

## **Perceived Determinants of Smoking Behaviour Among Adolescents Aged 10 to 19 Years in a Rural Community of Bayelsa State, Nigeria**

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### **1. Introduction**

Cigarette smoking is one of the leading preventable causes of morbidity and mortality worldwide (Doll et al., 2004) and has been implicated as the single largest cause of ailments such as asthma, chronic cough, cancers, chronic obstructive airways disease, cardiovascular diseases and premature death (Odeyemi et

al., 2009). Smoking is an important global public health problem, due to the immediate and long-term health issues associated with it (World Health Organization [WHO], 2012). Research has shown that mortality rate attributable to smoking, far exceeds a combination of death from HIV/AIDS, malaria and tuberculosis (Center for Disease Control [CDC], 2007; 2010). According to WHO, (2012), tobacco presently causes nearly 6 million deaths globally each year and is expected to cause over 8 million deaths annually by 2030, if unchecked, 80% of these deaths will be in low- and middle-income countries including Nigeria. Also, it is estimated that the total number of deaths attributable to smoking worldwide will increase from 2.5 million in 1995 to 12 million by the year 2050 (WHO, 2013a).

In Nigeria, there are reports from small scale studies on prevalence of smoking among various subgroups of the general population on tobacco use. The Federal Ministry of Health (FMOH) in 1998 and 2001 reported a smoking prevalence of 18.1% among adolescents aged 13-15 years (FMOH, 2012) and total consumption of tobacco increased at an annual rate of 4.7% between 2001 and 2006. In 2013, reports of tobacco use by adolescents were 19.2% for males and 11.1% for females (WHO, 2013b). However, the prevalence of smoking among adolescents reported in some recent studies in Nigeria varies from one region to the other. A high prevalence of 12.5% was seen in Western Nigeria (Adeyeye, 2011) and 15.3% in Eastern Nigeria (Ebirim et al, 2014). Low prevalence of 8.3% was reported in Northern Nigeria (Raji et al., 2013) and 6.4% in Southern Nigeria (Odey et al., 2012). The high and increasing adolescent smoking prevalence means that Nigeria will face a huge burden of premature morbidity and mortality from tobacco-attributable diseases in the near future if intervention programs are not initiated to curb smoking within this age-group.

Adolescence as a developmental stage is characterized by the initiation of risky health behaviors such as cigarette smoking, substance use and unprotected sexual activity (Arnett, 2009; Treacy et al., 2007), and that one third of adolescents experimentation with tobacco occurs as a result of exposure to tobacco,

advertising, promotion and sponsorship (WHO, 2013a). Knowledge of the prevalence of smoking among adolescents is important in estimating the burden of the problem and also to facilitate health intervention programs. However, prevalence alone without information on the predictors of smoking will fail to provide the needed interventions. It is important also to identify socio-demographic factors that are associated with adolescents' initiation of cigarette smoking. Studies have examined perceived determinants of smoking behavior amongst secondary school adolescents in urban cities of Nigeria but not in the context of a rural community. This study investigates perceived determinants of smoking behavior among adolescents aged 10 to 19 years in a rural community of Bayelsa State, Nigeria. The findings from this study will provide information that may aid educational programs to enlighten youths about harmful effects of smoking.

## **2. Methods**

The study was a descriptive cross-sectional study carried out in three senior secondary schools in the community. The target population for this study consists of all senior secondary (SS) school students' ages 10 to 19 years in SS1 to SS3 classes. One hundred and twenty (120) respondents were selected to participate in the study by simple random technique (balloting) All students in the selected classes were eligible to participate. The instrument for data collection was a modified Global Youth Tobacco Survey (GYTS). The questionnaire contained four sections which sought information on respondents' demographic data, as well as information on the determinants of smoking behavior, beliefs about smokers and awareness of diseases associated with smoking.

Data analysis was performed using a Statistical Package for Social Sciences (SSPSS) 14.0 for windows (Chicago, Illinois, United States). Descriptive statistics in form of frequencies and percentages were used to analyze data.

### **2.1. Ethical Approval**

Permission to conduct the study was sought and obtained from the heads of respective schools and informed consent was obtained from parents/guidance.

