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Prevalence of Generalized Anxiety Disorder in Cannabis Abusers Presenting to Psychiatry OPD Khyber Teaching Hospital

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Abstract: The aim of the study was to investigate the relationship between generalized anxiety disorder and cannabis usage within the general population. Furthermore, the study aimed to explore the levels of generalized anxiety disorder among individuals with different demographic characteristics associated with cannabis use. A total of 123 individuals with a history of cannabis use participated in the study. Data were collected from male participants aged 18 and above at the Khyber Teaching Hospital OPD. A standardized Urdu-translated version of the Generalized Anxiety Disorder (GAD) scale was utilized to assess symptoms of generalized anxiety disorder. The findings revealed that various demographic characteristics, such as younger age, education level, and socioeconomic status, were significantly associated with generalized anxiety disorder. This suggests that younger individuals with lower levels of education and socioeconomic status were more vulnerable to developing anxiety symptoms among cannabis users. The study's findings may be beneficial for targeted interventions and for identifying the challenges faced by individuals from various demographic backgrounds who use cannabis.

Key Words: Cannabis Abuse, Anxiety Disorders, GAD

Introduction

The issue of comorbidity between psychological disorders and substance addiction poses a significant challenge within the discipline of psychiatry (Morisano et al., 2014). Numerous studies have consistently demonstrated a high prevalence of comorbidity between substance use disorders (SUDs) and anxiety disorders (ADs) (Compton et al., 2005). Moreover, there is evidence suggesting a greater incidence of anxiety and affective disorders, particularly in Western countries. According to a health report by Techniker Krankenkasse in 2012, Germany holds the position of the second-largest national health insurer. The research highlights that diagnosed psychiatric problems were responsible for 70% of work absences among self-assured clients between 2000 and 2012 (Grobe et al., 2011). This category of diagnoses encompassed several subtypes of

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anxiety disorders, particularly in patients with depression. However, it is plausible that the prevalence of mental illness did not exhibit a significant increase during the same time period, as indicated by national survey data from Germany and other European Union countries (Wittchen et al., 2011). Subsequently. In 2010, cannabis was considered the third most widely used illicit substance worldwide, following alcohol and nicotine (Degenhardt et al., 2008; Degenhardt & Hall, 2012). It was estimated that 13.1 million individuals were classified as dependent on cannabis (Degenhardt et al., 2013). Moreover, the United States and New Zealand, which exhibit the highest prevalence of anxiety disorders, also demonstrate the most significant estimated increase in cannabis consumption, estimated at approximately 42% (Degenhardt et al., 2008). The aforementioned findings suggest the potential existence of a correlation between the consumption of cannabis and anxiety, either through direct association or indirectly by means of shared attributes. Psychiatric disorders are experiencing an upward trend on a global scale, with depression being acknowledged as the primary contributor to disability (Friedrich, 2017).

Generalized Anxiety Disorder (GAD) is characterized by excessive worry and anxiety about a variety of everyday events and situations, often without any apparent reason (Stein & Sareen, 2015). It has the potential ability to greatly impede an individual's capability, and skills to perform daily live activities. as a result individuals diagnosed with GAD are more vulnerable for suicide, cardiovascular events, and mortality (Butnoriene et al., 2015). Primary care physicians can diagnose and treat the majority of patients. Cannabis, a widely abused substance globally, is recognized for psychoactive effects, which can worsen or induce anxiety symptoms in susceptible individuals. The association between anxiety disorder and substance use disorder might vary depending on the specific type of anxiety disorder, e.g, individuals diagnosed with social phobia may have withdrawal symptoms to the extent that their ability to acquire substances diminishes.

Furthermore, individuals experiencing social phobia who withdraw from social interaction with peers and engage in substance use during their adolescent and early adult years might manoeuver the peer pressures that encourage substance use. On the other hand, panic disorder may heightened the inclination to self-medicate with depressant substances because of the intense distress induces by panic attacks. However, research exploring the direct association between various types of anxiety disorders (ADs) and substance use disorders (SUDs) has yielded inconsistent results. This inconsistency is partly due to the common practice in many studies of examining combined diagnoses of anxiety disorders rather than analyzing each diagnosis separately. A study observed that how different kind anxiety disorders relate to substance use disorders (SUDs) in adults and young people. For adults, it was found that specific phobias, like fear of certain things, events and, situations, were more significantly associated to SUDs as compared to panic disorder, which involves sudden and intense feelings of fear. However, when studied the adolescents and young adults, it was establish that panic disorder was strongly linked to SUDs, and while specific phobias showed a week association. Surprisingly, the study didn't find any significant relation between generalized anxiety disorder and SUDs. This suggests that the relationship between various types of anxiety disorders and substance use can vary depending on age groups. (Zimmermann et al., 2003). Buckner et al. (2008) conducted a study that demonstrates a significant correlation between social anxiety disorder and alcohol dependence in adulthood, hence intensifying pre-existing challenges. Moreover, the precise categorization of anxiety disorders could potentially influence the temporal progression of the onset of anxiety disorders (ADs) and substance use disorders (SUDs). Based on the descriptive research conducted by Glantz et al. (2009), it was shown that a significant proportion of cases of social phobia originated prior to the initiation of alcohol or drug consumption. Moreover, it was observed that around 50% of instances pertaining to generalized anxiety

