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Original Research Paper

Does Alcoholism Influence Sexual Functioning?

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ABSTRACT

Background: Alcohol and alcohol use disorder are known to cause sexual dysfunctions. In turn it may aggravate frequency and amount of alcohol consumed. We assessed the prevalence and the correlates of sexual dysfunction in men with Alcohol Dependence Syndrome (ADS) in a tertiary care hospital. ***Methods:*** A total fifty Consecutive male subjects were selected on the 3rd day of inpatient care from general hospital psychiatry with a diagnosis of Alcohol Dependence Syndrome with Simple withdrawal Symptoms as per ICD-10 criteria. Co-morbid psychiatric diagnosis was ruled out using SCID – 1. They were assessed for sexual dysfunction using International Index of Erectile Function (IIEF), a 15 item questionnaire. Data analyzed using descriptive and chi square test. ***Results:*** The mean age of the study sample was 39.26 (±8) years; The mean age of onset of drinking was 19.1(±6.2) years, and that of dependence was 24(± 6.7) years, duration of alcohol dependence was 15 (±7.7) years, with an average daily consumption of 462 (± 330) ml. Out of 50 patients, 38 (76%) reported to have one or more sexual dysfunction. Sexual desire (78.94%), low intercourse satisfaction (76.31%), followed by low overall satisfaction (57.89%), erectile dysfunction (55.26%) and orgasmic function (31.57%) were reported in that order. Co morbid nicotine dependence was found in 31(62%) of those having sexual dysfunction, and was statistically significant in those with erectile dysfunction and overall satisfaction domain with a p value less than 0.05. however other domains did not correlate. ***Conclusion:*** Sexual dysfunction is more prevalent in male patients with ADS. The prevalence of co-morbid nicotine dependence was high among patients with alcohol dependence syndrome. The findings of the current study indicate that it is necessary to routinely evaluate sexual dysfunction in patients with ADS and research should focus on the pathophysiology of sexual dysfunction among ADS.

Keywords: *Alcohol Dependence Syndrome, Sexual Dysfunction.*

Alcohol has long been held by society as facilitator of sexual expressions and as an enhancer of sexual activity. It is the most abused drug that young adults indulge in to reduce their

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anxiety, fear, improve their confidence and they believe it increases their sexual desire and performance. But as Shakespeare says in the Scottish play: 'It increases the desire, but it takes away the performance'. There is physiological and psychological interplay between alcohol and sexual function. However, heavy and persistent use of alcohol for long-term as well as alcohol use disorder is known to induce sexual dysfunctions.

This can be due to the action of ethanol on the gonads and now for the last two decades ethanol is considered as a gonadal toxin. The gonadal toxicity can occur as a direct effect or due to impairment at Hypothalamo-Pituitary-Gonadal axis.

Prevalence of sexual dysfunction in male as well as it's a etiology varies from study to study and is grossly under recognised by the health care system for various factors. It is known that medical practitioners often do not inquire about it in patients in whom it may not be the complaint. From India only a few studies have reported regarding this topic and that too they are mostly from the de addiction centres and not many studies have been undertaken in the General Hospital Psychiatry Unit [GHPU] set up. With this in mind, we conducted the current study.

Aims and Objectives

- To assess the prevalence of Sexual Dysfunction [SD] in male patients with Alcohol Dependence Syndrome [ADS] in GHPU.
- To assess the socio demographic and clinical correlates of SD in male patients with ADS in GHPU**.**

METHODOLOGY

In our study a total of fifty consecutive male subjects were interviewed on the 3rd day of inpatient care GHPU, Navodaya Medical College & Hospital and Raichur institute of medical sciences Raichur.

Inclusion criteria

1. Patients admitted for ADS with simple withdrawal symptoms.
2. Age between 20-60 years.
3. Sexually active males having a regular sexual partner.

