Predicting Gender Role and Substance Abuse on Academic Performance Among in-School Adolescents in Lagelu, Nigeria

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Abstract: This study examined gender role and substance abuse as predictors of academic performance among in-school adolescents in Lagelu, Nigeria. The study adopted a cross-sectional survey design while purposive sampling technique was used to select three secondary schools in the study area. Data were conveniently collected from 200 in-school adolescents using Academic Performance Scale, Gender Roles Questionnaire and Drug Abuse Screening Test-10(DAST-10). Three hypotheses were formulated and tested using t-test of independent samples and multiple regressions at a $p < 0.05$ level of significance. The result showed that gender roles and substance abuse jointly predicted academic performance among in-school adolescents [$R^2 = 0.155$, F (2, 197) =18.09, $p < 0.05$]. Further results indicated that gender roles ($\beta = 0.330$, $p < 0.05$) and substance abuse ($\beta = 0.234$, $p < 0.05$) independently predicted academic performance among participants. Finally, substance abuse significantly influenced academic performance among participants [$t(198) = -4.37$, $p < 0.05$]. The study concluded that gender roles and substance abuse are robust predictors of academic performance among study participants. Therefore, it is recommended that parents, teachers and school authority should counseled and encouraged in-school adolescents to develop substance free lifestyle which would help them to improve their academic performance.

Keyword: Gender roles, substance abuse, academic performance, in-school adolescents, Lagelu/ Nigeria

Introduction

Academic performance is described as the extent to which a student, teacher or institution has attained their short-or long- term goals in terms of acquiring knowledge, skills and competencies to solve myriad problems of life (Matalka & Dwakat, 2022). Academic achievement of in-school adolescents has been used as a yardstick to measure the effectiveness or otherwise of educational systems and as a major predictor of the future of youths in particular and the nation in general (Tadese et al., 2022).

Several factors tend to pose serious challenges to sound academic performance among in-school adolescents. One factor considered in this study to predict academic performance is gender roles which is defined as "a set of societal norms dictating what types of behaviours [that]are generally considered acceptable, appropriate or desirable for a person based on their actual or perceived sex or sexuality (WHO, 2015). It means the way males and females are expected to act and behave in a particular society. Gender-role could be conceived as a personality-trait-like categorization of a person (Stake & Eisele, 2010). Gender roles include the extent that parents and teachers encourage male and female adolescents to learn, facilitate their access to resources necessary for learning and teaching them strategies that enhance skill acquisition and refinement (Bandura et al., 2001). Parent's academic aspirations for their children influence their children's academic achievements both directly and indirectly (Bandura et al., 2001).

Studies have found significant variations in gender roles on academic performance. For example, Parajuli and Thapa (2017) found that female in-school adolescents performed better than their male gender in commercial subjects. On the other hands, male gender that has been traditionally exposed to science and technology tend to perform better than their female gender. In a contrasting results, Wrigley-Asante et al. (2023) found that the academic performance of males were better than females at the senior secondary school level but while in higher institutions, the academic performance of female students improved relatively than that of male students.

Generally, in African culture, girls were not exposed to toys that promote interest in science and technology. Girl gender roles were for home management and child-bearing. They are expected to cook and clean the house while boys were allowed to engage in activities such as playing football, making bows and arrows, playing with catapults, flying kites, etc. (Abdu-Raheem, 2012). These activities by males promote scientific knowledge and thus give them an edge over females (Abdu-Raheem, 2012).

The second factor considered to predict academic performance in this study is substance abuse. The World Health Organization (WHO, 2006) defines substance (drug) abuse as a "state of periodic or chronic intoxication, detrimental to the individual and to the society, produced by the repeated consumption of a drug (natural or synthetic). These drugs include alcohol, amphetamines, barbiturates, benzodiazepines, cannabis, cocacine, hallucinogens, methaqualone and opioids. Although past studies have alluded that male gender was mainly involved in substance abuse, recent studies have found that both genders are involved in substance abuse such as cigarette smoking, use of cocaine, alcohol and other hard drugs which tend to affect their brains and influence their academic performance (Fonseca et al., 2021; O'Hagan, & Wilson, 2018).

