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# SUBSTANCE ABUSE AMONG ADOLESCENTS: PREVALENCE, PATTERNS AND DETERMINANTS OF CIGARETTE SMOKING IN BENUE STATE, NIGERIA

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## ABSTRACT

Smoking is an increasingly prevalent habit in Nigeria. This study sought to determine the prevalence and patterns of cigarette smoking among Junior Secondary School Students in Benue State of Nigeria. A stratified random (multistage) sampling was applied involving 12 junior secondary schools and a total of 1200 students. Data was collected with an anonymous self administered questionnaire and analysed with SPSS version 17.0. Majority of respondents were Males (57.7%), Christians (94.2%) and fell within age group 10-20 years (92%). The prevalence of tobacco smoking was 6.3%; there were more male smokers; initiation age was as low as 10 years [range 10-17 years]; majority of smokers were light smokers; mostly smoking so as to have fun with their friends and to forget their problems. Most of their teachers smoked; some of their friends and relations smoked. Some also smoked Cannabis. All respondents opined that smoking was a bad habit and smoking could affect health negatively; knowledge and awareness about health effects of smoking was good but there were still gaps. Majority of respondents were of the opinion that smoking should be banned in school premises. Cigarette smoking was correlated with Age, gender, peer influence and quality of academic performance; religion was not associated with smoking. The existing policy restrictions on smoking should be enforced.

**KEYWORDS**: Adolescents, Cigarette, Patterns, Prevalence, Smoking, Substance abuse.

## INTRODUCTION

Tobacco use is injurious to health as it is responsible for many causes of premature deaths. Its prevalence is said to be on the rise especially in developing countries.[1] Smoking is a behavior that mostly starts in adolescence.[2] Many smokers are initiated into the habit between the ages of 13 and 15 years.[3-5] It is claimed that half of persistent smokers who start smoking in adolescence will die from use of tobacco.[6] This figure would be on the rise unless adequate measures are taken to control the tobacco epidemic, Despite its harmful effects on health, the prevalence of cigarettes smoking continues to increase especially among the younger age group in developing countries.[7]

Smoking is an increasingly prevalent habit in Nigeria.[8-10] The objective of this study was to determine the prevalence and patterns of tobacco smoking among junior secondary school students in Benue State of Nigeria,

## METHODS

### Study Population

The study population was the students in Junior Secondary Schools in Benue State of Nigeria and all students of selected classes were eligible to participate in the study.

### Sampling

Stratified random (Multistage) sampling was applied for this study. Only government funded schools were chosen; 4 schools were selected from each senatorial district, 2 from each of the distinct groups. From each distinct group, schools were selected based on urban/ rural basis. One school was selected from their senatorial headquarters (urban) and one outside the headquarters (rural). This brought the total number of schools selected to 12. From each school, 100 students were sampled (30 in JSS1, 2 and 40 in JSS 3) bringing the total number of students sampled to 1200.

### Data Collection and Analysis

Data was collected by using an anonymous self administered questionnaire; distributed to the students of selected classes after explaining the purpose of the study and the instructions to fill in the questionnaire. Considering the sensitivity of the issue, the school authority was requested not to be present in the class during the filling in of the questionnaire. The long break period was used to fill in the questionnaire. Students were assured that the information they provided would remain confidential and thus were encouraged to be truthful in their

responses. They were informed that their participation was voluntary, but that they stood a chance of winning a drink, through a lucky dip, at the end of the exercise.

Following the pre-test, a few modifications were made in the final questionnaire. The final data collected was analysed with the aid of SPSS version 17.0.

**Ethical Clearance**

Permission to conduct the survey was sought and obtained from the school principals and the students.

