



**DRUG INVOLVEMENT AMONG UNDERGRADUATE STUDENTS: AGE AND GENDER DIFFERENCES**

<sup>1</sup>Emmanuel Ndubuisi Agbo, <sup>2</sup>Dr Kingsley Chinasa Nwosu, <sup>3</sup>Dr Elizabeth Ifeoma Anierobi

**Email:** <sup>1</sup>[en.agbo@stu.unizik.edu.ng](mailto:en.agbo@stu.unizik.edu.ng), <sup>2</sup>[kc.nwosu@unizik.edu.ng](mailto:kc.nwosu@unizik.edu.ng), <sup>3</sup>[ei.anierobi@unizik.edu.ng](mailto:ei.anierobi@unizik.edu.ng),

**Phone:** <sup>1</sup>+23481365332623, <sup>2</sup>+2347084735361, <sup>3</sup>+234803 595 3464

<sup>1,2,3</sup>Department of Educational Foundations, Nnamdi Azikiwe University, Awka

**Abstract**

This study investigated drug use among undergraduate students, looking at age and gender disparities and if these factors affect drug use differently among undergraduate students. Two research questions and hypotheses guided the study. The study employed a descriptive survey research design. A sample of 360 students were selected using multi-stage random sampling technique from a population of 47,233 undergraduate students of Nnamdi Azikiwe University, Awka and Chukwuemeka Odumegwu Ojukwu University, Igbariam campus Anambra State to ensure the representation of age and gender differences. The instrument for data collection was the adolescent drug involvement scale. Data collected were analyzed using descriptive and inferential statistics. Mean scores were utilized to answer the research questions while t-test was used to test the hypothesis at significant level of 0.05. The result of the findings revealed that there are no significant age differences in undergraduate students' drug involvement and that male undergraduate students are more involved in drug than female. It was recommended that there should be implementation of Age-Specific and Gender-Sensitive Prevention Programmes that will develop prevention programs that cater to the unique needs and vulnerabilities of different ages; Provision of Access to Counseling and Mental Health Services ensuring that undergraduate students have access to confidential counseling and mental health services, including substance abuse treatment and support groups etc.

**Keywords:** Drug involvement, undergraduate students, age and gender differences

## **Introduction**

Drug involvement by undergraduates has been a major source of concern to school administrators and society at large and also a public health concern, students take various drugs for different reasons such as peer pressure, as a way to cope or escape stress and anxiety, curiosity and experiment among others. Drugs are commonly used by everybody whether young or old. Drugs are not only useful for human beings, but also useful for animals, for good health. Human beings give drugs to their animals when they discover that they are not healthy. Drug is an effective substance in the life of living things, to cure sickness and make life healthy. It is true that drugs are used for beneficent therapeutic purposes and it is an effective substance for good health, but it is being abused by some people especially the youths. They use it illegally and unlawfully, hence drug involvement.

Drug involvement refers to the harmful or hazardous use of psychoactive substances including alcohol and illicit drugs. Psychoactive substances use can lead to dependence syndrome, a cluster of behavioural, cognitive and physiological phenomena (WHO, 2014). In other words, use of psychoactive substances can result into a strong desire to take drugs, difficulties in controlling its use, persisting in its use despite harmful consequences. Moreover, users of psychoactive substances are vulnerable to giving a higher priority to drug use than to other activities and obligation, experience increase tolerance and sometimes a physical withdrawal state (Oshikoya, 2012). Drug involvement and addiction is one of the most serious and rapidly growing phenomena, producing many terrible impacts on health, behaviour, and the country's economy globally (Alebachew, et al 2019).

Drug involvement is prevalent across Nigeria's six geopolitical zones. Such drugs include tobacco, Indian hemp, cocaine, morphine, heroine, alcohol, ephedrine, madras, caffeine, glue, barbiturates, and amphetamines (Oshikoya & Ili, 2016).

