



TOBACCO SMOKING AND PERCEIVED EFFECTS AMONG UNDERGRADUATE STUDENTS OF NOVENA UNIVERSITY, OGUME, NIGERIA

¹*Kolawole Sunday (PhD), ²Agofure Otovwe (MPH) and ³Nwokolo Immaculata

¹Lecturer, College of Health Sciences National Open University Benin Study Centre, Benin City, Nigeria.

^{2,3}Dept. of Public and Community Health, College of Health Sciences, Novena University, Ogume, Nigeria.

***Corresponding Author: Kolawole Sunday**

Lecturer, College of Health Sciences National Open University Benin Study Centre, Benin City, Nigeria.

Article Received on 02/11/2017

Article Revised on 22/11/2017

Article Accepted on 12/12/2017

ABSTRACT

Tobacco smoking is a major public health problem affecting young people the world over resulting in premature deaths and long term cardiorespiratory and cardiovascular diseases. The study investigated tobacco smoking and its perceived effects among undergraduate students in Novena University, Ogume, Nigeria. A cross-sectional study was conducted among 200 students, who were selected with multistage random sampling technique. The results show that most of the respondents (83.50%) had heard of the term tobacco smoking, with 60.0% actually smoking tobacco. Almost one third of the respondents (30.80%) smoke tobacco at least thrice daily with an average of 3 sticks per day. More than one third of the respondents (35.80%) had been smoking for a year and 23.30% were introduced to smoking by senior colleagues. More than one fourth of the respondents (27.50%) will feel depressed if they do not take tobacco, while 62.0% and 50.50% believes tobacco smoking has significant effects on health status and behavioural patterns of undergraduate students respectively. There was a significant association between level of study and smoking of tobacco ($P=0.00$), with those in 400 level more likely to smoke tobacco than students in other levels ($OR= 12.987$ 95% $CI= 4.449-37.912$). The study recommended, among other strategies, health education on the dangers of tobacco smoking among undergraduate students.

KEYWORDS: Tobacco smoking, undergraduate students, perceived effects.

INTRODUCTION

Smoking is one of the most common forms of recreational substance use. It is a prevalent habit among humans all over the world especially youths. In private places as well as in social gatherings, it is common to find smokers among the population; this makes tobacco the most common substance that is smoked worldwide (Proctor, 1996).

Tobacco is the most important preventable cause of premature death in many countries, and half of persistent smokers who start smoking in adolescence will die from the use of tobacco (Adekunle, Omotosho, Tanimola, & Oladimeji, 2011). The health risks of tobacco are vastly underestimated because of the 30-40 year time lag between the onset of smoking and the peak in the deaths that it causes. Thus, in the developing world, tobacco poses a major challenge, not just to health, but also to social and economic development and to environmental sustainability. Data from studies on the harmful consequences of smoking on health have confirmed the quantitative relationship between smoking and many diseases such as coronary artery disease, lung cancer, bladder cancer, pulmonary emphysema, peripheral vascular disease and neonatal mortality (Dhala, Pinsker,

& Prezant, 2004; Khan et al., 2005). Similarly, geographical variation in the prevalence of cigarette smoking contributes to differences in the mortality patterns of smoking related diseases such as lung cancer, chronic obstructive lung disease and coronary heart diseases (Giovino, Schooles, & Zhu, 2004). Globally during the past 2 decades cigarette production has increased at an average of 2.2% each year, outpacing the population growth rate of 1.7% (Crofton & Simpson, 2002). Consequently, the World Health Organization (WHO) at the forty-second World Health Assembly recognized that worldwide the use of tobacco is responsible for two million premature deaths annually (World Health Organization [WHO], 1998) and in 2000, an estimated 4.83 million premature deaths were attributable to smoking, of which almost 50% were in developing countries (Ezzati & Lopez, 2003).