Exclusion criteria

1. History of primary / secondary sexual dysfunction [prior to initiation of alcohol use]
2. Co-morbid physical disorders: Diabetes mellitus, Hypertension, other systemic illnesses, history of genito-urinary surgery or spinal cord lesion.
3. Co-morbid psychiatric disorders: Schizophrenia, Delusional disorder, Anxiety disorders and Mood disorders. Patients with symptoms of depression or anxiety not fulfilling a syndromal diagnosis were included in the study.
4. Substance use other than alcohol and tobacco.
5. Use of drugs (antipsychotics, antidepressants, antihypertensive, steroids, etc.)

The Researchers conducted a face-to-face interview with the subjects. After seeking, informed consent from subjects. Diagnosis was confirmed by using ICD-10 criteria.

Co-morbid psychiatric diagnosis was ruled out using Structured Clinical Interview for DSM-IV-TR Axis I Disorders (SCID – 1). Interviewer using a semi- structured proforma, focused on the demographic details, patterns, type, and amount of alcohol consumed. Sexual dysfunction was assessed using International Index of Erectile Function (IIEF), a multidimensional scale with 15 item questionnaire that evaluates several aspects of male sexual behaviour in 5 domains.

Domain	Items	Range	Score Max
Erectile Function	1, 2, 3, 4, 5, 15	0-5	30
Orgasmic Function	9, 10	0-5	10
Sexual Desire	11, 12	0-5	10
Intercourse Satisfaction	6, 7, 8	0-5	15
Overall Satisfaction	13, 14	0-5	10

Decreased sexual desire: persistent or recurrent deficiency or absence of desire for sexual activity giving rise to marked distress and interpersonal difficulty.

Difficulty in erection: recurrent or persistent, partial or complete failure to attain or maintain an erection until the completion of the sex act.

Difficulty in achieving orgasm: persistent or recurrent delay in or absence of orgasm, following a normal sexual excitement phase.

Statistical analysis

Statistical analyses were performed using the level of statistical significance set at $P < 0.05$. Clinical and socio-demographic characteristics of the sample were analyzed by descriptive statistics. Chi-square test was used to assess discrete variables.

RESULTS

In our study, majority of the ADS patients were less than 50 years of age, majority were Hindus, most of them studied less than intermediate level, semiskilled professionals, and belonged to below poverty line group. (Table-1)

The mean age of the study sample was 39.26 (±8) years; were mostly from urban background (58%). The mean age of onset of drinking was 19.1(±6.2) years, and that of dependence was 24(± 6.7) years, duration of alcohol dependence was 15 (±7.7) years, with an average daily consumption of 15.4(±11) Units. (Table-2, Figure-1)

Table-1: Socio demographic profile

Variable		N= 50
Age in years [n (%)]	[Mean (SD)]	39.26(±8)
	20-30	6 (12)
	31-40	25 (50)
	41-50	16 (32)
	51-60	3 (6)
Education [n (%)]	No Formal education	13 (26)
	1 – 12th	35 (70)
	Above 12th	2 (4)
Religion [n (%)]	Hindu	43 (86)
	Muslim	6 (12)
	Christian	1 (2)
Socio-Economic Status (SES) [n (%)]	BPL	43 (86)
	APL	7 (14)
Languages [n (%)]	Kannada	35 (70)
	Tamil	4 (8)
	Telugu	3 (6)
	Hindi	1 (2)
	Others	7 (14)
Location [n (%)]	Rural	21 (42)
	Urban	29 (58)

Table-2: Pattern of alcohol use/ alcoholic profile

Variables	n(SD) / n (%)
Age	39.26 (±8) years
Age of onset of drinking	19.1(±6.2) years
Age at dependence	24(± 6.7) years
Duration of alcohol dependence	15 (±7.7) years
Average daily consumption	15.4 (±11) units
Incurring daily expense	200.2 (±165.2)INR

