Relationship Between Academic Anxiety and Substance use among Undergraduate Student

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Abstract

The study investigated the relationship between academic anxiety and substance abuse among undergraduate students, one hundred and twenty (120) students comprising of eighty-seven (87) female with mean age of 21.49 and S.D of 3.266, drawn using multi-stage (cluster, balloting: simple random and purposive) sampling from Godfrey Okey University Emene, Enugu State. Skinner (1982) Drug Abuse Screening Test (DAST-10) and Cassady et al. (2019) Academic Anxiety Scale were used for data collection, with a correlation design been adopted, while a Pearson Moment correlation coefficient was used for data analysis. Result revealed that there was a positive relationship between academic anxiety and substance at r=

.317 and entry mode and substance abuse at r= .232. There was a negative relationship between age and academic anxiety at r= .-389 and age and year of study at r= .-279. Hence, school management should try and make learning interesting and entertaining so as to reduce educational tension.

Keywords: *Academic anxiety, substance use, age, entry mode, Godfrey Okey*

CHAPTER ONE

Introduction

Substance use which is described as the utilization of any substance or medication, both legally and illegally (UNESCO, 1999, as cited in Adesida, et al., 2022) is both social and public health problem that has become a global issue affecting various countries, including Nigeria. High occurrences of this menace have been recorded among students in different settings with few reports on university students in Nigeria. Therefore, this study was designed to investigate if academic anxiety can be correlated with substance use.

Substance use that also can be referred to as substance abuse can simply be defined as a pattern of harmful use of any substance for mood altering purposes (Buddy 2020). Substances can include alcohol and other drugs (illegal or not) as well as some substances that are not drugs at all (Buddy 2020). Abuse can result because you are using a substance in a way that is not intended or recommended, or because you are using more than prescribed (Buddy 2020). To be clear, someone can use substances and not be addicted or even have a substance use disorder, as defined in the Diagnostic and Statistical Manual, Fifth Edition (DSM-5) (McLellan 2017).Health officials consider substance use as crossing the line into substance abuse if that repeated use causes significant impairment, such as (Buddy 2020): Disabilities, Failure to meet responsibilities, Health issues, impaired control, Risky use, Social issues. In other words, if you drink enough to get frequent hangovers; use enough drugs that you miss work or school; smoke enough marijuana that you have lost friends; or often drink or use more than you intended to use, your substance use is probably at the abuse level (Buddy 2020). However, the broad range of substance abuse in today's society is not that simple.

Generally, when most people talk about substance abuse, they are referring to the use of illegal drugs. Drugs of abuse do more than alter your mood. They can cloud your judgment, distort your perceptions, and alter your reaction times, all of which can put you in danger of accident and injury (Buddy 2020). These drugs got to be illegal in the first place because they are potentially addictive or can cause severe negative health effects. Some believe the use of illegal substances is considered dangerous and, therefore, abusive (Csete, et al., 2016).

Among undergraduate students in Nigeria, the rate of psychoactive substance use is reported to be far higher than what is reported among the general populace (Adeyemo, et al., 2016; Adamson, et al., 2015; Aguocha, &Nwefoh, 2021). In Southwest Nigeria, 58.4% – 65% of undergraduates have used psychoactive substances at least once in their lifetime while 15.4% have reported current use (Babalola, 2014; Owoaje& Bello, 2014; Aguocha, &Nwefoh, 2021). In Benin, South South Nigeria 46.6% lifetime rate has been found (Adeyemo, et al., 2016). Many studies show that alcohol is the most commonly used psychoactive substance among undergraduates. In Uyo, South South Nigeria, all the students surveyed reported a lifetime use of alcohol (Johnson, et al., 2017). In Southwest Nigeria, a wide range (13.6%–63.4%) was

reported (Babalola, 2014; Owoaje& Bello, 2014; Aguocha, &Nwefoh, 2021; Akindutire& Adegboyega, 2012). In South East Nigeria, a range, (50.2%–78.4%) which showed a very high rate of current use of alcohol was found (Aguocha, &Nwefoh, 2021). In North Central Nigeria, 77% lifetime rate was found in an early study (Adelekan, et al., 1992; Aguocha, &Nwefoh, 2021) but 15 years later, a lower rate of 13.6% was reported (Makanjuola, et al., 2007). Similarly, varying rates have been reported for other psychoactive substances. A study in South West Nigeria showed that tobacco (81%) was the commonest substance used (Adekeye, et al., 2015). In North Central Nigeria, Southwest Nigeria and South East Nigeria, 3.2%–37.4%, 2.3%–43.8% and 12.1%13 respectively was reported. For sedatives, 6.1%–7.3% was found(Aguocha, &Nwefoh, 2021). Johnson (2022) postulated that Academic stress and anxiety is one of the leading causes for alcohol and drug abuse among middle school, high school, and college students. The pressure students find themselves under during school leads to two primary reasons they may begin using substances. The use of substances may be to relieve the tension and emotional overwhelm they are experiencing from being academically overloaded. Alternatively, students may turn to substances in an attempt to advance their performance in an academic setting (Johnson, 2022).

