in his dishonorable discharge and return to his hometown at which time the solvent abuse began again. Two brothers also began using solvents upon his return and were subsequently placed in residential treatment.

Just before the initial outpatient consultations, Mark had been discharged from a state hospital after a 60-day court-ordered stay that included daily transactional analysis-oriented group therapy meetings with other addicts. Although described as withdrawn, immature and bitter by an outreach worker who had contact with him just prior to the brief hospitalization, the patient had had unusually sound use of his group experiences on those problem areas during that stay. His individual outpatient supportive psychotherapy was characterized by office contacts only once every one to three months. While these interviews were used quite productively by him for support in crisis situations, Mark could clearly tolerate the frightening, primitive feelings elicited by the treatment relationship only so long as the contacts were thusly spaced. More specifically and in retrospect, the peculiarly intense attachment to a relatively inexperienced therapist that, in turn, stimulated profound fears over engulfment and abandonment, presented the main difficulties in maintaining an uninterrupted treatment process. Although Mark never appeared grossly psychotic without the use of chemicals, his usage pattern strongly suggested a massive effort at self-medication (that quite often backfired.) The fact that he felt periods of severe personality fragmentation coming on, accompanied by suicidal thoughts, and his use of the therapist to recapture a sense of self-connectedness further confirm this impression.

Psychotherapy continued for just over two years. Two years after his unplanned termination of that process he was employed full-time, only minimally involved with street drugs, but remained marginally attached to his former drug-dependent peers; also, during that four year time period Mark had two drug crises that required brief emergency hospitalizations and began regular alcohol use. The fact that the patient was unable to develop any positive, sustainable relations and remained detached from his own family made the usual forms of family work impossible.

V. Summary and Conclusions

The majority of children and adolescents who use solvents stop the practice after a short period of experimentation and cease use without treatment intervention. Four groups of solvents abusers were described who continued this practice into adolescence and early adulthood. The four groups were identified by the primary etiology of the continuing abuse pattern.

The following conclusions are drawn from our clinical experience with these clients:

1. The choice of solvents as a primary drug of abuse indicates a higher degree of social dysfunction and a higher degree of psychiatric disturbance than most other drugs of abuse.
2. In three out of four of the groups studied, social and economic deprivation of the client and his family was central to the etiology of the abuse and a primary barrier to successful rehabilitation. Prevention and treatment programs which do not address this issue will only be remedial in nature.
3. Disturbances in regulating self-esteem were common to all the identified groups. The critical factor in the severity of solvent abuse was the amount of deprivation and the severity of losses (of persons who enhanced the self-esteem of the client) experienced.

4. The treatment of solvent abusers must address both the immediate issue of the chemical abuse and the broader pattern of risk taking, psychiatric disturbances, and problematic family relationships which coincide with such abuse.
5. The onset of solvent abuse occurred between the ages of 9 and 13 for the majority of clients, making this the target age group for any prevention or early intervention efforts.
6. Although information outlining the high risks involved in inhalation of solvents may deter pre-adolescent experimenters, it will not have a deterrent impact on the populations we studies and may increase the probability solvents will be chosen as a drug of abuse.
7. Cessation of solvent abuse always occurs in the context of a relationship. This relationship is not necessarily a formal treatment relationship and often simply involves a key adult relating to the client in a way that increases the client's self-esteem and provides a substitute for some of the significant persons lost to the client through death, desertion, separation, or divorce. This observation has obvious direct implication to the necessary central component of any prevention or treatment program.

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