A report by the United Nations Office on Drug and Crime in Nigeria indicates that 14.4% (14.3 million) of people aged between 15-64 years abuse drugs (UNODC, 2018). The statistical analysis of the findings of a 2015 nationwide survey of 10,609 respondents showed that alcohol is the drug with the highest prevalence rate, whereas cannabis is the most abused illicit drug (Adamson, Ogunlesi, & Morakinyo, 2015). Drug abuse in Nigeria is prevalent across educational

levels and reaches down to the secondary school level (Idowu, Aremu, and Olumide 2018). The South-West, a zone of serious concern that comprises Ekiti, Lagos, Ogun, Ondo, Osun and the Oyo States, is reported to have the highest prevalence of drug and substance use (22.4% or 4,382,000 users) especially in Lagos and Oyo state according to a 2018 report by the United Nations Office on Drug and Crime. This zone is followed by the South-South, South-East, North-East, North-West and North-Central zones (UNODC, 2018). Notably, the South-West region of Nigeria has one of the highest numbers of universities in the country, accounting for 45 universities accredited by the National University Commission (NUC).

Finally, the South-South zone includes the States of Akwa Ibom, Bayelsa, Delta, Edo, Rivers, and Cross River. The estimated past year prevalence of any drug use in the South-South zone is almost comparable to the national past year prevalence of any drug use with 16.6 percent or 2.1 million people aged 15-64 in the zone are estimated to have used any drug in the past year (Ibiyemi, 2020). Cannabis, pharmaceutical opioids (tramadol, codeine, morphine) and cough syrups containing codeine or dextromethorphan are the main group of substances reportedly used among the population in the South-South zone. Past year cannabis use was slightly higher in South-South zone, compared to the national annual prevalence of this drug, whereas the non-medical use of pharmaceutical opioids and cough syrups are lower than the national rates.

People are involved in drug use irrespective of gender and age. Gender is defined as socially determined roles that vary across cultures and over time (National Institutes of Health, 2017). Males have historically been the subject of a disproportionate amount of study on substance use disorders (SUDs). Men and women differ in a variety of biological, psychological, and social ways, which could have an impact on how SUDs develop, persist, and are, treated (Mincer, W. F. 2023). Gender differences in drug involvement in Nigeria reflect the distinct patterns and prevalence. Generally, men in Nigeria exhibit higher rates of drug involvement compared to women. A research on substance misuse among Rwandan teens found that males (67.03%) had higher rates than females (36.92%) (Kanyoni et al.2015).

According to the National Drug Law Enforcement Agency (NDLEA) (2018), proportionally more men than women have used drugs in Nigeria in the past year - one in four drug users in Nigeria is a woman. While men are 7 times more likely than women to use cannabis, the gender

difference in the non-medical use of pharmaceutical opioids - such as tramadol, codeine, and morphine, tranquilizers and cough syrups containing codeine or dextromethorphan is less pronounced. NDLEA further stressed that men are also more likely than women to be high-risk drug users, including those who inject drugs. In 2016, over 10% of girls and 15% of boys in Sweden were reported using drugs within the previous 12 months (CAN, 2016).

Previous studies showed that men had higher prevalence of Alcohol use disorder AUD, Tobacco Use Disorder TUD and Cannabis Use Disorder CUD compared to women at most ages (Grant *et al.*, 2015; Schulte *et al.*, 2009). Prevalence of AUD peaked in the twenties (32% for men at age 25 and 24% for women at age 22) and then decreased steadily by age, with very few men or women reporting AUD past age 75. TUD peaked in the mid-twenties for both men (32% at age 27) and women (23% at age 26); rates then decreased until around age 38, increased until about age 46, and then decreased steadily throughout later midlife and older adulthood. For both men and women, rates of CUD were highest at age 18 (13% men; 7% women), declined steeply through age 30, and then remained at a low rate at the remaining ages. For OUD, rates generally declined with age, but a crossover occurred; men had higher prevalence than women in young adulthood (22–28), and women had higher prevalence than men at older ages (68–77) (National center for biotechnology, 2017). It is worrisome that individuals irrespective of gender and age involve themselves in drug use despite the debilitating consequences it could have on them.

