Drug Abuse and Academic Performance: A Study of Gender Variation among Adolescent Students

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Authors’ contributions

This work was carried out in collaboration between all authors. Author VM designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author IR collected data and managed the analyses of the study. Author GA managed the literature searches and reviewed the manuscript. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AIR/2018/40208

Editor(s):
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Complete Peer review History: http://www.sciencedomain.org/review-history/24117

Received 1st February 2018
Accepted 6th April 2018
Published 13th April 2018

ABSTRACT

As elsewhere in the world, youth in Nigeria engage in behaviours that are potentially dangerous. The extent of drug abuse among the young is a source of considerable concern. This article presents the results of a study, which sought to determine whether drug abuse among young Nigerian women and men affected their academic performance. Three hundred and seventy students (male=227 and female= 143, mean age; 16.34±.23) participated in the survey. Of this number, 141 students were identified as current drug abusers. Results from current users showed a 38.1% prevalence rate of drug abuse. Reported drug abuse was found to influence students' academic performance negatively, $\chi^2 (3) = 41.21$, $p < 0.001$. Gender was found to be a significant predictor of reported drug abuse, $\chi^2 (3) = 33.76$, $p < 0.001$ with males reporting a greater degree of drug abuse. The study concludes that drug abuse predicts poor academic performance and calls for increased efforts to control this epidemic in young Nigerian men and women.
1. INTRODUCTION

Drug abuse is a global problem that poses a significant threat to human life, society, and political stability and security in many countries [1,2]. According to the United Nations [3], the use of illicit drugs has increased throughout the world, and the major world trend is the increasing availability of many kinds of drugs among ever-widening spectrum of consumers. The primary concern now is that children appeared to be targeted as the new market for the drug industry globally.

In Nigeria, just as elsewhere in the world, potentially dangerous youthful behaviours such as drug and substance abuse are widespread to the extent; they drew many concerns from the society, government and other stakeholders. Although, in itself, the use of drugs does not constitute an evil; in fact, some drugs have been a medical blessing [4]. Since time immemorial, herbs, roots, bark, leaves have been used to relieve pain and help control diseases. History tells us that the Chinese used opium as a cure for dysentery before the 18th century. European countries such as Britain and Holland were known to exchange opium grown in their colonies for tea and silk with China [1]. Regrettably, certain drugs that initially produce enticing effects, such as a sense of feeling good, elation, serenity and power have evolved into a problem of addiction and misuse leading to a crime against the society. For instance, in primary schools, peers engage in organized crimes and disrupt normal academic programs. In secondary schools, the activities of secret cults are known to have been a source of a threat to lives and property. In tertiary institutions, a lot of ritual killings are taking place [5,6]. The impact of drug abuse among Nigerian students has been a feature of a morally bankrupt, corrupt and wasted generation and loss of our societal values and ideals. The situation now appears to be such that no one can argue ignorance of what is happening [5]. One cannot sit and pretend that he/she has not seen the menace of drug abuse among adolescents [7]. According to Giade [8], any nation being used by drug barons as a transit route has the potentials of becoming the abuse of a drug consumer’s country. Drug abuse threatens the security of every nation, tearing apart the societies, spawning crime, spreading diseases such as AIDS, and killing youths and the future of the country.

Lakhanpal and Agnihotri [9] commented that, drug abuse is the “arbitrary” over-dependence or misuse of one particular drug with or without a prior medical prescription from qualified health practitioners. Drug abuse may also be defined as the “arbitrary” over-dependence or mis-use of one particular drug with or without a prior medical diagnosis from qualified health practitioners [9]. Oluremi [10] stated that Drug Abuse is the harmful use of mind-altering drugs. It added that the term usually referred to the problem with illegal drugs, which also include the harmful use of legal prescription drugs, such as in self-medication. Majority of the Nigerian adolescents ignorantly or deliberately depend on one form of drug or the other for their various daily activities—social, educational, political, and moral among others. Such drugs include Tobacco, Indian hemp, cocaine, morphine, Heroine, Alcohol, ephedrine, Caffeine, Glue, Barbiturates, and Amphetamines. Other drugs abused may include, Panadol, Benilyn, tramadol, ‘Burukutu’, or local beer, cigarette, solution, and beer [11]. No doubt, the abuse of drug among secondary school students in Kaduna State, Nigeria has continued unabated, thereby creating a problem not only to academic activities but the social and emotional problem for both users and the society because they have now become a burden upon their families and the society. Drug abuse behaviour adversely affects academic performance, inability to build or maintain a satisfactory interpersonal relationship with peers, pervasive mood of unhappiness and fears associated with personal or poor academic performance [12]. Usually, social pressure such as when a child is experiencing a problem more severe than those experienced by most children, a problem that becomes extremely difficult to cope with, the child may likely engage in drug use [13,14].