Furthermore, a source of concern is the current increasing prevalence of tobacco consumption in developing countries while its use is decreasing in developed countries. For instance, in Pakistan out of a total population of 78 million in 1995, 36% males and 9% females aged 15 years or older were found to be smokers (Alam, 1998). Similarly, in South Africa a study

of cigarette smoking in the black township population of Cape Town showed that the smoking prevalence among adults was 53% in men compared to 6% in women (Strebel, Kuhn, & Yach, 1989). In Nigeria, the prevalence of smoking among adults (12.3% males and less than 1% in females); although still lower than some African countries tend to be higher among adolescence and youths (National Population Commission, 2009).

The vast majority of smokers began using tobacco products well before the age of 18 years (Centre for Disease Control and Prevention, 2012). It has been observed that, if smoking does not start during adolescence, it is unlikely ever to occur. Thus the probability of cessation among adults is related to age at initiation (Odukoya, Odeyemi, Oyeyemi, & Upadhyay, 2013).

Tobacco smoking among the youth is also of public health concern because of the immediate and long-term impact associated with tobacco use such as asthma, chronic cough, chronic obstructive airways disease, cancers and cardiovascular diseases (American Cancer Society, 2005). Tobacco use among youths has also been traced to other risky health-related behaviours, mental health problems, suicide, motor vehicle accidents, violent crime and even dental problems (US Department of Health and Human Services, 2004).

Available data on tobacco smoking among adolescence in Nigeria shows a mean lifetime smoking prevalence of 26.4% reported among secondary school students with values ranging from 7.2% to 42.9% (Osibogun *et al.*, 2009). Other studies have shown smoking prevalence to be between 3.4% to 17.1% in secondary schools in Nigeria (Yisa, Lawoyin, Fatiregun, & Emelumadu, 2009; Omokhodion & Faseru, 2007) and main factors influencing smoking habits of adolescent in Nigeria as peer influence, parental influence, advertisement and low level of education (Odeyemi, Osibogun, Akinsete, & Sadiq, 2009; Osungbade & Oshiname, 2008).

In the past ignorance of the risk factors associated with tobacco use has been reported (Peltzer & Phaswana, 1999). A study conducted among Malaysian university students shows that the mean of total knowledge score towards harmful effects of smoking among university students were lower among smokers compared to non smokers (Redhwan Ahmed Al-Naggar *et al.*, 2011). Similarly, a study on Smoking Initiation and Susceptibility to Future Smoking among School-Going Adolescents in Lagos State, Nigeria reported that Students who had initiated smoking had significantly lower tobacco related health risk knowledge scores than their counterpart who had not initiated smoking (Odukoya *et al.*, 2013). This shows that tobacco smokers, especially students might be unaware of the dangers posed by tobacco smoking to their health.

This study was therefore designed to investigate tobacco smoking and perceived effects among undergraduate students of Novena University, Ogume Nigeria.

Objective of the study

Broad Objective: It is to investigate tobacco smoking and perceived effects among undergraduate students of Novena University, Ogume, Nigeria.

Specific Objectives

- To determine the awareness of tobacco smoking among respondents
- To assess the status of tobacco smoking among respondents
- To explore the perceived effect of tobacco smoking on undergraduate students

Significance of the study

According to the Centre for Disease Control (2012), the vast majority of smokers began using tobacco products well before the age of 18 years. This is a major public health concern particularly among university students because of the immediate and long term health sequelae associated with tobacco use. Furthermore, with the mean lifetime smoking prevalence of 26.4% (Osibogun *et al.*, 2009), reported among secondary school students, it is therefore of importance to explore the characteristics and pattern of tobacco smoking and its perceived effects among undergraduate students. In addition, findings generated from the study will guide in spawning evidence based intervention towards curbing tobacco smoking among university students in Nigeria.

METHODS

Study Area

The study was carried out in Novena University, Amai which is the first private University in Delta State. The University runs a multi-campus system. Its main campus is situated at Ogume while the take off site is at Amai. Academic activities take place in three colleges which includes; Natural and Applied Sciences, Management and Social Sciences and Health Sciences. The University has a total population of approximately 3435 students.