### 3. Results

Table 1: Demographic variables of Respondents

Variable	Frequency (N)	Percentage (%)
<b>How old are you?</b>		
12 years old or younger	5	4.2
13 years old	16	13.3
14 years old	24	20.0
15 years old	12	10.0
16 years old	10	8.3
17 years old	11	9.2
18 years old	19	15.8
19 years old	23	19.2
<b>Gender</b>		
Male	87	58
Female	33	42
<b>Level of study</b>		
SSS 1	59	49.2
SSS 2	33	27.5
SSS3	28	23.3
<b>Religion</b>		
Christianity	120	100.0
<b>Family structure</b>		
Nuclear	51	42.5
Polygamous	57	47.5
Single Parent	12	10.0

Table 1 above shows that most of the respondents (20.8%) were 14 years old while 4.2% only were either 12 years old or younger. 72.5% of the respondents were boys while 27.5% were girls.

Most of the respondents (49.2%) were in senior secondary 1 (SSI) while 23.3% were in SS3. All respondents (100.0%) were Christians by religion and majority of the respondents (47.5%) were born into polygamous family while only 10.0% were living with single parent.

Table 2: Factors that determine Smoking Behavior

Variable	Frequency (N)	Percentage (%)
<b>Do you have a 'boy/girlfriend' that currently smokes (for at least 1 month)?</b>		
Yes	31	25.8
No	83	74.2
<b>How frequent do your friend or friends smokes?</b>		
Never	32	26.7
Every week	73	60.8
Every day	15	12.5
<b>Do any of your close friends smoke cigarettes?</b>		
None of them	8	6.07
Some of them	99	82.5
Most of them	13	10.8
<b>Do your parents (or step parents/guardians who stay at your home) smoke?</b>		
None	24	20.0
Father or stepfather	67	55.8
Mother or stepmother	0	0.00
I don't know	29	24.2
<b>During the past 7 days, on how many days have people smoked in your home in your presence?</b>		
1 to 2	55	45.8
2 to 4	41	34.2
5 to 6	13	10.8
7	11	9.2
<b>During the past 7 days, on how many days have people smoked in your presence, in places other than in your home?</b>		
1 to 2	14	11.7
2 to 4	15	12.5
5 to 6	9	7.5
7	82	68.3
<b>During this school year (since January 2015), has a teacher or any other person ever talked in class about the dangers of smoking?</b>		
Yes	5	4.2
No	111	92.5
Not sure	4	3.3
<b>When you watch TV, videos, or movies, how often do you see actors smoking?</b>		
A lot	97	80.8
Sometimes	23	19.2
<b>During the past 30 days (one month), how many advertisements or promotions for cigarettes have you seen in Television or Radio?</b>		
A lot	86	71.7
A few	34	28.3

Table 2: shows that more than half of the respondents (74.4%) have a boy/girlfriend that smokes, close friends of majority of the respondents (82.5%) smoke cigarette, majority of the respondents fathers/stepfathers (55.8%) smokes. All the respondents have witnessed people smoke cigarette in their homes and 68.3% of respondents has encountered situations where people smoke in their presence for up to 7 times within a week. 92.5% of respondents reported that their teachers have not talked about the dangers of smoking in the class for the past 10 months, while 4.2% reported that their teachers have

talked about the dangers of smoking in the . Also, majority of the respondents (80.8%) have seen actors smoke cigarette in movies while 19.2% reports that they see actors that smoke cigarette in movies a lot. 71.7% of respondents have seen advertisement or promotions for cigarette in radio/television and magazines during the past 30 days, while 28.3% of respondents reported to have not seen such in radio/television and magazines.