Research has indicated that this habit (drug abuse behaviour) has its roots in the pre-teenage years and is further amplified in the teenage years when most youths are in secondary schools. These pre-teenage and teenage years are critical in the human life cycle as they involve a transition from childhood to adulthood. These young people find themselves in a challenging position as they strive to prepare themselves both physically and intellectually for adult life and, at the same time, search for personal identity. During this stage, lots of experimentation takes place [15].

Keywords: Academic performance; adolescents; drug abuse; gender.
1.1 Research Question

The following research questions guided this study;

1. Does drug abuse affect the academic performance of adolescent students?
2. How do gender influence drugs abuse among adolescent students?

1.2 Hypothesis

Based on the research questions, the study hypothesized that;

H₀₁. Drug abuse does not significantly affect adolescent students’ academic performance.

H₀₂. Gender does not significantly influence drug abuse behaviour among adolescent students.

2. METHODOLOGY

2.1 Ethical Consideration

Participation in the survey was voluntary as only current users who wished and showed interest to participate and have signed the consent form, filled the questionnaire. The consent form as attached to the instrument is as follows; “The essence of the survey has been explained to me, and I have been given the opportunity to ask questions. I agree to participate and provide honest and current information and opinions since I was assured of the confidentiality of any information I gave. I also understand that my participation is voluntary, so I can discontinue from the survey at any time.” All the data collection processes were done after approval was received from the Principal of each of the participating schools.

2.2 Participants

Three hundred and seventy (370 [male=227 and female= 143]) students from six randomly selected public senior secondary schools in Kaduna state, Nigeria, were recruited for the survey. The recruitment was done via face-to-face method. Out of the number of the recruited participants, two hundred and twenty-nine students (229 [61.9%]) were identified as non-current users, while one hundred and forty-one (141 [38.1%]) were identified as current users. Therefore, the final sample was one hundred and forty-one (141). Of the current users who participated in the final survey, 105 [74.5%]) were male students, while 36 [25.5%]) were female students.

2.3 Outcome Measure

The researcher developed the research instrument used for data collection. It contains only two items aimed at answering the research questions raised in the study. One of the questions reads: at what age (if ever) did you FIRST start using drugs for some reasons without doctors’ prescription? The second is thus; do you currently use drugs for some reasons without doctors’ prescription? A Yes or No response was used.

The academic performance of the students was measured by a single item, which seeks to understand student’s subjective opinion on their academic performance in school. The questions and response are as follows: compared to your mate at school, how would you rate your academic performance at the moment? Please, be honest with your response by ticking a single option. Thank you.

i. Poor, I am probably one of the worst.
ii. Well below average
iii. Below average
iv. Average
v. Above average
vi. One of the very best

2.4 Data Collection

The researcher with the help of two research assistants, who were briefed about the purpose of the study, administered copies of the questionnaire to the respondents in their various schools. The two assistants were teachers from two out of the six selected schools in the survey. To ensure the data remained anonymous, the assistants were assigned to collect data from the other four schools where they are not known, while the researcher collects from their schools. Two days later, the researcher went around and collected the completed questionnaires for analysis.

2.5 Data Analysis

The data collected were analyzed using frequencies and percentages for the research questions raised in the study, while the Chi-square test was used to test all the stated null hypotheses at the 0.05 level of significance.
3. RESULTS

Fig. 1 showed the age range respondents started using drugs, ever used drugs or never used. It indicated that 200 respondents representing 54% of the 370 respondents have never used drug for any other reasons without medical doctors' prescription. It also revealed that 5% had ever used drugs when they were ≤ 9yrs old. It is possible participants’ ≤ 9yrs old may have experimented with the use of drugs when they were in the primary school. Further study may be needed using such samples to find out their sources of drugs. Other respondents, 21% reported to have started using drugs, mostly at the age of 10 – 15. There were also 20% who reported to have used or ever used drugs without medical prescription at the age of 16-21. Generally, there were 170 respondents representing 46% of the total participants who reported to have used or ever use drugs for some reasons other than medical purposes.

Table 1 revealed that out of the total respondents of 370 who participated in the study, 141 respondents representing 38.1% reported that they were currently using drugs for reasons other than medical purposes while 229 representing 61.9% were found as non-current users.

Table 1. Percentage of current users and non-users of drugs for reasons other than medical purposes

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current users</td>
<td>141</td>
<td>38.1</td>
</tr>
<tr>
<td>Non-users</td>
<td>229</td>
<td>61.9</td>
</tr>
<tr>
<td>Total</td>
<td>370</td>
<td>100.0</td>
</tr>
</tbody>
</table>

1. Does drug abuse affect academic performance of adolescents’ students?

Fig. 2 is a pie chart showing the perception of respondents on the effects of drug abuse on the academic performance of adolescent students. It shows that 43% of the respondents reported that compared to other students of their age, they were poor, and probably one of the worst. There were also 33% who reported average performance when compare to other students of their age. While 13% reported below average, 11% reported well below average. It was therefore concluded that 67% of students who abuse drugs perform worst when compared to other students belonging to the same age group.

