

## EFFECT OF DRUG ADDICTION ON UNDERGRADUATE UNIVERSITY STUDENT'S ACADEMIC ACHIEVEMENTS.

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### ABSTRACT

This study aimed to find the Effect of Drug Addiction the academic achievement of undergraduate university students. The study's objectives were (a) To find out *Drug Addictions in undergraduate students* (b) *Comparison Between the effect of drug addiction on Male and Female Undergraduate Students' academic achievement*. The population of the study comprised of all 8,996 enrolled BS students in the 7th and 8th semesters. A multistage sampling technique was used to select the sample respondents from universities. Data was collected from 480 students of BS 7<sup>th</sup> and 8<sup>th</sup> semester through a questionnaire. For data analysis, Mean score, standard deviation, and simple linear regression were used as statistical techniques. Results revealed that the university students have a low-level of drug addiction. Drug Addiction is comparatively more affecting male university students as compare to female university students. It was recommended that University management may arrange seminar and workshops to increase students' awareness regarding side effects of Drug addiction. It was also suggested that counselling centers should be establish in the university for helping students that how to cope with drug addiction.

**Keywords:** Drug Addiction, undergraduate students, academic achievement

### INTRODUCTION

Empirical evidence reveals growing vulnerability to drug addiction and associated issues in university student populations across multiple global contexts. Longitudinal data highlights concerning uptrends in rates of drug abuse among enrolled university students (Borsari et al., 2017), making this an urgent policy issue for stakeholders across educational systems. Sociologists note that the transitional phase between high school and college involves expanded social opportunities, pressure to form new peer connections, and heightened susceptibility to peer influences. These interpersonal factors are theorized to compound emotional difficulties that can increase addiction risk during this developmental stage (Kilonzo, 1996). From a biopsychosocial perspective, addiction manifests through complex

interactions between physiological reward pathways and psycho-emotional processes that drive sustained drug-seeking to relieve distress, escape uncomfortable states, or perpetuate habituated patterns of consumption (Winters et al., 2020).

Among adolescent and undergraduate cohorts, such drug abuse has multi-faceted academic consequences. Neuropsychological investigations reveal short and long-term cognitive deficits in attention, memory, planning, and information processing domains that undermine learning capacity (Arria et al., 2013). Furthermore, the social and emotional dysregulation associated with drug addiction introduces additional barriers that impair academic functioning (Eisenberg et al., 2019). During the critical period between ages 16-24,

entanglement with drugs makes students more prone to engaging in high-risk activities involving violence, injury, unintended risk-taking behaviors, and polysubstance use that severely undermine educational attainment (David Sam Jayakumar & Sulthan, 2013).

Additionally, family studies reveal intergenerational links between parental narcotic/tobacco history and suicidal ideation, sexual disorders, and other mental health outcomes among offspring (Hamdan-Mansour & Marmash, 2007). This indicates that complex psychosocial processes related to early exposure, genetic heritability, and social learning of maladaptive coping strategies might contribute to the transmission of addictive tendencies across generations. Integrating available insights highlights the urgent need for coordinated prevention efforts by families, communities, and academic systems to curb escalating addiction patterns among university students.

Empirical investigations document heightened prevalence of heavy episodic drinking and intentional intoxication to get drunk among university students with pre-existing mental health problems (Difranza et al., 2004). Such maladaptive drinking patterns predictably result in an array of adverse sequelae that undermine students' wellbeing and academic trajectories. Economists note that downstream societal costs encompass interpersonal violence, resource loss, declining academic performance, criminal behaviors, physical harm, and soaring healthcare expenditures (Fuertes & Hoffman, 2016). From a biopsychosocial perspective, addiction represents one of the most severe psychological stressors during formative developmental phases. Indeed, substance abuse constitutes the most frequently cited risk factor contributing to academic underachievement and failure among enrolled university students (Hodge et al., 2001). Of particular concern, intoxicated disinhibition places students at additional jeopardy for partaking in reckless activities and violence within campus environments.

Detailed analyses indicate that among college students, rates of alcohol misuse and drug abuse surpass 68% on "wet" campuses allowing drinking versus "dry" prohibiting campuses (Fuertes & Hoffman, 2016). Both animal and human studies reveal that chronic exposure to commonly abused

substances dramatically alters neural systems, leading to deregulated cognition, addiction-related changes in inhibitory control, and decisional impairments (Henning et al., 2004). Additionally, the overwhelmingly addictive pharmacodynamic effects of nicotine and early cigarette smoking are associated with structural brain anomalies, impaired cognition, and reduced willpower even among adolescent smokers (Wood, 2004).

To elucidate the magnitude of such substance-related risks, broad assessments of U.S. university populations highlight that 88% of students report recent binge drinking, 42% regular cigarette smoking, and up to 34% marijuana use (Piazza-Gardner, 2016). Resultant academic issues include truancy, diminished performance, social alienation, legal consequences, and other barriers preventing actualization of students' academic potential (Tuwei, 2014). Taken together, scholars urgently emphasize needs for promoting a culture of prevention over punishment together with evidence-based early interventions to mitigate substance abuse issues and their academic corollaries among university students.

