

Efficacy Of Sex Education On Academic Depression Behaviour Of Schooling Adolescents With Special Needs In Nsukka Education Zone Of Enugu State, Nigeria

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ABSTRACT

This paper assessed the efficacy of sex education on academic depression behavior of schooling adolescents with special needs. Pre-test posttest randomized control trial experimental design was adopted by the researchers for the study. Fifty two (52) schooling adolescents who were drawn through proportionate stratified random sampling technique constituted the sample for the study. The school adolescents with special needs were randomly assigned to experimental (30) and control (22) groups. Depression Assessment Scale for Schooling Adolescents with Special Needs (DASSASN) and Academic Depression Behaviour Scale for Schooling Adolescents with Special Needs (ADBSSASN) were used for data collection. DASSASN and ADBSSASN were duly validated by experts in test development and the internal consistency reliability index of the items estimated as 0.78 and 0.77 respectively using Cronbach alpha method. Before the commencement of the testing and treatment programme, the researchers assured the participants of confidentiality of interactions and personal information as they work to get her in self-disclosure. After that, pretreatment assessment (pre-test) was conducted using the DASSASN and ADBSSASN in order to collect baseline data (Time 1). After that the experimental group was exposed to 90 minutes of the sex education (SE) programme twice a week for a period of 6 weeks. The treatment took place May and June, 2024. Post-test (Time 2) assessment was conducted one week after the last treatment session. Besides, a follow-up assessment was conducted after two months of the treatment (Time 3). Data collected were analyzed using repeated measures analysis of variance. The findings of the study revealed that the efficacy of sex education on the reduction of depression behavior among schooling adolescents with special needs was significant at post-test and follow-up measures. One of the implications of the findings is that if schooling adolescents with special needs are not properly counseled, their depression behavior will continue to increase. Based on the findings, it was recommended among others that Federal Government or relevant authorities should provide enough guidance counselors in the various institutions of higher learning who will assist in the counselling of schooling adolescents with special needs on dangers of depression using sex education.

Keywords: Sex education, Depression

1. INTRODUCTION

In Nigeria, education is faced with numerous challenges. The secondary school environment is not safe for schooling adolescents and teachers. Inadequate infrastructural facilities, strike actions, inadequate funding, corruption, weak administration, insecurity among others have exposed a lot of challenges to schooling adolescents. This phenomenon has led so many students especially those in higher institutions to depression behavior. These students especially schooling adolescents with special needs encounter a lot of problems and situations that make them vulnerable to depression. Depression affects all areas of an individual's wellbeing including social interaction, diet, self-esteem, sleep, physical health among others (Jamison, 2019). Students who are depressed are at risk of suffering from mental and physical health problems, resistance to anything school related and poor academic performance (Bums, 2020). Depression is common among students, but often goes unrecognized especially those that have to do with interpersonal relationship.

Depression is a widespread mood disorder accompanied by key features such as depressed mood, reduced volitional activity, and reduced verbal actions (Smith and DeTorres, 2014). It not only leads to important of social functions such as socialization and learning, but even triggers self-injurious and suicidal behaviours in individuals (Li et al., 2015). A meta-analysis found a relatively high prevalence of depression among a relatively high prevalence of depression among college students (31.38%) compared to the general population (5.6%) (Wang, et al., 2020, Zhang, et al, 2020). Recent studies have found that the prevalence of depression among Chinese college students reached 37.0% during the COVID-19 pandemic (Zhou et al, 2021). Notably, several studies have shown that academic depression behavior causes severe impairments in cognitive and social functioning of some schooling adolescents. Currently, such as decreased executive and memory functions, difficulty concentrating and social avoidance (Mallua, 2019). Individuals with severe depression are prone to severe insomnia, self-injury and suicide due to their extreme psychological distress (Riemann et al., 202)). It is evident that current schooling adolescents especially the special need students have become a high prevalence group of mental illness and a vulnerable group of mental health.

In Nsukka Education Zone of Enugu State, Nigeria, the schooling adolescents are depressed especially the special need students. The schooling adolescents are going through adolescence stage. The period of adolescence is a crisis stage for the growing student in terms of rapid changes in their physiological and psychological development (Action Youth, 2015). These said changes in their physiological and psychological development usually expose the schooling adolescents to academic depression behavior. These schooling adolescents due to depression behavior indulge in undesirable sexual activities which lead them to very serious consequences which include unwanted pregnancy early marriage, abortion, which can lead to death and infertility, child abandonment, HIV/AIDS and dropping out of school. These problems arise as a result of lack of awareness which is a big problem on this part of the growing students.