H_{01}. Drug abuse does not significantly affect academic performance of adolescent students.

Table 2 provides the test statistics and the actual result of the chi-square goodness-of-fit test, which was done to examine the effects of drug abuse on the academic performance of adolescent students. It can be seen from the table that the test statistic is statistically significant: $\chi^2 (3) = 41.213, p < .001$. Therefore, it is not completely true that drug abuse does not significantly affect the academic performance of adolescent students as most students (n = 61) reported that compared to other students of the same age range, they are poor and probably one of the worst. This result thus implies that significantly, drug abuse affects the academic performance of adolescent students negatively.

2. How does gender influence drug abuse among adolescent students?

Fig. 3 shows the effects of gender on drug abuse among secondary school students. It reveals that out of the 141 students who reported that they abused drugs, 105 representing 74.5% were males while 36 respondents representing 25.5% were females. This implies that largely, drug abuse among students was common in male than the female students.

![Fig. 1. Percentage of responses on age of ever used of drugs for some reasons other than medical purposes](image-url)
Fig. 2. Drug abuse and academic performance of adolescent students

Table 2. Chi square goodness-of-fit test on effects of drug abuse on performance among adolescent students

<table>
<thead>
<tr>
<th>Perception</th>
<th>Observed N</th>
<th>Expected N</th>
<th>Residual</th>
<th>Df</th>
<th>$\chi^2$</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor, I am probably one of the worst</td>
<td>61</td>
<td>35.3</td>
<td>25.8</td>
<td>3</td>
<td>41.213</td>
<td>.000</td>
</tr>
<tr>
<td>Well below average</td>
<td>15</td>
<td>35.3</td>
<td>-20.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below average</td>
<td>19</td>
<td>35.3</td>
<td>-16.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>46</td>
<td>35.3</td>
<td>10.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 3. Gender as a factor of drug abuse among adolescent students

Table 3. Chi square goodness-of-fit test of gender effect on drug abuse among adolescent students

<table>
<thead>
<tr>
<th>Gender</th>
<th>Observed N</th>
<th>Expected N</th>
<th>Residual</th>
<th>Df</th>
<th>$\chi^2$</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>105</td>
<td>70.5</td>
<td>34.5</td>
<td>1</td>
<td>33.766</td>
<td>.000</td>
</tr>
<tr>
<td>Female</td>
<td>36</td>
<td>70.5</td>
<td>-34.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
4. DISCUSSION

The basic essence of this study was to examine gender variation in the influence of drug abuse on academic performance of secondary school students. Findings showed a significant effect of drug abuse on academic performance of adolescent students. Significant number of drug users reported worse performance when compared to other students of same age range. Previous research by Agbonghale and Okaka [16] also reported that drug abuse had effects on the academic performance of students. Similarly, the better students do academically, the less likely they are to abuse drugs. A poor grade early on in life predicts strongly increased drug abuse later. Conversely, onset of drug abuse may result in a decline in school achievement [17]. Wolaver [18] reported intense level of drug abuse predicts a reduction in the probability of having an A average cumulative GPA. A study also finds significant decline in mean grade when comparing abstainers to heavier drinking categories [19]. Further findings by Njeru and Lewis [20] indicated 52% of students believed drug abuse causes poor performance as Blandford [13] also noted drug abuse has become an obstacle to the student's learning behavior, which is essential element in educational practice. This implies that drug abuse among students may be detrimental to their academic performance.

The study also found significant gender effect on drug abuse among adolescent students. It was found that more male than female students reported drug abuse behaviour. Oshodi, Aina and Onajole [6] who stated that in terms of gender, the prevalence rates for males were generally higher than for the female counterparts corroborated this result. The result corroborates previous outcome of a study in Kenya, by NACADA [21], which indicated that about 61% of the population abuse alcohol with greater percentages being the male students. However, research by Karagu and Olela [22] report drug use is a non-gender issue: that the only difference is that males tend to use more drugs than their female counterpart. Males appear to spend more money on drugs than their female counterparts do. Haworth, Nyambe, Ng'andu, and Sinyangwe [23] in a survey of alcohol and drug use amongst students in five Lusaka secondary schools reported that there were differences between sexes in that cannabis was more prevalent among boys while girls were more likely to take other drugs. The study indicated that drug taking is not gender specific but there are more users and abusers among males than females. One possible factor for gender variation in this study is that the stigma against drug abuse is greater among women, so they are under-reported. The female participants were also largely underrepresented in the study.

5. CONCLUSION

Based on the outcome of the survey, it was concluded that over 38% of secondary school students in Kaduna state, Nigeria engaged in potentially dangerous behaviour like drug abuse. The behaviour is prevalent among male than female students, and it affects academic performance negatively with 66% of participants reporting worse performance compared to non-abusers of the same age range. Therefore, increased efforts are needed by concern authorities in Kaduna state, Nigeria to control this widespread negative behaviour in young Nigerian men and women.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sciencedomain.org/review-history/24117