Study Design and Sample Selection

A descriptive cross sectional study design was used. The study population was students of Novena University selected across the three colleges of the institution using multi-stage sampling technique. A minimum sample size of 200 was calculated using the formula for sample size determination and for estimating proportion. The sampling procedure involves stratifying the university into the three colleges of Natural and Applied sciences, Management and Social sciences and Health sciences. Thereafter, one department each was randomly selected from each of the three colleges. Furthermore, each of the selected departments was stratified according to levels from 100 to 400. The number of students to be selected in each level or stratum was proportionately calculated using the formula for proportional allocation. A

systematic random sampling technique was then used to administer the questionnaire after calculating the sampling interval of 3 and subsequently using the sampling frame of the list of students to systematically administer the questionnaire. Peradventure a student on the list was absent on the day of data collection, the next person on the list was automatically selected for the study.

Data Collection Instrument

A self-administered, semi-structured questionnaire was used for the study and it comprised socio-demographic characteristics, information on tobacco smoking and its perceived effects among respondents. On the whole 200 questionnaires were administered to the students after informed consent had been obtained. The administered questionnaires were retrieved from the students immediately at the venue of administration after obtaining the required information. All 200 questionnaires were retrieved from the students, giving a response rate of 100%.

Data analysis

Cronbach Alpha test reliability was used to determine the reliability of the instrument. The Cronbach Alpha

Reliability statistics gave 0.939. Data generated were analysed using SPSS version 17.0. Descriptive statistics were used to evaluate frequency distribution, while chi-square test and logistic regression were performed to test for association between variables of interest with level of significance set at $p < 0.05$.

RESULTS

A total of two hundred students participated in the study. Seventy-three (36.50%) of the respondents were between the age group of 15-19 years with an overall mean age of 22.37 ± 4.9 years. One hundred and fifty (75.0%) were males and sixty (30.0%) were in 300 level (Table 1).

Significantly, as shown in Table 1, there was an association between the respondents' age, sex and level of study and smoking of tobacco and awareness of tobacco smoking prior to the study i.e their knowledge of tobacco smoking ($P < 0.05$). In addition, respondents in 400 level were more likely to be aware or knowledgeable about tobacco smoking (OR=7.156 95% CI=2.249-22.767) and smoke tobacco (OR=12.897 95% CI=4.449-37.912) than respondents from other levels of study.

Table 1: Socio-demographic variables of respondents.

Variables	Frequency(n=200)	Percentage	Do you smoke Tobacco?	Awareness of Tobacco
Ages 15-19	73	36.5	0.000*S	0.000*S
20-24	65	32.5		
25-29	38	19.0		
30-34	24	12.0		
Sex Male	150	75.0	0.000*S	0.001*S
Female	50	25.0		
Level of Study			0.000*S OR=12.897 95% CI=4.449-37.912	0.000*S OR=7.156 95% CI=2.249-22.767
100 (r)	51	25.5		
200	57	28.5		
300	60	30.0		
400	32	16.0		

*S=Significant

Mean age= 22.37 ± 4.9 years.

The results from Table 2 shows that one hundred and sixty seven (83.5%) respondents have heard of the term tobacco smoking, with sixty two (31.0%) having their source of information for tobacco smoking from peer group/friends. One hundred and twenty (60.0%) actually smoke tobacco and thirty seven (30.8%) smoke tobacco at least thrice daily with an average of 3 sticks per day. Almost one fourth (23.3%) were introduced to smoking by their senior colleague and forty three (35.8%) had been smoking for the past one year.

Table 2: General information on tobacco smoking among respondents.

