

High-risk sexual behaviour & sensation seeking among heavy alcohol users

P.S. Chandra, V.A.S. Krishna, Vivek Benegal & Jayashree Ramakrishna*

*Departments of Psychiatry & *Health Education, National Institute of Mental Health & Neurosciences, (NIMHANS), Bangalore, India*

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Background & objectives: An association has been shown between alcohol use and high-risk sexual behaviour. One of the important variables that might mediate risky sexual behaviour among alcohol users is the sensation-seeking dimension of personality. This study was undertaken with the aim to assess the relationship between sensation seeking and sexual risk taking among heavy alcohol users admitted to a De-addiction centre.

Methods: To study the above association, sensation seeking was compared between subjects admitted for treatment of alcohol dependence with (n=30) and without (n=30) reported high-risk sexual behaviour.

Results: Subjects reporting high-risk sexual behaviour were found to have higher sensation seeking scores in all the domains of the sensation seeking scale compared to those without high-risk sexual behaviour. Scores on the subscale disinhibition, of the sensation seeking scale seemed to be associated with higher sexual risk taking.

Interpretation & conclusion: Sensation seeking as a personality variable was significantly associated with sexual risk taking behaviour among heavy alcohol users. The study indicates the need for careful assessment of personality in these individuals and emphasizes the need for further studies on a larger sample.

Key words Alcohol - high-risk sexual behaviour - sensation seeking

Research on the predictors of high-risk behaviour, has indicated a consistent relationship of alcohol use with sexual risk taking¹⁻⁴. In India, the nation-wide behaviour surveillance survey conducted by the National AIDS Control Organisation (NACO) among clients of female sex workers, found that nearly three fourths of the respondents reported ever having alcohol⁵. Substance use has also been found to be associated with unprotected sex and difficulty in maintaining initiated behavioural changes⁶. One of

the possible explanations for the association between alcohol and high-risk sexual behaviour is that drinking heavily may be a part of a larger spectrum of high-risk behaviours⁷. The higher prevalence of high-risk sexual behaviour among those who are heavy drinkers has also been reported⁸.

In addition, several studies have addressed the role of sensation seeking as a personality construct

in explaining the association between substance use and sexual risk taking⁸⁻¹⁰. Sensation seeking is a tendency to seek novel, exciting, and optimal levels of stimulation and arousal¹¹⁻¹⁴.

Studies on sensation seeking and high-risk sexual behaviour in the context of alcohol use have shown that higher sensation seeking is associated with multiple sexual partners¹⁰, and that alcohol use might be a marker for individuals who tend to have risk-taking personalities rather than a direct cause of risk-taking behaviour¹⁵. Studies in homosexual men with substance use, have shown a significant relationship between sensation seeking, substance use and high-risk sexual contacts indicating that personality variables such as sensation seeking are important predictors of risk behaviour and should be considered in HIV prevention interventions⁸.

There is limited Indian literature on the association of alcohol intake with sexual behaviour. Studies on injecting drug users in Madras (Chennai) have shown a significant association of daily use of alcohol with indulgence in risky sex with commercial sex workers¹⁶. In addition, NACO has also reported an association between risky sex and alcohol use⁵. In a study among men taking treatment for alcohol dependence in a deaddiction centre in south India, high-risk sexual behaviour was associated with heavier drinking, the presence of co-occurring psychiatric disorder and use of substances other than alcohol¹⁷.

In view of the strong associations of alcohol use and high-risk sexual behaviour, this study was undertaken to assess the relationship between sensation seeking and sexual risk taking among a sample of heavy alcohol users admitted to a deaddiction centre in south India. The study compared patterns and levels of sensation seeking among men with and without sexual risk taking. We hypothesized that the levels of sensation seeking in a group of heavy users of alcohol would be higher among those with high-risk sexual behaviour compared to those without.