Studies have found that many youths including in-school adolescents are engaging in substance abuse which has affected their academic performance. For example, Osagiede (2021) found in-school adolescents who score high on substance abuse scale where found to score low on academic performance scale. Finally, Dankano and Garba (2017) found substance abuse to significantly predict academic performance among secondary school students in Taraba State

The in-school adolescents' drive for substance abuse has affected vibrant youths leaving a ripple effect on traditional values and lifestyles. The family pains, the weaknesses it introduces into the community and society plus the burden of economic loss, health costs, increased lawlessness and crimes are socio-economic problems that warrant re-examining factors that affect academic performance among in-school adolescents in a developing country like Nigeria.

Therefore, the purpose of this study was to determine the predictive ability of gender roles and substance abuse on academic performance among in-school adolescents in Lagelu, a Local Government Area in Oyo State, Nigeria. Consequently, the following research questions were raised: Would there be significant relationship between gender roles and academic performance? And, would gender roles and substance abuse jointly and independently predict academic performance?

The result of this study would help to sensitize in-school adolescents on the danger of involvement in substance abuse which would affect their academic performance. Also, parents, school authority and other stakeholders in education sectors would found this study useful in designing and implementing programmes to prevent, treat and help in-school adolescents who are already in the web of substance abuse. Finally, understanding the roles of gender and substance abuse on academic performance would provide data for further studies.

Theoretical Construct

The study adopted Social Developmental Theory by Hawkins and Weis (1985) to explain the process of in-school adolescents' involvement in substance abuse. The theory posits that individuals develop bonds to groups or organizations when they have opportunities for involvement, possess the necessary skills and receive positive feedback regarding their involvements. This means that once individuals are bond to a group, they are more likely to behave according to the group's norms and beliefs. By extension, youths would tend to form groups that engage in similar activities, those using substance (drugs), for example, would identify with each other since they are more comfortable with the same group (Hawkins et al.(2002). When applied to this study, it means that if an in-school adolescent engages in substance abuse, there is a tendency that such in-school adolescent would concentrate on the group behaviour practicing or modeling the group behaviour. When this happens, it would affect academic performance.

Hypotheses

The following hypotheses were tested in this study:

H1: There would be a significant relationship between gender roles and academic performance among in-school adolescents in Lagelu Local Government Area.

H2: In-school adolescents who scored low in substance abuse would score higher on academic performance compared to in-school adolescents who scored high in substance abuse.

H3: Gender roles and substance abuse would jointly and independently predict academic performance among in-school adolescents in Lagelu.

Methods

Research Design
The study adopted a cross-sectional survey research design using validated questionnaires to gather data from the study population. The independent variables in the study were gender roles and substance abuse while the dependent variable was academic performance.

Setting and Sampling Technique
The study was conducted in Lagelu Local Government Area (LGA) in Oyo State, Nigeria. Three public secondary schools: Community Grammar School (CGS), Apatere, Bolorunduro Area, Community High School(CHS) Ejioku, Gbingbin Idi Oke Area, and Estate High School 1(EHS-1), Akobo, were randomly selected for the study. The participants for the study were 200 senior secondary school (SSS) students randomly selected from the three schools: CGS-70 students, CHS-70 students, and EHS- 60 students.

Participants
The descriptive analysis showed that 102 (51%) of the participants were males while 98 (49%) were males. The class distribution of the participants revealed that 84 (42%) were from SSS 1, 38 (19%) were from SSS 2 while 78(39%) were from SSS 3. The age of the participants ranging from 13 to 17 years (M =15.0, SD = 2.04). A total of 103 (55%) of the participants were Christians while 94(45%) were Muslims. Finally, in terms of their ethnic groups, 144(72%) of the participants were Yoruba while 56(28%) were classified as from other ethnic groups in Nigeria.

Instruments
Three instruments were used for data collection.

