

Co-Morbidity of Alcoholism and the Paraphilias

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ABSTRACT: Alcoholism has been related to a wide variety of crimes. Various authors have studied the prevalence of alcoholism in relationship to incest, rape and pedophilia. This study evaluates the co-morbidity of alcoholism and the specific paraphilias including sexual sadism, fetishism, incest, pedophilia, exhibitionism and transvestism. Rapists were included although by definition it is not strictly a paraphilic disorder. Seven hundred and twenty eight paraphilic individuals were evaluated. More than 50% of sexual sadists were alcoholics. Alcoholism in association with sexual sadists was statistically significant as compared to transvestites, rapists, pedophiles, and incest offenders. Transvestism had the lowest relative rate of alcoholism. The authors discuss these findings and the role alcoholism plays in causing violent sexual behavior in individuals with paraphilias.

KEYWORDS: forensic science, psychiatry, alcoholism, paraphilias

The relationship between crimes of violence including sexual offenses, and alcohol is well documented in the literature (1,2). Alcohol is the most commonly abused substance. It is found to be associated with 24 to 85% of violent crime (3). The National Co-Morbidity Study showed a lifetime prevalence of alcohol dependence in 14% of the general population (4). The incidence of alcoholism among sexual offenders ranges from 28% to 52% depending on the stringency of the criteria used for diagnosing alcoholism (5-7). Alcohol use has been implicated prior to the commission of up to 80% of rapes. Thirty-five percent (35%) of a sample of rapists were reported to be alcoholics (2,8). In the United States, the rape rate varies from 40 to 60 per year per 100,000 women (9). Sixty-six percent (66%) of sexual sadists had a history of alcohol abuse and were intoxicated at the time of the offense (10). In pedophiles the prevalence of alcoholism ranges from 28% to 65% (11). Amongst incest offenders, the incidence of chronic alcoholism ranges from 8% to 72% (12). This suggests a strong relationship between alcohol and sexual offenses, however, there continues to be debate as to whether alcohol has a direct or indirect influence on sexual crimes (13).

Sexual crimes with the exception of rape, are categorized in the DSM III R under the paraphilic disorders (there are no differences

described by DSM IV) (14). DSM III R defines the paraphilic individual as having recurrent sexually arousing fantasies, urges or behavior involving non-human objects, suffering or humiliation of oneself or another person; or non-consenting individuals such as children. The individual must also have acted on these urges, or be significantly distressed by them. The paraphilic must also have experienced urges, fantasies or behaviors for at least 6 months duration (14).

There are various types of paraphilic disorders described, including; voyeurism, exhibitionism, frotteurism, fetishism, pedophilia, sexual masochism, sexual sadism, transvestitic fetishism (transvestism), and paraphilia not otherwise specified (which includes among others, bestiality, coprophilia, urophilia, telephone scatologia).

Rape is more controversial because of ambiguous and variable definitions. Although rapists show a higher degree of sexual arousal to audiotape descriptions of rape as compared to descriptions of adult mutual consenting sex, not all rape is regarded as a true paraphilia because of a lack of homogeneity in the underlying motivations of the offender (15). In this sense some rapists present with a "paraphilic coercive disorder" while some present with sexual sadism (16). Paraphilic coercive disorder is defined as fantasies or urges to rape, of 6 months duration which are either acted on or disturbing to the individual. There is a high degree of co-morbidity between rape and the other paraphilias, the highest being sexual sadism, with 46% of sexual sadists exhibiting rape behavior (17). There are of course many rapists who have no specific paraphilia, and sometimes have an Axis II DSM diagnosis (18).

The categorical approach taken by DSM III R does not allow for a spectrum of sexual behaviors and deviance, although it is rare for paraphilic individuals to have only one paraphilia. Various authors have reported that most paraphilics have more than one different type of paraphilia during their lifetime (16,19). Of all the paraphilias individuals with frotteurism, exhibitionism, voyeurism, fetishism, transvestism, homosexual pedophilia, sadism and masochism have between 3.8 and 4.2 other paraphilias (16). Co-morbidity among the paraphilias is not surprising because of this empirically reported overlap.