Table 3: Smoking Beliefs of Respondents

Variable	Frequency (N)	Percentage (%)
<b>Do you think it would be difficult to quit once someone has started smoking?</b>		
Definitely not	83	69.2
Probably not	12	10.0
Probably yes	15	12.5
Definitely yes	10	12.5
<b>Do you think boys who smoke cigarettes have more or less friends?</b>		
More friends	98	81.7
Less friends	3	2.5
No difference from non-smokers	19	15.8
<b>Do you think girls who smoke cigarettes have more or less friends?</b>		
More friends	52	43.3
Less friends	38	31.7
No difference from non-smokers	40	33.3
<b>Does smoking cigarettes help people feel more comfortable at celebrations, parties or in other social gatherings?</b>		
More comfortable	102	85.0
Less comfortable	2	1.7
No difference from non-smokers	16	13.3
<b>Do you think smoking cigarettes make boys look more attractive?</b>		
More friends	115	95.8
Less friends	5	4.2
<b>Do you think smoking cigarettes make girls look more attractive?</b>		
More attractive	63	52.5
Less attractive	38	31.7
No difference from non-smokers	19	15.8
<b>Do you think that smoking cigarettes make you less weight?</b>		
Gain weight	13	10.8
Less weight	73	60.8
No difference	34	28.3
<b>Do you think smoking cigarettes is harmful to your health?</b>		
Definitely not	4	3.3
Probably not	41	34.2
Probably not	64	53.3
Difference yes	11	9.2
<b>When you see a man smoking, what do you think of him?</b>		
He is successful	28	23.3
He is intelligent	37	30.8
He is a 'real man	55	45.8
<b>When you see a woman smoking, what do you think of her?</b>		
She is stupid	34	28.3
She is intelligent	14	11.7

She is sophisticated	72	60.0
<b>Do you think it is safe to smoke for only a year or two as long as you quit after that?</b>		
Probably yes	19	15.8
Definitely yes	101	84.2

Table 3: shows majority of the respondents (69.2%) believe that it would definitely not be difficult for someone to quit smoking once it is started, while 8.3% of the respondents believe that it would definitely be difficult to quit smoking once it is started. Majority of the respondents (81.7%) also believed that boys who smoke cigarette have more friends while only 2.5% of the respondents believed that boys who smoke have friends less than their counterparts who do not smoke. Similarly, most of the respondents (43.3%) believed that girls who smoke have more friends. However, 33.3% of the respondents believed that no difference exists in terms of the number of friend female non-smokers may have. More than half of the respondents (85.0%) also believe that smoking cigarette help people feel more comfortable at celebrations, parties or in other social gatherings while 1.7% felt otherwise. 95.8% of respondents believe that smoking cigarette makes boys more attractive. 52.5% of the respondents also upheld the belief that smoking makes girls more attractive. More so, majority of the respondents (60.8%) believed that smoking cigarette makes one loss weight. 53.3% of the respondents also think that cigarette smoking may probably by harmful to health while 3.3% thinks that smoking cigarette is definitely not harmful of health. Most of the respondents (45.8%) see a man who smokes as a real man, 30.8% see such a man as intelligent, and 23.3% see the man who smokes as a successful person. Similarly, majority of respondents (60.0%) see a woman who smokes as a sophisticated person, 28.3% see her as a stupid while 11.7% see such a woman as intelligent. Finally, 84.2% of the respondents believed that it is definitely safe to smoke for only a year or two as long as one quits after such a period.

Table 4: Awareness of Diseases associated with Smoking

Variable	Frequency (N)	Percentage (%)
<b>Smoking causes cancer</b>		
Strongly agree	9	7.5
Agree	11	9.2

Disagree	53	44.2
Strongly disagree	47	39.2
<b>Smoking courses bad breath and wrinkles</b>		
Strongly agree	76	63.3
Agree	28	23.3
Disagree	12	10.0
Strongly disagree	4	3.3
<b>Smoking is a risk factor for heart attack</b>		
Strongly agree	16	13.3
Agree	41	34.2
Disagree	49	40.8
Strongly disagree	14	11.7
<b>Smoking causes respiratory illnesses such as emphysema, bronchitis and long lasting cough.</b>		
Strongly agree	56	46.7
Agree	5	4.2
Disagree	31	25.8
Strongly disagree	38	23.3
<b>Smoking destroy reproductive life</b>		
Strongly agree	2	1.7
Agree	7	5.8
Disagree	37	30.8
Strongly disagree	74	61.7

Table 4: shows that 44.2% and 39.2% of respondents disagreed and strongly disagreed respectively that cigarette smoking cause cancer, majority of the respondents (63.3%) disagreed that cigarette smoking cause bad breath and wrinkles while 52.0% of respondents also disagreed that cigarette smoking is a risk factor for heart attack. However, 50.9% of respondents agreed that smoking cause's respiratory illnesses, 30.8% disagreed while 61.7% strongly disagree that smoking destroys reproductive life.