Figure – 1 Alcoholic profile

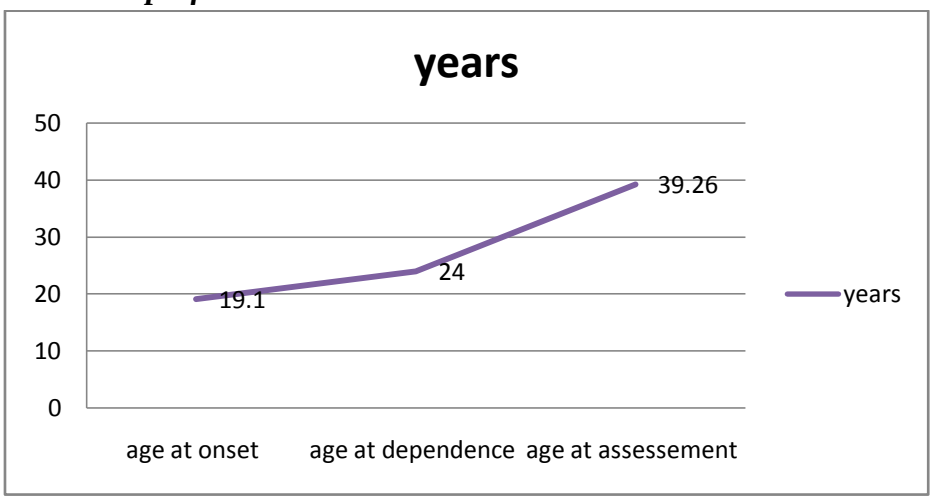


Table-3: Prevalence of Sexual Dysfunction

Variable	Prevalence [n (%)]
Erectile Dysfunction	21 (42)
Intercourse Dissatisfaction	29 (58)
Orgasmic Dysfunction	12 (24)
Sexual Desire Dysfunction	30 (60)
Overall Dissatisfaction	21 (42)
More than one dysfunction	38 (76)

Figure – 2: Prevalence of Sexual Dysfunction in different age group

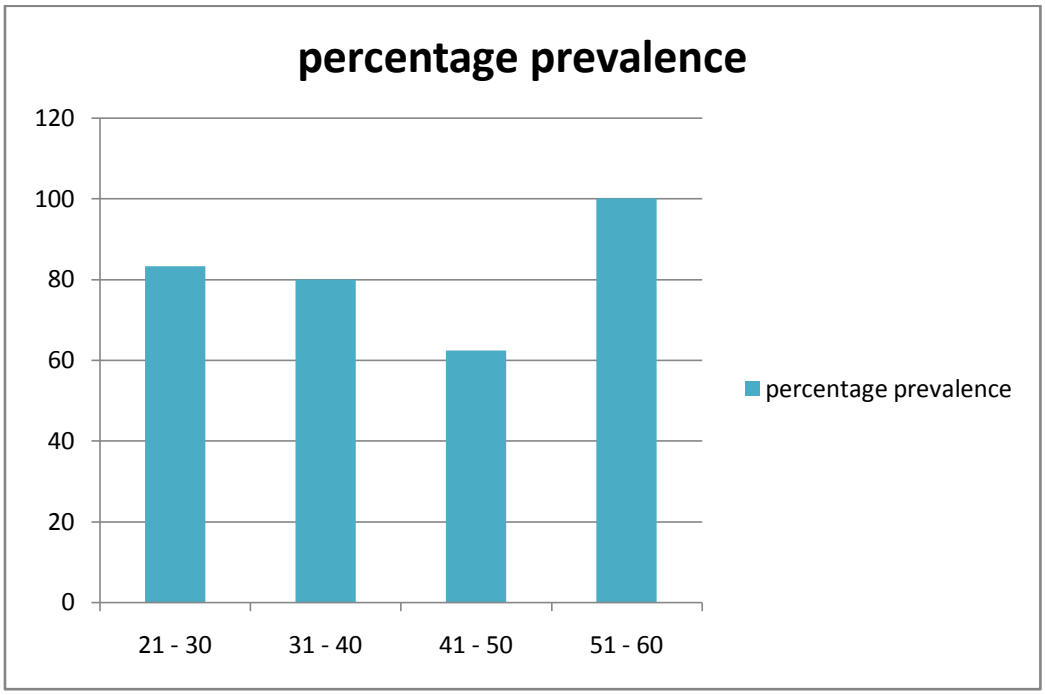
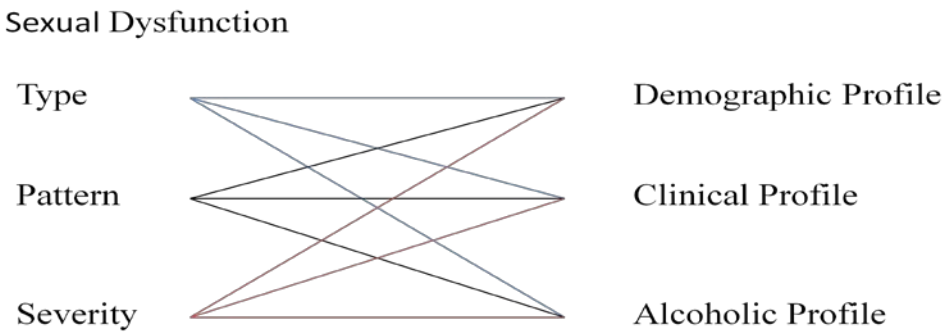


