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Sexual Dysfunction in Substance Abusers – An Exploratory Study

KEYWORDS: sexual dysfunction, polysubstance abuse, erectile dysfunction, sexual desire, sexual satisfaction

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ABSTRACT *Polysubstance dependence has been the leading cause of impotence and other disturbances in sexual dysfunction. The mechanism of sexual dysfunction in polysubstance abusers is varied and depends on the number of substance abused as well as disturbances in the hypothalamo-pituitary-gonadal axis. The aim of the present study was to assess sexual dysfunction in a sample of subjects with polysubstance dependence. 25 male subjects who presented to psychiatry department of Dayanand Medical College & Hospital, Ludhiana in outdoor and indoor facility with a diagnosis of polysubstance dependence (ICD- 10) were assessed for sexual dysfunction using an International Index of Erectile Dysfunction Scale which is a 15 question assessment tool that examines 4 domains of sexual male sexual function- erection , orgasmic, sexual desire and satisfaction. Majority of subjects in the study were above the age of 31 years. There was a significant difference in certain areas of sexual dysfunction as subjects above the age of 31 had significantly greater impairment in the area of sexual desire (p=0.022) and overall sexual satisfaction (p=0.017). Further study in greater detail with regard to sexual dysfunction is warranted in these groups of patients.*

INTRODUCTION

The relationship between substance use disorders and sexual dysfunction is bidirectional. On one hand patients that probably have sexual dysfunction may use substances to enhance sexual function while chronic substance use itself is a cause of sexual dysfunction.[1] Chronic or persistent use of substances are known to cause sexual dysfunction in various domains of sexual function such as decreased arousal[2], orgasmic disorders[3], erectile dysfunction[4] and ejaculatory disturbances.[5] Nicotine use is one of the leading causes of sexual dysfunction especially erectile dysfunction (ED) by reducing blood supply to the genital organs.[6] There is evidence that smoking constricts blood vessels and increases the risk of atherosclerosis while impairing the ability to produce nitric oxide and reducing erection.[7] Episodic erectile dysfunction has been found to be significantly higher in men consuming ten cigarettes or more per day.[8]

Alcohol use has been posited as one of the causative factors in impotence and other disturbances in sexual function.[9] 61% patients dependent on alcohol reported sexual dysfunction in an exploratory study.[10] In another study, it was found that among alcohol dependent individuals, 58% had decreased sexual desire, 22% had ejaculatory disturbances, 16% had erectile dysfunction and 4% had premature ejaculation.[11] Chronic cannabis use is known to contribute to a loss of libido and sexual desire.[12] Men who chronically abuse opioids and their derivatives report an unexpectedly high prevalence of erectile dysfunction and at a younger age compared to the general population.[13] The mechanism hypothesized for opioid induced sexual dysfunction is the suppression of the hypothalamo-pituitary-gonadal (HPG) axis which reduces sexual hormone release and production.[14] Heroin users have been reported to have reduced testosterone levels due o the same mechanism.[15] Sexual dysfunction is rarely assessed clinically in this population and even when present is often attributed to substance use and untreated. Most studies focus on male substance users and data on female sexual dysfunction is sparse.[16] Keeping this and other factors in mind, we assume that there shall be a high level of sexual dysfunction in patients that abuse multiple substances and the following study aimed to assess the types and severity of sexual dysfunction in patients of substance abuse seeking treatment in a tertiary hospital out-patient department.

METHODOLOGY

The study was carried out at Dayanand Medical College Hospital, Ludhiana. A total of 25 male subjects (both centers) who presented to out-patient clinic and diagnosed with poly-substance abuse syndrome according to ICD -10 criteria[17] were included in the study. The diagnosis was confirmed by a senior psychiatrist. Informed consent for the study was taken and subjects were assessed using a semi-structured proforma and the International Index of Erectile Dysfunction (IIED)[18] which is a 15 question assessment tool that examines 4 domains of male sexual function- erectile, orgasmic, sexual desire and intercourse satisfaction. The scale has been used in a number of studies and has good reliability and validity. Subjects having other major psychiatric illness (excluding personality disorder) or any major medical illness were excluded from the study. For the purpose of the study the subjects were divided into two groups – age ≤ 30 years and ≥ 31 years. The findings were divided into two groups for the clinical and statistical ease of calculation. These were a group with nil to mild sexual dysfunction and a group with moderate to

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severe dysfunction. Since numbers were small the Fischer's exact test was used in statistical analysis.

RESULTS

The mean age of subjects involved in the study was 35.84 ± 10.8 years. Majority of subjects were from the age group ≤ 30 years. The findings of the sample are described in table 1. Erectile dysfunction was the highest reported sexual dysfunction and was common in the age group of 31 years and above. There was an equal prevalence of orgasmic dysfunction noted in both groups. Sexual desire and overall satisfaction in sexuality as well as satisfaction in intercourse was reduced in the older age group. Desire was reported to statistically significantly lower in the age group of 31 years and above (p = 0.022). The overall satisfaction was also statistically significantly lower in this group (p = 0.017).

DISCUSSION

In our study majority of the sample (n=17) is in the age group above 31-50 years, which is in concordance with the other studies that quote 40-50 years as the most vulnerable age group for sexual dysfunction.[19] In another study which used the same scale substance abusers the findings were similar to our study as the sample had lower scores in each domain than that of the controls. Mean IIEF sexual desire domain score of the abusers was lower than that of the control. Increased and decreased ejaculation latency affected by illicit drug use.[20]

In a study on the association of sexual dysfunction and substance abuse there was a prevalence rate of 11% for inhibited orgasm, 13% for painful sex, 5% for inhibited sexual excitement, 7% for inhibited sexual desire, and 26% for any of these sexual dysfunctions.[21] The results of our study however, show a much higher incidence of sexual dysfunction. This may be because of the fact that ours is a hospital based study and sample consists of those people who come to seek treatment and not from the substance abusers in general population.

Most of the studies conducted on sexual dysfunction in substance abusers state that sexual dysfunction is very common in those consuming substances of abuse, with erectile dysfunction being most prominent finding.[22] We conclude that there is a high prevalence of erectile dysfunction among substance abusers. Longitudinal studies are needed to determine if sexual dysfunction in men improve over time following discontinuation of substance use. Sexual dysfunction is one aspect that is often ignored while treating those with substance dependence and is one of the reversible causes of sexual dysfunction.[23] If proper attention is given to this aspect a major distress can be removed and will help in de-addiction of these patients.

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Table 1 – Sexual dysfunction observed in the sample

Type of sexual dysfunction	Age	n = 25		Statistics
		Nil to mild dysfunction	Moderate to severe dysfunction	
Erectile Dysfunction	≤ 30 years	7	1	p = 0.2052
	≥ 31 years	10	7	NS
Orgasmic dysfunction	≤ 30 years	12	2	p = 0.2148
	≥ 31 years	9	6	NS
Disorder of sexual desire	≤ 30 years	6	1	p = 0.0022*
	≥ 31 years	1	10	
Intercourse satisfaction	≤ 30 years	2	6	p = 0.2313
	≥ 31 years	1	16	NS
Overall Satisfaction	≤ 30 years	5	2	p = 0.017*
	≥ 31 years	2	14	

*significant, NS – not significant (Fischer's exact test used in the calculation)

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