Accumulating studies document that university students suffering from substance addictions display detrimental patterns including truancy, diminished vigor, and social isolation. Qualitative reports reveal they frequently encounter rejections from peers, sleep disruptions, appetite changes, and difficulties concentrating on academic material (Tuwei, 2014). Analyses indicate nearly a quarter of college attendees abuse prescription sedatives like barbiturates to induce disinhibition effects (Tuwei, 2014). However, prolonged use of such depressants evoke mood dysregulation marked by impulsivity, anxiety, and restlessness. Psychopharmacological models posit that substance-induced neurochemical fluctuations undermine key prefrontal cognitive faculties necessary for learning and academic progress. Consequently, addicted students requiring recurrent intensive hospitalizations experience pronounced disengagement from educational pursuits (Tuwei, 2014).

Several investigations also highlight gender differences in substance abuse typologies during the critical transitional phase encompassing late adolescence and early adulthood. Large-scale surveys of Brazilian cohorts reveal that between ages

18-24, men exhibit three times higher rates of alcohol dependence relative to women (6.6% versus 2.2% respectively). However, among high-school students aged 12-17, male and female subgroups demonstrate comparable levels of various drug consumption patterns (Piazza-Gardner et al., 2016). Intriguingly, Brazilian female students report more non-alcohol substance misuse involving prescription sedatives, stimulants, opiates, and other categories relative to male peers. Longitudinal data denoting individuals receiving substance abuse treatment also indicates that while only 2.5% of women obtained prior interventions, over twice as many (5.6%) male students had already undergone unsuccessful rehabilitation attempts (Piazza-Gardner et al., 2016). This suggests that biological and psychosocial factors may precipitate differential trajectories of addiction and recovery across gender lines during developmental phases of adolescence and early adulthood.

Finally, inquiries evaluating academic functioning confirm robust negative associations between substance abuse severity and educational performance from high-school through university (Piazza-Gardner et al., 2016). However, more research is needed focusing expressly on college populations. Existing studies diverge substantially in metrics quantifying drug use frequencies, patterns, and resultant academic impact. Integrative models reconciling these discrepant research definitions would enable more valid characterizations of how substance abuse profiles intersect with academic trajectories in undergraduate students. So, because of less research studies on drug addiction in undergraduates the study was intended to find effects of drug addiction in undergraduate university students in Pakistan.

**METHODOLOGY**

**Research Design**

The study utilized a descriptive quantitative research design. This design allows the researchers to describe the current situation regarding undergraduate students' drug addiction and its effects on academic performance. No variables were manipulated or controlled, rather the aim was to observe and document the phenomenon as it exists in its natural context.

**Population and Sampling**

The target population was all undergraduate students enrolled in public sector universities located in the Khyber Pakhtunkhwa (KP) province of Pakistan. Private universities were excluded due to accessibility issues. The sampling frame included approximately 8,996 undergraduate students enrolled in the 7th and 8th semesters across various public universities in KP during the Autumn 2021 academic session. A multistage random sampling technique was used to select the final sample. In the first stage, 3 public universities were randomly selected out of all public sector universities in KP. In the second stage, a random sample of 480 students was selected from the 7th and 8th semesters of programs offered at the selected universities. This yielded a representative sample with a 95% confidence level and a 4.5% margin of error.

**Instrumentation**

A structured questionnaire was developed by the researchers to measure undergraduate students' drug addiction levels. The questionnaire had 8 items measured on a 5-point Likert scale. Content validity was ensured through expert review and a pilot study. Reliability analysis yielded a Cronbach's alpha coefficient of 0.84, indicating good internal consistency.

**Data Collection and Analysis**

The questionnaires were administered to the sampled students in person by the researchers. Participation was voluntary. Mean scores and standard deviations were calculated for each questionnaire item. Regression analysis was used to determine the effect of drug addiction levels on academic performance based on students' self-reported CGPAs. Frequency analysis was also conducted.

**Results and analysis**

**Table 1**

*Drug Addictions in undergraduate students*

S.No	Statement	A	O	ST	S	N	Mean
1	I use medicated drugs.	f 67	30	81	57	245	2.2
		% 14	6	17	20	51	
2	I use tobacco.	f 31	53	62	67	267	2
		% 6	11	13	14	56	
3	I smoke more than I should	f 31	38	74	54	283	2
		% 7	8	15	11	59	

4	I can't remember what happened after using drugs.	f %	20 4	42 9	12 1	63 13	234 49	2.1
5	I use drugs other than those required for medical reasons	f %	23 5	31 6	89 18	51 11	286 60	1.9
6	I do prohibited works because of drugs.	f %	23 5	55 12	59 12	44 9	299 62	1.9
7	I can get through the week without using drugs.	f %	20 8	60 13	79 16	41 9	92 19	2.6
8	I use more than one drug at a time.	f %	55 11	49 10	62 13	33 7	281 59	2.1

Categorization of mean score: 5.00-3.50 high drug addiction, 2.50-3.49 moderate drug addiction and 1.00-2.49 low drug addiction.