Generally anxiety can be either a trait anxiety or a state anxiety: A trait anxiety is a stable characteristic or trait of the person, state anxiety is one which is aroused by some temporary condition of the environment such as examination, accident, punishment etc (Bihari, 2014; Banga, 2014). Academic anxiety is a kind of state anxiety which relates to the impending danger from the environments of the academic institutions including teachers, certain subjects like Mathematics, Science, Language etc (Bihari, 2014; Banga, 2014). Academic anxiety refers to the feelings of worry, tension, or dread that are associated with academic settings or tasks (Rincon, 2021). This could be exams, assignments, subjects (math, reading, or science), social pressures related to schoolwork (parents, peers), or merely feeling uneasy about studying or working in groups in class. Academic anxiety has natural ebb and flow cycle—as the source of the worry (an exam, a presentation, etc.) becomes closer or more relevant, the level of anxiety also becomes more prevalent (Rincon, 2021). After the stressor has passed, the anxiety will also lessen until another stressor becomes relevant, and then the cycle begins again. Because of this cycle, it is possible to manage this anxiety at its peak. Preventative measures can also reduce the degree of anxiety experienced, helping to make the anxiety more manageable in the moment.

It is common for all learners to feel some degree of nervousness about academic requirements or assignments. In fact, a low degree of anxiousness can actually be helpful in creating motivation to meet academic goals (Rincon, 2021). This is called facilitative anxiety. However, when these feelings of anxiety become so intense that they become detrimental to academic success, learners should engage in coping strategies to manage their academic anxiety. Academic anxiety can be caused by many different sources that are specific to each person. Consequently, the symptoms of academic anxiety may include many different types. There are four facets of academic anxiety: physiological, cognitive, behavioural, and social (Rincon, 2021). Not every learner will exhibit symptoms from all of these categories. For example, it is possible that someone may experience physiological and cognitive symptoms without ever experiencing any behavioural symptoms. Learning to identify the differences between the symptoms of academic anxiety can help to determine what management techniques work best to manage your individual anxiety.

Different theories explained both variables, but the social control theory by Hirschi (1969) is adopted as the theoretical framework because it postulated that the external stimuli and

influence of others is a central theme in social control theory and the age-graded theory of informal social control. The formation of strong bonds with conventional people and/or social institutions inhibits the natural tendency to engage in criminal behaviour (Sweeten, Bushway, & Paternoster 2009) and promote pro-social actions (Giordano et al. 2002). Hirschi (1969) argues that there are four social bonds to society that helps people abstain from crime: commitment, attachment, involvement and belief. The four bonds can also help either decrease or increase academic anxiety if the student is commitment, attached, involves with his or her studies and they have the belief in themselves to bounce back from every stressful event that might resort during the academic exercises. The need to investigate if academic anxiety might bring about the presence of substance use necessitated this study hence the research question: Will academic anxiety significantly correlate with substance use among undergraduate student?

Method

Participants

One hundred and twenty (120) undergraduate students comprising of 77 females and 43 male with mean age of 21.49 and SD of 3.266 were drawn using multi-stage (cluster, simple random: by balloting and purposive) sampling techniques as participants from Godfrey Okoye University Emene, Enugu State. The students were cluster according to their faculties, simple random: by balloting was used to pick the faculties, while purposive: a criterion selection based sampling techniques was used to draw the participants from thirty-one (31) from Applied natural sciences, twenty-eight (28) from Management sciences, twenty-five (25) from Environmental sciences, fifteen (15) from Engineering and twenty-one (21) from Law.

Instrument

These instruments were used for data collections, which are:

- Skinner (1982) Drug Abuse Screening Test (DAST-10) and
- Cassady et al. (2019) Academic Anxiety Scale

Skinner (1982) Drug Abuse Screening Test (DAST-10)

The Drug Abuse Screening Test (DAST) is 10-items designed to provide a brief instrument for clinical and non-clinical screening to detect drug abuse or dependence disorders by Skinner (1982). The DAST is available in both 20-item and 10-item formats; an Adolescent version is also available. The DAST-10 was found to be a psychometrically sound drug abuse screening measure with high convergent validity (r=0.76) when correlation with the Drug Use Disorders Identification Test (DUDIT) was measured and to have a Cronbach's alpha of 0.92. In addition, a single component accounted for 59.35% of total variance, and the DAST-10 had sensitivity and specificity scores of 0.98 and 0.91, respectively, when using the optimal cut-off score of 4. Additionally, the DAST-10 showed good discriminant validity as it significantly differentiated patients with drug use disorder from alcohol dependents.

Cassady et al. (2019) Academic Anxiety Scale

This was measured through the 11-item Academic Anxiety Scale (AAS) developed by Cassady et al. (2019). The scale uses a 4-point Likert type scale (1 = not at all typical for me; 4 = very typical of me). A sample items in the scale is: "I often worry that I am not doing my assignments properly." The authors reported excellent internal consistency (α = .90) of the scale. Further, CFA indicated a good model fit, $\square 2$ (33, N = 260) = 70.02, p < .001; $\square 2/df$ = 2.12; RMSEA = .059; RMSEA 90% CI [.04; .08]; CFI = 0.97; TLI = 0.96; NFI = 0.96; SRMR = 0.037. Cronbach's alpha indicated a good internal consistency of the scale (α = .88). Factor loadings ranged from 0.66 to 0.88. Higher scores on the AAS indicate greater academic anxiety experienced.