#### 4. Discussion

The findings of the study reported a mean age of =10.25. This suggests early initiation of smoking among adolescents. Majority of respondents (72.5%) were boys. This is similar to previous studies in Nigeria (Adeyeye, 2011; Odey et al., 2012; Raji et al., 2013). The study sample are all (100%) Christians, indicating that the study location is a Christian dominated region and majority (47%) were from polygamous homes. This finding is consistent with that of Ojo et al., (2008) which described family influence (structure and unstable behavior of parents) as factor responsible for adolescent engagement in



cigarette smoking. By this finding, it may be necessary to regard polygamous family structure as a risk factor for adolescent initiation of cigarette smoking.

#### **4.1. Determinants of Smoking Behaviour**

The study revealed that majority of respondents have parents and or friends who smokes. This is similar to earlier reports in Nigeria that the initiation of smoking is linked to the influence of exposure and peer group (Adeyeye, 2011; Odeyemi et al., 2009; Ojo et al., 2008). According to Ojo et al., (2008), the influence of peers during adolescents developmental changes is a prime factor that determines the initiation of smoking behavior in this age group, while Adeyeye, (2011) and Odeyemi et al., (2009) reported that parents' smoking behavior and exposure to cigarette predisposed adolescents to smoking. Also, the study of Raji et al., (2013) in North East Nigeria reported that the odds for respondents smoking cigarette if the father also smoke was 3.45. This finding also points to the need for stringent laws to regulate places where cigarette could be sold and smoked. Children sees their parents as role models as such, parental smoking may influence adolescents to start smoking, and the influence of peers. Therefore, it will be wise to educate parents that their children are more likely to smoke if they also smoke, while the adolescents need enlightenment about health hazards of smoking.

The findings shows that respondents have not received information either from teachers in the class or other persons about the dangers of smoking for the past 10 months. This finding confirms the study of Ebirim et al., (2014) on the prevalence of cigarette smoking and knowledge of its health implications among adolescents in Owerri, South-Eastern Nigeria, it was reported that knowledge of health problems associated with smoking proved to be the major reason for not smoking by never smoked adolescents and that poor knowledge of health effects of smoking was associated with cigarette smoking in their study sample. There is need for the initiation of health education programs in schools to improve knowledge and create awareness about the negative impact of smoking on adolescents' health.

Majority of the respondents watched movies where actors smoke cigarette and have also seen advertisements/promotions of cigarettes in radio/television and magazines. This finding is also consistent with the reports of Odeyemi et al., (2009) and Ojo et al., (2008) that observed the role of media (advertisement for cigarette portraying people who smoke cigarette as successful, sophisticated, and sexy in movies) posed as risk factors for the initiation of cigarette smoking among adolescents.

Government should regulate the advertisement of cigarettes irrespective of the value of tax/profit government and media houses derive from it.

#### **4.2. Respondents' Beliefs about Smoking**

The finding shows that respondents believe they can quit smoking at any time and do not think it would be difficult to quit. This finding is similar to that of Balmford and Borland (2008) and Arnett, (2008) in their report that smokers are more likely to deny that they are addicted to smoking and held the belief that they can quit if they try. The effect of this belief according to Arnett (2008), is particularly marked in younger smokers. This self-exempting may lead young people to experiment because they believe themselves to be less likely to be addicted than others. These misconceptions are particularly dangerous in the light of evidence that symptoms of nicotine dependence may develop after even sporadic smoking in adolescence (DiFranza et al., 2002).

Also, majority of the respondents believed that cigarette smoking makes them have more friends, feel more comfortable, look more attractive and also help loss weight and that smoking is not harmful. The finding is similar to the discovery of Raji et al., (2013) that adolescents who had the perception that cigarette smokers had more friends than non smokers were more likely to smoke. The finding also support other studies that adolescents smoke for purposes of relaxation, concentration, comfort and acceptance by their peers (Rugkasa et al., 2001; Treacy et al., 2007; Zhang et al., 2005). Also, this

finding and other studies (Adeyeye, 2011; Balmford and Borland 2008; DiFranza et al., 2002) confirm that adolescents believed smoking one or two packs of cigarette is not harmful. The belief may suggest absence of educational programs on the dangers of smoking for young people. Therefore lack of knowledge about dangers of smoking could be regarded as a predisposing factor for the initiation of smoking among adolescence. Also perceiving people who smoke as sophisticated and intelligent could influence adolescents into experimenting smoking.