Academic performance was assessed using Academic Performance Scale developed by Aremu and Sokan (2002). It is a 5-item scale presented on 5-point Likert's format ranges from strongly disagrees to strongly agree. Sample items include: "I always feel tired when I am about to study" and "I find it difficult to perform well in class as result of my roles at home". The authors reported Cronbach's alpha of 0.93, and in this study, the Cronbach's alpha calculated was 0.89.

Gender roles was measured using Gender Roles Questionnaire developed by Young Life and Times (1998) comprises of nine short statements which include: "Who in your home usually does the laundry", and "Who looks after the sick family members" to which participants indicated their responses by picking out of the four responses: a male, a female, both males and someone else, and not belonging to the family. The authors reported Cronbach's alpha of 0.92 while in this study, Cronbach's alpha of 0.86 was calculated.

Drug abuse was evaluated using Drug Abuse Screening Test-10 (DAST-10) which was developed by Skinner (1982). The 10- item scale is presented on a "Yes or No" format with the maximum of 10. DAST-10 has been validated in several studies and has robust psychometric properties. The author reported Cronbach's alpha of 0.97 while in this study, Cronbach's alpha of 0.94 was calculated. The initial screening of the participants indicated the prevalence of substance abuse to be 18% among study participants which requires further investigation..

Procedure
A formal Letter of Introduction was collected from the Department of Psychology, University of Ibadan as a mean of identifying the researchers by the respective school authority selected for the study. Based on the scrutiny of the research questionnaires by the Principals or the Vice Principal as it happened in one of the school, a teacher was assigned to the researchers to assist in getting the students in designated classrooms. The researchers introduced themselves to them explaining the purpose of the study. The students were asked for their consents to participate in the study. They were fully informed that participation was voluntary and that they can leave if they so desire. Few students on getting the questionnaires handed back to the researchers that they were not interested in the study and were excused from the classrooms. A total of 204 questionnaires were administered across the three schools and all questionnaires were collected on the spot. It took less than 10 minutes to fill the questionnaire by the participants. When the questionnaires were screened for completeness, four questionnaires were not properly filled and were removed then left with 200 that were used for the final analysis.

Data Analysis

SPSS Version 23.0 was used for the analysis. Both descriptive and inferential statistics was computed on the data. Hypothesis one was tested using zero-order correlation statistics, hypothesis two was tested using t-test of independent sample, while hypothesis three was tested using multiple regression analysis. All hypotheses were accepted at $p < 0.05$.

Results

H1: There would be a significant relationship between gender roles and academic performance among in-school adolescents in Lagelu Local Government Area. This was tested using zero-order correlation statistics and the result is presented in Table1.

Table 1. Zero-order correlation showing the relationship between gender roles and academic performance among study participants

	Independent variable	Mean	SD	1	2
1	Academic Performance	22.97	5.99	-	.317**
2	Gender Roles	16.94	5.99	-	-

Dependent variable: Academic performance

Table 1 showed that there was significant positive relationship between gender roles (r =0.32, $p < 0.05$) and academic performance. This result showed that increase in gender roles led to significantly increase in academic performance among in-school adolescents.

H2: In-school adolescents who scored low in substance abuse would score higher on academic performance compared to in-school adolescents who scored high in substance abuse. This was tested using t-test for independent samples and the result is presented in Table 2.

Table 2. Independent sample t-test showing the influence of substance abuse on academic performance among study participants

Drug abuse	N	M	SD	Df	t	p
Low	28	22.26	7.84			
				198	-4.37	<.05
High	172	27.36	5.32			

Dependent variable: Academic performance

Table 2 shows influence of substance abuse on academic performance among in-school adolescents in Lagelu. The result revealed that substance abuse have significant influenced on academic performance among study participants (t= -4.37, df =198, $p < 0.05$). This implied that participants with low substance abuse (M=22.36, SD =5.32) reported higher academic performance compared to participants with high substance abuse (M =27.36, SD = 7.84) who reported low academic performance.

