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Socio-Sexual Issues in the Using and Recovering Alcoholic

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The disease of alcoholism is the third leading killer in the United States and represents one of our country's major health problems. Over 13 million individuals in the United States are alcoholics, representing approximately 7% of the adult population. It has been estimated that alcoholism costs the country over 40 billion dollars in terms of health care costs, lost productivity, accidents, crime, and is a major contributor to over half the fatal auto accidents in the United States. Each year, approximately 25,000 individuals die and 1.5 million people are injured by drunk drivers. To be more specific, over 60% of the homicides involve alcohol in both the offender and victim. Sixty-five percent of aggressive sexual acts against children and 39% of aggressive sexual acts against women involve alcohol by the offender. Alcohol abuse also represents the number one substance abuse problem in adolescents. Over 85% of all 10th to 12th graders have at some time or another consumed the psychoactive drug, alcohol. Fifteen percent of 10th to 12th graders report heavy drinking, and in high school students 36% of the regular drinkers have had two or more accidental injuries serious enough to interfere with their daily activities. Auto accidents and suicides are two of the leading causes of death in the adolescent population, and both are deeply involved with alcohol and other psychoactive drugs.

Alcohol abuse has been growing steadily among adolescents and is by far the most commonly used drug in this population. The health care system is greatly affected by the problem of alcoholism; 10% of the adults entering a private physician's office are alcoholics, with 15% to 40% of adult admissions to general hospitals being

due to alcohol related problems. The children of using alcoholics are also adversely affected. They have a wide range of problems from fetal alcohol syndrome to being at a high risk for hyperactivity, emotional problems and child abuse. There is an evolving awareness that alcoholism is a primary disease with its causative factors being an interplay of both genetics and environment. It is a multifactorial illness that may involve either episodic or daily increasing abuse of alcohol, with either pattern producing physical dependency with a number of important biomedical, psychological and social sequelae ranging from cirrhosis of the liver, depression, behavioral problems such as marital difficulties and loss of job.

Given the complicated nature of the disease of alcoholism in our society, there have been attempts to be precise in the diagnostic criteria for alcoholism. The DSM III describes two different patterns of alcoholism (the dysfunctional use of alcohol); alcohol abuse and alcohol dependence. Alcohol abuse is characterized by:

1. A pattern of pathological alcohol use such as a need for daily drink to the presence of binges or blackouts;
2. Impairment in social or occupational functioning due to alcohol use such as loss of job or legal difficulties, and;
3. Duration of alcohol disturbance of at least one month.

Alcohol dependence is characterized by two major criteria:

1. Either a pattern of pathological alcohol abuse or impairment in social or occupational functioning due to alcohol;
2. Evidence of physical dependence on alcohol with tolerance and withdrawal.

Tolerance is defined as the need to increase the dose of alcohol in order to achieve the desired effect with withdrawal having characteristic signs and symptoms including tremor, tachycardia, restlessness with the most extreme manifestations being alcohol withdrawal seizure and psychosis.

The direct toxic effects of alcohol in the body including the central nervous system are categorized in the DSM III under substance-induced organic mental disorders, and include alcohol intoxication, alcohol withdrawal, delirium tremens (DT's) and alcohol hallucinosis.

These DSM III criteria developed out of the psychiatric system

which partially overlaps and sometimes conflicts diagnostically with terminology used by addictionologists, who define alcoholism as a disease (Smith, 1984). Alcohol abuse is defined more as episodic dysfunctional use with alcoholism diagnosis in its early stages not requiring evidence of tissue dependence. The general formula for understanding the causation of any addictive disease including alcoholism is addictive disease = genetics + environment. In the disease concept of alcoholism, more emphasis is placed on the psychobiological predisposition. For example, with familial forms of alcoholism, blackouts are perceived as an early diagnostic sign of alcoholism, manifesting altered response to the drug early in the individual's drug taking career. Whereas other individuals who develop blackouts may represent a late stage of alcoholism as a consequence of the neurological damage induced by alcohol. Figure 1 illustrates the classic representation of the alcoholism cycle. Table 1 summarizes some of the physical, social and psychological dysfunctions produced by alcohol, one of which is sexual dysfunction.

