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Correlates of Sexual Dysfunction in Male Patients with Alcohol Dependence Syndrome: A Cross-Sectional Study

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Article History	Abstract
Received on: 03 Jun 2024 Revised on: 21 Sep 2024 Accepted on: 24 Sep 2024	 <p>Introduction: Sexual dysfunction and alcohol dependence syndrome are complex issues that significantly impact the overall well-being and quality of life of affected individuals. Sexual dysfunction, encompassing various issues such as erectile dysfunction, reduced libido, and orgasmic disorders, is a prevalent concern affecting a substantial proportion of the male population worldwide. Aim: To estimate prevalence of sexual dysfunction in patients admitted for Alcohol dependence and to identify various Clinical and Socio demographic correlates for sexual dysfunction in this population. Materials and Methods: The study involved fifty-eight male participants who had sought deaddiction treatment at the Psychiatry Outpatient Department of Tertiary Care Centre, Maduranthakam for alcohol dependence syndrome, diagnosed according to the ICD-10. Information on sociodemographic, alcohol-related, and sexual dysfunction-related variables was gathered. Sexual dysfunction was assessed for the past year, ignoring temporary and situational complaints. The relationship between sexual dysfunction and various study variables was explored using relevant statistical tools. Results: Out of the total sample size evaluated using SAD-Q score, 71% are moderately dependent and 29 % are severely dependent. Sexual Dysfunction was present for 64% of patients in the study. For the 58 patients in the study, the most common sexual dysfunction reported was an absence of sexual desire in 19 patients, followed by erectile dysfunction which was present in 18 patients. The ability to reach orgasm was difficult for 6 patients. Satisfaction from orgasm was absent for 4 patients. Conclusion: This research seeks to advance our understanding of sexual dysfunction in male patients with alcohol dependence syndrome by unravelling the intricate web of factors influencing their sexual health.</p>
<p><i>Keywords</i></p> <p>Alcohol, Deaddiction, Erectile dysfunction, Sexual desire</p>	

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INTRODUCTION

There is a strong correlation between the complexity of sexual dysfunction and alcohol dependency syndrome and the negative effects on people's health and happiness. Sexual dysfunction, encompassing various issues such as erectile dysfunction, reduced libido, and orgasmic disorders, is a prevalent concern affecting a substantial proportion of the male population worldwide. Sexual dysfunction is complex, and the World Health Organization (WHO) agrees that

more study is needed to determine what causes it and how to treat it clinically.

Conversely, someone with alcohol dependency syndrome is unable to limit or quit drinking despite negative outcomes; this illness is both chronic and crippling. An urgent need for a fuller knowledge of the repercussions of alcohol on diverse areas of health is highlighted in the World Health Organization's worldwide Status Report on Alcohol and Health [1], which emphasizes the broad worldwide burden of alcohol-related illnesses. Many other academic studies have looked at the link between alcoholism and male sexual dysfunction and its negative effects. Sexual dysfunction is more common in those who are dependent on alcohol, with rates ranging from 40% to 95.2%, which is consistently higher than in healthy controls or social drinkers [2].

A specific study involving 97 male alcohol dependence inpatients revealed that 71% experienced sexual dysfunction for a duration exceeding one year before their hospitalization [3]. The connection between alcohol dependence and sexual dysfunction has been ascribed to psychosocial elements. Marc A. Schuckit emphasized the role of anxiety, depression, and interpersonal conflicts in both conditions [4]. This highlights the imperative to delve into the intricate interplay of psychological, physiological, and sociocultural factors influencing sexual function in men dealing with alcohol dependence syndrome.

