

FREQUENCY OF SEXUAL DYSFUNCTION AMONG PATIENTS USING CANNABIS: A CROSS-SECTIONAL STUDY

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ABSTRACT

OBJECTIVES

To determine the frequency of sexual dysfunction (decreased libido and premature ejaculation) in patients using cannabis.

METHODOLOGY

A Cross-sectional study was conducted at the Department of Psychiatry, Medical Teaching Institute, Lady Reading Hospital, Peshawar, on 329 patients using cannabis. The mean age of the patients was 30.08 (6.41) years. The mean duration of cannabis use was 299.24 (138.23) weeks. 'The Arizona Sexual Experience Scale' (ASEX, 2020) was utilized to measure the frequency of sexual dysfunction among those users, having scores from 5-30 and higher scores indicating more sexual dysfunction. The data were analyzed using SPSS version 28.0.

RESULTS

The frequency of sexual dysfunction in this study was 213 (64.7%). Among males, 206 individuals (96.7%) reported sexual dysfunction, whereas 107 individuals (92.2%) did not. In contrast, 7 females (3.3%) experienced sexual dysfunction, while 9 females (7.8%) did not. The p-value of 0.07 was near the threshold for significance, suggesting a possible link between gender and sexual dysfunction, with a higher prevalence observed in males. For individuals with less than 200 weeks of cannabis use, 67 (31.5%) reported sexual dysfunction, while 41 (35.3%) did not. Conversely, among those with more than 200 weeks of cannabis use, 146 individuals (68.5%) reported dysfunction, compared to 75 individuals (64.7%) who did not.

CONCLUSION

A significant proportion of cannabis users in this study experienced sexual dysfunction, highlighting a potential health concern associated with cannabis use.

KEYWORDS: Cannabis Use, Sexual Dysfunction, Substance Use, Decreased Libido, Premature Ejaculation

INTRODUCTION

Cannabis is the most widely used illicit drug in the world. According to the United Nations Office on Drugs and Crime's annual report, the estimated global prevalence of cannabis usage among people aged 15-64 is 4.9% (232 million).¹ Medical professionals use it to treat pain, conditions like multiple sclerosis, epilepsy, cancer, Huntington's disease, glaucoma, anxiety, Alzheimer's disease and weight loss, as well as moderate-quality evidence for Parkinson's disease.² Cannabis's psychotropic qualities restrict its use, although it has been used therapeutically and has several potential medical applications.³ In some countries, cannabis is illegal (Pakistan). In other, it is considered a "soft narcotic" (UK and USA) or legal (mainly countries in South America, Asia, and Africa).⁴ Many countries restrict the use of cannabis due to the risk of being used as substance abuse, causing health issues in public.⁵ Cannabis use is associated with adverse health issues involving various organ systems.

Its misuse can cause psychomotor dysfunction, impair cognition and increase the risk of psychotic symptoms, including addiction and cannabis use disorder. Moreover, smoking cannabis can result in respiratory impairment, from the trachea epithelium to lung function impairment.⁶ Many commonly used drugs can interfere with male sexual function either by decreasing libido, interfering with erectile function, or causing absent seminal emission or retrograde ejaculation. Centrally acting medications may cause sedation, depression and reduced libido. Moreover, there has been emerging evidence that cannabis use may be associated with sexual dysfunction.⁷ The most prevalent sexual health problem among males is sexual dysfunction, which is linked to a wide range of negative mental, physical, and psychological outcomes, such as anxiety, depression, and a decline in the quality of life for a couple.^{8,9} A growing number of physiological and psychological effects, including possible implications on sexual health, have been linked to cannabis usage. According to existing research, cannabis usage may

affect sexual function by affecting vascular health, hormone balance, and the central nervous system.^{7,9} In addition to its many medical uses, cannabis is frequently abused as a drug.¹⁰ According to Dr. Bieniek, Erectile function may be adversely affected by cannabinoid receptors in the brain and penis, which could result in problems getting and keeping an erection.¹¹ Cannabis users were twice as likely to experience ED as non-users, according to a 2019 review of four studies. Numerous other factors also play a role, including the mode of intake (smoking, vaping, edibles, etc.), dosage, and overall health.¹² A complex link driven by several factors, including gender and usage habits, is revealed by the prevalence and frequency of sexual dysfunction among cannabis users. Cannabis usage before coupled sex significantly increased orgasm frequency (72.8%) and satisfaction (67%) among women who reported orgasm difficulties in 52% of cases.¹³ Furthermore, daily users reported more sexual partners and particular dysfunctions, like the inability to achieve an orgasm, frequency and dosage of cannabis use are important factors.^{14,16} Given their role in the endocannabinoid system, THC and CBD may both have an impact on sexual function, while individual differences in effect may be significant.¹⁵ Nonetheless, there is still conflicting evidence about the relationship between cannabis usage and sexual dysfunction; some researchers indicate a link, while others present conflicting findings. To shed light on the potential negative consequences of cannabis usage on sexual well-being, this study attempts to ascertain the frequency of sexual dysfunction (decreased libido and premature ejaculation) among cannabis users.