Material & Methods

The subjects were inpatients admitted in the deaddiction centre at the National Institute of Mental

Health and Neurosciences, Bangalore, India. The study was conducted with the approval of the institutional ethics committee, between January to June 1998. All patients (n=177) who were admitted over a six-month period in the deaddiction facility were screened for self-report high-risk sexual behaviour in the preceding two years. High-risk sexual behaviour in this study was defined as, sexual intercourse with anyone who had sex with other men, who had sex with other women, who had sex with one who received unsafe blood or blood products, who had sex with anyone in the above categories. Patients with co-morbid psychosis, dementia and moderate or severe mental retardation were excluded. This was done to remove the confounding effect of the psychiatric disorder or intellectual impairment on sensation seeking. Of the 177 subjects, 53 (30%) reported high-risk sexual behaviour in the last two years. However, only 30 men gave consent for participation in this study and contributed to the study sample (Group I). All the 53 subjects who reported high-risk sexual behaviour in the last two years were homogenous with regard to their age range socio-economic status and diagnosis. Thirty men without high-risk sexual behaviour admitted for alcohol dependence and matched for age and diagnosis were considered as a comparative group (Group II).

All the inpatients who satisfied the criteria of the study were contacted a week after their admission in order to ensure that the patient's withdrawal symptoms had stabilised and they had adjusted to the ward environment. All subjects underwent a detailed semi structured interview to elicit high-risk sexual behaviour. The subjects were allotted to the 'risk group' (Group I) or 'without risk' (Group II) based on the presence or absence of self-reported high-risk sexual behaviour. An informed consent was obtained from all the patients and confidentiality was assured prior to starting the interview.

Tools: The tools used for data collection were:

(i) A semi structured interview guide to assess risky sexual behaviour — Developed for the purpose of the study and used for identifying subjects with high-risk sexual behaviour.

(ii) Semi structured high-risk sexual behaviour assessment schedule — Developed for the purpose of the study based on the interview. This had nine items indicating risk behaviour with a dichotomous rating. A score of 5 and below was considered for the purpose of this study as indicating relatively low-risk and a score more than 5 indicating high risk.

(iii) Sensation seeking scale¹⁸ — This version was an Indian adaptation of the original sensation seeking scale developed by Zuckerman¹⁹. The scale which was revised and standardised on the Indian population consists of 40 items, which measure a person's sensation seeking behaviour. Each item in the scale has two statements, positive and negative, which are given scores 0 and 1 accordingly, for example: (a) I like groups where one can enjoy without any inhibition; (b) I prefer quiet groups with good conversation. The minimum and maximum scores on this scale are 0 and 40 with higher scores indicating higher level of sensation seeking. The scale has four subscales which include - thrill and adventure seeking (TAS), experience seeking (ES), disinhibition (DIS) and, boredom susceptibility (BS).

Analysis: The data were analysed using SPSS 7.5. Descriptive analysis was used to describe details of socio-demographic and risk behaviours. Independent sample t test was used to compare the sensation seeking scores between the two groups.

Results

The mean age of the subjects in Group I and Group II was 31.9 ± 7.49 and 35.0 ± 7.47 yr respectively; 60 per cent of Group I subjects and 73 per cent Group II were urban based; 53 per cent of Group I and 67 per cent of Group II were married. The two groups did not differ significantly on the above socio-demographic details.

Details of high-risk sexual behaviour in Group I: All but one subject in the risk group reported a heterosexual orientation. Fifty seven per cent (n=17) of the sample reported sex with commercial sex workers, 97 per cent (n=29) reported sexual contacts with partners who were known for less than a day,

while 90 per cent (n=27) reported that their sex partners had other partners. All the subjects reported at least ten risky sexual encounters in the last two years under the influence of alcohol. The total number of sexual partners for all individuals over the last two years ranged from 1-200 (median 10). None of the subjects reported using condoms during the risky sexual acts, 47 per cent of the respondents reported being treated for STDs. Seventy per cent of the subjects in this group scored above five on the semi structured high-risk sexual behaviour assessment schedule indicating higher risk.

Sensation seeking scores among subjects with & without risk: On comparing sensation seeking scores (SSS) between the risk group and without risk group (Table), a significant difference was observed in the total sensation seeking score and all the subscales of SSS. The subjects in Group I reported higher sensation seeking in all the domains [DIS, ES, BS (all $P < 0.001$), TAS ($P < 0.05$)] and also in the total score ($P < 0.001$) when compared with Group II subjects. A few subjects scored relatively higher on a few domains of sensation seeking in Group II and on TAS scores in Group I. This resulted in the higher standard deviation (SD) scores than the mean, indicating high degree of variance in the scores.

