

EXAMINING ANXIETY, DEPRESSION AND STRESS AS A PREDICTOR OF SUBSTANCE USE AMONG SUBSTANCE USERS

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Abstract

The aim of this study is to examine depression, anxiety and stress as factors that leads to substance-use. The sample of study (n=200) was drawn through the Purposive Sampling Technique from different drug rehabilitation center in Peshawar. The main age-range of participants was between 20-40 years (M =2.38, SD =1.13). The instruments included Depression, Anxiety, Stress scale and the Drug Abuse Screening test. The descriptive statistics correlation, stepwise regression and one way ANOVA were used. The results showed that high frequency of substance-use was between the age 20-25 years. The analysis of stepwise regression revealed that anxiety is the strong predictor of substance-use (p<.001) among depression, anxiety and stress. While one way ANOVA revealed that high frequency of substance use was found in unmarried and divorced than the married participants. The findings conclude that to prevent individuals from substance use it is suggested to indulging them into the mindful activities which helps them to reduce anxiety.

Keywords:

Depression, Anxiety, Stress, Substance use, Substance users.

Introduction

Anxiety

The Aurora et al. (2020) states that worried thinking, tension and other symptoms like hypertension and rapid heartbeat signs of Anxiety. Unhelpful physical and mental reactions to bothersome thoughts about an uncertain future are symptoms of anxiety which is a personal discomfort (Yuan Xi, 2020). According to Storch et al. (2013) Anxiety is tense feelings and excessive worry which frequently lead to avoiding situations that one fears. The result of anxiety depends on how individuals cope with anxiety. The people's response towards anxiety can be either positive or negative. If people react positively towards anxiety, deals with it at early stage, it can lead to individuals' growth and also mental and physical development (Pozzi et al., 2015). On the other hand, if people deal with anxiety through negative behaviors, make it as long as anxiety is severe and uncontrollable, it can have an effect on both physical as well as mental health and even results in physical and mental dysfunction (Aldao et al., 2010). According to the published results of empirical literature reviews, young people use drugs as a "coping mechanism" for their anxiety. They contend that using such drugs will render the anxious object less dangerous (Storch et al., 2013).

Depression

According to World Health Organization, Depressive disorder is a mental illness that causes extended periods of sad mood or a lack of enjoyment or lack of interest in activities. It is related to mood disorders that is different from sad mood in normal life, with significant and severe time period and is associated with signs that are very different from normally sad mood (Cruz et al., 2011). According to Pietrzak et al. (2011) depression is a common psychological condition that is substantially more common in trauma survivors than in the general population. Increased social stressors, changes in hormones and development of brain could all be leading to depression during adolescence and early adulthood (Blakemore, 2019). The reduction of depression symptoms over time was explained by both stress levels and substance use which were linked to changes in depression (McHugh et al., 2019). According to the study of Jang and Mieun Yoon (2021) it was clearly revealed that examining the effects of depression and lifestyle factors on illicit drug use, it was founded that depression have relatively the greatest predictive power. It can be concluded that among young adults, the higher the level of depression, the more they will experience substance use problems. It can be difficult to feel low, isolated, or angry most of the time. For some adults, they may feel may relaxed while drinking alcohol, which gives them a pause from the distress, or their pain is "numb".

Stress

Ewen et al. (2020) define stress as the behavior of the body to any threatening event (real or imagined) that causes an increase in physical and mental activity in order to handle the stressor.

Stress is a state of physiological and psychological tension, manifested as different physical and mental responses when an individual faces (physically or cognitively) taxing environmental requirements (Zhang, 2024). According to McEwen (2007), stress can be emotionally or physiologically difficult task and trigger stress responses and adaptive mechanisms to restore equilibrium. The word stress describes how people perceive, evaluate and react to harmful, dangerous or difficult situations or stimuli (Sinha et al., 2008). According to a study by Menezes et al. (2007), the most frequent causes of stress were discontent with class lectures, the size of the courses, full lecture halls and high parental expectations. Long-term exposure to stressful situations causes memory loss, poor academic performance, strained relationships with family and friends and general life dissatisfaction (Arnsten et al., 2009). Britton (2004) reported that stress and alcohol consumption are positively correlated. Alcohol causes an excess of cortisol to be produced by directly activating the hypothalamus-pituitary-adrenal axis.