Sexual behavior can be seen to be on a continuum with deviance at the extreme of the continuum. Some authors have suggested the paraphilias themselves to have a similar spectrum (20). Freund discussed the 'courtship disorders' which hypothesizes the interrelationship and co-occurrence of voyeurism, exhibitionism, frotteurism and rape-proneness (21). Sexual sadism and transvestism have been described as associated with the 'courtship disorders' (20). Transvestism has also been associated with sadomasochism (22). Twenty (20%) to 40% of sexual sadists have associated cross-dressing (22-24). Hucker reported that transvestism and fetishism co-occurs with auto-erotic asphyxia (25). Individuals charged with

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rape showed significant cross dressing behavior (26). It has been reported that in 20% of cases of sexual sadism; exhibitionism, voyeurism and telephone scatologia co-occur (26). An overlap between the fantasies and behaviors of individuals with fetishism, transvestism and sexual sadism has been reported (19,27,28). Wilson and Gosselin compared fetishists, transvestites and sadomasochists with normal controls and found that 88% of fetishists also engaged in sadomasochism (29). Various authors have reported that sexual sadism, fetishism, transvestism and exhibitionism have also been associated with temporal lobe pathology (19,27,29,30). The paraphilias-transvestism, voyeurism, exhibitionism, fetishism, have higher rates of aggressive paraphilic tendencies (16). As a result of these studies authors have hypothesized that the paraphilias lie on a continuum with the more sexually violent behaviors of sexual sadism and rape at the extreme end of the spectrum.

The association between alcohol and the spectrum of paraphilias has not been addressed in the literature. The co-morbidity of alcoholism and the specific paraphilias will be addressed in this study. The authors hypothesize that individuals with paraphilic disorders show a high co-morbidity with alcoholism. In addition that there is a relationship between the paraphilias that tend to co-occur and alcoholism. It is further hypothesized that the more violent sexual behaviors and their associated paraphilias will have a higher rate of alcoholism as compared to the other paraphilias.

Instrument

Selzer (1975) devised a consistent, structured, and quantifiable interview instrument, the Michigan Alcohol Screening Test (MAST) to measure the extent of alcoholism (31). The MAST has been found to correlate with DSM III R criteria for alcohol dependence (32). This instrument has widespread use in the literature on detection of alcoholism. The validity and reliability of this instrument is well established (31,33). The internal consistency has a reported overall alpha coefficient of 0.87 and a validity coefficient of $r = 0.79$ ($\gamma = 0.95$), and is relatively unaffected by age or denial of socially unacceptable characteristics (32,34). This means that the MAST has high reliability and validity. It comprises of a 24 item yes-no questionnaire with a weighted scoring system which can be easily administered by clinicians (31,34). Selzer recommended that a score of 3 points or less, indicated non-alcoholism, a score of 4 points, suggestive of alcoholism and a score of 5 points or greater, alcoholism, with the exception that a positive response to certain questions is diagnostic. For purposes of reducing the number of false positives, we chose a higher threshold for the diagnosis of alcoholism than originally recommended by Selzer (33). In this study, the cut off score for the diagnosis of "alcoholism" was 7 points or more, with score of 5 or 6 points indicating possible alcoholism, and 4 points or less indicating no alcoholism.

Method

Subjects

Male subjects were assessed at the sexual behaviors clinic of a university psychiatric teaching hospital. Although the majority of the subjects were referred by judges, lawyers, and physicians from a community population of about 1 million, a few subjects were self referred. Most subjects were at pretrial and pre-sentencing stages of their legal proceedings. Each patient underwent a 90 minute clinical interview with a psychiatrist experienced in paraphilias. They then underwent a sexual behaviors assessment which

included the Michigan Alcoholism Screening Test (MAST) as part of a comprehensive assessment. Strict DSM III R criteria were applied to adult males in the clinical interview. Individuals who met the criteria for exhibitionism, fetishism, bisexual pedophilia, heterosexual pedophilia, homosexual pedophilia, sexual sadism, transvestism were included in the study. Although not a paraphilia in DSM III R, rape was included using the nature of the charge or conviction as the defining criteria. Also included were the categories bisexual incest and heterosexual incest which are subcategories of pedophilia (14). The primary and secondary paraphilic diagnosis of the subjects was considered. Those who had a diagnosis of sexual sadism, fetishism or exhibitionism and at least one other paraphilia were classified as sexual sadists, fetishists or exhibitionists respectively. Those individuals with rape and sexual sadism concurrently were classified as sexual sadist, and those individuals with transvestism and fetishism concurrently, were classified as fetishists. In other words the rape and transvestism group did not have any the other concurrent paraphilias of sexual sadism, exhibitionism or fetishism.