**RESULTS**

A total of 1250 questionnaires were distributed to students and 1,182 of them were filled and returned to the investigator. 33 of them did not either have basic information or were not readable, thus excluded from the study. Finally, 1,149 were included in the analysis, giving a response rate of 91.9%

**Demographic Characteristics of Respondents**

The survey reveals that majority of the respondents (50.8%) were aged between 10 -15 years and a significant proportion (41.2%) were aged between 16 – 20 years; 57.7% of the respondents were males; 94.2% and 5.8% belonged to the Christian and Islamic faith respectively; 20.4%, 37.9% and 41.7% of the respondents were in JSS1, JSS2, and JSS3 respectively; majority (59.8%) of the students stayed with their parents when school was in session and that most of these parents were married and still living together (81.3%)

**Smoking Prevalence and Patterns**

The study revealed that 93.7% of respondents had never smoked, making smoking prevalence at 6.3%. Also, 73.9% were not currently smoking and they expressed no intention of indulging later in life; 76.4% claimed it was very easy to obtain cigarettes.

**Age of initiation, Frequency of indulgence and Quantity of consumption**

This survey showed that 77.8% of the respondents initiated their tobacco smoking habit when they were 11-17 years of age; 1.3% smoked daily; 3.8% smoke once/twice daily; 93.8% did not respond to the question on frequency of smoking. Among the smokers, 90.3% and 9.7% were males and females respectively Majority (60.3%) smoked 1-2 cigarettes at a sitting; 73.9% smoked 1-2 sticks per day; some smoked in order to have fun with their friends (70.4%) and in order to forget their problems (18.3%). Majority (89%) of the respondents

used their pocket money to purchase the cigarette that they smoked. Friends (59.7%) were major sources of supply of cigarettes.

With regards to the preferred brands, about 30.6% smoked Benson and Hedges brand, while a higher percentage (about 32%) smoked all brands. About 8.3% also smoked cannabis.

**Table 1 Prevalence of Smoking**

| Variables | | Frequency | Percentage (%) |
|---|---|---|---|
| Ever Smoked before? | Yes | 72 | 6.3 |
| | No | 1077 | 93.7 |
| Gender | Male Smokers | 65 | 90.3 |
| | Female Smokers | 7 | 9.7 |
| Age of onset of smoking | 0-10 | 5 | 6.9 |
| | 11-13 | 26 | 36.1 |
| | 14-17 | 30 | 41.7 |
| | >18 | 11 | 15.3 |
| Frequency of smoking | Everyday | 15 | 1.3 |
| | Twice weekly | 24 | 2.1 |
| | Once weekly | 20 | 1.7 |
| | Others | 12 | 1 |
| Do you still smoke? | Yes | 14 | 26.1 |
| No of sticks smoked per day. | 1-2 | 39 | 54.2 |
| | 3-5 | 10 | 13.9 |
| | >5 | 8 | 11.1 |
| | others | 55 | 76.4 |
| Source of funds | Pocket money | 64 | 88.9 |
| | Deceive parents | 4 | 5.6 |
| Source of Cigarettes | Others | 4 | 5.6 |
| | Buy | 24 | 33.3 |
| | Friends | 43 | 59.7 |
| | Others | 5 | 6.9 |
| Easy access to cigarettes | Yes | 55 | 73.3 |
| Cigarette Brand preferred | B/Hedges | 22 | 30.6 |
| | London | 15 | 20.8 |
| | Target | 6 | 8.3 |
| | Cannabis | 6 | 8.3 |
| | Any available | 23 | 31.9 |
| Why do you smoke? | To please friends | 2 | 2.8 |
| | To forget problems | 13 | 18.3 |
| | To have fun with friends | 50 | 70.4 |
| | Others | 6 | 8.5 |

**Respondents' Perception of Smoking Effects, Cessation and Penalties for Smokers**

All (100%) respondents opined that smoking was a bad habit; nearly all respondents (98.1%) were of the opinion that a cigarette once-a-while could be harmful; 99.1% believed that smoking could affect health, either negatively (100%) or positively (0%). Regarding the specific effects of smoking on health, the respondents agreed that smoking can make one sick (98.4%), cause cancer (74.2%) damage the liver (60.8%), affect normal behaviour (61.5%), and affect academic performance (98.7%). The respondents opined that smoking cannot induce the following: worsen health (64.6%), cause premature death (60.3%), increase appetite (71.2%), cause stroke (62.6%), cause hypertension (58.1%) or harm breathing (54.7%). Respondents were not sure whether smoking could lower body immunity (58.6%), affect the heart (52%), or cause pre-mature death (12.3%).