A systematic review of clinical and experimental studies found that in men with alcohol dependence, problems like erectile dysfunction, inhibited libido, and delayed ejaculation were linked to higher amounts of alcohol consumed in terms of frequency, duration, and quantity [5]. Alcohol Dependence Syndrome (ADS) patients may have erectile dysfunction due to a number of recognized causes. Hepatic dysfunction, changes in testosterone metabolism, changes in the hypothalamic-pituitary-gonadal axis function, neurotoxic effects on cells, and interpersonal issues such marital disputes caused by alcohol intake are all aspects to consider [6]. Some patients may decide to start drinking again since erectile dysfunction persists even when the patient is not using any ED medication [8].

Problems with ejaculatory competence (22% of cases), impaired sexual desire (58% of cases),

erectile dysfunction (ED) (16%), and premature ejaculation (4% of cases) were identified in studies of people with alcohol dependency syndrome [3]. It is worth mentioning that ejaculatory dysfunctions are often cited as a reason why people go back to drinking, even after drug-based de-addiction treatment [10]. This cross-sectional study intends to fill a gap in the literature by methodically investigating many variables that contribute to sexual dysfunction in male patients with alcohol dependency syndrome. Previous research on this topic is sparse. Investigating the processes behind the observed connections, determining the prevalence of sexual dysfunction in this group, and identifying risk factors are the main aims.

Clinicians, psychologists, and healthcare providers might anticipate that this study's results will shed light on the complex interplay between alcoholism and erectile dysfunction in males. Insights gained from this research may lead to more effective interventions, tailored treatment approaches, and improved counselling strategies to address the unique challenges faced by individuals grappling with both conditions.

Materials & Methods

This is cross sectional study done in Psychiatry Outpatient Department of Tertiary Care Centre, Maduranthagam. For this research recruited fifty-eight male subjects who had sought deaddiction therapy at the Psychiatry Outpatient Department of Tertiary Care Centre, Maduranthagam for alcohol dependent syndrome. All participants were evaluated by a psychiatrist and diagnosed according to the ICD-10. Participation in this five-month cross-sectional study was open to all consecutive patients who fulfilled the inclusion and exclusion criteria. Every individual who took part in the study gave their informed permission. The study also ensured confidentiality and ethical compliance throughout the research process.

Inclusion criteria:

- A. Men in their twenties to fifties?
- B. In a committed relationship with a regular sexual mate.

Exclusion criteria :

- A. History of primary sexual dysfunction
- B. Comorbid physical illnesses

C. Comorbid psychiatric disorders.

D. The use of drugs that alter libido, such as steroids, antihypertensives, antipsychotics, and disulfiram.

year. Using appropriate statistical approaches, we investigated the potential associations between sexual dysfunction and the study's factors.

We used statistical methods, such as multivariate

Table 1 Socio-Economic and Clinical variables

Education			
	No formal Education	2	3.4
	Up to 12th	43	74.1
	Graduate	13	22.4
Occupation			
	Unskilled	44	75.9
	Skilled	9	15.5
	Professional	5	8.6
Socioeconomic status			
	Low	42	72.4
	Middle	16	27.6
Duration of alcohol dependence			
	1 - 10 yrs.	40	69.0
	11 - 20 yrs.	18	31.0
Family history of alcohol			
	No	20	34.5
	Yes	38	65.5
Age at First Drink			
	Less than 20 years	56	96.6
	21-30 years	2	3.4

Assessment Tools:

1. Pro-forma for collecting socio-demographic, alcohol-related and sexual dysfunction-related information.
2. Use of the SADQ in determining the degree of alcohol dependency.
3. The Arizona Sexual Experience Scale, which is used to assess erectile dysfunction

Study procedure:

In order to test for alcohol dependency syndrome (withdrawal state-uncomplicated), patients who visited the outpatient department were evaluated. Data was gathered using the proforma after participants were chosen based on inclusion and exclusion criteria. The following characteristics were recorded: socio-demographics, alcohol use, and sexual dysfunction. The severity of alcohol dependency was evaluated using the SADQ, and the results were quantified using the ASEX. Ignoring transient and situational symptoms, sexual dysfunction was evaluated throughout the last

regression models, to find out what factors were associated with sexual dysfunction in this group. To further understand the complex association between alcohol use and sexual function, we will also conduct subgroup analyses according to the intensity of alcohol dependency and the length of time that dysfunction has persisted.