The concurrent diagnosis were as follows: of the fetishism group, 3 were pedophiles, 6 were rapists and 1, a transvestite. Of the exhibitionist group, 15 were incest offenders or pedophiles, 3 were rapists, 1 was a sexual sadist and 4 had a paraphilia not included in this study. Of the rape group, 3 were pedophiles. Of the sexual sadism group, 17 were incest offenders or pedophiles, 10 were rapists and 4 had a paraphilia not included in this study. The transvestite group had 1 pedophile and 1 masochist. The subject who had a diagnosis of sexual sadism and exhibitionism was classified as an exhibitionist on the basis of his primary diagnosis. Written, voluntary, informed consent was obtained from the subjects. Excluded from the sample group were those subjects who refused to give consent. The final sample group consisted of 728 paraphilic individuals ($N = 728$). For the purposes of this study, alcoholism was defined according to the MAST score of more than 7 and subjects were classified as alcoholics on this basis.

Results

The three incest (bisexual, heterosexual and homosexual) groups were combined to form one group, as were the three pedophile groups. The sexual sadism, fetishism, exhibitionism, rape and transvestism were not combined. These seven groups varied on marital status ($\text{Chi-square} = 124.6$; $\text{df} = 12$; $p < .001$). The incest group had fewer subjects (18.8%) who were single than the six other groups (See Table 1). The groups also varied on employment status at the time of assessment ($\text{Chi-square} = 33.3$; $\text{df} = 3$; $p < .001$). Fewer of the sadists (31.7%) were employed than the other groups. The groups were also different on the number of years of education ($\text{Kruskal-Wallis one-way ANOVA} = 27.5$; $p < .001$). Mann-Whitney U tests were used to determine how the groups differed. The exhibitionists had more education than the sadism ($U = 943.0$; $p < .005$), incest ($U = 6531.5$; $p < .001$), pedophile ($U = 6743.0$; $p < .001$), and rape ($U = 1188.5$; $p < .01$) groups. The transvestite group had more years of education than the sadism ($U = 105.0$; $p < .05$), incest ($U = 735.0$; $p < .01$) and the rape ($U = 130.5$; $p < .05$) groups. (See Table 1).

The mean score on the MAST for the total sample was 8.4 ($SD = 13.1$). The median of the total sample was 2.0 and the mean 8.4. The highest median scores were found in the sexual sadists and fetishists with scores of 7.0 and 6.0 and mean scores of 15.1 and 14.2 respectively. Exhibitionists had a median score of 3.0 and a mean score of 8.8. Rapists had a median score of 1.0 and a mean of 8.5. The incest and pedophile group had median scores

TABLE 1—Marital status, employment status and years of education at time of assessment by sexual deviation.

Sexual deviation	Single %	Married or common-law %	Separated, divorced, widowed %	Years of education (mean yrs)	% Employed
Sexual Sadism	61.0	22.0	17.1	10.7	31.7
Fetishism	47.6	38.1	14.3	11.4	57.1
Exhibitionism	48.6	45.8	5.6	12.7	77.8
Rape	66.0	31.9	2.1	11.1	44.7
Transvestism	60.0	40.0	0.0	12.9	80.0
Bisexual Incest	6.3	43.8	50.0	10.7	75.0
Heterosexual Incest	19.0	51.8	29.1	10.8	60.7
Homosexual Incest	26.3	26.3	47.4	11.0	36.8
Bisexual Pedophilia	71.8	12.8	15.4	10.0	33.3
Heterosexual Pedophilia	48.9	33.8	17.3	11.2	54.1
Homosexual Pedophilia	65.1	22.9	12.0	11.5	53.0
Total Sample	42.2	38.2	19.6	11.2	56.0

of 2.0 and a mean ranging between 6.3 and 10.1. Transvestites had the lowest median score of 0.0 with a mean score of 5.0 (See Table 2).

Thirty point six percent (30.6%) of the total paraphilic sample had scored above 7 points on the MAST. This indicated alcoholism at some stage in these subjects lifetime. An additional 5.8% scored between 5 and 6. Sexual sadism and fetishism showed the highest relative rate of alcoholism with 51.2% of the sexual sadists and 47.6% of the fetishists having scores greater than 7 on the MAST. Of the homosexual incest group 31.6% scored greater than 7, the highest of the incest groups. Of the homosexual pedophilic group, 28.9% scored above 7, the highest of the pedophilic groups.