The effect of the above problems of schooling is depression. In a study on effects of depression on student's academic performance for instance, Shumaila (2015) found out that a negative effect of depression existed on student's academic performance of the students having low, medium and high level depression. Globally, it is estimated that 5% of adults suffer from the disorder. According to Kerr (2019), depression is a mental health disorder characterized by persistently depressed mood or loss of activity, causing significant impairment in daily life. It is characterized by persistent sadness and a lack of interest or pleasure in previously rewarding or enjoyable activities (World Health Organization (WHO), 2022). It can equally disturb sleep and appetite. Depression according to Nolen (2023) is a mood or emotional state that is marked by feelings of low self-worth or guilt and a reduced ability to enjoy life. Often accompanied by other symptoms such as loss of interest or pleasure, feelings of guilt or low energy, poor concentration, changes in appetite, sleeping difficulties and can be manifested by anybody irrespective of age, race, socio economic status or gender. This implied that depressed schooling adolescents especially the special need students are vulnerable to anti-social behaviours which usually lead them astray.

Academic depression perhaps has an effect on schooling adolescent's personality characteristics and their learning. Nanshad, Faroogni, Rani, Singh and Verma (2014) showed that symptoms of academic depression are what indicate their mood and feelings. Failure and dissatisfaction with himself and thinking suicide, fatigue and loss of appetite which harms the extent to which it is necessary to provide psychological and education support to this group of schooling adolescents by employing therapeutic programmes that reduce the level of feeling of depression.

Be that as it may, different factors appear to contribute towards academic depression among schooling adolescents especially, the special need students; specifically, insecurity, lack of guidance and encouragement, emotional stress, inadequate funding, inappropriate time management among others. Ncheke (2018) found out that student's depression arises from academic stress including difficulty with school work, pressure to get good grades, financial worries, failed relationships with parents and peers and conflict with roommates. According to Kerr (2019), irrational believes of students may develop in them depression symptoms which leads them into disturbing circumstances. This perhaps lead to engaging in high risk behaviours such as abusing alcohol, and other substance, having unprotected sex, violence against others, sleeping habits, dropping out of school with an increased risk of suicide which have nearly tripled in the last 50 years (Centre for Disease Control, 2013; World Health Organization (WHO), 2022). Academic depression in the study area appears to make schooling adolescents especially the special need students engage in high risk behaviours such as abusing alcohol and other substance, violence against others

and their teachers, having unprotected sex, drop out of school among others. Equally, the schooling adolescents who are young and energetic indulge in undesirable sexual activities which lead them to very serious consequences which include unwanted pregnancies, early marriage, abortions, which can lead to death and infertility, child abandonment, HIV/AIDS and dropping out of schools. Those problems arise as a result of lack of awareness which is a big problem on the part of the schooling adolescents especially the special need students.

Academic depression behavior is a serious problem that requires adequate attention. Previous studies shows that depression is very common among university students (Ahmad, Sulaiman, and Cabri, 2022; Abolanle, Olley and Shobesan, 2021), approximately 68% of university students are depressed and study conducted by Hadifa (2021) found depression symptoms of university students. In addition, Kahi (2019; Farhi, 2021) reveals that depression can negatively affect students' academic positions, like quality and academic performance. Depression affects academic achievement negatively (Buttar, 2022) and also related to increased stress and anxiety (Tur, 2023).

Depression can equally result lead to stress and guilt, decrease confidence, and eventually resulting in numerous diseases (Bums, 2022). However, there is a relationship between high levels of depression and low levels of mental health (Oxlin, Zur & Cohohdi, 2021). Ozidi (2022) noted that students who are depressed experience negative consequences such as dropping out of school, committing suicide, failing courses and low interactions with classmates. Tamison (2019) posits that 52% of students need to receive help with depression. Previous studies have varied in dealing with depression in studies (Aladdin & Alhayh, 2017). Alitor (2016) investigated the effect of group counselling programme on reducing anxiety and depression and found that group counselling programme is effective in reducing anxiety and depression among students. Equally, Omeje, Ncheke and Egenti (2023) found out in their study that sex education is effective in reducing academic stress behavior among students. The negative consequences of depression on academic achievement and physical wellbeing of students reveal the need for intervention studies on depression (Bums, 2022). There are many interventions that could help the reduction of depression such as sex education among others. Sex education appears to be more useful to this study due to those crises stage associated with period of adolescence. The period of adolescence according to Leannap (2010) is a crisis stage for the schooling adolescents especially the special need students in terms of rapid changes in their physiological and psychological development. The schooling adolescents who are young and energetic indulge in undesirable sexual activities which lead them to very serious consequences which include unwanted pregnancies, early marriage, abortions, which can lead to death and infertility, child abandonment, HIV/AIDS and dropping out of school (Lannap, 2010).