Variables	Frequency(n=200)	Percentage
Have you heard of the term Tobacco smoking?		
Yes	167	83.5
No	33	16.5
Sources of Information for Tobacco smoking?		
Peer group/Friends	62	31.0
Mass media	58	29.0
Course mates	34	17.0
Hostel/Room mates	36	18.0
Relations	10	5.0
Do you smoke Tobacco?		
Yes	120	60.0
No	80	40.0
How often do you smoke? n=120		
Once	26	21.7
Twice	23	19.2
Thrice	37	30.8
As often as it is available	20	16.7
Occasionally	14	11.7
How much number of sticks of cigarette do you smoke per day? n=120		
1	12	10.0
2	34	28.3
3	32	26.7
4	27	22.5
5	15	12.5
Who Introduced you to smoking? n=120		
My hostel mates	19	15.8
Friends/Peer groups	22	18.3
Senior Colleague	28	23.3
Mass Media	20	16.7
Relations	21	17.5
Others	10	8.3
For how long have you been smoking? n=120		
One year	43	35.8
Two years	42	35.0
Three years	19	15.8
>Three years	16	13.3
What was your source of getting these tobaccos (Cigarette) that you smoke? n=120		
Roadside Vendors	22	18.3
Peer group	28	23.3
Course mates	29	24.2
Beer parlour/Bar	41	34.2
How do you feel when you do not take Tobacco? n=120		
Sad	29	24.2
Depressed	33	27.5
Disturbed	27	22.5
Weak	15	12.5
Happy	16	13.3

As shown from the results in Table 3 forty three (35.8%) respondents were absent from lectures at least two times because of tobacco smoking. General perceived effects of tobacco smoking among respondents shows that one hundred and twenty four (62.0%) believes tobacco smoking affects health status of undergraduate students,

while a little above two fourth (50.5%) believed tobacco smoking has significant effect on the behavioural patterns of undergraduate students. Furthermore, more than two third of the respondents believes tobacco smoking do disturb non-tobacco smokers.

Table 3: Perceived effect of Tobacco Smoking on Undergraduate Students.

Variables	Frequency(n=200)	Percentage
How many times Tobacco smoking did make you absent from lectures? n=120		
1	22	18.3
2	43	35.8
3	33	27.5
4	22	18.3
Tobacco smoking affects health status of undergraduate students?		
Yes	124	62.0
No	76	38.0
Do Tobacco smoking has any significant effect on behavioural patterns of undergraduate students?		
Yes	101	50.5
No	99	49.5
Do Tobacco smoking has any significant effects on the economic status of undergraduate students?		
Yes	148	74.0
No	52	26.0
Does tobacco smoking disturb non-tobacco smokers?		
Yes	145	72.5
No	55	27.5

There was a significant positive correlation between number of sticks of cigarette smoked per day and the

number of times tobacco smoking did make respondents absent from lectures (Table 4).

Table 4: Correlation between number of sticks of cigarette and number of times absent from lectures due to tobacco smoking.

Variables	P-Value	Pearson Correlation
How much number of sticks of cigarette do you smoke per day?	0.00*S	0.999
How many times Tobacco smoking did make you absent from lectures?		

DISCUSSION

The mean age of respondents 22.37 ± 4.9 years in the study was higher than that of a previous study among medical students in Karachi, Pakistan which was 19.9 years (Khan *et al.*, 2005) and similar to another study among university students in Nigeria which was 21.37 ± 2.52 years (Babatunde *et al.*, 2012). Prevalence of tobacco intake was higher among males and was statistically significant which is similar to a previous study conducted in Saudi Arabia (Al-Haqwi, Tamim, & Asery, 2010). Furthermore, the practice of smoking among higher level students was also similar to the study in Saudi Arabia where smoking was more prevalent among senior students than junior students (Al-Haqwi *et al.*, 2010). The trend has been attributed to the risk of tobacco consumption increasing with students' progression (Khader & Alsadi, 2008; Jarallah, al-Rubeaan, al-Nuaim, al-Ruhaily, & Kalantan, 1999).

The high level of awareness of tobacco among respondents in the study was similar to previous findings (Makanjuola, Temitayo, Daramola, & Obembe, 2007);

this justifies the awareness of tobacco smoking among university students in Nigeria.

Respondents' identifying their source of information for tobacco smoking as peer group/friends substantiates the influence of peers and friends in the initiation of tobacco smoking among undergraduates. This fact has been buttressed by Khan *et al.* (2005), where peer pressure was an important reason for smoking initiation.