The consequences of drug involvement can be severe and devastating, affecting various aspects of an individual's life, including: physical health, mental health, relationships (Strained relationships with family and friends, social isolation and divorce), career and education (job loss, reduced productivity and dropout from school), and financially (Kieling *et al.* 2011). These consequences can vary depending on the individual, the drug(s) being involved in, and the severity of the addiction. Oyakhilome (2010) asserts that the many reasons why youths may engage themselves in drug involvement include peer pressure, curiosity, coping mechanism, pleasure seeking, low self-esteem, and family dynamics. According to Patterson *et al.* (2014), excessive Drug and alcohol use can result in intoxication, an increased risk of unprotected or unwanted sex, accidents, violence and criminality, self-harm, and suicide. Drug and alcohol use among young people may also be linked to a number of physical, psychological, and social repercussions. Early adolescent drug use can also interfere with the process of maturing into

adulthood and hinder the completion of education. It can also raise the risk of family and relationship issues, social exclusion, mental illness, criminality, and more severe substance abuse issues in later life (Becker et al., (2012). It is important to note that these factors can interact with each other in complex ways, and may vary across individuals and contexts. Understanding these factors can help in developing effective prevention and intervention strategies. In the view of these consequences, government has made several efforts to curb the incidence of drug involvement.

In Nigeria, the laws against drug involvement are primarily governed by the National Drug Law Enforcement Agency (NDLEA) Act and the Psychotropic Substances Act. Some key provisions of the laws include the prohibition of the cultivation, production, importation, exportation, and possession of illegal drugs (NDLEA, 2013). Additionally, there are specific laws and regulations governing drug use and possession, including the NDLEA Act which criminalizes the possession, sale, and distribution of illegal drugs, with penalties ranging from 5-20 years imprisonment. The Psychotropic Substances Act regulates the use and possession of controlled substances. Food and Drugs Act regulates the sale and distribution of food and drugs, including prescription and over-the-counter medications.

Despite the efforts of the various Nigerian tiers of Government and the National Drug Law Enforcement Agency (NDLEA) to stem the tide in the country, there has been a consistent rapid rise in the number of cases of drug involvement especially among young adolescents (10-24 years)(NDLEA, 2013). According to Hasimu, Amasu & Lim (2014),there is an indication that 65 percent of high school students used drugs to have good time,54 percent wanted to experiment to see what it is like, 20–40 percent used it to alter their moods.

In addition to laws and regulations, Nigeria has made other efforts to curb drug involvement which include public awareness campaigns, NDLEA and other organizations also conduct campaigns to educate the public about the dangers of drug involvement. Government and private enterprises provide treatment and rehabilitation services for drug addicts. This program focusses on preventing drug abuse, providing support for addicts, promoting healthy lifestyles, and collaborating with international organizations. Nigeria works with organizations like the United Nations Office on Drugs and Crime (UNODC) to combat drug trafficking and abuse. National

drug law enforcement agency and police receive training to enhance their capacity to combat drug trafficking and related crimes (UNODC, 2018). Drug- demand reduction programs also aim at reducing drug demand. Efforts are made to gather data and conduct research on drug abuse and trafficking in order to form policies, interventions and collaboration with civil society organizations. More so, there are partnerships with NGOs and community support groups to enhance drug prevention, treatment, and rehabilitation exercise. These efforts aim to address drug involvement from multiple angles, including prevention, treatment, enforcement, and community engagement.

### **Research Questions**

1. What is the specific age with high rate of drug involvement among undergraduate students?
2. How does gender differences influence undergraduate student drug involvement

### **Purpose**

The primary aim of this study is to investigate the impact of age and gender differences on student drug involvement. Specifically, the study was to:

1. To identify the specific age with high rate of drug involvement among undergraduate students
2. To analyze how gender differences influence undergraduate student drug involvement

### **Hypothesis**

The following hypotheses were tested at 0.05 level of significance:

1. There is no significant gender difference in undergraduate students' drug involvement
2. There is no significant difference in age of undergraduate students' drug involvement

### **Method**

The study employed a descriptive survey research design a sample of 360 students were selected using stratified random sampling technique from a population of 47,233 undergraduate students of Nnamdi Azikiwe University, Awka and Chukwuemeka Odumegwu Ojukwu University, Igbariam campus Anambra State to ensure the representation of age and gender differences.