#### **4.3. Respondent' Level of Awareness of Diseases associated with Smoking**

The finding reveal that majority of the respondents have low level of awareness of illnesses associated with smoking and majority do not know that cigarette smoking can cause respiratory disorders, cancers and others. Evidence shows tobacco use is responsible for a growing global pandemic of death and disease, and is the cause of more than 10% of premature deaths worldwide (Doll et al., 2004; Ezzati & Lopez, 2000). Therefore, poor knowledge reported in the study may indicate absence of health education programs on hazards associated with smoking. However, the National Cancer Institute, (2008) reported that broad educational efforts that reach all age groups have been shown to be more effective in influencing youth behavior than efforts targeted specifically at adolescents. Therefore the need for massive education of the public on the dangers of cigarette smoking.

#### **5. Limitations of the study**

The study is limited to being a cross-sectional study that seek to assess the perceived determinants of smoking behavior among adolescents aged 10 to 19 years; based on self-report and therefore subject to respondent recall and deliberate misreporting, no cause-effect relationship could be established. Also, the study recruited only school-going adolescents who may not have been representative of the out of school adolescents. Further wider rural community survey is suggested.

## **6. Policy Implication**

Immediate attention should be given to the development and enforcement of tobacco smoking cessation programs especially for the youth population.

Enforce legislation to limit youth access to tobacco products

Enforce restriction of smoking in public places and regulate designated smoking areas

Attention be given to social and moral education at primary and secondary school levels.

Regulate the advertisement of cigarette by the media.

## **7. Conclusion of the Study**

Based on the findings, it was concluded that respondents uphold erroneous beliefs about smoking and possess poor knowledge of the diseases associated with smoking. More so, parents' smoking behavior, adolescents' exposure to smokers, lack of basic education on dangers of smoking, peer group/friends and advertisement/promotions of cigarette by the media were implicated to be factors that determine the initiation of adolescents smoking behavior. General education of the public emphasizing knowledge of health implications of smoking will go a long way in encouraging smoking cessation.

## **References**

Adeyeye, O.O. (2011). Cigarette smoking habits among senior secondary school students in Lagos, Southwest Nigeria. *International Journal of Biological and Medical Research*, 4, 1047-1050.

Arnett, J.J. (2009). Reckless Behaviour in Adolescence: A Development Perspective. *Developmental Review*, 12, 339 – 373.

Balmford, J and Borland, R. (2008). What does it mean to want to quit? *Drug and Alcohol Review*, 27:21–27.

Borland, R., Yong, H. H., Balmford, J., Fong, G. T., Zanna, M. P., Hastings, G. (2009). Risk-minimizing beliefs about smoking inhibit quitting? Findings from the International Tobacco Control (ITC) Four-Country Survey. *Preventive Medicine*, 49, (2–3), 219–23. Retrieved from:

<http://www.ncbi.nlm.nih.gov/pubmed/19573553>

Centers for Disease Control and Prevention, (2007). Cross River State, Nigeria Global Youth Tobacco Survey. CDC, Atlanta. Retrieved from

[www.cdc.gov/tobacco/global/gyts/factsheets/pdf\\_files/nigeria\\_crs.pdf](http://www.cdc.gov/tobacco/global/gyts/factsheets/pdf_files/nigeria_crs.pdf)

Center for Disease Control and Prevention. (2010). Preventing use among Yong people – A Report of the Surgeon General. Retrieved from <http://www.Surgeongeneral.gov/initiatives/tobacco.com>

Ebirim, C. I. C., Amadi, A. N., Abanobi, O. C., Iloh, G. U. P. (2014). The Prevalence of Cigarette Smoking and Knowledge of Its Health Implications among Adolescents in Owerri, South-Eastern Nigeria. *Health*, 6, 1532-1538. Retrieved from <http://dx.doi.org/10.4236/health.2014.612188>

DiFranza, J. R., Savaggeau, J. A., Rigotti, N. A., Fletcher, K., Ockene, J. K., McNeill, A. D et al. (2002). Development of Symptoms of tobacco dependence in youths; 30 months follow up data from DANDY Study. *Tobacco Control*, 11 (3): 228- 235.