Of the rapist group, 31.9% scored greater than 7. Twenty-five percent of the exhibitionists scored above 7 and 20% of the transvestism group. (See Table 3).

The Mann-Whitney U test was used to examine how the groups differed on the MAST. (See Table 4).

The sexual sadist group had a significantly higher median and mean rank than all of the other groups except for the exhibitionism and fetishism groups. There were no other differences between the groups.

TABLE 2—Michigan alcohol screening test. Mean score by sexual deviation.

Sexual deviation	Median	N	Mean	SD
Sexual Sadism	7.0	41	15.1	17.6
Fetishism	6.0	21	14.2	17.1
Exhibitionism	3.0	72	8.8	14.6
Rape	1.0	47	8.5	13.2
Transvestism	0.0	10	5.0	10.3
Bisexual Incest	2.0	16	7.2	11.6
Heterosexual Pedophilia	2.0	247	8.2	12.5
Homosexual Incest	2.0	19	9.3	14.8
Bisexual Pedophilia	2.0	39	10.1	16.3
Heterosexual Pedophilia	2.0	133	6.3	10.1
Homosexual Pedophilia	2.0	83	7.0	11.4
Total Sample	2.0	728	8.4	13.1

TABLE 3—Michigan alcohol screening test. Breakdown of scores by sexual deviation.

Sexual deviation	Percent < 4	Percent 5 or 6	Percent 7 +
Sexual Sadism	46.3	2.4	51.2
Fetishism	47.6	4.8	47.6
Exhibitionism	66.7	8.3	25.0
Rape	66.0	2.1	31.9
Transvestism	70.0	10.0	20.0
Bisexual Incest	62.5	0.0	37.5
Heterosexual Incest	62.8	6.5	30.8
Homosexual Incest	63.2	5.3	31.6
Bisexual Pedophilia	69.2	2.6	28.2
Heterosexual Pedophilia	64.7	9.8	25.6
Homosexual Pedophilia	69.9	1.2	28.9
Total Sample (N = 728)	63.6	5.8	30.6

Discussion

Our study found that sexual sadism, had the highest associated co-morbidity with alcoholism. The rate of alcoholism in fetishists, exhibitionists, rapists and transvestites was less than was expected. Thirty point six percent (30.6%) of individuals in this study, with a paraphilia, have a history of alcoholism which is more than twice that of the reported lifetime prevalence of 14% in the general population in the United States. This concurs with ranges reported in previous studies (2,35,36). Therefore, fully one third of the subjects with a paraphilia had co-morbid alcoholism.

Of the potentially most violent paraphilias, individuals with a diagnosis of sexual sadism, 51.2% were in the alcoholic range and 53.4% of the cases of "possible alcoholism" were included. This shows an association between sexual violence involving sexual sadism and alcoholism. The rate of alcoholism amongst rapists, in this study is similar to the 35% reported by Rada (2). The majority of rapists in this study are not alcoholics. This relatively lower rate could be related to the inconsistency of alcoholism in rapists or due to the absence of sexual sadists from this group in this study. Also rape is not classified as a paraphilia because the factors that motivate the act of rape are heterogeneous.

Our study reports that the rate of alcoholism is statistically higher among sexual sadist as compared to incest, pedophilia, transvestism and rape groups but not compared to exhibitionists or fetishists groups. This suggests a tendency to alcoholism in the fetishism and exhibitionism groups. This tendency is interesting because of the association between sexual sadism, fetishism and exhibitionism as already outlined.

Transvestism had the lowest rate of alcoholism amongst the paraphilias. Transvestism has been described as associated with sexual aggression in other studies (22). The DSM III R defines this category of paraphilia as transvestitic fetishism (14). In our study those individuals with transvestitic fetishism who had other fetishes as concurrent primary or secondary diagnosis, were allocated to the fetishism group. This left only the transvestitic fetishes in the transvestism group with those who tended to focus on the gender dysphoric component of their paraphilia. These findings suggest that transvestitic fetishism in the absence of fetishism as a co-morbid paraphilia, might be associated with a lower rate of violence on the basis of its association with alcohol.