Sex plays a vital role in the existence of the human race, apart from food, clothing and shelter. Sex also comes in as one of the essential things in human life. This is true because without sex, the human race will terminate and there will be no reproduction (Mallum, 2021). Sexuality education is therefore a sensitive area of education that needs serious attention in our modern society. Okpede (2021) pointed out that sex education is a programme that has as its focal point the transfer of values, attitudes and skills that are designed to be in our youths to enable them grow up in a way and manner that is cherished by the society they live. Schooling adolescents are in a period in which reproductive organs are matured and increased (Eze, 2022). Sexual needs become pronounced. As a result of the increase in sexual needs, schooling adolescents always want to satisfy this need by going into sex without knowing its dangers or consequences (Ncheke, 2022). The author equally posits that with sex education, the students will be assisted to transit from childhood to adulthood by acquiring necessary support to enable them cope successfully. Mallum (2021) opined that guidance and counselling services on sexuality education for special population is of immense importance to enable them cope with their disabilities. Schooling adolescents with special needs are faced with lack of information on sexuality education thereby endangering themselves out of ignorance (Ugwu, 2022). More so, when it has to do with students with special needs whose conditions arise from deficiencies in cognitive, sensory, physical, psychological and behavioural mannerism, it is necessary that sex education is provided to them to enable them become conscious of its implications to their lives and education. Durojaige (2023) observed that sex education is necessary because many of the special problems faced by schooling adolescents with special needs are new to them and are such that affects their lives as well as socio-educational development. It is therefore necessary that they make successful adjustment through the acquisition of relevant sex education skills. Some schooling adolescents with special needs indulge in serious sexual problems as a result of sheer ignorance. Examples of these problems include unwanted pregnancies, early marriage, abortions, which can lead to death, infertility, child abandonment, HIV/AIDS and dropping out of school.

Sex education is therefore a means of creating awareness about sex and its consequences (Eze, 2022). It is also geared towards assisting the youths to develop desirable sexual habits (Ugwu, 2023). Makinna (2023) posits that is it based on the premise that if our students are told the truth on the issues they will certainly be more careful, conscious and less curious and anxious in their relationship with the opposite sex. Kutzi (2022) noted that use of sex education is used on regular personal interaction to help a person change behavior, and increase happiness and overcome problems. Sex education aims to improve an individual's well being and mental health, to resolve or mitigate troublesome behaviours, beliefs, compulsion, thoughts or emotions, and to improve relationships and social skills (Bins, 2021). Numerous experimental studies have focused on the management of depression among students (Binder, 2000; Schubert, et al., 2000; Rutlesa, 2022). According to Berghi (2017), Ozen (2018), lack of effective therapy or intervention programmes have been emphasized in both national and international literatures. However, experimental studies on managing depression are new and quite limited in developed countries which

include China (Gandi, 2014, Habi, 2020). Mostly existing research focuses on organizing psycho-educational programmes on the management of these behaviours, providing and highlighting the need to create and increase awareness through workshops (Balks & Dum, 2021; Ndemzi, 2023 Pzeth, 2013 & Annoi, 2016). In Nigerian context, there is a dearth of empirical evidence on the efficacy of sex education in the reduction of depression among students in Enugu State, Nigeria. Based on this assertion, this research sought to investigate how to use sex education in the managing and reducing the widespread depression among schooling adolescents especially the special need students which remains essential as long as it continues to have negative effect for these students. However, Vermon (2021) found that adolescents who were exposed to sex education had positive effect on abuse and stress behaviours more than those who were not exposed to treatment. McFadden (2020) found that sex education had positive effect on adolescent's sex abuse and stress. Because depression is linked to maladaptive beliefs such as irrational expectations negative beliefs, the use of sex education has been suggested as a remedy (Ncheke, 2021). Joe (2022) found that in sex education programme, stress individuals are taught social skills, copying strategies, and change of negative thoughts, develop goals and develop mindset that enables them to reduce stress and depression. Thus, this study assessed the effectiveness of sex education programme in the reduction of depression among schooling adolescents with special needs. The researchers therefore tested the hypothesis that there is a significant effect of sex education on the reduction of depression behaviours of schooling adolescents with special needs.