Regarding academic performance, majority (92.3%) were of the opinion that non-smokers got better grades. Of the smokers' willingness to quit smoking, 90.3% responded in the affirmative. Respondents recommended the following penalties for smokers: counselled to quit (42.3%), be treated (26.5%) or suspended from school (9%). See Table 2 for details.

**Table 2 Respondents' Perception of Smoking Effects, Cessation and Penalties for Smokers**

| Variable | Yes N (%) | No N (%) | Don't Know/ no resp. |
|---|---|---|---|
| **General Perceptions** | | | |
| Do you think that smoking is a Bad Habit? | 1149 (100) | 0 | |
| Do you think a cigarette once-a-while does no harm? | 14 (1.2) | 1127(98.1) | |
| DO you think smoking can affect your health? | 1139(99.1) | 10(.9) | 8 |
| DO you think smoking can affect your health positively? | 0 (0) | 1149(100) | |
| DO you think smoking can affect your health negatively? | 1149(100) | 0 | |
| **Specific Effects: Do you think that Cigarette smoking can** | | | |
| make you sick | 1131(98.4) | 12(1.0) | 6(.5) |
| worsen your health | 170(14.8) | 742(64.6) | 237(20.6) |
| cause cancer | 852(74.2) | 282(24.5) | 15(1.3) |
| cause Premature Death | 315(27.4) | 693(60.3) | 141(12.3) |
| Lower body immunity | 73(6.4) | 403(35.1) | 673(58.6) |
| affect your heart | 135(11.7) | 417(36.3) | 597(52) |
| Stimulate your brain | 504(43.9) | 403(35.1) | 242(21.1) |
| Reduce your appetite | 350(30.5) | 487(42.4) | 312(27.2) |
| | 55(4.8) | 818(71.2) | 276(24) |

| | | | |
|---|---|---|---|
| Increase your appetite | 707(61.5) | 323(28.1) | 118(10.3) |
| Affect your normal behaviour | 209(18.2) | 628(54.7) | 301(26.2) |
| Harm your breathing | 274(23.8) | 668(58.1) | 207(18) |
| Cause hypertension | 146(12.7) | 719(62.6) | 284(24.8) |
| Cause stroke | 699(60.8 | 242(21.1) | 208(18.1) |
| Damage your liver | 207(18) | 318(27.7) | 624(54.3) |
| Reduce sexual performance | 1134(98.7) | 15(1.3) | 0(0) |
| can affect your academic performance | | | |
| Do you think Students who don't Smoke get better grades | 1061(92.3) | 62(5.4) | 26(2.3) |
| Are you willing to stop smoking? | 65 (90.3) | 7 (9.7) | 0 |
| Recommended Penalty for Smokers | | | |
| Be suspended | 103(9) | | |
| Be given treatment | 304 (26,5) | | |
| Be expelled from school | 92 (8) | | |
| Be reprimanded | 12 (1) | | |
| Be counselled to stop | 486 (42.3) | | |
| Nothing | 91 (7.9) | | |
| Others | 61 (5.3) | | |

**Environmental Influencing Factors**

A small fraction (3.3%) had some friends that smoked; 94.2% had no friends that smoked; 96.7% said most of their teachers smoked; 98.2% had actually seen their teachers smoked; 43% and 22.8% had fathers ad brothers that smoked respectively; 78.6% had not seen smoking adverts in the previous 30 days but 83.1% were aware of the warning advert that "cigarette smokers are liable to die young". Notwithstanding this warning advert, smokers refused to quit because they enjoyed smoking (48.6%) and that many smokers still lived long (27.8%).