The using alcoholic escalates his dosage as the disease progresses and may start manifesting ejaculatory and erectile failure in the male, desire phase disorder in the female. Alcohol induced sexual dysfunction as well as impairment in personal relationships can be a major negative consequence of alcoholism which may interact with other negative consequences. For example, blackouts, where the individual abuses alcohol and has retrograde amnesia. Losing memory while still retaining motor function is a frequent symptom seen in the alcoholic. Blackouts may last for minutes or days but usually occur over a several hour period and the frequency is associated with the severity and duration of alcoholism, although in certain individuals, the onset of blackouts may occur early in the individual's drinking career. Female alcoholics, for example, often become disinhibited when they drink in a social situation and end up with a strange man in a sexual setting they are not familiar with, wake up the next morning in bed with that man and have no recollection of how they got there. Such alcohol-induced blackouts in altered social-sexual response become a great issue of embarrassment, humiliation and guilt for the individual.

Heavy drinking in males is highest during ages 18 to 20, dips in the early 30's and then begins to increase to a second peak during the ages 35 to 39. In women, the highest proportion of heavy drinking occurs in ages 21 to 29, dips slightly in the early 30's and then levels off in the late 30's to early 40's. In studies of high school stu-

FIGURE I
A CONCEPTUAL MODEL OF ALCOHOLISM

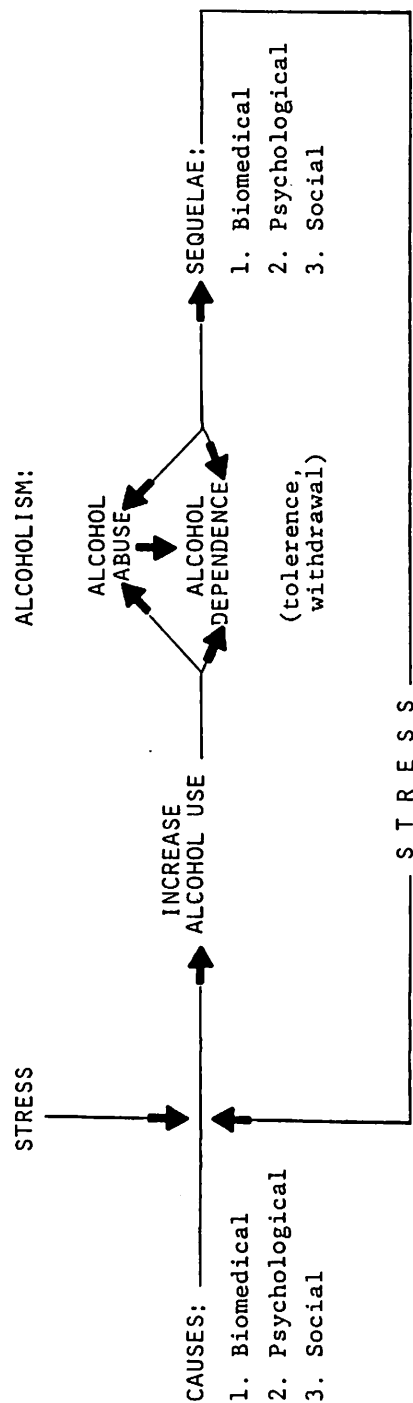


TABLE 1
PHYSICAL, PSYCHOLOGICAL AND SOCIAL DYSFUNCTION PRODUCED BY ALCOHOL

PHYSICAL

Esophagitis
 Esophageal Varices
 Gastritis
 Pancreatitis
 Fatty Liver
 Hepatitis
 Cirrhosis
 Portal Hypertension
 Nutritional Deficiency,
 especially vitamins
 (thiamine, folate)
 Hypothyroidism
 Sexual Dysfunction
 (impotence, amenorrhea)
 Cardiomyopathy
 Hypertension
 Increased risk for Cancer
 (mouth, pharynx, larynx,
 esophagus, liver, pancreas)
 Pneumonia
 Tuberculosis
 Myopathy
 Peripheral Neuropathy
 Fractures
 Subdural Hematoma
 Seizures
 Intoxication
 Blackouts
 Delirium Tremens
 Cerebellar Degeneration
 Wernicke-Korsakoff Syndrome
 Dementia
 Birth Defects (fetal alcohol syndrome)