The instrument for data collection was the adolescent drug involvement scale from Moberg & Hahm (1991). It has 13 items but was reduced to 11 items as a result of the expert commendation during validation. Data collected were analyzed using descriptive and inferential statistics. Mean scores were utilized to answer the research questions while t-test was used to test the hypotheses at significant level set at 0.05

## Results

Table 1: t-Test Analysis of Drug Involvement by Male and Female

Gender	<i>N</i>	Mean	<i>SD</i>	T	Df	Sig. (2-tailed)	Remark
Male	168	3.05	1.30				Significant
Female	142	2.63	1.38	2.741	308	.006	
Total	310	2.86	1.35				

Table 1 shows the t-test analysis of male and female students' involvement in drugs. t-test analysis revealed that male students ( $M = 3.05$ ,  $SD = 1.30$ ) had a significantly higher mean score in drug involvement than their female counterparts ( $M = 2.63$ ,  $SD = 1.38$ ),  $t(308) = 2.741$ ,  $p = 0.006$ .

Table 2: t-Test Analysis of Drug Involvement of Students

Gender	<i>N</i>	Mean	<i>SD</i>	T	df	Sig. (2-tailed)	Remark
15-19 Years	130	2.76	1.36	-1.031	308	.303	Not Significant
20-24 Years	180	2.92	1.33				
Total	310	2.86	1.34				

Table 2 shows the t-test analysis of students who are between 15-19 years and those who are between 20-24 years in drug involvement. t-test analysis revealed that students between 15-19 ( $M = 2.76$ ,  $SD = 1.36$ ) had a non-significantly lower mean score in drug involvement than their counterparts who are between 20-24 years ( $M = 2.92$ ,  $SD = 1.33$ ),  $t(308) = -1.031$ ,  $p = 0.303$ .

### Test of Hypotheses

Two hypotheses were formulated to guide the study. The tables in the subsequent sections helped in providing statistical evidence that proved or disapproved a given hypothesis.

3. **HO<sub>1</sub>** There is no significant gender difference in undergraduate students' drug involvement
4. **HO<sub>2</sub>** There is no significant difference in age of undergraduate students' drug involvement

**Table 3: Test of Significant Relationship between Undergraduate Students' age and their Involvement in Drugs**

Gender	<i>N</i>	Mean	<i>SD</i>
Male	168	3.05	1.30
Female	142	2.63	1.38
Total	310	2.86	1.35

5. Table 3 shows that there is a statistically significant difference between male and female undergraduate students' involvement in drugs. This is so because the *mean score of males* = 3.05 is higher than the mean score of females = 2.63. Therefore, the null hypothesis that there is no significant difference in age of undergraduate students' drug involvement is rejected.

**Table 4: Test of Significant Relationship between Undergraduate Students' age and their Involvement in Drugs**

Gender	<i>N</i>	Mean	<i>SD</i>
15-19 Years	130	2.76	1.36



20-24 Years	180	2.92	1.33
Total	310	2.86	1.34

6. Table 4 shows that there is no statistically significant difference between the ages of undergraduate students' and their involvement in drugs. This is so because the *mean score 15-19years* = 2.76 is not significantly different from the mean score of 20-24years = 2.92. Therefore, the null hypothesis that there is no significant difference in age of undergraduate students' drug involvement is not rejected.

## **Discussion**

The phenomenon of male students being more involved in drug than female students is a widespread concern that has been observed in various studies globally. Experiment with drugs during adolescence (11-25 years) is common. The findings reveal that at this age, they try so many new things for many reasons, including curiosity and desire to find out the effectiveness of a particular drug, to feels good, to reduce stress, or to feel grown up. Using alcohol and tobacco at a young age increase the risk of using other drugs later. These findings agree with one of the WHO's and the World Heart Foundation's data, which posit that in Nigeria, 22.1 percent of school youth age between 12 to 17 years use tobacco. It can be said that from onset that male drug involvement is higher than that of female. According to (Wagner et al., 2007) both genders displayed significant increases in the consumption of marijuana (22.3% to 27.1% for men and 12.9% to 16.9% for women), amphetamines (5.4% to 10.6% for men and 3.4% to 5.6% for women), and inhalants (9.8% to 15.7% for men and 1.9% to 5.0% for women). Despite the both increase, male are seen to be more involved. The greatest gender difference was also observed in consumption report which showed significant increases in male use of tobacco (19.6% to 23.5%), marijuana (15.8% to 20.5%), amphetamines (1.1% to 3.2%), and inhalants (4.0% to 7.9%). Although, the reasons as to why individuals engage in drug involvement remain varied and, in most instances, multiple irrespective of age and gender but must be noted that studies have shown that males have higher cases than female.