disorder, panic disorder, and agoraphobia had transpired prior to the initiation of substance utilization. Swendsen et al. (1998) revealed that phobias typically emerged before the onset of substance use disorders (SUDs). Similarly, Falk et al. (2008) observed that alcohol abuse and dependence often occurred before the development of generalized anxiety disorder and panic disorder, though not social phobia. However, there has been a lack of research conducted in Pakistani settings to determine the specific prevalence of symptoms related to Generalized Anxiety Disorder (GAD) among adults. However, a study conducted in Lahore, Pakistan, revealed that 52% of adolescents exhibited at least one symptom of GAD, while approximately 8% showed more than four persistent symptoms of GAD (Brown et al., 1998). The primary objective of this study was to examine the occurrence of Generalized Anxiety Disorder (GAD) among individuals seeking treatment for cannabis abuse at the Psychiatry Outpatient Department (OPD) of Khyber Teaching Hospital. Furthermore, the study intends to investigate how demographic factors may affect anxiety levels in this particular group. It was hypothesizes that a significant relationship between generalized anxiety disorders and cannabis use. This hypothesis is informed by existing evidence linking heavy cannabis consumption with various psychiatric conditions such as psychosis and depression

Method

Cross-sectional research deigned was used to assess the generalized anxiety disorder in individual with history of Cannabis abuse. The data were collected from psychiatry Outpatient Department at Khyber Teaching Hospital Peshawar. Total 123 participants take part in the study. They were seeking psychiatric care at the OPD of KTH over a specific period of six months, and who were diagnosed with cannabis abuse or dependence according ICD-11. The participants age were above 18 years, and relevant demographic information such as education,

economic status, family system, and duration of cannabis abuse.

Instruments

An Urdu translation of the GAD-7 was used. It is a patient-administered questionnaire designed for screening and assessing the severity of generalized anxiety disorder. Comprising seven questions associated with diagnostic criteria for GAD, each question carries a score of three points, resulting in a total score ranging from 0 to 21. The GAD-7 scores are categorized as follows: scores ranging from 0 to 4 indicate the absence of anxiety symptoms, while scores between 5 and 9 represent mild anxiety symptoms. Moderate anxiety symptoms are indicated by scores falling between 10 and 14, whereas scores ranging from 15 to 21 suggest severe anxiety symptoms. It's important that there is no formal authorization was required for reproducing, translating, displaying, or distributing the GAD-7 assessments (Hafi et al.).

Data Analysis

Descriptive statistics were employed to present a concise overview of the demographic characteristics and clinical profiles of the study participants. In order to accomplish this, it was imperative to gather crucial data pertaining to the participants' backgrounds and to furnish a concise overview of their medical backgrounds and the issues they are presently encountering. The prevalence of generalized anxiety disorder (GAD) among cannabis users was determined by considering the proportion of participants diagnosed with GAD out of the total number of individuals who misused or were dependent on cannabis. The primary objective of doing subgroup analyses was to examine potential associations between demographic variables, duration of cannabis usage, and the occurrence of generalized anxiety disorder (GAD).

Ethical Consideration

Ethical approval was obtained from the

Institutional Review Board (IRB) of Khyber Teaching Hospital prior to the commencement of the study. Patient confidentiality and privacy were ensured throughout the data collection and analysis process.