Table 1 shows drug addiction in undergraduate students. Results shows that students have low level of drug addiction due to: they never used medicated drugs (M=2.20); they never used tobacco (M=2.0); they never smoke more then they should (M=1.9); they never could remember what happened after using drugs, (M=2.1); they never used drugs other than those required for medical reasons (M=1.9); they never did prohibit works because of drug (M=1.9); they always can get through the week without using drugs (M=2.6); they never used more than one drug at a time (M=2.1). The cumulative mean score shows the students have low level of drug addiction.

**Table 2**  
 Effect of drug addiction in Male and Female Students' Academic Achievement

Variable	Model 2		
	Model 1 B	B	95% CI
(Constant)	2.978		(18.736, .000)
Male			
Drug addiction	.011	.023	(.322, .748)

R Square	.039		
F	1.632		
(Constant)	2.899		(14.800, .000)
Female			
Drug addiction	.038	.063	(.800, .425)
R Square	.015		
F	.396		

a. Predictors: (Constant), drug addiction, Table 2 shows drug addiction in male and female university students in Pakistan. the fitness of the regression model as contributing to male student's academic achievement. The value of R- square (.039) indicates 3.9% variation and the value of R-square (.015) indicates 1.5 % variation due to drug addiction for female students' academic achievement at the university level. The statistical values  $F(7, 473)=1.505, p=.126 > 0.05$  for male,  $F(7, 473)=1.505, p=.904 > 0.05$  for female students indicate no significant difference of drug addiction for the academic achievement of university students.

**Conclusion and Discussion**

The study revealed that university students generally exhibit a low level of drug addiction, and surprisingly, drug addiction doesn't seem to significantly impact their academic achievement. This finding goes against what previous studies by Cox, Zhang, Johnson, and Bender (2007); James, Kristjánsson, and Sigfúsdóttir (2011); Masenga (2017); and Tsvetkova & Antonova (2013) suggested, indicating that drug use tends to negatively affect students' academic performance. The contradiction in findings could be attributed to certain factors. The students in this study might not engage in habits like using tobacco, consuming more than one drug simultaneously, using drugs for non-medical reasons, or exceeding recommended smoking limits. Additionally, they may avoid prohibited activities influenced by drugs and manage to go through their week without relying on drugs. These differences in behaviors could contribute to the disparity in outcomes compared to previous studies.

Interestingly, the results of Piazza-Gardner et al. (2016) also challenge the current study's findings by establishing a negative association between GPA and drug use. This highlights the complexity of the relationship between drug use and academic performance, suggesting that various factors may

influence these outcomes, and generalizations may not capture the full picture.

Various studies highlight significant differences in drug abuse patterns between girls and boys. Female students tend to use fewer drugs compared to their male counterparts, as evidenced by research conducted by Lemelin, Lussier, Sabourin, Brassard, and Naud (2014); Webster, Chaiton, and Kirst (2014); and Becker, Perry, and Westenbroek (2012). Maier, Liechti, Herzig, and Schaub (2013) shed light on drug use in Switzerland, revealing that male students using methylphenidate accounted for 3.1%, while female students accounted for 1.5%. Salameh, Jomaa, Issa, Farhat, Zeghondi, Gerges, Sabbagh, Chaaya, Barbour, Waked, Salame, Saadallah-Zeidan, and Baldi (2014), along with Goreishi and Shajari (2013), conducted a study on Iranian university students, finding that 40.3% were drug abusers, with 56% being men and 44% women.

Cluster analysis on American students by Primack, Kim, Shensa, Sidani, Barnett, and Switzer (2012) revealed higher cigarette smoking rates (61%) in clusters with the highest number of males compared to clusters with the highest number of females (28%). In this analysis, males had an odds ratio of 4.19 (95% CI 3.37-4.43) to be smokers compared to females (Primack et al., 2012). These findings underscore the gender disparities in drug abuse, emphasizing the need for targeted interventions based on gender-specific risk factors.

In a study among Rwandan youths, it was discovered that substance abuse is more common among males (67.03%) than females (36.92%) (Kanyoni, Gishoma & Ndahindwa, 2015). Another investigation in Iran by Reza Hosseini, Omid, Roohbakhsh, Tavakolian, and Assar (2014) aimed to gauge the frequency of drug abuse among university students. The results revealed that 7.4% of students used Benzodiazepines, 12.6% used cigarettes, 4.7% used tobacco alcoholic drinks, 3.3% used opiates, and 3.4% used methylphenidate in the last 6 months.

Zaman et al. (2015) conducted a study with a sample of 50 students to explore the prevalence of drug abuse among university students. The findings indicated a significant number of students engaging in drug abuse, influenced by factors such as hopelessness, nervousness, and peer pressure. Males were more inclined toward drug abuse compared to females. In a study by Usman et al. (2017), it was

reported that 90.6% of male university students were informed about drugs through their friends, while female students gained awareness through internet media (Usman et al., 2017). This underscores the diverse sources of information influencing awareness about drugs among male and female students.

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