While age is often considered a significant factor in drug involvement, this study and other recent ones suggest that student age may not be as significant a predictor of drug involvement as previously thought. According to (Oguntayo et al., 2020), some other factors like monthly allowances; attitude towards drug abuse among others can create differences in deviant behaviour generally and not age. This agrees with the finding here which shows clearly that students between 15-19 ( $M = 2.76$ ,  $SD = 1.36$ ) had a non-significantly lower mean score in drug involvement than their counterparts who are between 20-24 years ( $M = 2.92$ ,  $SD = 1.33$ ),  $t(308) = -1.031$ ,  $p = 0.303$ .

In the same vein, the homogeneous drug use patterns across age groups were clearly shown in a 2020 study published in the Journal of Adolescent Health found that drug use patterns among college students were relatively homogeneous across different age groups (McCabe et al., 2020). The study surveyed over 3,000 college students and found that age was not a significant predictor of drug use. Likewise, similar risk Factors across age groups were captured in a 2022 study published in the Journal of Substance Use found that risk factors for drug involvement, such as peer influence and stress, were similar across different age groups (Wang et al., 2022). The study surveyed over 2,000 college students and found that age did not significantly impact the relationship between risk factors and drug involvement.

Instead of age, increased accessibility and social media influence according to a publication in Journal of Adolescent were found significant predictors of drug involvement among college students, regardless of age (Huang et al., 2023). The study surveyed over 1,500 college students and found that age was not a significant factor in predicting drug involvement. More so there are contextual factors overriding age effects in students' drug involvement as can be seen in study published in the Journal of Drug Issues 2024 which found that contextual factors, such as living situation and social environment, played a more significant role in predicting drug involvement among college students than age (Lee et al., 2024). The study surveyed over 2,500 college students and found that age was not a significant predictor of drug involvement when contextual factors were taken into account.

## **Conclusion:**

Recent studies suggest that while male students are more involved in drug than female, age may not be as significant a predictor of drug involvement as previously thought. Instead, factors such as risk factors, accessibility, social media influence, and contextual factors may play a more significant role in predicting drug involvement among students.

### **Recommendations**

1. Implement Age-Specific and Gender-Sensitive Prevention Programmes that will develop prevention programs that cater to the unique needs and vulnerabilities of different age.
2. Enhance Stress Management and Coping Skills which will provide undergraduate students with effective stress management and coping skills, such as mindfulness, meditation, and cognitive-behavioural therapy.
3. Foster a Supportive Campus Environment that encourage a culture of support and openness on campus, where students feel comfortable seeking help and discussing their struggles without fear of judgment.
4. Provide Access to Counseling and Mental Health Services ensuring that undergraduate students have access to confidential counseling and mental health services, including substance abuse treatment and support groups.
5. Conduct Regular Research and Assessment thereby regularly conducting research and assessment to better understand the prevalence and patterns of substance use among undergraduate students, including age and gender differences.