Our study shows that alcoholism is co-morbid with the paraphilias. In addition, alcoholism is significantly associated with sexual sadism. We will now discuss the possible links between alcohol

TABLE 4—MAST scores by sexual deviation groups Mann-Whitney *u* test.

	Median	Fetishism	Exhibitionism	Rape	Transvestism	Incest	Pedophilia
Sexual Sadism	7.0 <i>n</i> = 41	U = 420.5 n.s.	U = 1165.5 n.s.	U = 717.5 <i>p</i> < .05	U = 119.5 <i>p</i> < .05	U = 4550.5 <i>p</i> < .05	U = 3908.5 <i>p</i> < .01
Fetishism	6.0 <i>n</i> = 21		U = 624.5 n.s.	U = 378.0 n.s.	U = 62.5 n.s.	U = 2417.5 n.s.	U = 2097.5 n.s.
Exhibitionism	3.0 <i>n</i> = 72			U = 1553.0 n.s.	U = 269.5 n.s.	U = 10, 137.5 n.s.	U = 8836.5 n.s.
Rape	1.0 <i>n</i> = 47				U = 190.0 n.s.	U = 6177.0 n.s.	U = 5788.5 n.s.
Transvestism	0.0 <i>n</i> = 10					U = 1046.0 n.s.	U = 986.5 n.s.
Incest	2.0 <i>n</i> = 282						U = 34,535.5 n.s.
Pedophilia	2.0 <i>n</i> = 255						

and violent behavior; and the neurobiological mechanisms behind this association. Multiple theoretical models to explain the link between alcohol and violent behavior have been described (35,36).

Direct Causal Hypothesis

A direct causal theory suggests that alcohol directly causes aggression through its physiological effects. Humans are continuously suppressing unacceptable aggressive impulses and under the influence of alcohol these impulses increase, or the mechanism for suppression decreases. This direct causal hypothesis is generally not accepted because of the lack of experimental support for this model.

Indirect-Cause Paradigm

This hypothesis postulates that there is a positive relationship between alcohol and aggression which can be attributed to alcohol impacting on a number of variables. The effect of alcohol on the physiological, cognitive and emotional make-up of the individual determines its effect on the thought process, perceptual abilities and emotional lability of the individual.

Motives

A third model postulates that the motives which cause the individual to drink, interact with the alcohol to increase the probability of aggression. An example being that increased anxiety reduces aggression in some individuals, by decreasing anxiety with alcohol, a person is more prone to aggression.

Predispositional and Situational Factors

A fourth is model based on the effect predispositional and situational factors (such as the personality of the individual, the cultural perspective to tolerance of drinking, and the context in which the drinking occurred) have on the behavior of the individual who is drinking.

Impaired State Rationale

The last model supports the role of learned cognitive expectancies on aggressive behavior. This "impaired state" rationale is a cognitive distortion used by the individual to justify to himself behavior as arising out of the use of alcohol (36). This implies

that being intoxicated gives the individual a reason for himself and possibly others to negate responsibility for unacceptable behavior.

None of the above theories are mutually exclusive (36). These models have application to a variety of violent offenses, including sexually aggressive offenses.

Alcoholism may be hypothesized to play a role in individuals who switch to a more aggressive expression of their paraphilia; by exerting a biological effect on the brain, it may be an important biological antecedent of violent and sexual crime.

Both violence and the paraphilias have been associated with neurochemical defects involving the serotonergic system, other neurohormonal systems, and neuroanatomical defects involving the frontal and temporal lobes (37–40).

Neuroanatomical Defects

Fetishism, sexual sadism and transvestism are the paraphilic disorders most commonly reported in individuals with temporal lobe epilepsy (20,30,38). However, hyposexuality is more commonly found in temporal lobe epilepsy. Kluver and Bucy found that removal of the temporal lobes in monkeys resulted in the sexually aggressive behavior. Langevin when studying computerized tomographic scans (CT-Scans) of sexually aggressive individuals found that there was not a higher rate of structural brain damage between sexual aggressive offenders and controls. However, when temporal lobe damage alone was considered, sexual sadists showed a significantly higher rate of temporal horn dilatation than other sexual aggressive offenders (41). Sexual sadists also evidence other abnormalities. Reitan Neuropsychological Test Battery, electroencephalogram (EEG) and single photon emission tomography (SPECT), all showed abnormalities primarily in the temporal lobes (10,40,42,44).