**Table 3 Environmental Influencing Factors**

| **Variable** | **Most N (%)** | **Some N (%)** | **All N (%)** | **None N (%)** |
|---|---|---|---|---|
| How many of your Friends Smoke | 18 (1.6) | 38 (3.3) | 11 (1) | 1082 (94.2) |
| How many of your Teachers Smoke | 1076(96.7) | 25(2.2) | 12(1) | 36(3.1) |
| How do you know your Teachers Smoke | Seen them do it | Smell it | Send students to buy | No Response |
| N (%) | 1128(98.2) | 15(1.3) | 6(.5) | 0 (0) |
| Which of your Relatives Smoke? | Father | Mother | Brother | Sister |
| N (%) | 87(43) | 14(6.9) | 46(22.8) | 4(2) |
| | YES N (%) | NO N (%) | NO RESPONSE N (%) | |
| Have you seen/watched Tobacco | 219 (19.1) | 903 (78.6) | 27 (2.3) | |

| | | | | |
|---|---|---|---|---|
| advert in any media in the last 30 days | | | | |
| Are you aware of the advert that says "cigarette smokers are liable to die young"? | 955 (83.1) | 77 (6.7) | 117 (10.2) | |
| If yes, why do you continue to smoke? | Don't believe the advert | I believe death will come by any means | Many smoke and still live long | I enjoy smoking |
| N (%) | 7(9.7) | 10(13.9) | 20(27.8) | 35(48.6) |

**Awareness and Perceptions about Smoking Policies**

About two-third (64.8%) of the respondents were aware that it is a crime for a child under 18 years to buy cigarette in Nigeria; majority agreed that smoking should be banned in school premises (97.3%) and in public places like stadia, markets (89.4%). Majority (92.3%) of the respondents agreed that it was a sin against God to smoke.

Regarding the banning of cigarette manufacturers in Nigeria, a majority (62.8%) of the respondents disagreed. Table 4

**Table 4 Awareness and Perceptions about Smoking Policies**

| | YES N (%) | NO N (%) | NO RESPONSE N (%) |
|---|---|---|---|
| Are you aware that it is a crime for a child under 18 years to buy cigarette in Nigeria? | 744 (64.8) | 405 (35.2) | 0 (0) |
| Do you agree that smoking should be banned in school premises? | 1105 (97.3) | 31 (2.7) | 13 (1.1) |
| Do you agree that smoking should be banned in public places (stadia, markets etc)? | 1017 (89.4) | 120 (10.6) | 12 (1.0) |
| Do you agree that it is a sin against God to smoke cigarette? | 1060 (92.3) | 45 (3.9) | 44 (3.8) |
| Do you agree that cigarette manufacturers should be banned in Nigeria? | 428 (37.2) | 721 (62.8) | 0 (0) |

**Predictors of Smoking habits**

Table 5 gives details of correlations with smoking habit.

The result also showed that 66.7% of the students who smoked cigarette were within the age of 16-20 years while 33.3% were within the age of 21-25 years. There was a significant association of age and cigarette use ($X^2 = 73.74$, $P < 0.05$).

Over 90% of smokers were males while 9.7% were females. Correspondingly, the chi-square indicates that there was a significant association of gender and cigarette use

The result also showed that 95.8% who smoked cigarette were Christians while 4.2% were Muslim. However, the chi-square showed that there was no significant association of religion with tobacco use among respondents. ($X^2$ = 0.388, P >0.05)

There was a statistically significant association between peer influence and tobacco use. ($X^2_{(df=2)}$ = 190.73, P <0.05).

There was a statistically significant association between quality of academic performance and tobacco use. ($X^2_{(df=2)}$ = 158.33, P <0.01).