METHODOLOGY

A Cross-sectional study was conducted at the Department of Psychiatry, Medical Teaching Institute, Lady Reading Hospital (MTI LRH), Peshawar, from January 11, 2024, to August 19, 2024, involving 329 patients. Both genders were included. Approval was obtained from the hospital's ethics board (Ref: 120/LRH/MTI) on May 18 2021, and patients who fulfilled the inclusion criteria were enrolled from the outdoor area of the Department of Psychiatry, Medical Teaching Institute, Lady Reading Hospital, Peshawar. The sample size was calculated using the WHO sample size calculator, with a 95% confidence interval, 5% absolute precision, and a prevalence of 69.1% sexual

dysfunction in a previous study.⁶ The expected sample size was 329 patients. 'Arizona Sexual Experience Scale' (ASEX, 2020) was utilized to measure the frequency of sexual dysfunction among cannabis users. Patients were diagnosed with sexual dysfunction (decreased libido and premature ejaculation). If the estimated score is 18 or higher on ASEX.¹⁶, the data were analysed using SPSS version 22.0. Mean and standard deviation were calculated for quantitative variables like age and duration of cannabis use. Frequency and percentage were calculated for categorical variables, such as gender, occupation, education status, and sexual dysfunction. Effect modifiers like age, gender, education, employment status, socio-economic status and duration of cannabis use were addressed through stratification of data. Post-stratification chi-square was applied among categorical variables to identify the association between the variables.

RESULTS

The mean age of the patients in this study was 30.08 (SD = 6.41) years. The average duration of cannabis among the participants was 299.24 (138.23) weeks.

Table 1: Descriptive Statistics of Demographic Variables

Variables	Frequency	%age
Age groups	30.08 (6.41)	
20 to 30	170	51.7 %
31 to 40	159	48.3 %
Gender		
Male	313	95.1 %
Female	16	4.9 %
Education status		
Primary	82	24.9 %
Middle	88	26.7 %
Intermediate	74	22.5 %
Higher education	85	25.8 %
Employment status		
Job	122	37.1 %
Business	107	32.5 %
Unemployed	100	30.4 %
Socioeconomic status		
Lower	104	31.6 %
Middle	116	35.3 %
Higher	109	33.1 %
Duration Cannabis	288.24 (138.23)	

Table 2: Frequency of Sexual Dysfunction

Sexual Dysfunction	Frequency	%age
Yes	213	64.7
No	116	35.3
Total	329	100.0

Table 3: Stratification of Sexual Dysfunction with Demographic variables

Variables		Sexual Dysfunction		P-value
		Yes	No	
Age Distribution	20 to 30	104	66	0.16
		48.8%	56.9%	
	31 to 40	109	50	
Gender	Male	206	107	0.07
		96.7%	92.2%	
	Female	07	09	
Duration of Cannabis Distribution	<200 weeks	67	41	0.47
		31.5%	35.3%	
	>200 weeks	146	75	
Education Status	Primary	55	27	0.39
		25.8%	23.3%	
	Middle	51	37	
Employment Status	Job	80	42	0.37
		37.6%	36.2%	
	Business	64	43	
Socioeconomic Status	Lower	67	37	0.97
		31.5%	31.9%	
	Middle	76	40	
	Higher	70	39	
		32.9%	33.6%	

DISCUSSION

The association between cannabis usage is a complicated and multidimensional topic, and behavioural, psychological, and physiological factors impact the prevalence of sexual dysfunction. The purpose of this study was to investigate the effects of cannabis usage on sexual function and whether long-term use increases a patient's chance of developing sexual dysfunction. This study found a possible link between gender and sexual dysfunction, with a higher frequency observed in males. Cannabis usage and sexual dysfunction have a complicated relationship, with research pointing to both subtle and detrimental impacts. According to research, cannabis use is linked to poorer measures of sexual function, especially in men, where problems, including erectile dysfunction, diminished sexual desire, and general dissatisfaction, are common. Sexual dysfunction symptoms can be made worse by several factors, including the frequency and amount of use. Research indicates that cannabis users have problems with penile function and sexual satisfaction, as seen by their significantly lower ratings on the International Index of penile Function (IIEF)