Sociodemographic variables

The average age of the participants was 39 years old in the research. Nearly three quarters of the patients surveyed had completed secondary school. They were all working, but the majority (76%) did not have any special training. When it comes to financial situation, 72 percent of patients are from low-income families. We found that 72 percent of the 58 patients who participated in our research were from low-income backgrounds (**Table 1**).

Alcohol-related variables

Nearly all of the people who drank for the first time were under the age of 20 (97 percent). Thirty-one percent of the participants had been drinking for 11–20 years, and 69% of them had a history of

alcohol dependency for 10 years or less. An alcoholism runs in around 66% of the population.

Severity of alcohol dependence: Out of the total sample size evaluated using SAD-Q score, 71% are moderately dependant and 29 % are severely dependant (**Table 2**).

Table 2 Severity of dependence on SAD-Q

Severity of dependence on SAD-Q	Frequency	%
Mild	0	0
Moderate	41	70.7
Severe	17	29.3

Sexual dysfunction-related variables:

Table 3 shows that 64 percent of the study's participants had sexual dysfunction as measured by the ASEX scale. Out of the 58 patients who participated in the research, erectile dysfunction was reported by 18 patients (31% of the total) and a lack of sexual desire by 19 patients (33% of the total). The ability to reach orgasm was difficult for 6 patients (10%). Satisfaction from orgasm was absent for 4 patients (7%) (**Table 3,4**).

Table 3 Prevalence of Sexual Dysfunction on ASEX

Prevalence of Sexual Dysfunction on ASEX	Frequency	%
Present	37	64
Absent	21	36

Table 4 Distribution of Sexual Dysfunction

		Extremely strong /Easy	Very Strong /Easily	Somewhat Strong /Easily	Somewhat weak /Difficult	Extremely weak / Difficult
Sexual Desire	n	9	30	-	-	19
Erectile Dysfunction	n	1	39	-	12	6
Ability to reach orgasm	n	4	42	6	6	-
Satisfaction from orgasm	n	11	39	4	-	4

Correlation between sexual dysfunction and other study-related variables

The degree of alcohol dependency, sexual dysfunction, and daily alcohol use were shown to be significantly correlated positively. There was no discernible relationship between sex dysfunction and age (**Table 5**).

Table 5 Relationship between the degree of alcohol abuse and sexual dysfunction. Quantity of alcohol consumption and age

Variables	Statistics	
	Pearson Correlation	P-Value
Sexual Dysfunction	1	NS
SADAQ Scores	.485**	.0001
Alcohol Consumption per day	.458**	.0003
Age	.016	.903

Sexual Dysfunction association with Socio-demographic, alcohol-related variables:

A person's line of work is significantly associated with sexual dysfunction. A higher percentage of unskilled workers than skilled workers reported experiencing sexual dysfunction. The length of time someone was dependent on alcohol and the amount of alcohol they drank daily were two of the alcohol-related factors that were strongly linked to sexual dysfunction (**Table 6**).

Discussion

Alcohol has historically been considered an aphrodisiac in many societies, often associated with reduced social inhibitions and increased impulsivity. However, despite these perceptions , alcohol has been shown to have negative effects on sexual performance, with prolonged abuse leading.