Results

Table 1

Demographic Characteristics of Participants with cannabis misuse (N=123)

Characteristics	Overall, N (%)	Generalized Anxiety Disorder Mean (SD)	p, valuea
Age in Years			.005
18-35 (Young Adult)	92 (74.78)	145.4(24.76)	
35-55 (Middle Adult)	31(25.22)	123.3(22.31)	
Marital Status			.001
Married	51 (41.46)	185.40(23.98)	
Unmarried	72(58.54)	193.81(29.32)	
Education			<.001
Under Matric	61(49.59)	152.42(22.49)	
Secondary School Certificate	55 (44.72)	143.70 (19.80)	
Graduate	07(5.69)	97.03(13.40)	
Family System			.270
Joint	73 (59.35)	211.91 (33.73)	
Nuclear	50 (40.65)	196.98 (29.31)	
Income			.003
Lower	61 (49.59)	208.90(30.37)	
Middle	41 (33.34)	187.37 (28.07)	
Upper	21 (17.07)	176.20 (25.18)	
Time Durations			<.001
Less than 01 Year	34 (27.64)	183.07(22.29)	
2 to 4 Years	49 (39.84)	197.48(24.93)	
More than 5 Years	40(32.52)	193.44(23.70)	
Usage/day			<.001
Twice/day	77 (62.60)	205.98(15.43)	
Multiple/ times/day	46(37.40)	189.99(13.78)	

SD: Standard Deviation, [a]p values are based on Welch's statistics.

Table 2

Severity of Generalized Anxiety Disorder in Individuals with Cannabis use (N=123)

Variable	Substance Use (Age, %)	Mild n=35	Moderate n=51	Severe n=47	χ^2	p
Male (N=123)	Cannabis Uses Young Adult n=92(74.78))	29 (31.52%)	66(38.04%)	28 (30.44%)	15.6	<.001
	Middle Adult n=31 (25.22%)	34 (26.03%)	47 (41.41%)	42(32.56)		

Table 1, showed the complex relationship between demographic variables and the prevalence of GAD among individuals with cannabis abuse. Age, marital status, education, income, and patterns of cannabis use emerge as significant determinants influencing anxiety levels. More specifically, factors such as being younger, unmarried, having lower levels of education, lower income, a longer history of cannabis abuse, and more frequent use are associated to raise the levels of anxiety. In other words, individuals who fall into these categories may have to experience higher levels of anxiety compared to those who do not. Table 2, revealed a significant association between age young and middle adults and GAD severity level of cannabis users middle aged people showing higher prevalence of moderate to severe symptoms of GAD as compared to young adults.

Discussion

The findings of the study highlighted the relationship between demographic characteristics and the prevalence of Generalized Anxiety Disorder (GAD) among individuals with cannabis abuse. The study reveals that various demographic factors significantly impact on anxiety levels among individuals who misuse cannabis Younger age emerges as a significant predictor of heightened anxiety, suggesting that younger individuals might be more vulnerable to experiencing anxiety symptoms in the context of cannabis misuse. This finding aligned with previous research indicating a higher prevalence of anxiety disorders among youngers.. Regular cannabis users consistently show a heightened prevalence of anxiety disorders, while individuals with anxiety disorders reveal relatively high rates of cannabis consumption. However, the question remains unanswered regarding whether cannabis use worsens the likelihood of developing persistent symptoms of anxiety disorders (Crippa et al., 2009). Previous and current cannabis users showed a high probability of experiencing lifetime anxiety compared to individuals who have never used cannabis. However, these groups did not show any differences in -anxiety, stress levels, or

the onset age of anxiety. Similarly, -anxiety and stress did not show any correlations with the frequency of cannabis use. However, individuals who reported using cannabis to self-medicate for anxiety established positive associations (Temple et al., 2014). A retrospective study conducted in Pakistan, findings indicated that the majority of patients commenced drug use during adolescence and young adulthood. Additionally, substance users showed lower levels of education, with approximately 86.1% of participants having education below the secondary school level, while 69.9% were at the secondary school level. Furthermore, the data revealed that cannabis was the most commonly used drug at 29.2%, followed by cigarettes at 26.1%. Peer pressure, seeking fun and enjoyment, and family disputes emerged as the primary reasons for initiating substance use (Zaman et al., 2022).Furthermore, marital status and educational achievement appear to be associated with anxiety levels, with unmarried individuals and those with lower educational attainment reporting higher levels of anxiety. This emphasize the importance of social support and access to resources in vindicating anxiety symptoms. Individuals with lower socioeconomic status may face additional stressors and barriers to accessing mental health care, worsening their anxiety levels. According to research, those with lower earnings have a tendency to exhibit higher levels of worry. This suggests that income might also emerge as a significant predictor. It is possible that the occurrence of economic instability and financial difficulties among this particular demographic could be a contributing factor to a higher level of anxiety. Taking this into consideration highlights the importance of implementing targeted treatments that are aimed at addressing socio-economic disparities in mental health care. According to the findings of the study, there are significant linear connections between anxiety problems that are reported during adolescence and subsequent risks. These risks include anxiety disorder, major depression, dependence on nicotine, alcohol, and illicit drugs, suicidal tendencies, worse educational success, and early parenthood. In spite of the fact that

potential confounding variables associated with social, familial, and individual characteristics were controlled for, the connections between the severity of anxiety disorders in adolescents and the risks of anxiety disorder, depression, substance abuse, and being absent from university continued to be evident. Even after controlling for other factors that may have an impact, this finding implies that the influence of anxiety disorders in teenagers continues to have an effect on these outcomes (Woodward & Fergusson, 2001). This is the conclusion that can be drawn from the researchers' findings.