Doll, R. R., Boreham, J and Sutherland, I. (2004). Mortality in relation to smoking: 50 years' observations on male British doctors. *British Medical Journal*, 328, 519-533.

Ezzati, M and Lopez, A. (2000). Estimates of global mortality attributable to smoking in 2000. *The Lancet*, 62, 847-852.

Federal Ministry of Health. (2012). Report on the Global Adult Tobacco Survey: Country Report (Nigeria). Retrieved from <http://tobacco.who.int/repository/tld100/Nigeria.pdf>

National Cancer Institute. (2008). The Role of the Media in Promoting and Reducing Tobacco Use. Tobacco Control Monograph No. 19. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute. NIH Pub. No. 07-6242. Retrieved from [http://cancercontrol.cancer.gov/brp/tcrb/monographs/19/m19\\_complete.pdf](http://cancercontrol.cancer.gov/brp/tcrb/monographs/19/m19_complete.pdf)

Odey, F.A., Okokon, I.B., Ogbeche, J.O., Jombo, G.T., Ekanem, E.E. (2012). Prevalence of cigarette smoking among adolescents in Calabar city, south-eastern Nigeria. *Journal of Medicine and Medical Sciences*, 3 (4), 237-242.

Odeyemi, K. A., Osibogun, A., Akinsete, A. O., Sadiq, L. (2009). The Prevalence and predictors of cigarette smoking among secondary school students in Nigeria. *Nigeria Postgraduate Medical Journal*, 16, 40 -45.

Ojo, O.O., Lawani, A.O., Adedigba, M. A., Nwhator, S.O. (2008). Influences on smoking behavior of adolescents and young adults in Nigerian University, *African Journal of Drug and Alcohol Studies*, 7, 89 – 99.

Raji, M. O., Abubakar, I.S., Oche, M.O., Kaoje, A.U. (2013). Prevalence and determinants of cigarette smoking among school adolescents in Sokoto metropolis, North West Nigeria. *International Journal of Tropical Medicine*, 8, (3), 81-86.

Treacy, M. P., Hyde, A., Boland, J., Whitaker, T., Abaunza, P. S., Stewart-Knox, B. J. (2007). Children talking: emerging perspectives and experiences of cigarette smoking. *Qualitative Health Research*, 17, (2), 238–249.

Rugkasa, J., Knox, B., Stittlington, J., Kennedy, O., Treacy, M., Abaunza, P. S. (2001). Anxious Adults Versus cool Children: Children’s View on Smoking and Addiction. *Social Science Medicine*, 53 (5), 593 – 602.

World Health Report. (2002). Prevalence of Tobacco Smoking in Nigeria. WHO, Geneva. Retrieved from <http://tobacco.who.int/repository/tld100/Nigeria.pdf>

World Health Organization. (2012). Global Burden of Diseases: World Health Report. Geneva. Retrieved from <http://www.who.int/topics/global-burden-of-disease/en>

World Health Organisation. (2013a). WHO Report on the Global Tobacco Epidemic: Enforcing bans on tobacco, advertising, promotion and sponsorship. Geneva. Retrieved from [http://apps.who.int/iris/bitstream/10665/85380/1/9789241505871\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/85380/1/9789241505871_eng.pdf)

World Health Organisation. (2013b). WHO Report on the Global Tobacco Epidemic, 2013: Country profile (Nigeria). Switzerland. Retrieved from [http://www.who.int/tobacco/global\\_report/2013/appendix\\_vii.pdf](http://www.who.int/tobacco/global_report/2013/appendix_vii.pdf)

Zhang, L., Wang, W. F., Zhou, G. (2005). A cross-sectional study of smoking risk factors in junior high school students in Henan, China. Southeast Asian. *Journal of Tropical Medicine and Public Health*, 36 (6), 1580–1584.