PSYCHOLOGICAL

Loneliness
 Guilt
 Dependency
 Denial
 Craving for Alcohol
 Anxiety
 Angry Outbursts
 Depression
 Suicidal Ideation
 Hallucinations
 Paranoia
 Other Drug Use

SOCIAL

Family Problems
 (marital, child abuse)
 Inadequate Shelter
 Financial Problems
 Vocational Problems
 Automobile Accidents
 Legal Problems
 Social Isolation

dents, 30% to 60% use alcohol at least once per month and 1% to 3% report daily use. Adler and Kindle (1981) found evidence to support the notion of a developmental sequence of substance abuse in adolescents where the abuse of alcohol was correlated to the abuse of other drugs. It is apparent that alcohol abuse alone and in combination with other substances occurs during the age group in which psycho-sexual patterns are developing, or when the individual may be potentially at their peak level of sexuality and reproductive capacity. The latter issue becomes particularly important in the

female if the woman drinks heavily during pregnancy. There is a high incidence of alcohol-induced fetal alcohol syndrome in children born to these mothers. Although alcoholism and alcohol-prescription drug dependence is a significant problem in the elderly, there is a general drop in the rate of heavy drinking in both sexes in the early 50's and 60's. This is in part due to financial limitations and the early death rate of alcoholics.

Approximately 10% to 15% of diagnosed alcoholics may have a major psychiatric illness including thought disorder, major depression or bi-polar affective disorder. This underlying psychopathology may itself produce impairment of sexual functioning such as desire phase disorders associated with depression. However in many active alcoholics, depression and other psychological symptoms are more a consequence of drinking, and will disappear when the individual goes into abstinence.

Alcoholism is a multifactorial illness with multiple causes complicating factors. However, once the diagnosis of alcoholism is made, it is important to define a treatment sequence based on the point of entry of the individual into the treatment system, and to determine what elements of the treatment plan can be implemented at what stage of the individual's recovery.

Kanas has defined four phases in the treatment plan for the alcoholic (Tables 2 - 5). Phase 1 deals with the acute crisis, whether it is an alcohol overdose that can be life-threatening, or an acute medical crisis or severe withdrawal that involves detoxification for the alcohol-dependent individual to be safely withdrawn from the drug. This may be much less of an issue with the episodic alcohol abuser;

TABLE 2
TREATMENT ISSUES IN ALCOHOLISM
Phase One: Acute Crisis

<u>TREATMENT DIMENSION</u>	<u>TYPICAL PROBLEMS</u>	<u>POSSIBLE SOLUTIONS</u>
Biomedical	GI Bleeding, Pneumonia, Delirium Tremens	Hospitalization Appropriate Medical Intervention
Psychological	Hallucinosiis, Paranoia, Suicidal Ideation	Hospitalization Appropriate Psychiatric Intervention
Social	Family Violence	Hospitalization Appropriate Psychiatric Intervention Family Therapy Home Visit

TABLE 3
TREATMENT ISSUES IN ALCOHOLISM
Phase Two: Withdrawal from Alcohol

<u>TREATMENT DIMENSION</u>	<u>TYPICAL PROBLEMS</u>	<u>POSSIBLE SOLUTIONS</u>
Biomedical	Impending DTs, Withdrawal Effects, Acute Medical Problems	Medical or Social Model Detoxification Outpatient Detoxification Appropriate Medical Intervention
Psychological	Denial, Worry about Health, Stressful Life Events	Counseling Brief Individual or Group Therapy
Social	Inadequate Shelter, Financial Problems	Counseling Social Services Referral