In addition, previous the cohort study revealed that thirteen percent experienced depression between the ages of 14 and 16. Individuals who encountered depressive symptoms throughout this particular temporal interval had a notably heightened susceptibility to engaging in cannabis abuse. Individuals in this population may encounter a range of following difficulties, including but not limited to serious depression, anxiety disorders, nicotine addiction, alcohol misuse or dependency, suicide attempts, academic underperformance, unemployment, and early parenthood. It is imperative to acknowledge that these associations exhibited stability across genders, indicating that they exerted an equivalent influence on both females and males. This finding suggests that those who have participated in cannabis abuse may have an elevated susceptibility to experiencing adverse outcomes, irrespective of their gender. 2002 Ferguson and Woodward (year) posit that.

Conclusion

The study highlight the association between cannabis abuse, Generalized Anxiety Disorder (GAD), and demographic variables. It reveals a heightened prevalence of anxiety disorders among cannabis users and emphasizes the influence of age, marital status, education, and income on anxiety levels. The research shows that different demographic variables play a significant role in influencing anxiety levels in individuals with cannabis abuse. Specifically, younger age, education socio-economic a emerges as a significant predictor of increased anxiety, indicating that these factors may be more susceptible to experiencing anxiety symptoms when dealing with cannabis abuse.

Limitations

This research has a number of limitations, one of which being the possibility of bias in the samples that were used. One of the most major limitations of the study is the possibility of bias present in the sample. The apparent lack of representativeness in the sample that was collected for the study raises concerns regarding the generalizability of the findings. This is because the sample may not correctly reflect the larger community of people who use cannabis and suffer from Generalized Anxiety Disorder (GAD). Furthermore, the dependence on data that was previously self-reported constitutes a significant limitation. The phenomenon known as social desirability bias can have an impact on self-report measures. This bias occurs when individuals are more likely to provide responses that they perceive are more socially acceptable, rather than responses that correctly reflect their real experiences and activities. Furthermore, the primary focus of the research was on the association between cannabis abuse and Generalized Anxiety Disorder (GAD). It is possible that the study did not take into account other confounding factors and coexisting medical disorders that could have an effect on the link, which would prevent the analysis from being as comprehensive as it could have been. In addition, the cross-sectional approach utilized in this research makes it difficult to establish causal linkages between the abuse of cannabis, Generalized Anxiety Disorder (GAD), and demographic factors. Because of the small amount of data that was collected at a certain point in time, the study is unable to determine the direction of correlations or take into consideration changes in time intervals. In addition, it is conceivable that the study did not take into account the potential effects of the medication in an adequate manner. It is possible that therapeutic treatments could have

an effect on the observed connections between cannabis usage or generalized anxiety disorder (GAD) and demographic characteristics, which could potentially contribute to confounding effects. In addition, even when attempts are made to take into account confounding variables, there may still be factors that are either unquantified or unidentified that have the potential to influence the conclusions of the study. This adds an additional layer of complexity to the interpretation of the data. In the end, the limited generalizability of the study, which may be linked to the specific geographical region or clinical environment in which it was conducted, restricts the amount to which the findings may be extended to a variety of other individuals or circumstances.

Implications

The study's findings have significant implications for clinical practice and intervention strategies aimed at individuals with cannabis abuse and coexisting Generalized Anxiety Disorder (GAD). Healthcare providers might take into demographic variables when assessing and addressing anxiety symptoms in this cohort. The interventions that target enhancing social support, promoting economic stability, and facilitating access to educational resources may effectively alleviate anxiety symptoms and enhance overall well-being. Moreover, the observed association between patterns of cannabis use and levels of anxiety emphasizes the necessity for comprehensive substance abuse treatment programs. Interventions that prioritize reducing the frequency of cannabis use and addressing underlying anxiety symptoms through psychotherapy, pharmacotherapy, or integrated treatment modalities might prove beneficial in enhancing outcomes for individuals experiencing concurrent cannabis abuse and GAD.

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