Although not yet confirmed there is a possible link between structural damage due to frontotemporal contusions and neurochemical dysfunction associated with decreased levels of 5-Hydroxyindoleacetic acid (5-HIAA) in the cerebrospinal fluid (CSF) (38).

Neurochemical Defects

Neurochemical defects such as serotonergic dyscontrol and serum glucose abnormalities are believed to play role in aggression (40). Alcohol ingestion has a variety of neurochemical effects. It acutely increases inhibitory gamma-Aminobutyric acid (GABA)

transmission, it decreases excitatory N-methyl-D-aspartate (NMDA) neurotransmission, thus having an anxiolytic effect (46). It increases 5-Hydroxytryptamine (5-HT) release in the short term and depletes 5-HT stores in the long term, decreasing 5-HT turnover and CSF 5-HIAA levels (45,46). Impulsivity and irritability in addition to novelty seeking behavior have been related to reduced central serotonin turnover (46,47). A relationship between Type II alcoholism, impulsivity and low serotonin turnover has been postulated (45,46). Type II alcoholics, are described by Cloninger as individuals presenting with onset of alcoholism before age 25 years, seeking out alcohol regardless of the circumstances and frequent arrests for fighting when intoxicated. In addition he described them as having high novelty seeking and low harm avoidance and reward dependence traits (48). The net effect of alcohol on these neurotransmitter systems is to a) reduce anxiety thereby diminishing "responses to cues of possible punishment and frustrative nonreward" and b) diminishing impulse control (36,46). Low 5-HT turnover has also been implicated in antisocial personality disorders, intermittent explosive disorder, obsessive compulsive disorder depression, violent suicide, anxiety and alcoholism (46,49–52). A wide variety of behaviors and conditions that are influenced by the serotonin system, having a low serotonin system as a common characteristic. In addition, it has been postulated that these conditions can be treated with serotonin reuptake inhibitors (53).

Serotonin reuptake inhibitors (SSRI'S) have also shown some early evidence of effectively treating paraphilic sexual disorders in some individuals, without affecting appropriate sexual preference, but diminishing intrusive and often ego-dystonic urges and consequent compulsive behaviors (54,55). Although side effects of diminished libido and drive are commonly found in non paraphilic individuals using SSRI'S, there is a tendency for SSRI'S to have a less substantial effect on diminishing consensual adult sex drive and greater effect on diminishing paraphilic behavior in individuals with paraphilic disorders (39).

In certain individuals who have a biological vulnerability to the paraphilia sexual sadism, alcohol may have a distinct role in sexual violence. These biological factors just described suggest that there may be a significant relationship between neurostructural or neurochemical factors and the paraphilias. When exposed to chronic alcohol intake, effects on the serotonin system could impact on vulnerable underlying structural pathology, precipitating impulsive acting out of aggressive fantasies in individuals who previously were not aggressive.

There are several limitations to this study. Our data was gathered through self-report. Although self report is relatively unreliable, it is more reliable than official statistics such as conviction rates. We minimized this limitation by doing a comprehensive assessment including physiological testing, collaboration using police occurrence reports, victim statements and information from family members. Although no normal control group was used, our study compared the differences between paraphilias according to their MAST score. We used only the primary and secondary paraphilic diagnosis and in some cases the subjects were allocated to paraphilic groups according to their secondary diagnosis. It is also possible that subjects had more than two paraphilias. Not all the subjects were "admitters," meaning that some primary paraphilias might have gone undiagnosed. The subjects were mainly pretrial and pre-sentencing and may have wanted to give the appearance of being less paraphilic.

Our study confirmed the high co-morbidity of alcoholism with the paraphilic disorders. It supports the association of alcoholism

with violence, in particular with sexual sadism, and may be of assistance in hypothesizing the cause of sexual sadism, as outlined in the discussion. It separates, on the basis of alcoholism, the paraphilias transvestism, incest and pedophilia from sexual sadism. The interrelationship of the paraphilias and alcoholism warrants further investigation of neurochemical, neuroanatomical and psychosocial correlates.

In conclusion this study shows that alcoholism is a significant factor to be considered when dealing with sexual deviancy. Future research will need to further evaluate the relationship between the various paraphilias, alcohol and violence.

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