Severity of risk & sensation seeking scores: Further analysis was carried out on Group I subjects by dividing them into two sub groups based on the

Table. Sensation seeking scores among subjects with & without high-risk sexual behaviour

SSS variables	Group I	Group II
SS total score	19.16±8.61	6.66±7.37**
TAS	4.33±4.26	2.10±3.24*
BS	4.16±2.49	1.10±1.64**
ES	4.06±1.70	1.50±1.96**
DIS	6.60±1.75	1.96±1.73**

$P^{**} < 0.001$; * < 0.05 compared to Group I

TAS, thrill and adventure seeking; BS, boredom susceptibility; ES, experience seeking; DIS, disinhibition
N=30, values are given as mean±SD
SSS, sensation seeking scores

severity of risk. Sensation seeking was compared between these two sub groups. The subjects in the higher risk group (n=21) had significantly higher scores (6.45 ± 1.86) on the subscale disinhibition (DIS) than those with lower risk (n=9) (5.05 ± 2.25). However, the scores on the other subscales of SSS (TAS, ES, BS) and the total SSS score did not differ significantly between the two subgroups.

Discussion

The present study demonstrates a relationship between sensation seeking and sexual risk taking among persons admitted for alcohol dependence in a deaddiction unit. Subjects reporting high-risk, sexual behaviour scored higher on sensation seeking measures compared to those who did not. This finding supports earlier speculations that sensation seeking is associated with substance use and risky sex⁸. Our findings are in agreement with previous studies which demonstrated an association between risky sex and personality factors^{8,10,12,20}. Our finding that the disinhibition factor of the sensation seeking scale was associated with higher sexual risk taking compared to other factors of sensation seeking is also an important finding. This finding is consistent with those of an earlier study⁹ that identified a significant relationship between sexual experiences and sensation seeking particularly disinhibition and boredom susceptibility⁹.

Though our study demonstrates an association between sensation seeking and high-risk sexual behaviour among alcohol users, it does not necessarily mean that there is a causal relationship. Nevertheless, the above findings lend credence to the postulated relationship between personality and sexual risk taking in this population of heavy alcohol users. 'Sensation seeking has been correlated with high-risk sexual behaviour even among non-alcohol users⁹. Hence, based on the results of our study, we may not be able to delineate the specific links of alcohol to high-risk sexual behaviour.

Our study has certain methodological advantages. Firstly, all patients were adequately screened with an assessment schedule, which was used to quantify the sexual risk, avoiding bias. Secondly, a control

group of patients with alcohol dependence but without high-risk sexual behaviour and matched for age and diagnosis was used for comparison. Finally, the subjects in the study were assessed using a structured personality construct for sensation seeking, which was standardised on the Indian population. However, our study has limitations due to the small sample size which prevents generalisation of the results. In addition, our subjects were those with severe alcohol problems and thus our results cannot be extrapolated to describe all alcoholic users who have high-risk sexual behaviour. Similar studies need to be conducted on a larger sample of both sexes among subjects with varying degrees of alcohol use. Studying personality factors among non-alcohol users with high-risk sexual behaviour will also help further in specifically delineating the relationship between alcohol, personality and risky sex.

Sensation seeking is an important factor contributing to high-risk sexual behaviour in any population⁹ however, among heavy users of alcohol this issue becomes even more relevant, particularly in the context of risk reduction. This study demonstrates the relevance of sensation seeking as a personality construct that might be one determinant of high-risk sexual behaviour among alcohol users. The results indicate the need for careful assessment of personality in this population and emphasize the need for further studies that focus on sensation seeking in high-risk sexual behaviour among both users and non-users of alcohol to further clarify this association.

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Reprint requests : Dr P.S. Chandra, Additional Professor, Department of Psychiatry, National Institute of Mental Health and Neurosciences, Bangalore 560029, India