Procedure

Undergraduate students were drawn as participants from five faculties in Godfrey Okoye University Emene, Enugu State using multi-stage sampling (cluster, simple random: by balloting, and purposive) techniques for this study. The students were clustered according to their faculties, simple random : by balloting was used to pick the faculties while purposive sampling techniques was used to select students from thirty-one (31) from Applied natural sciences, twenty-eight (28) from Management sciences, twenty-five (25) from Environmental sciences, fifteen (15) from Engineering and twenty-one (21) from Law. The researcher employed the research assistants whom are faculties' executives from the selected faculties to help distribute and retrieve the questionnaire. One hundred and twenty-eight (128) questionnaires were sent out, one hundred and twenty-four (124) were returned. Among the returning once, two (2) bears multiple initials and the other two (2) were not properly responded to, which make the numbers properly responded to be one hundred and twenty (120), which were used for data analysis.

Design and Statistics

A correlation design was adopted based on the researcher is looking for the relationship between academic anxiety and substance use among undergraduate student. Thus, Pearson correlation coefficient with the aid of S.P.S.S version (23) package was applied as a statistic to analyze the data in order to test the hypothesis.

Result

Table I: correlation statistics

S/N	Variables	M	S.D	1	2	3	4	5	6
1	Substance use	1.086	1.147	1	.317	-.176	-.008	.094	.232
2	Academic anxiety	23.03	8.166		1	-.389	.120	-.279	.108
3	age	21.49	3.266			1	-.239	.254	-.253
4	gender	1.714	.4584				1	-.048	.260
5	Year of study	282.86	95.44					1	-.086
6	Entry mode	1.286	.4584						1

Table I above shows that academic anxiety and substance are positively correlated at r= .317, this shows that increase in academic anxiety will lead to increase in substance use among undergraduate students. Also entry mode and substance use at r= .232 indicated positive relation, this means that increase in entry mode will cause increase in substance use among undergraduate students. While age and substance use at r= -.176 shows a negative correlation, this implies that that the increase in age will lead to the decrease in substance use among undergraduate.

Age at r= -.389 and year of study at r= -.279 shows a negative relationship with academic anxiety, these implies that increase in the listed variables will cause a decrease in academic anxiety among undergraduate student.

Discussion

The result obtained shows that academic anxiety correlated with substance use among undergraduate student. This means that increase in academic anxiety will cause increase in substance use among undergraduate students. The finding implies that for every undergraduate student that uses substance, there is presence of academic anxiety. This means that phobia of

academic activities can contribute to student use of substance, because the substance helps to elevate the student mode so as to overcome the fear of the unknown or fear of academic failure. The findings also indicated that the student entry mode can also cause the presence of substance use, it implies that the mode of offering admission either post UME or direct entry can contribute to the presence of substance use among undergraduate student. While age displayed a negative relationship with substance use among undergraduate, this implies that as the undergraduate student grow in age, it reduces the tendency of the student continues usage of substance. Which means increase in age might introduce a better or positive coping strategy that will help to reduce the intake of substance use among undergraduate student.

Age and year of study was negatively correlated with academic anxiety, this implies that increase in age will cause the decrease in academic anxiety among undergraduate student. Also, as the student move from one leave to another, academic anxiety reduces.

Implication of the study

The finding implies that academic anxiety can cause the presence of substance use among undergraduate student. The fear of failure, stress involves in school activities and other academic activities can contribute to the use of substance among undergraduate student. Their perception of event and situation in the school environment can cause the increase in substance use according to the result obtained.

Hence, clinicians and counsellors should try and encourage student to adopt a positive coping mechanism which will be more effect to handle academic anxiety so as to reduce the intake of substance. School management can assist the student by making learning interesting by introducing flexible academic activities which will reduce phobia for learning. Lecturers should be encouraged to make their lecture period an interactive one so as to carry the student along.

Limitations of the study

Many factors worked against this study, one of such is the population sampled. Sampling ne private institution alone reduced the number of students that participated in this study. More participants would have been drawn assuming both public and private schools were sampled. This research was carried out during exam period and this factor also reduced the numbers of participants. Most students were involved in examination process, which discouraged some of them citing tight schedule.

The sampling techniques adopted may have also worked against this study; more schools would have been sampled assuming non probability sampling techniques was adopted.

Suggestion for further study

Future researcher should consider sampling participants from both private and public schools so as to increase the numbers of participants.

Secondly, future researcher should consider mixed method research, so as to give room for more participants.

Finally, a favourable sampling techniques such as longitudinal study should be adopted by future researcher so to give room for the selection of more participants.;

Summary and Conclusion

The findings from this study implies that increase in academic anxiety can lead to an increase in substance use among undergraduate student, hence school management should try and assist the student so as to get rid of any activities that can cause increase in academic anxiety.

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