**Table 5 Correlations: Chi square analysis**

| VARIABLES | N | % | $X^2$ | |
|---|---|---|---|---|
| Age<br>10-15<br>16-20<br>21-25 | <br>0<br>48<br>24 | <br>0<br>66.7<br>33.3 | <br><br>73.74* | |
| Gender<br>Male<br>Female | <br>65<br>7 | <br>90.3<br>9.7 | <br>33.39* | |
| Religion:<br>Christianity<br>Islam | <br>69<br>3 | <br>95.8<br>4.2 | <br>0.388 | |
| | | | | |
| How many of your friends Smoke?<br>Most<br>Some<br>All<br>None | Yes (%)<br>8 (14.3)<br>42 (32.1)<br>4 (19.0)<br>18 (1.9) | No (%)<br>48 (85.7)<br>89 (67.9)<br>17 (81.0)<br>923 (98.1) | df<br><br>3 | $X^2$<br><br>190.73* |
| How is your academic performance?<br>Good<br>Average<br>Bad | <br>4 (0.7)<br>42 (8.4)<br>26 (39.4) | <br>581 (99.3)<br>456 (91.6<br>40 (60.6) | <br>2 | <br>158.33* |

## DISCUSSION

The major thrust of this study was to evaluate the prevalence and patterns of cigarette smoking among Junior Secondary School Students in Benue state

### Demography

The survey revealed that majority of the respondents (92%) were aged between 10 -20 which fell within the adolescent age group [11] and tallies with other reports [12-14]

There were more male than female respondents which tallies with other reports [12, 13, 15] and indicative of a higher population of male students.

There were more Christians than Muslims in the study population, a true reflection of the general population of Benue State.[16]

Most of the students were living with their biological parents during school periods, indicating some level of parental guidance and supervision.[12]

**Prevalence and Patterns of Cigarette Smoking**

The results indicated that the prevalence of tobacco smoking was generally low (6.3%) among Junior Secondary School students in Benue state. This closely tallies with other reports.[14, 17]

**Age of Initiation**

The age group for smoking debut was found to be as low as 10 years [range 10-17 years]. Studies carried out in various similar settings in Nigeria have recorded such low debuting ages among adolescents.[12, 13, 17]

This is very worrisome as it has been postulated that early smoking initiation is froth with greater problems in adulthood.[18, 19] This low smoking initiation age is a re-current decimal year-in year out in Nigeria, yet there are no visible steps taken by government to reverse the trend. A very decisive action is urgently required in order to safeguard the future of this nation considering the fact that tobacco use predisposes to a number of non-communicable diseases many of which are among the leading causes of premature mortality globally.[20]

Majority were current smokers; other reports have returned the prevalence of current smokers from 50% and above.[12] Lower rate of 3% was reported in a study conducted amongst senior secondary school students in urban communities in south western Nigeria.[21]

There is a greater need to embark on cessation campaigns in Benue state among adolescents. School-based programmes should be considered.

Majority of the smokers in this study could be considered light smokers, only taking 1-2 sticks per day. Light smoking among adolescents have been reported in Nigeria.[8, 22] It is not satisfactory to be a slight smoker because nicotine found in cigarettes has been found to be

rapidly addicting; nicotine was classified to be more addictive than heroin, cocaine, alcohol, caffeine and marijuana.[23] There is really no defined threshold for the deleterious effects of cigarette on health; passive smokers have been found to be at risk also.[24]

**Gender**

Among the respondents in this study, there were more male smokers. This tallies with many other studies globally.[12, 13, 21, 25] Males are said to usually be more adventurous and are more likely to be experimenting during their adolescent years; females on the other hand may see their engagement in social activities as predisposing them to being wayward.[23]

There was a significant association of gender and cigarette use in this study in line with literature reports.[13, 21]

In Nigeria, for reasons of Culture and Religion, smoking is considered a male-dominated past-time.