H3: Gender roles and substance abuse would jointly and independently predict academic performance among in-school adolescents in Lagelu. This was tested using multiple regression analysis and the results are presented in Table 3.

Table 3. Multiple Regression Analysis Showing Joint and Independent Predictors of Academic Performance among In-School Adolescents in Lagelu

Predictor	β	t	p	R	R^2	F	p
Gender roles	.330	5.037	<.05	.394	.155	18.089	<.05
Drug abuse	.234	3.575	<.05				

Dependent variable: Academic performance

Table 3 indicates joint and independent predictors of academic performance among in-school adolescents in Lagelu. The result indicated that gender roles and substance abuse jointly predicted academic performance [R^2 = 0.155, $F(2,198)$ = 18.089, $p < 0.05$] with the predictors accounting for 15.5% of the variance in academic

performance. Further results revealed that gender roles (β =.33, p <.05) and substance abuse (β =.23, p <.05) independently predicted academic performance among study participants.

Discussion

The study examined gender roles and substance abuse as predictors of academic performance among in-school adolescents in Lagelu Local Government Area (LGA) in Oyo State, Nigeria. Three hypotheses were tested and accepted at $p < 0.05$ level of significance.

The hypothesis that gender roles would significantly correlate with academic performance among in-school adolescents was accepted. The results indicated that there was a significant positive relationship between gender roles and academic performance. This implied that increase in gender roles led to significant increase in academic performance. This finding corroborated with that of Parajuli and Thapa (2017) who found female in-school adolescents to obtain higher scores compared to males. This finding also supported Wrigley-Asante et al. (2023) result that male and females have difference academic performance in secondary level and tertiary level. Male students' performed better in secondary school level than female students progressively outperformed male student when they move to tertiary institutions. Young and Fisler (2000) had found SAT-M scores of high school male seniors to be better than that of females.

The hypothesis that in-school adolescents who scored low in substance abuse would score higher on academic performance compared to those who scored high in substance abuse was confirmed. Further analysis revealed that in-school adolescents with low substance abuse reported significant academic performance compared to in-school adolescents with high substance abuse. This finding lent credence to Osagiede (2021) result that students who were involved in substance abuse performance poorly academically. Also, specific cases of students that were taking marijuana, barbiturates and binge drinking were confirmed to have low academic performance (Fonseca et al., 2021; O'Hagan, & Wilson, 2018).

Finally, the hypothesis that gender roles and substance abuse would jointly and independently predict academic performance was supported. The results showed that gender roles and substance abuse jointly predicted academic performance among in-school adolescents. This indicates that gender roles and academic performance interact together to predict academic performance which accounted for 15.5% of the variance explained in academic performance by the independent variables. The finding lent credence to previous studies that substance abuse significantly predicted academic performance among their study participants (Osagiede, 2021; Fonseca et al., 2021). Finally, this finding also corroborated with Dankano and Garba (2017) result that substance abuse predicted academic performance among secondary school students in Taraba State.

Conclusion

This study has established gender roles and substance abuse as robust predictors of academic performance among in-school adolescents in Lagelu, Oyo State, Nigeria. In addition to the predictive ability of the independent variables (gender roles and substance abuse), gender roles independently predicted academic performance among study participants.

Recommendations

Based on the results that substance abuse had influenced on academic performance of in-school adolescents, it is recommended that parents, teachers and schools authority should encourage and develop substance free life style among in-school adolescents. They should give them roles that befit their genders through self-talk, counseling and telling them stories and tales that can help them to build substance free life style.

Limitations and Suggestion for Further Study

Some limitations of this study need to be mentioned. First, only three secondary schools with 200 in-school adolescents were selected for this study which hindered generalization of the study findings. Further studies should include more schools and larger sample size. Second, self-reported questionnaires were used for data collection which could not be free of social desirability. Further studies should include focus group interview and covert observation of potential participants to triangulate data collected from self-reported questionnaire. Finally, only two independent variables were investigated in this study. Further studies should include self-esteem, learned helplessness and personality traits to offer broader perspectives on those variables affecting academic performance.

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