Substance-Use

The Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2013) defines Substance-use disorder as continually using of drugs, in spite of serious harm and adverse effects on oneself and others. Among the drug classes commonly linked to substance-use disorders are alcohol (alcoholism) cannabis, opioids, cocaine, amphetamines, benzodiazepines, barbiturates, stimulants like nicotine (including tobacco) and others. People having a mental disorder like post-traumatic stress disorder, depression or anxiety can also use alcohol or drugs as a use of self-medication. Youth substance use is on the rise worldwide. Some of the communities that have ethics that are approving substance use, some having family members who also use alcohol and are substance users, someone's siblings using illicit drugs, academically weak, not understanding the possibility of substances and having friends that are using illicit drugs had positive association with the risk that adult to have substance use in future, while having social skills and religiosity were found to have adverse relation towards youth substance use (Birhanu et al., 2014). high illicit drugs use or legal drugs misuse has higher risk of substance use disorders (SUDs) to become a reason of psychological illness in the population of adolescents.

Rationale

Substance abuse is still a serious and enduring issue. It is a prevalent issue among young adults these days. It has been discovered that individuals Who suffer from mental sicknesses like depression, anxiety or post-traumatic stress disorder (PTSD) can be medicated by self by using alcohol or drugs. Individuals with mental illnesses may also have altered brains that intensify the pleasurable and satisfying effects of substances increasing the risks that they will continue using them. The aim of this study is to examine and clarify how Stress, Anxiety and Depression affect young adults drug use. The most prevalent psychiatric comorbidities among individuals with substance use disorders are stress anxiety and depression. Coexisting mood disorders can be treated to improve overall results and lessen substance cravings. Alcohol and drugs can occasionally seem

like an easy way to deal with problems for people Who feel like there is no end in sight. Antisocial personality disorder (ASPD) and borderline personality disorder (BPD) are two specific personality disorders that are especially commonly diagnosed alongside substance-use disorders. Greater extant of impulsivity and aggressive behavior are linked to both disorders. One of the main reasons given by drug users for using substances is often their curiosity which drives them to try new things. By addressing all of the issues mentioned above we can lower the likelihood of substance abuse.

Objectives

1. To examine the difference of score on drug abuse among Single, married and divorced individual with drug use.
2. To analyze the effect of depression, stress and anxiety on drug abuse among individual with drug abuse substance use.

Hypotheses

H1. Single and divorced individual will have higher tendency to use drug as compared to the married individuals.

H2. Depression, stress and anxiety will lead to the higher use of drug in individual with drug use.

Method

Sample

The sample consist of (n=200) drug addicts in the age range between 20-40 years (M=2.38, SD=1.13) were approached in a Rehabilitation Center Peshawar. The sample was selected from the Rehabilitation Center Peshawar by using the Purposive Sampling Technique.

Inclusion Criteria

- Those participants who screened on Drug Abuse Screening Test were included in the study.

Exclusion Criteria

- Those participants who did not take cannabis were not mentioned in the study.
- Those participants who have sever problem such as schizophrenia and bipolar disorder were excluded.
- Those who were above forty years age range were excluded from the study.

Instruments

Demographic information

The demographic information contained age, gender, socioeconomic status, education, marital status, type of substance using (alcohol, tobacco, cannabis) and psychological issue.

Depression, Anxiety and Stress Scale (DASS-21)

The Depression Anxiety Stress Scales-21) created by Lovibond and Peter Lovibond in 1995 as a compressed form of the 42-item DASS. Adults and older adolescents (17 years and up) can use this 21-item, reported by individual himself measure to gauge the degree of mental distress and symptoms related with stress, anxiety and depression. The DASS was invented to advance the definition perception and calculation of the ordinary and clinically remarkable emotional states normally referred to as stress, anxiety and depression instead of just as another set of scales to measure commonly defined emotional states. Participants are asked to give ratings about how much they have adept every state using 4-point severity/frequency scales. The subscales of stress anxiety and depression typically have Cronbach's alpha values of (0.90 - 0.96).