**Reasons for Smoking**

Most smokers in this population indulged in smoking so as to have fun with their friends and to forget their problems. These and similar other frivolous reasons have been cited by researchers in this field. In the literature, the most frequent reasons for smoking the very first time were to imitate their smoker friends, out of curiosity and need to initiate a smoking relation. This is said to reflect the inquisitive nature of adolescents which makes them vulnerable to peer influence; persistent smoking arises from the search for pleasure and the other frivolous reasons like stress reduction and enhancement of academic performance.[26]

It has also become a recurrent decimal that friends and peers do influence smokers to initiate and sustain the habit. Strategies must be evolved to break this cycle. Effective adolescent-targeted campaigns are urgently required.

**Funding**

Pocket monies were reported to be the sources of funding for the smoking habits in this cohort. This was supported by mutual exchange of cigarettes among friends. The limited amount of money given to these kids as pocket money may be responsible for the light smoking status; chances are that, if exposed to greater funding, the light smoking status might elevate to heavy smoking status. This further calls for an early checkmating of smoking among these adolescents.

**Brand**

About a third of the smokers reported they would smoke any brand of cigarette at their disposal similar to other studies.[12] This is not surprising because of the limited fund available to them and at this experimental stage. This is also a great risk factor.

**Cannabis**

A worrisome practice was that some of the cigarette smokers also smoked Cannabis. Other studies have also found positive correlations between cigarette smoking and cannabis use.[7, 22, 24] This is an unwanted additional health hazard to cigarette smoking.

**Respondents' Perception of Smoking Effects, Cessation and Penalties for Smokers**

All respondents were unanimous in the opinion that smoking was a bad habit and smoking could affect health negatively. A majority believed that smoking could make one sick, cause cancer, damage the liver, affect normal behaviour, and affect academic performance.

However, the respondents opined that smoking cannot cause premature death, stroke or hypertension. Studies have indicated that most adolescents are aware of the negative effects of smoking on health.[17, 22] Adequate knowledge of health implications of smoking was found to be a major reason for non-smokers to maintain their status.[17] and for intending quitters.[27] It is therefore expedient to raise the awareness level among adolescents as this may very likely reduce smoking prevalence.

Another positive perception is their opinion that non-smokers got better grades; every one of them should be made to desire better grades which can be facilitated by non-indulgence in smoking. However baseless this perception is in science, it has become re-current factor in adolescent smoking behaviour and should not be discountenanced or discarded when drafting effective intervention strategies.

Ultimately, these adolescents had very good knowledge of the negative effects of smoking on health which could translate to positive practices. This might have predisposed to the relatively low smoking prevalence in this population.

Of the smokers' willingness to quit smoking, almost all smokers responded in the affirmative. This is another catch-point; governments (State or Local] should cash-in on this to rescue these adolescents from the clutches of smoking.

Almost half of the respondents clamoured for the current smokers to be counselled to quit. This is a positive indication that counseling would be effective and smokers might respond positively to it. About a third of respondents opined that smokers should be given appropriate treatment. The most effective treatment is to counsel them to quit smoking. At this stage, it is unlikely that they are already addicted to nicotine, so weaning is still relatively easy to achieve through effective education and counseling.

**Environmental Influencing Factors**

A very small fraction of total respondents (3.3%) reported to have some friends that smoked and as high as 94.2% had no friends that smoked. Thus, in this population, peer influence might be low-keyed. Almost all respondents averred that most of their teachers smoked and have actually seen their teachers smoke. We are faced with the ugly situation where teachers who should play positive role-models are doing otherwise. It is antithetical for teachers who should be dissuading pupils from smoking being involved in smoking themselves. This is akin to health care providers who smoke thereby setting poor examples of health-promoting behaviours and may inadvertently influence the smoking habit of others.[28, 29]

About half and a third of respondents respectively had fathers and brothers that smoked. Researchers have found that smoking was associated with having a brother who smoked.[25] Others have found that "peers, siblings, and friends were more influential predicting factors on substance use than parents". [30]

**Advertisement**

The influencing role of smoking adverts has been well explored and reported. [31-33] In this study, majority of the respondents had not seen any smoking advert in the previous 30 days. Thus, exposure to smoking adverts among this population can be said to be very low, and may have contributed to the low smoking prevalence recorded in this study.