The prevalence of smoking in the study was higher than in previous studies in Malaysia (29%) and South-West Nigeria (22%) (Redhwan Ahmed Al-Naggar *et al.*, 2011; Babatunde *et al.*, 2012). This difference in prevalence might be attributed to the high tobacco awareness among respondents. This was further justified by the significant relationship between the high awareness of tobacco and smoking of tobacco among respondents ($P < 0.05$). Furthermore, respondents smoked at least thrice per day with an average of 3 sticks. This is similar to previous findings where smoking status of medical students in Karachi shows regular smoking and between 2-10 sticks

of cigarette per day (Khan et al., 2005). Also majority of the respondents had been smoking for the past one or two years indicating that larger percentage of the respondents are beginners who just started smoking. Most of the respondents say they will feel depressed if they do not smoke tobacco. This suggests that they are addicted to tobacco.

The correlation between tobacco smoking and absenteeism from lectures is one of the negative effects of tobacco smoking on undergraduate students. Additionally, the study shows that most of the respondents are knowledgeable regarding the effects of tobacco smoking on undergraduate students. This is similar to previous findings where students in Jordan were all aware of the negative impact of tobacco smoking on their health (Sharif et al., 2013). The irony is that despite the awareness of the effects of tobacco smoking shown by the respondents most of them still engage in smoking tobacco.

CONCLUSION

The study shows the prevalence of tobacco smoking among undergraduate students and its negative impact of depression among students. Therefore, undergraduate students should be enlightened continuously on the dangers associated with tobacco smoking in order to prevent them from long term health challenges and to preserve their future.

ACKNOWLEDGEMENTS

The authors appreciate all respondents for voluntarily participating in the study. Furthermore, the authors declare that there is no conflict of interest.

REFERENCES

- Adekunle, S., Omotosho, M., Tanimola, A. & Oladimeji, B. (2011). Effects of health education on cigarette smoking habits of young adults in tertiary institutions in a Northern Nigerian State, *Health Science Journal*, 5(3): 216-228.
- Alam, S. E. (1998). Current smoking and having smoked 100+ cigarettes, beedis, chillum or huqqa in his/her lifetime: Prevalence and pattern of smoking in Pakistan. *Journal of the Pakistan Medical Association*, 48: 64-6.
- Al-Haqwi, A. I., Tamim, H. & Asery, A. (2010). Knowledge, attitude and practice of tobacco smoking by medical students in Riyadh, Saudi Arabia, *Annals of Thoracic Medicine*, 5(3): 145-8.
- American Cancer Society. (2005). Cancer facts and figures. Available at: <http://our.cancer.org/downloads/STT/CAFF2005f4PWSecured.pdf>.
- Babatunde, O. A., Omowaye, O. A., Alawode, D. A., Omede, O., Olomofe, C. O. & Akinyandenu, J. (2012). Smoking Prevalence, Willingness to Quit and Factors Influencing Smoking Cessation among University Students in a Western Nigerian State. *Asian Social Science*, 8(7): 149-156.
- Centre for Disease Control and Prevention. (2012). Youth and tobacco use. Available at http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm.
- Crofton, J. & Simpson, D. (2002). *Tobacco: a Global Threat*. London, Macmillan.
- Dhala, A., Pinsker, K. & Prezant, D. J. (2004). Respiratory health consequences of environmental tobacco smoke. *Medical clinics of North America*, 88: 1535-5.
- Ezzati, M. & Lopez, A. D. (2003). Estimates of global mortality attributable to smoking in 2000, *Lancet*, 362: 847-52.
- Giovino, G.A., Schooles, M.W. & Zhu B.P. (2004). Surveillance for selected tobacco use behaviour. *CDC surveillance summaries: MWWR*; 43, United States 1900 - 1994.
- Jarallah, J. S., al-Rubeaan, K. A., al-Nuaim, A. R., al-Ruhaily, A. A. & Kalantan, K. A. (1999). Prevalence and determinants of smoking in three regions of Saudi Arabia. *Journal Tobacco Control*, 8: 53-6.
- Khader, Y. S. & Alsadi, A. A. (2008). Smoking habits among university students in Jordan: Prevalence and associated factors. *Eastern Mediterranean Health Journal*, 14: 897-904.
- Khan, F. M., Husain, S. J., Laeeq, A., Awais, A., Hussain, S. F. & Khan, J. A. (2005). Smoking prevalence, knowledge and attitudes among medical students in Karachi, Pakistan. *Eastern Mediterranean Health Journal*, 11: 5-6.
- Makanjuola, A. B., Temitayo O., Daramola, & Obembe, A. O. (2007). Psychoactive substance use among medical students in a Nigerian University, *World Psychiatry*, 6(2): 112-114.
- National Population Commission (2009). Nigeria demographic and health survey. November 2009 Available at: <http://www.measuredhs.com/pubs/pdf/FR222/FR222.pdf>.
- Odeyemi, K. A., Osibogun, A., Akinsete, A. O. & Sadiq, L. (2009). The Prevalence and Predictors of Cigarette Smoking among Secondary School Students in Nigeria. *Nigerian Postgraduate Medical Journal*, 16(1): 40-5.
- Odukoya, O. O., Odeyemi, K. A., Oyeyemi, A. S. & Upadhyay, R. P. (2013). Determinants of Smoking Initiation and Susceptibility to Future Smoking among School-Going Adolescents in Lagos State, Nigeria. *Asian Pacific Journal of Cancer Prevention*, 14(3): 1747-53.
- Omokhodion, F. O. & Faseru, B. O. (2007). Perception of cigarette smoking and advertisement among senior secondary school students in Ibadan, South Western Nigeria. *Western African Journal of Medicine*, 26(3): 206-9.
- Osibogun, A., Odeyemi, K. & Akinsete, A. (2009). The prevalence and predictors of cigarette smoking among secondary school students in Nigeria. *Nigerian Postgraduate Medical Journal*, 16: 40-45.