TABLE 4
TREATMENT ISSUES IN ALCOHOLISM
Phase Three: Sequelae of Alcoholism

<u>TREATMENT DIMENSION</u>	<u>TYPICAL PROBLEMS</u>	<u>POSSIBLE SOLUTIONS</u>
Biomedical	Chronic Medical Problems Malnutrition	Appropriate Medical Intervention Vitamin Supplements, Proper Diet, Exercise Disulfiram
Psychological	Denial, Depression, Guilt, Stressful Life Events, Psychological Craving	Counseling, Brief Individual or Group Therapy Antidepressants Lithium Carbonate Behavioral Techniques
Social	Family, Housing, Vocational, and Legal Problems Loneliness Unfilled Leisure Time	Counseling Social Services Referral Family Therapy Recreational Therapy Alcoholics Anonymous, Al-Anon, Alateen Alcoholic Halfway House

much more of an issue with the daily high dose alcoholic who may also be abusing other psychoactive drugs such as the benzodiazepines or barbiturates, which may complicate the dependency and withdrawal picture. After the acute medical crisis is dealt with, the detoxification plan is to be evaluated and implemented depending on the severity of the individual's dependence. Patients with a very high level of alcohol dependence and medical debilitation may suffer the life-threatening alcohol withdrawal delirium tremens and

TABLE 5
TREATMENT ISSUES IN ALCOHOLISM
Phase Four: Predisposing Causes

TREATMENT DIMENSION	TYPICAL PROBLEMS	POSSIBLE SOLUTIONS
Biomedical	Genetic Factors	Counseling
Psychological	Neurotic and Personality Disorders, Major Affective Disorders, Schizophrenia	Long-term Individual Or Group Therapy Antidepressants Lithium Carbonate Major Tranquilizers
Social	Sociocultural and Familial Influences	Counseling

may require hospitalization, appropriate medication and medical management including careful monitoring of vital signs and IV fluids (with electrolytes and vitamins). With treatment, most alcoholics recover from delirium tremens but the mortality rate with inadequate treatment may reach as high as 15%. On the other hand, simple alcohol withdrawal, characterized by insomnia may be managed in a social model setting without medication or on an outpatient detoxification program with sedative-hypnotic medication.

Table 3 summarizes two issues in alcoholism withdrawal. After the acute life-threatening problems and alcohol withdrawal sequelae have been dealt with, emphasis should be placed on getting the individual into aftercare and recovery. The vast majority of alcoholics, in the attempt to return to controlled use of alcohol, will relapse into the active stage of the disease. The focus end point for the treatment of alcoholism should be on abstinence and recovery which focuses on those issues that trigger relapse, and dealing with the negative sequelae of the active stage of their disease. Some of these may be chronic medical problems such as peripheral neuropathy thrombosis or organic brain syndrome. Both require appropriate medical attention.

Psychologically, the alcoholic may experience depression and guilt. Socially, he may manifest serious impairment in family relationships and in personal interaction. In this latter context, the significant social-sexual dysfunction may be evaluated and appropriate therapy initiated. Table 4 demonstrates treatment issues and sequelae that surface early in recovery. In this context, the individual may manifest impairment in a variety of areas including sexual functioning which may be a direct consequence of the psychobiological hormonal impairment secondary to alcoholism. Specific sex therapy

or relationship counseling may not be appropriate early in treatment. However, as recovery progresses, factors which contribute to relapse must be dealt with using more individual and family education, as outlined in Table 5.

At this point, one begins assessing the biological basis and reversibility of alcohol induced sexual functioning to get a better idea of what psychopathology is alcohol related and what may occur independent of the alcoholism. For example, we recommend that specific sex therapy for sexual dysfunction not occur until the individual is approximately six months into recovery. Nor do we believe that specific psychotropic medication be initiated for the management of psychiatric disorder such as depression, until the individual is well into recovery, as alcohol-induced depression may disappear completely or an underlying endogenous depression can resurface while the individual is alcohol free and in recovery.

Dr. Apter-Marsh has defined the sexual cycle in both the using and recovering alcoholic. There may be a significant drop in sexual activity during the first 3 to 6 months of recovery.