2. METHODS

Design of the Study

A total of 52 schooling adolescents with special needs comprising male (n-28) and female (n-24) from sampled public secondary schools in Enugu State, Nigeria who met the inclusion criteria consisted participants for the study. G-Power, version 3.1 gave 0.92 which is an adequate sample size for the study (Faula et al., 2007). Fifty-two (52) schooling adolescents with special needs who were drawn through proportionate stratified random sampling technique consisted the sample of the study. The schooling adolescents with special needs were stratified based on science and art subjects from where schooling adolescents were proportionately sample 28 science students and 24 arts students. A total of 260 schooling adolescents showed interest and volunteered to participate in the intervention programme. All the 260 schooling adolescents who volunteered to participate in the study were screened for suitability based on the suitability criteria set by the researchers, including that: (1) the schooling adolescents must be students with special needs; (2) students must have an element of depression behavior. Volunteered who did not met all the inclusion criteria were excluded. After that, the 52 schooling adolescents with special needs who met the inclusion criteria were randomly assigned to experimental and control group condition using a simple randomization procedure (participants were asked to pick one envelope containing pressure-sensitive paper labeled with either E-experimental group or C-control group) from a container. The schooling adolescents with special needs were randomly assigned to experimental (28) and control (24) group.

3. MEASURES

Demography Questionnaire

A demographic questionnaire was administered to the schooling adolescents with special needs (participants) in order to obtain their demographic characteristics such as gender, age, and location. Each of the participants was instructed to tick the appropriate demographic information that may be applicable to him or her.

Table 1 shows that there is significance difference in the number of male and female schooling adolescents with special needs who participated in the intervention programme. The same results apply to age, tribe, and religion of the participants.

Table 1: Demographic characteristics of the participants

Demographic Characteristics	Sex Education Group	No Intervention Group	No %	X ²	P
Gender					
Male	16	14	28(46.77)		
Female	12	10	24(52.12)	4.21	.002
Age					
20	12	10	20(52.61)		
20-30	16	14	30(69.68)	35.56	.000
Tribe					
Igbo	12	15	37(57.61)		

Others	16	9	26(42.16)	12.04	.000
Religion					
Christianity	16	16	20(31.61)		
Muslim	12	18	18(28.67)	8.06	.000

Depression Assessment Scale for Schooling Adolescents with Special Needs (DASSASN)

Depression Assessment Scale for Schooling Adolescents with Special Needs (DASSASN) developed by the researchers was used for data collection. DASSASN is a 15-item scale with five response options of Never (1), Rarely (2), Occasionally (3), Often (4) and Always (5) which was properly validated by three experts in the area of test development. Example of item statement on DASSASN is “difficult to concentrate when teaching is going on in class”. A minimum of 20 points and a maximum of 100 points can be earned on the scale, with higher scales indicating greater depression behavior.

However, the initial development of the DASSASN involved 35 items but after construct validation, the number of the items was reduced to 15. In other words, 20 items of DASSASN did not survive the construct validation. Out of the 20 items, 14 items loaded more than 3.50 in more than one factor while the remaining 6 items could not load up 0.35 in any of the factors. After that the internal consistency reliability index of 0.81 was obtained using Cronbach alpha method for the 15 items of DASSASN that survived the construct validation. Besides, the test retest reliability of DASSASN was established to be 0.84 using Pearson’s Product Moment Correlation Coefficient. This was done by re-administering the DASSASN after the 2 weeks of first administration.

Academic Depression Behaviour Scale for Schooling Adolescents with Special Needs (ADBSSASN)

Academic Depression Behaviour Scale for Schooling Adolescents with Special Needs (ADBSSASN) developed by the researchers is a 10-item scale with five response options of Never (1), Rarely (2), Occasionally (3), Often (4) and Always (5) with lowest and highest scores of 10 and 50 respectively. Example of item statement on ADBSSASN is “depend on other students to solve academic problems”. However, the initial development of the ADBSSASN involved 15 items but after construct validation, the number of the items was reduced to 10. In other words, 5 items of ADBSSASN did not survive the construct validation. Out of the 5 items, 3 items loaded more than 3.50 in more than one factor while the remaining 2 items could not load up to 0.35 in any of the factors. After that the internal consistency reliability index of 0.86 was obtained using Cronbach after method for the 10 items of ADBSSASN that survived the construct validation. Besides, the test-retest reliability of the ADBSSASN was established to be 0.89 using Pearson’s Product Moment Correlation Coefficient. This was done by re-administering the ADBSSASN after the 2 weeks of first administration.