20. Osungbade, K. O. & Oshiname, F. O. (2008). Determinants of cigarette smoking among senior secondary school students in a rural community of southwest Nigeria. *Nigerian Journal of Medicine*, 17(1): 40-4.
21. Peltzer, K. & Phaswana, N. (1999). Substance use among South African university students: a quantitative and qualitative study. *Urban Health Development Bulletin*, 2: 36-45.
22. Proctar, R. N. (1996). Nazi medicine and public Health policy. http://www.adl.org/Braun/dim_14_1_nazi_med.asp. Dimensions, Anti-Defamation League. Retrieved 2008-06-01.
23. Redhwan Ahmed Al-Naggar, Sami Abdo Radman Al-Dubail, Thekra Hamoud Al-Naggar, Robert Chen, & Karim Al-Jashamy (2011). Prevalence and Associated Factors of Smoking among Malaysian University Students, *Asian Pacific Journal of Cancer Prevention*, 12(3): 619-24.
24. Sharif, L., Qandil, A. & Alkafajei, A. (2013). Knowledge, attitude and practice of university students towards smoking in Irbid, Jordan, *Journal of Public Health and Epidemiology*, 5(1): 29-36.
25. Strebel, P., Kuhn, L. & Yach, D. (1989). Determinants of cigarette smoking in the black township population of Cape Town. *Journal of Epidemiological Control*, 43: 209-213.
26. Torabi, M. R., Yang, J. & Li J. (2002). Comparison of tobacco use knowledge, attitude and practice among college students in China and the United States. *Health Promotion International*, 17(3): 247-253.
27. US Department of Health and Human Services. (2004). The health consequences of smoking: a report of the surgeon general. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office on smoking and health.
28. World Health Organization. (1998). *Guidelines for controlling and monitoring the tobacco epidemic*. Geneva WHO.
29. Yisa, I. O., Lawoyin, T. O., Fatiregun, A. A. and Emelumadu, O. F. (2009). Pattern of substance use among senior students of command secondary schools in Ibadan, Nigeria. *Nigerian Journal of Medicine*, 18(1): 98-102.