Table-4: Correlation between Sexual Dysfunction and NDS in patient with ADS

Variable		Co morbid N D S (n)		X^2 (df)	Significance
		Present [n(%)]	Absent [n(%)]		
Erectile Function	Yes	13 (26)	8 (16)	5.466 (1)	< 0.05
	No	26 (52)	3 (6)		
Intercourse Satisfaction	Yes	20 (40)	9 (18)	3.284(1)	0.070
	No	19 (38)	2 (4)		
Orgasmic Function	Yes	9 (18)	3 (6)	0.083(1)	0.774
	No	30 (60)	8 (16)		
Sexual Desire	Yes	23 (46)	7 (14)	0.078(1)	0.780
	No	16 (32)	4 (8)		
Overall Satisfaction	Yes	13 (26)	8 (16)	5.466(1)	< 0.05
	No	26 (52)	3 (6)		

Socio demographic, clinical factors, type / pattern / amount of alcohol use did not correlate with sexual dysfunction except age, and co morbid Nicotine Dependence Syndrome (NDS).



AGE V/S SEXUAL DYSFUNCTION

Table-5: Age v/s Sexual Dysfunction

Variable		Type of Dependence (n= 50)		X^2 (df)	Significance
		Early Onset Dep (< 25 years) [n(%)] [25(50%)]	Late Onset Dep (> 25 years) [n(%)][25(50%)]		
Erectile Function	Yes	6 (12)	15 (30)	6.65 (1)	< 0.05
	No	19 (38)	10 (20)		
Intercourse Satisfaction	Yes	10 (20)	19 (38)	6.65 (1)	< 0.05
	No	15 (30)	6 (12)		
Orgasmic Function	Yes	4 (8)	8 (16)	1.75 (1)	0.185
	No	21 (42)	17 (34)		
Sexual Desire	Yes	13 (26)	17 (34)	1.33 (1)	0.248
	No	12 (24)	8 (16)		
Overall Satisfaction	Yes	6 (12)	15 (30)	6.65 (1)	< 0.05
	No	19 (38)	10 (20)		
Total Dysfunction	Yes	17 (38)	21 (42)	1.75 (1)	0.185
	No	8 (16)	4 (8)		