The Drug Abuse Screening Test (DAST-10)

The Drug Abuse Screening Test (DAST) is a tool used by medical professionals to find possible issues with drug use in people including inhalants, sedatives marijuana, cocaine, amphetamine, alcohol, tobacco, hallucinogens and opioids. Ten questions are asked to determine substance use patterns after the test taker chooses their primary drug or drugs of choice and how often they use them. The DAST-10 was created in 1982 by the Centre for Addiction and Mental Health, Toronto, Canada and Harvey Skinner. This standardized self-report questionnaire gives a thorough assessment of drug abuse or dependence across multiple substances by evaluating a person's lifetime history of drug use and associated issues. Each response on the questionnaire is given a score. The sum of these scores is used to classify people into various risk levels based on how serious their drug related issues are. Cronbach's alpha coefficients show that the DAST-10 total score has an internal consistency of 0.86 – 0.97.

Procedure

The study was begun formally by taking permission from Rehabilitation Center Peshawar. After taking permission an informed consent letter was signed from participant. The letter was verbally recalled in front of them due to their low education background. Moreover, after permission from the participants, the questionnaire was distributed among them with the sequence i-e Demographic Sheet, Drug Abuse Screening Test and Depression, Anxiety and Stress Scale (DASS-21). As the scale was in English and due to shortage of time the scale couldn't translate into Urdu or Pashto. Therefore, researcher present there help them to make a clear understanding about the

questionnaire. The queries of the participants were delt there immediately to enhance the smooth procedure of data collection. After the completion of data, a brief thank was conveyed to the participants and team of Rehabilitation Center.

RESULTS

Table 1

Demographic characteristics of the participants (N= 200)

Variables	N	%
Age		
20-25	58	28
26-30	54	26
31-35	42	20
36-40	46	22
Gender		
Male	200	99.5
Socioeconomic status		
Lower	24	11.9
Middle	170	84.6
Upper	6	3
Education		
Undergraduate	170	84.6
Graduate	30	14.9
Marital status		
Single	84	41.8
Married	102	50.7
Divorced/separated	14	7.0

The demographic information has been shown in the above table.

Table 39

Psychometric Properties of major Study Variables

Variable	M	SD	Range	Cronbach's α
DASS	45.49	7.80	9-63	.76
DAST	7.14	1.38	2-9	.32

Note: DASS= Depression, anxiety, stress scale, DAST= Drug abuse screening test.

Table 2 shows the results of psychometric properties of major study variables. The results indicated that the Depression, Anxiety, Stress scale has $\alpha = .76$ which indicated that the scale has good reliability while, DAST has $\alpha = .32$ which indicated that scale has below average reliability.

Table 3

Descriptive Statistic and Correlation for study variable (N=200)

Variable	M	SD	1	2	3
Strs. Tot	15.30	3.34	-		
Anx. Tot	14.93	3.20	.464 ^{xx}	-	
Dep. Tot	15.26	2.90	.541 ^{xx}	.509 ^{xx}	-

Note: Strs= Stress, Anx=Anxiety, Dep=Depression. $P < .01$

Table 3 indicates that stress has positive but significant relationship with depression and anxiety.

Table 4

Stepwise Regression Result for Depression, Stress, Anxiety on Drug Use (N=200)

Variable	B	95% CI for β		SE	Standardized β	R ²	ΔR^2
		LL	UL				
STEP 1							
(Constant)	5.60	4.70	6.50	.46		.057	.057 ^{xxx}
Anxiety.	.10	.04	.16	.03	.24		

Note: Constant= Substance Use. **P<.01

A Stepwise Regression analysis was performed to identify the most influential predictors of substance use. In the first, step anxiety was entered into the model, resulting a significant predictor of substance use, F (1,198)=11.82, P<.001. Depression and stress were automatically excluded because they did not explain additional variance beyond anxiety. This suggest that anxiety-independent of depression and stress _ is the key psychological factor associated with drug use in this sample.