when compared to non-users.¹⁷ Men who consume cannabis regularly are more likely to experience sexual sadness and erectile problems.¹⁸ Further evidence of a negative impact on sexual health comes from the negative correlation between the duration and quantity of cannabis use and sexual esteem and preoccupation.^{17,19,20} The frequency and duration of cannabis use are another important component affecting these results. However, the results of our study indicate that there is no significant relationship between the duration of cannabis use and sexual dysfunction. The participant reported using cannabis daily (7 days/week) for approximately 200 weeks, averaging 1.5 grams per day, which means that the patient has been consuming cannabis for 4 years regularly, which is nominated as 200 weeks. In our study, of individuals with less than 200 weeks of cannabis use, 67 (31.5%) reported sexual dysfunction, while 41 (35.3%) did not. Conversely, among those with more than 200 weeks of cannabis use, 146 individuals (68.5%) reported dysfunction, compared to 75 individuals (64.7%) who did not. Furthermore, the risks of sexual dysfunction may be increased by the combination of cannabis with other lifestyle choices like drinking alcohol, smoking, and having mental health issues like anxiety and despair. A study has shown a negative correlation between sexual intercourse and prolonged duration of cannabis use.¹⁹ According to a few small studies conducted on female patients, cannabis mostly raises sexual excitation and desire. However, this impact may diminish as cannabis use increases, leading to a decrease in sexual excitement and desire.²⁰ Regardless of dosage, cannabis has been shown to have both enhancing and inhibiting effects on males, ranging from erectile dysfunction to an increase in sexual desire.²⁰ However, for several reasons, it has been more challenging to define the relationship between cannabis use and sexual dysfunction. Studies that measure sexual function are frequently based on patient self-reporting, which makes them biased. Additionally, a comprehensive picture of sexual function is made up of many different components, including libido, erectile function, and the capacity for orgasm, all of which may be impacted differently by cannabis use.²¹ Our results are comparable to a study that showed a prevalence of 69.1% sexual dysfunction in patients using cannabis.⁴ Studies have shown that frequent cannabis smokers have reported sexual dysfunction such as inhibited orgasm, premature ejaculation, and dyspareunia.^{22,14} While men are at higher risk of experiencing sexual dysfunction, Women might gain from cannabis use, indicating improvements in conditions including dyspareunia and general sexual satisfaction.¹⁸ According to Harris et al. (2024), the endocannabinoid system's role in sexual function implies that although

cannabis may improve some elements of women's sexual health, it poses hazards to men's sexual health.¹⁷ In contrast, some studies suggest that moderate cannabis use might not have a substantial negative impact on sexual function and, in some situations, might even be associated with improved vascular responses.¹⁵ Longitudinal designs should be used in future studies to monitor cannabis usage and sexual functioning throughout time. This would assist in establishing causal linkages and determining if continued usage exacerbates sexual dysfunction or if abstinence improves it. It would be clear from comparative research with non-addicted people or infrequent cannabis users if sexual dysfunction is a direct result of cannabis addiction or a symptom of a larger trend. The reliability and relevance of results would be enhanced by larger and more varied samples encompassing a range of age groups, genders, sexual orientations, and socioeconomic backgrounds. Future research should look at how cannabis usage interacts with lifestyle characteristics, relationship quality, and mental health status to affect sexual performance.

LIMITATIONS

Despite these results, several limitations need to be noted: First, because sexual function assessments are self-reported, there is a chance of recall bias and subjective variability; Second, outcomes may vary depending on cannabis strains, THC/CBD ratios, and modes of consumption (smoking, edibles, vaping), which were not fully taken into consideration in this study; and Third, although our research shows a correlation, causality is still unclear, requiring additional longitudinal and experimental research to elucidate the direct effects of cannabis on sexual health and highlighting the need for further research to clarify the nuanced impact of cannabis on sexual health across genders.

CONCLUSIONS

The conclusion was established based on findings that the majority of the participants were having sexual dysfunction in the form of decreased sexual dysfunction and lower sexual satisfaction. Long-term and excessive cannabis use seems to impair sexual function through neurophysiological and hormonal disturbances, despite some research suggesting that low-dose cannabis may improve sexual encounters by lowering anxiety and raising excitement. To provide users with more detailed advice, future research should also examine potential mitigating factors, such as dosage management, frequency of usage, and individual physiological

characteristics.

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Fazale Rabbani - Concept & Design; Data Aquisition; Drafting Manuscript; Critical Revision; Supervision; Final Approval

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The authors accept responsibility for all aspects of the work and will ensure that any concerns regarding the accuracy or integrity of any part are properly investigated and resolved.



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