Table – 6 Age v/s Sexual Dysfunction

Variable		Age (n= 50)		X^2 (df)	Significance
		<40years	>40years		
Erectile Function	Yes	12 (24)	9 (18)	0.36 (1)	0.547
	No	19 (38)	10 (20)		
Intercourse Satisfaction	Yes	17 (34)	12 (24)	0.33 (1)	0.563
	No	14 (28)	7 (14)		
Orgasmic Function	Yes	7 (14)	5 (10)	0.09 (1)	0.764
	No	24 (48)	14 (28)		
Sexual Desire	Yes	16 (32)	14 (28)	2.39 (1)	0.122
	No	15 (30)	5 (10)		
Overall Satisfaction	Yes	13 (26)	8 (16)	0.00 (1)	0.991
	No	18 (36)	11 (22)		
Total Dysfunction	Yes	25 (50)	13 (26)	0.96 (1)	0.326
	No	6 (12)	6 (12)		

DISCUSSION

Normal prevalence of sexual dysfunction is 2% - 4% among less then 40years of age. Vijayasenan found that of 97 male inpatients admitted for the treatment of alcoholism, 71% had sexual dysfunction. The disturbances noted were diminished sexual desire (58%), ejaculatory incompetence (22%), erectile impotence (16%) and premature ejaculation (4%). Virtually all aspects of the human sexual response are affected by alcohol especially sexual desire and erection. Jensen reported that 63% of married alcoholic men and 10% of controls had sexual dysfunctions, especially lack of sexual desire. In another study by Jensen 57% reported hypoactive sexual desire and 23.8% had impotence, 15.9% had premature ejaculation, and 25.4% had retarded ejaculation. In our study 76% of them complained of one or more problems of sexual dysfunction which shows higher prevalence of sexual dysfunction among male subjects with ADS. This is similar to what has been reported in earlier studies.

The most common sexual dysfunction reported were low sexual desire [30(60%)], low intercourse satisfaction [29 (58%)] followed by low overall satisfaction [21(42%)], erectile dysfunction [21(42%)] and least being the orgasmic function [12(24%)]. These findings were similar to the past studies. And not supported by few studies. (Table-3, Figure-2)

Socio demographic and clinical factors were not correlated with prevalence, severity and type of sexual dysfunction. These findings were similar to past existing evidence. (Table-6)

The age at which one starts to consume alcohol seems to influence the occurrence of sexual dysfunction as late onset of alcohol use is associated with a higher prevalence of sexual dysfunction. This is statistically significant, new incidental finding. There is no evidence to support this finding. (Table-5)

Similarly patient having co morbid NDS experience greater sexual dysfunction as erectile functioning and overall sexual satisfaction were significantly ($p = < 0.05$) lower in men with NDS. This has been reported in earlier studies too. (Table-4)

SUMMARY & CONCLUSION

In ADS, sexual dysfunction is of high clinical relevance as it is often missed by clinician and patients fail to report, which leads to treatment non adherence and sexual or marital disharmony. Yet, it is often neglected and unexplored in routine clinical care.

High prevalence of multiple co-existing sexual dysfunctions was noted in the study sample. The most common being low sexual desire, low intercourse satisfaction, followed by low overall satisfaction, erectile dysfunction and orgasmic function.

Socio demographic, pattern, type and amount of alcohol use, and clinical factors did not correlated with degree, prevalence of sexual dysfunction. Late onset alcohol use (more than

25 years) and Co-morbid NDS significantly increased the risk for developing ED and having low intercourse satisfaction and low overall sexual satisfaction.

Strengths

1. One of the few studies from GHPU set up.
2. Co morbid psychiatric, medical diagnosis and medications known to cause sexual dysfunction were excluded.

Limitations

1. Low sample size.
2. Cross sectional study design.
3. Assessed for only point prevalence.
4. Not matched for control group.
5. Hospital based sample, which does not represent general population.

Implication and Future Direction

The findings from current study indicate that it is necessary to routinely evaluate for SD in patients with ADS. There is a need for exploration of pathophysiology behind co morbid NDS. Future research should focus on longitudinal design to look at prevalence and outcomes of SD among relapsed and abstinent groups, which may give much more interesting findings.

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