Sexuality is likely to be the rawest area of a women's shredded self-esteem. . . . Many alcoholic women have been the victims of sexual abuse and exploitation . . . not just those who have endured loutish husbands . . . we're talking about rape, incest, brutality. While there are no national statistics on the subject, many chemical dependency counselors estimate that nearly 50% of their female clients have been sexually abused as children and teenagers. (Apter-Marsh, 1982)

Our experience indicates that many socio-sexual issues are not identified or discussed individually or with family during the recovery period. Some recovering alcoholics may be tempted to use alcohol to achieve disinhibition in the early recovery period because of sexual concerns, resulting in loss of control and relapse to active alcoholism. Alcohol, although perceived culturally as a sex-enhancing drug via its disinhibiting properties, "is a general central nervous system depressant that has both long and short-term effects on sexual functioning. The failure of erection and increased libido described by Shakespeare in Macbeth, for example, is short-term and well known to most men who have attempted to function sexually after excessive alcohol ingestion. People have different thresholds for sexual dysfunction that are related to their blood alcohol level.

Central nervous system effects tend to be more pronounced when levels are rising than when falling. Erectile dysfunctions have more than one cause. Ethanol (ethyl alcohol) impairs spinal reflexes, which causes both decreased sensation and decreased innervation for erection, but it has also been shown to decrease serum testosterone levels" (Buffum, 1981).

One study in which serum testosterone and luteinizing hormones (LH) levels were measured in males before, during and after acute alcohol ingestion showed that, as blood alcohol levels increased, plasma testosterone levels decreased and LH levels increased. The speculation was that the increase in LH levels may have been associated with the increased libido that accompanies acute alcohol ingestion. Decreased serum testosterone, on the other hand, may lead to decreased erection. These effects are usually transient and diminish after the blood alcohol level falls. A similar study was done in women with different results. In this study there was no reduction of serum testosterone or increase in serum LH. There were no consistent effects on progesterone, estradiol, FSH or prolactin.

There are, however, permanent effects related to decreased testosterone levels. A study of normal males given alcohol over a four week period showed that decreased testosterone was coupled with an increase in metabolic clearance. Long-term alcoholics have also been noted to have hyperestrogenemia secondary to alcohol-induced liver damage in which the liver a higher proportion of androgens to estrogens. A combination of decreased testosterone and hyperestrogenemia is probably a cause of the feminization, gynecomastia, sterility, impotence and decreased libido seen in some alcoholic males (Buffum, 1981).

In one study of 17,000 alcoholic males, 8% complained of impotence. In half these cases the impotence was irreversible; in the other half, sexual function returned following several months of abstinence from alcohol. Decreased libido was not mentioned in this study (Buffum, 1981).

Results of a study of 16 non-alcoholic women, who were shown erotic films and given alcohol while being measured with a vaginal photoplethysmograph, indicated that alcohol caused decreased objective signs and increased subjective perception of sexual arousal. This would indicate that vaginal vasocongestion decreases with increasing intoxication, just as does penile erection, its counterpart.

In one study of 44 female chronic alcoholics, 20% said they never experienced orgasm and 36% said they had orgasms less than

5% of the time. It is not clear whether this anorgasmia was related to the adverse physiological effects of alcohol, to the social consequences of alcoholism or to some aspect of the alcoholism-prone personality (Buffum, 1981).

Alcohol combined with other psychoactive drugs such as cocaine is also perceived to have sex enhancing properties. In fact, systematic studies of alcohol and cocaine abusers have demonstrated severe drug-induced sexual dysfunction in many abusers. Cocaine-induced sexual dysfunction may be a factor in seeking treatment for drug abuse. High doses of cocaine, like amphetamine, can also produce sexual behavior that the individual defines as aberrant and unhealthy, ranging from compulsive masturbation, multipartner marathons or sexual abuse of children. This pattern of cocaine-induced aberrant sexual behavior is often produced when the individual combines cocaine with large doses of alcohol which may produce both disinhibition and blackouts (Smith, 1983; Smith, unpublished).

A subgroup of alcoholics also abuse opiates such as heroin, administering it intravenously, or are treated for heroin addiction by oral administration of methadone. The interaction of alcohol and the opiate can impair sexual functioning.

Heroin is more often related to sexual dysfunction than is methadone, whether in short-term or in long-term. While using methadone, 47% of the males and 67% of the females reported sexual problems, compared to 85% of the males and 87% of the females with sexual difficulty while using heroin. Comparable improvement was noted with specific problems of impotence, libidinal loss and sexual enjoyment while the client was on methadone. (Goldsmith, 1984)

The most effective and powerful group process for recovery from alcoholism is Alcoholics Anonymous. Many recovery groups using the same steps, such as Narcotics Anonymous and Cocaine Anonymous have evolved to deal with other drugs of abuse. The steps are outlined as follows:

1. We admitted that we were powerless over our addiction, that our lives had become unmanageable.
2. We came to believe that a power greater than ourselves could restore us to sanity.