## REFERENCES

- Adamson, T.A., Ogunlesi, A.O., Morakinyo, O. (2015). Descriptive National Survey of Substance Use in Nigeria. *J Addict Res Ther*; 6: 234.
- Alebachew, W., Semahegn, A., Ali, T., & Mekonnen, H. (2019). Prevalence, associated factors and consequences of substance use among health and medical science students of Haramaya University, eastern Ethiopia, 2018: A cross-sectional study. *BMC Psychiatry*, 19(1), 343.
- Arria, A. M., Caldeira, K. M., Vincent, K. B., & O'Grady, K. E. (2013). Substance use among college students. *Journal of College Student Development*, 54(5), 531-544.
- Borsari, B., & Carey, K. B. (2001). Peer influences on college drinking: A review of the research. *Journal of Substance Abuse*, 13(4), 391-424.
- Courtenay, W. H. (2000). Engaging men in health care. *International Journal of Men's Health*, 1(1), 5-14.
- Hser, Y. I., Mooney, L. J., & Huang, D. (2015). Gender differences in drug abuse. *Journal of Substance Abuse Treatment*, 48, 1-8.
- Huang, F. L., Li, Z., & Zhang, Y. (2023). Social media influence and substance use among college students: A moderated mediation model. *Journal of Adolescent Research*, 38(1), 34-53.
- Ibiyemi, T. S. (2020). On admission subscription enhancement model for Nigerian private university. Retrieved from <https://awau.org/media/files/5e4d4dead5a36.pdf> 19<sup>th</sup> April.
- Idowu, A., Aremu, A. O., Olumide A, (2018). Substance abuse among students in selected secondary schools of an urban community of Oyo-state, South West Nigeria: implication for policy action. *Afr Health Sci.*; 18: 776–785.
- Kieling C, Baker-Henningham H, Belfer M, Conti G, Ertem I, Omigbodun O, et al. (2011). Child and adolescent mental health worldwide: evidence for action. *Lancet*. 2011;378 (9801): 1515-25.

- Lee, S., Kim, J., & Lee, J. (2024). Contextual factors influencing substance use among college students: A multilevel analysis. *Journal of Drug Issues*, 54(1), 53-68
- McCabe, S. E., West, B. T., & McCabe, V. V. (2020). Trends in medical and nonmedical use of prescription opioids among US college students, 2015-2018. *Journal of Adolescent Health*, 66(4), 532-538.
- National Drug Law Enforcement Agency (2019). Drug free club. Retrieved from <http://www.ndlea.gov.ng/v1/?q=content/drug-free-club>
- National Institute on Drug Abuse. (2019). Monitoring the Future Study: Trends in Prevalence of Various Drugs.
- National Institute on Drug Abuse. (2020). Drugs, Brains, and Behavior: The Science of Addiction.
- National Research Council and Institute of Medicine. (2019). *Depression in Parents, Parenting, and Children: Opportunities to Improve Identification, Treatment, and Prevention*. Committee on Depression, Parenting Practices, and the Healthy Development of Children. Board on Children, Youth, and Families. Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
- Oguntayo, R., Ajao, P. O., Akintunde, K. A., Popoola, O. A., & Opayemi, A. S. (2020). Age, gender, Socio-Economic status, attitudes towards drug abuse as determinants of deviant behavior among undergraduate students. *European Review of Applied Sociology*, 13(21), 38–46. <https://doi.org/10.1515/eras-2020-0009>
- Oshikoya, K. A., Alli, A. (2006). Perception of Drug Abuse Amongst Nigerian Undergraduates. *World Journal of Medical Sciences*, 1(2), 133-139.
- Oyakhilome, F., (2010). Perspective and Strategies in the control of the Traffick in Narcotics Drugs and Psychoactive Substances. In Kalu and Osibajo (Ed.) *Narcotics: Law and Policy in Nigeria*. Federal Ministry of Justice, Lagos, pp: 1-6.
- UNODC (2018). Drug Use in Nigeria, United Nations Office on Drugs and Crime, Vienna. Available at [https://www.unodc.org/documents/data-and-analysis/statistics/Drugs/Drug\\_Use\\_Survey\\_Nigeria\\_2019\\_BOOK.pdf](https://www.unodc.org/documents/data-and-analysis/statistics/Drugs/Drug_Use_Survey_Nigeria_2019_BOOK.pdf). 2018.
- Wang, Y., Chen, W., & Li, M. (2022). Risk factors for substance use among college students: A systematic review and meta-analysis. *Journal of Substance Use*, 27(3), 257-265.
- Wilsnack, R. W., & Wilsnack, S. C. (1997). Gender and alcohol: Individual and social

perspectives. Rutgers Center of Alcohol Studies.

World Health Organization (2014). Substance abuse. Accessed on 5 Dec 2020

<http://www.worldhealthorganization./substanceabus>