Data Analysis

The effect of sex education on the reduction of academic depression behaviour of schooling adolescents with special needs in public secondary schools in Nsukka Education Zone of Enugu State, Nigeria was established statistically using repeated measures analysis of variance (ANOVA). Partial Eta squared ad adjusted R2 values were used to report the effect size of the intervention on the dependent measure. The assumption of the sphericity of the test statistic was tested using the Mauchly test of sphericity which was not significant (Mauchly W=0.861, p=.747), implying that the assumption was violated. Thus, the variances of the difference between all combinations of the related measures are equal. The analysis was done using statistical package for social sciences version 18.0.

Table 2: Repeated analysis of variance for the effect of sex education in the reduction of academic depression among schooling adolescents with special needs

	Time	Measures	Group	Mean (SD)	F	P	n ²	ΔR ²	95%	CI
1	Pre-treatment	DASSASN	Experimental	81.12(5.44)	.123	.711	.005	.008	0.11	1.66
			Control	81.12(4.03)						
		ADBSSASN	Experimental	41.42(10.11)	.341	.006	.010		0.25	1.78
			Control	40.58(10.41)						
1	Post-treatment	DASSASN	Experimental	20.41(2.33)	.853	.122	.000	.713	.871204.31	901.14
			Control	71.58(10.52)						

		ADBSSASN	Experimental	15.78(7.52)	.105	.511	.000	.752	.100.45	120.76
			Control	40.51(4.51)						
3	Follow-up	DASSASN	Experimental	20.11(3.02)	.611	.323	.000	.702	.804210.11	523.21
			Control	62.10(6.11)						
		ADBSSASN	Experimental	12.01(1.21)	.120	.573	.000	.623	.108.45	146.72
			Control	31.72(5.01)						

DASSASN: Depression Assessment Scale for Schooling Adolescents with Special Needs, ADBSSASN: Academic Depression Behaviour Scale for Schooling Adolescents with Special Needs; Mean (SD): Mean (Standard Deviation); P: Probability Value, CI: Confidence interval, n^2 : effect size, ΔR^2 : adjusted R^2

Table 3: Test of within-subjects effects for the intervention group

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta squares
Measure: ADBS Time	82.225					
Sphericity assumed	82.225	2	42.522	10.524	.000	.580
Greenhouse	82.225	1.852	43.532	10.524	.000	.580
Geisser Huynh-Feldt	82.225	2.000	42.522	10.524	.000	.580
Lower-bound	82.225	1.000	64.435	10.524	.000	.580

Table 4: Post hoc test for the significant of time

(I) Time	(J) Time	Mean difference (I-J)	Std. error	Sig.
Pre-treatment	Post-treatment	62.521	.007	.000
	Follow-up	62.112	.006	.000
Post-treatment	Post-treatment	-62.521	.007	.000
	Follow-up	-.523	.007	.000
Follow-up	Pre-treatment	-62.112	.006	.000
	Post-treatment	.523	.007	.000

4. RESULTS

Table 2 reveals that there was no significant difference between the experimental and control group in initial academic depression between science and art schooling adolescents with special needs as measured by DASSASN, $F(1,51)=0.123$, $P=.711$, $n^2=.005$, $\Delta R^2=.008$. At the post-treatment and follow-up measures, the efficacies of the sex education on the reduction of academic depression between science and art schooling adolescents with special needs were significant, $F(1,51) = 0.341$, $P=.006$, $n^2 = .010$, $R^2=0.25$, and $F(1,51) = 0.122$, $P=.000$, $n^2=.713$, $\Delta R^2=.871$.

Similarly, using ADBSSASN as a measure, there was no significance difference in the initial academic depression of the participants, $F(1,51)=0.511$, $P=.000$, $n^2=.598$, $\Delta R^2=.752$. At the post-treatment and follow-up measures, the efficacies of sex education on the reduction of academic depression between science and art schooling adolescents with special needs were significant, $F(1,51)=0.323$, $P=.000$, $n^2=.712$, $\Delta R^2=.804$; and $F(1,51)=0.573$, $P=.000$, $n^2=.623$, $\Delta R^2=.623$.