3. We made a decision to turn our will and lives over to the care of God as we understood him.
4. We made a fearless and searching moral inventory of ourselves.
5. We admitted to God, to ourselves and to another human being the exact nature of our wrongs.
6. We were entirely ready to have God remove all these defects of character.
7. We humbly asked Him to remove our shortcomings.
8. We made a list of all persons we had harmed, and became willing to make amends to them all.
9. We made direct amends to such people wherever possible, except when to do so would injure them and others.
10. We continued to take personal inventory, and when we were wrong promptly admitted it.
11. We sought through prayer and meditation to improve our conscious contact as we understood Him, praying only for knowledge of His will for us, and the power to carry it out.
12. Having had a spiritual awakening as a result of those steps, we tried to carry this message to addicts and to practice these principles in all our affairs. (Narcotics Anonymous, 1983)

Often, other types of therapy such as individual counseling, family therapy and sex therapy for persistent sexual dysfunction need to be implemented. Antabuse can be an adjunct to recovery by blocking appreciation of drinking. In the late 1940's disulfiram (Antabuse) was introduced as a therapeutic agent in the treatment of alcoholics. Its mechanism of action is illustrated in Figure 2 (Kanas, 1984).

Early in recovery some alcoholics on Antabuse will describe sexual dysfunction and consider discontinuing Antabuse therapy. For the most part, it is the absence of alcohol with its disinhibiting effects rather than the pharmacological effects of Antabuse which produces the sexual dysfunction. As the disease of alcoholism progresses, so does the socio-sexual impairment.

Studies by Mandell and Miller indicate that individuals who come to alcoholism clinics may not be representative of the general population with regard to social class and general health. The observed rates of occasional sexual dysfunction may be representatives of individuals of similar social background. Also, men who come to alcoholism clinics may have other concurrent undiagnosed



health problems that increase the risk of dysfunction. Another possibility to be considered is that these subjects may have been consuming more alcohol in the pre-recovery heavy drinking period than they remember. The high rates of dysfunction reported for the period of heaviest drinking may reflect the early onset of alcohol effects on sex function (Mandell, 1983).

Table 6 summarizes the effects of alcohol on sexual function for both male and female by dose (Bush, 1980).

Table 6

EFFECTS OF ALCOHOL ON SEXUAL FUNCTION BY SEX AND AMOUNT OF ALCOHOL*

Small Dose	Moderate Dose	Large Dose	Chronic Alcoholism
WOMEN:			
Release of inhibitions	Fewer or no orgasms	No orgasm	Loss of libido
Feelings of warmth	Decreased quality of orgasm	Lassitude	Loss of menstruation
Increased aggression	Longer foreplay	No lubrication	Frigidity
Increased desire	Decreased lubrication		Infertility
Increased enjoyment of foreplay			
Increased quality of orgasm			
MEN:			
Release of inhibitions	Longer foreplay	Impotence, both	Loss of libido
Increased aggression	Increased time to erection	erectile and ejaculatory	Loss of sexual satisfaction
Increased desire	Difficulty in maintaining erection	Thoughtlessness	Erectile impotence
Increased arousal	Uncertain orgasm	Unpleasant ejaculation	Decreased testosterone
Control of premature ejaculation	Decreased penile tumescence	Aggressiveness	Infertility
Decreased penile tumescence			Breast development
			Decreased body hair
			Shriveled testicles

*The amount of alcohol ingestion depends on how strong the drinks are made, how fast they are drunk, the amount of food and drink in the stomach, other drugs taken, weight and age.

Since alcohol abuse and drug and alcohol abuse in combination continue to be substantial problems in our society, it is increasingly important for medical practitioners, psychologists, sex therapists and drug treatment personnel to be aware of the nature and treatment of both addictive disease and related sexual concerns.

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