Table 6 Sexual Dysfunction correlated with Socio-demographic and alcohol-related variables

Variables	Sexual Dysfunction		Test Significance
	Present	Absent	
Age at first drink			X ² =1.176 P=0.530 (NS* at P>0.05)
<20	35	21	
21-30	2	0	
Occupation			X ² =10.474 P=0.0005 (S** at P<0.01)
Unskilled	23	21	
Skilled	9	0	
Professionals	5	0	
Socio economic status			X ² =0.016 P=0.899 (NS at P.0.5)
Upper	0	0	
Low	27	15	
Middle	10	6	
Education			X ² =3.800 P=0.150 (NS at P>0.05)
No formal Education	0	2	
Upto 12 th	29	14	
Graduate	8	5	
Duration of Alcohol dependence			X ² =1.051 P=0.01 (S at P<0.01)
1 - 10 yrs	19	21	
11 - 20 yrs	18	0	
Family H/O Alcohol dependence			X ² =1.660 P=0.198 (NS at P>0.05)
No	15	5	
Yes	22	16	
Alcohol Consumption Per Day in ml.			X ² =21.018 P=0.001 (S at P<.01)
180	2	0	
300	1	0	
360	11	18	
540	4	3	
	1	0	
560			
720	18	0	

NS *: Not significant. S *: Significant

to sexual dysfunction, a major factor in impotence. Our study, consistent with the findings of Arackal BS et al, revealed that 64% of patients experienced sexual dysfunction [11].

The most prevalent issues were a lack of sexual desire in 33% of patients and erectile dysfunction in 31%. The coexistence of various sexual dysfunctions, as reported by Van Theil and Lester was also observed [12]. In agreement with the work by Gavaler JS et al., which demonstrated a connection between alcohol consumption and reported symptoms, our examination confirmed a substantial association between alcohol

consumption levels and sexual dysfunction [13]. The likelihood of developing sexual dysfunctions increased with higher alcohol consumption, possibly due to greater neurotoxic effects.

Consistent with Mandell and Miller's pilot study, our research also found a significant correlation between the length of time someone has been dependent on alcohol and erectile dysfunction [14].

The degree of sexual dysfunction was exacerbated by the cumulative effects on the central nervous system, hepatic system, endocrine system, and gonadal system as the period of reliance grew. Consistent with Prabhakaran, D study, our study

also found a significant positive correlation was obtained between variables like severity of alcohol dependence as well as the amount of alcohol consumed per day and sexual dysfunction [15].

The low frequency of alcohol usage among females in India led to an emphasis on male alcohol abuse. On the other hand, the research highlighted how common sexual issues are among heavy drinkers, therefore it's important that experts in sexual medicine take this into account when treating their patients. This research provides important information for family and motivational therapy of heavy drinkers by highlighting the reversibility of alcohol-induced sexual dysfunction following alcohol cessation. It was recommended that clinicians regularly evaluate sexual functioning in those who are dependent on alcohol.

The study's sample size of 58 limits the generalizability of results, warranting a larger sample for robust conclusions. Being an observational, cross-sectional study, it did not account for additional contributory factors such as personality, family dynamics, marital functioning, and psychopathology. In order to thoroughly investigate the impact of alcohol on sexual dysfunction, future research should conduct long-term prospective studies.

The study's results hold implications for societal improvement in the family and marital lives of alcohol-dependent individuals. It calls attention to the psychosocial and sexual challenges faced by these individuals, necessitating appropriate interventions. Regular assessment of sexual and behavioral parameters in individuals with addictions is emphasized.

CONCLUSION

By delving into the complex network of variables impacting the sexual health of male patients with alcohol dependency syndrome, this study aims to enhance our comprehension of sexual dysfunction in these individuals. Given the intricate relationship between alcoholism and erectile dysfunction in males, this study's findings may help direct focused treatments and add to the body of knowledge on effective treatment options. Our capacity to provide comprehensive treatment to persons navigating the junction of alcohol dependency and sexual health is being enhanced by our study, which aims to give significant insights

to the field of sexual medicine as it continues to advance.

Ethical Approval

No ethical approval was necessary for this study.

Author Contribution

All authors made substantial contributions to the conception, design, acquisition, analysis, or interpretation of data for the work. They were involved in drafting the manuscript or revising it critically for important intellectual content. All authors gave final approval of the version to be published and agreed to be accountable for all aspects of the work, ensuring its accuracy and integrity.

Conflict of Interest

The authors declare no conflict of interest, financial or otherwise.

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