Of greater significance is the observation in this study that majority of the respondents were well aware of the warning advert that "cigarette smokers are liable to die young". Notwithstanding this level of awareness, smokers in this cohort remained adamant not to quit smoking apparently because they enjoyed smoking and they observed that there were people who smoked and yet enjoyed a long life. These are very wrong and negative perceptions which need to be corrected through education and counseling. Their knowledge of health effects of smoking may not be adequate as it has been shown in a study that there is a

correlation between knowledge of health effect of smoking and smoking status; those that smoked had poor knowledge while those adolescents with good knowledge never smoked cigarette.[17]

These adolescents should be made aware that the health consequences of cigarette smoking are gradual and long-term which also develop slowly. The adolescents may find it difficult to understand and accept these long-term effects and in fact there is a tendency for them to ignore and take them for granted. Many of them may out rightly believe that they would quit smoking before the adverse effects on their health set in.[17]

**Awareness and Perceptions about Smoking Policies**

About two-third of the respondents were aware of the illegality of under 18 year-olds buying cigarettes in Nigeria. It should be realized that it is equally illegal for vendors to sell cigarettes to under 18 year-olds. There is currently no restriction regarding age at which one can buy cigarettes in Nigeria. If vendors would refrain from breaking this regulation, this would go a long way to reducing exposure of under-aged persons to cigarette. The practice where elders send the under-aged children to buy cigarettes for them is grossly inappropriate, and should form one of the foci for intervention.[17]

Majority of respondents were of the opinion that smoking should be banned in school premises and in public places like stadia, markets, similar to other studies.[13, 34] Undue peer pressure and environmental exposure to tobacco smoke would be reduced if Government would consent to this position.

Almost all the respondents agreed that it was a sin against God to smoke. Religious doctrine has great impact on behaviour and character formation especially in growing-up children. Studies have correlated religiosity with smoking habits among adolescents.[35, 36]

Paradoxically, more than half of the respondents did not support the outright banning of cigarette manufacturers in Nigeria. This position may not be unconnected with employment opportunities offered by the presence of these companies. Many of the respondents may have one relative or the other working directly or indirectly (selling their products) and so may not want their relations to become unemployed should these companies fold up.

**Predictors of Smoking habits**

In this survey, tobacco smoking was correlated with Age, gender, peer influence and quality of academic performance. These are well in consonance with various literature reports.[22, 37, 38] There was no significant association of religion with tobacco use among respondents in this study. This is in agreement with earlier studies. [12] This contrasts with other studies.[35, 36]

## CONCLUSION

This study revealed that smoking rate is relatively low among adolescents in junior secondary schools in Benue State. The age of initiation was low and there were more male smokers. They were found to be light smokers; a third would smoke any brand and some smoked cannabis also. The knowledge and awareness about health effects of smoking was good but there were still gaps in their knowledge. Most of their teachers smoked; some of their friends and relations smoked. Smoking was correlated with Age, Gender, Peer Influence and Academic Performance but not with Religion.

These findings should be factored into well-organized smoking cessation interactions with these adolescents, first, to reinforce their positive perceptions and discountenance their negative perceptions of the effects of smoking on health. The existing policy restrictions on smoking should be enforced.

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## CONFLICT OF INTEREST

None

## AUTHORS' CONTRIBUTIONS

EJC: Concept, data analysis, final manuscript

CRM: Data collection/analysis; draft manuscript

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