Table 3 revealed that the mean depression behavior scores of the intervention group were significantly different at pre-treatment, post-treatment and follow-up measures, $F(2,27)=42.522$, $P<.0.05$, $n^2=.611$.

Table 4 gives us the significance level for differences between the individual time points. It shows that there were significant

differences in academic depression behaviours of the schooling adolescents with special needs between post-treatment and pre-treatment ($P=0.000$). This implies that the academic depression behaviours of the schooling adolescents with special needs drastically reduced after the intervention programmes.

5. DISCUSSION OF THE RESULTS

The findings of the study revealed that at the post-treatment and follow-up measures, the sex education on the reduction of academic depression among schooling adolescents with special needs was significant. These findings have shown the superiority nature of the sex education over the conventional counselling approach in the reduction of maladaptive behaviours among the students of secondary schools. The schooling adolescents who were counselled on the dangers of academic depression using sex education were optionally motivated during the intervention session and that led to the drastic reduction in their academic depression after the intervention and even at the follow-up measure. This finding is similar to the findings of Vernon (2021) who found out that adolescents exposed to sex education had positive effect on abuse and stress behaviours more than those who were not exposed to treatment. Also, Bins (2022) noted that sex education aims to improve an individual's wellbeing and mental health to resolve troublesome behaviour among others. Corroborating these findings are finding of Kutzi (2022) who found out that sex education is used on regular personal interaction to help a person change behaviour and increase happiness and overcome problems. Joe (2022) found that in sex education programme, stressed individuals are taught social skills, copying strategies, and change of negative thought, among others to reduce stress and depression. The above findings validated the efficacy of sex education programme for reducing academic depression of schooling adolescents with special needs in Enugu State, Nigeria. The implication of these findings is that if schooling adolescents are not properly counseled, the depression behaviours will continue to increase.

Strength of the Study

This study explored an area which addresses the contemporary problems among students in Nigerian secondary schools. The intervention is considered timely given to potential effects of academic depression in students' academic achievement in secondary schools. The intervention successfully validated the effectiveness of sex education in reducing academic depression among schooling adolescents with special needs using a randomized control trial. The use of experimental and control groups enabled the researchers to compare both within-group factors and between-group factors.

Limitations

Like other empirical-based studies, this present study has some limiting variables. The study utilized data to evaluate the effectiveness of sex education on reduction of academic depression among schooling adolescents with special needs without considering the moderating effects of demographic variables like ethnicity, marital status, age. The experimental group in this study reported fear of failure, disliking schooling, wanting to commit suicide, among others as causes of their academic depression behaviours. These may have affected the outcome of the study. With these limitations, generalizing the findings should be done with care. Besides, future studies should explore how these demographic variables could moderate the effectiveness of sex education on the reduction of academic depression among schooling adolescents with special needs.

Conclusion

Based on the findings of the study, the researchers concluded that sex education is effective in the reduction of academic depression behaviour among schooling adolescents with special needs in public secondary schools.

Recommendations

It was recommended that:

- (1) Available guidance counsellors in institutions of higher learning should be properly trained on how to use sex education in reducing academic depression.
- (2) Guidance counselors should master sex education through workshops to ensure effective counselling to reduce academic depression of schooling adolescents.

Compliance with Ethical Standards

Conflict of Interests: The authors declare that they have no conflict of interest.

Ethical Standard: Faculty of Education Ethical Committee on research at the University of Nigeria Nsukka, Nigeria (BEC/FE/2024/00012) granted approval to conduct this study. The authors adhered to the ethical standard specification of the American Psychological Association (APA) (2017), and with that of the World Medical Association (2013).

Statement of informed consent

Before the data collection began, each participant received a written informed consent form. These consent forms were created by the researchers. The consent papers were reviewed and signed by the participants to attest to their willingness to fully participate in the study.

Permission to participate and publish

The consent's scope encompassed the participants' participation, data use, and consent to publish. Each participant was given thorough information on the goal of the study, the intended use of their data, the guarantee of their anonymity, and any risks involved in participating.

Clinical registration

Not applicable to this research

Statement of Funding

Funding is not available for this study.

Statement of Data Availability

The research's data are accessible and can be provided upon request.

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