Table 5

Mean, Standard Deviation and t- value of Single, Divorced and Married Couples on Drug Abuse Screening Test (n=200)

Measure	Single		Divorced		Married		F(2,197)	η^2
	M	SD	M	SD	M	SD		
DAST	7.45	1.34	7.07	1.41	6.90	1.14	3.750**	.19

Note: DAST: Drug Abuse Screening Test, η^2 = Partial eta square

Table 5 indicated that the subject who were single (mean=7.45, standard deviation=1.34) are more prone towards drug addiction as compared to divorced (mean=7.07, Standard deviation=1.14) and married (mean=6.90, standard deviation=1.41) while $\eta^2 = (.19)$, p<.01 shows higher effect size.

DISCUSSION

The purpose of this study was to examine the role of anxiety, depression and stress in predicting substance-use among individuals with substance-use disorders. In this study the drug users were selected from local rehab center. In this research the frequency of substance use related to age was greater among those who belong between age 20-25. Over time, substance abuse can exacerbate symptoms of depression, anxiety and stress. Illegal substance use alcohol are accountable for 14% of young generation's health of age range between 20–24 years (Degenhardt et al., 2016). Participants of the study reported, strained interpersonal relationships, significant financial and social hardships, and severe psychological and physiological health issues. (Azad et al., 2024). research found that, individuals having a psychological disorder, such as depression, anxiety, or post-traumatic stress disorder, may use alcohol or drugs as medication used by themselves (Ghantous et al., 2022).

According to hypothesis all the three factors i-e anxiety, depression and stress will significantly lead to substance use disorder. After the stepwise regression analysis for anxiety, stress and depression it was revealed that anxiety is the significant predictor of substance use rather than depression and stress. According to previous research, an insomnia or severe anxiety disorder may be indicated by increased substance use or higher chances of overdosing. Psychological and substance use disorders that co-occur may hinder a patients progress toward treatment objectives and increase the likelihood of relapse (Medenblik, 2024). The development of marijuana-related issues from initial use was predicted by generalized and social anxiety (Marmorstein et al., 2009).

Furthermore, the results of this study shows that men who are unmarried are more prone to use drugs than the men that are separated or divorced. Similarly, the results also shows that men who are single are more likely to use drugs than the men who are married. According to another research, between single individuals, males have markedly greater number of usages of alcohol, cigarettes, and marijuana. Both of the single males and females reveals considerably greater rates of use of marijuana, as contrast to those of other marital statuses (Blair et al., 2016).

Limitations

Following are the limitations,

1. The questionnaires were in English and not translated in Urdu, which could affect the result.
2. The data was collected from only one Rehabilitation Center, there was no stratified sampling, so there will be no more generalizability.
3. The sample consist few numbers of individuals, which could lead to inaccuracy.

Future Research Directions

according to the limitations and discovery of the present study, following points are recommended:

1. The questionnaires should be translated to the language which could be understood by the participant, for better result.
2. The data should be collected from different Rehabilitation Centers, there should be stratified sampling, in order to gain more generalizability of the study.
3. The sample size should be increased which could lead to accuracy of the study.

Conclusion

This study aims to find the effect of anxiety, depression and stress on substance use among substance users. The sample of the study was collected through purposive sampling technique from Drug Rehabilitation Center Peshawar, that is (N= 200).

The present study shows that prevalence of drug use related to age was higher among those who belong between age 20-25 and men who are unmarried are more prone to use drugs than men that are married or separated or divorced. Two instruments were used in this study in order to examine stress, anxiety and depression among drug users. These scales are Depression, Anxiety and Stress Scale (DASS-21) and Drug Abuse Screening Test (DAST-10). After the stepwise regression analysis for anxiety, stress and depression it was revealed that anxiety is the significant predictor of substance use rather than depression and stress. So, from the findings of the study we get to know that if we treat anxiety, we can decrease the risk of substance use among young adults. Anxiety should be treated at early age though different life activities like deep breathing, mindfulness exercises, arranging recreational activities, counseling centers and rehab programs to facilitate them to recover from psychological problems in order to decrease the chances of substance use disorder.

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