Open Access Journal

Indian Journal of Medical Research and Pharmaceutical Sciences

December 2014; 1(7) ISSN: 2349 – 5340

CIGARETTE SMOKING AMONG FULL-TIME HIGHER STUDENTS OF THE UNIVERSITY OF ABUJA

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Keywords:
Cigarette smoking, University students, Abuja.

Abstract

Background Cigarette smoking is a well documented, common and avoidable cause of morbidities and mortalities among students and young people every year globally. The use of cigarette is on the increase in developing countries like Nigeria. Since students make up a very important segment of the society, it is very important to explore the use cigarette extensively among them.

Methods We investigated the smoking of cigarettes among 3rd and 4th year students from different faculties in the University of Abuja. This was a cross-sectional study in which 600 students were randomly selected to participate. The instruments were made up of a socio-demographic questionnaire and the World Health Organization (WHO) questionnaire for student drug use surveys. Data was analysed using SPSS-16.

Results The lifetime and current prevalence of cigarette smoking were 23.8% and 14% respectively. These were higher among male students, adolescents/ young adults and those from polygamous and/or dysfunctional homes. No significant association was found with tribe, religion or year of study. While students are aware of the harmful effects of smoking, they have difficulties stopping the habit.

Conclusion The rates of lifetime and current cigarette smoking among university students are high. Appropriate measures and interventions have to be instituted to address these issues.

Introduction

Cigarette is among the commonest psychoactive substances used in Nigeria (Ihezue 1988, Adelekan et al 1993, Akindutire and Adeboyega 2012, Daramola 2004, Yakasai 2010, Yusuf 2010). The World Health Organization defines a psychoactive substance as 'a chemical substances that, when taken, has the ability to change an individual's consciousness, mood or thinking processes (WHO, 2004). Young people usually start experimenting with cigarettes before graduating to using other substances (Salaudeen et al, 2011). Factors such as peer pressure, dysfunctional home settings, advertisement and inability to cope with stress have been associated with onset of cigarette smoking. The prevalence of cigarette smoking is increasing in Nigeria and other developing countries with its attendant health and social consequences (Salaudeen et al, 2011). It is estimated that a third of the world population aged 15 years and above are smokers. About 28% of high school and 12% of middle school students reported smoking and the first cigarette was gotten from a friend or relative (Bloch et al, 2005). Some studies in Nigeria have reported smoking rates of 3.4 to 17.1% among secondary school students (Odeyemi et al 2009, Osungbade and Oshiname 2009). A study in Cross rivers state found that 9% of respondents had smoked and this was higher among males (CDC, 2001). An epidemiological survey conducted by the Federal Ministry of Education (Nigeria) among secondary school students showed that 11% of the students were smoking cigarette (FME, 1995). Previous studies on cigarette smoking among university students in Nigeria reported rates of 17 to 40% among this

population (Oyerinde, 2005). However, those are relatively old studies that may not reflect recent trends. In a more recent study among undergraduates of the University of Ilorin, Fawibe and Shittu (2011) found that 7.7% of male and 2% of female respondents were actively smoking cigarette. Also, peer pressure, advertisement and parental smoking were found to be significantly associated with smoking among the respondents. Most smokers had started smoking before age 15 years (Salaudeen et al 2011, Odeyemi et al 2009, Osungbade and Oshiname 2008). Cigarette smoking is considered the most important preventable cause of premature death globally. About 2 million people die from smoking-related diseases annually (WHO, 1998). Lung cancer, chronic obstructive airway disease and coronary heart disease are strongly linked to cigarette smoking (Giovino et al, 1994).

We sought to explore the extent of cigarette smoking among university students and associated factors. University students are important to every nation and their well-being and health are essential to national development. Cigarette smoking is a major threat to their future. Since this can be prevented or their negative effects limited, it is thus important to study the extent of these problems among them.

The general aim of this study is to determine the prevalence of cigarette smoking among students in the University of Abuja.

Specific objectives are to determine the factors associated with smoking among the study population.

Operational definitions

1. Lifetime prevalence – Smoking of cigarette by respondents at any time in their lives to date.
2. 1 year prevalence – Smoking by respondents within the last year before time of interview.
3. Current use – use of the cigarette within the last 30 days.

Methods and materials

Location and participants

The study was conducted at the mini-campus of the University of Abuja, located at Gwagwalada. Abuja is the Federal Capital Territory (FCT) and the capital of Nigeria. It is centrally located and inhabited by a population of about 776,298 people. The University admits students from the Federal Capital Territory and the 36 states of Nigeria as well as the neighbouring countries. It is relatively new; hence only 6 Faculties are fully developed.

Using a multistage sampling, 615 participants were randomly selected from each department of the 6 Faculties. Only full-time students in their 3rd and 4th year of study and who gave consent were selected. The total population of full time students at time of study was 8,307. About 40% of them were in year 3 or 4. Part-time students were excluded because they were considered to have other interests apart from studying and they were more difficult to reach. Year 1 and 2 students were excluded because they were considered new in the university system. Students who refused consent were also excluded from the study.

Ethical considerations

Permission for the study was obtained from the ethics committee and authorities of the University of Abuja. Written informed consent was also gotten from the participants after clear education on the need for the study and their rights to give or refuse consent. All data were handled with strict confidentiality.

Instruments used for the study

A questionnaire was designed for collection of socio-demographic data of the participants. This include biodata, family structure, father's occupation and family status amongst others.

Question 7 of the World Health Organization (WHO) Questionnaire for Student Drug use Surveys was used to collect data on current, 1 year and lifetime cigarette smoking among the participants. This questionnaire has 3 sections and has been used in other studies on psychoactive substance use (Adelekan 1989, Fatoye 1998). These instruments are self administered and were pretested before the commencement of the study.

Procedure of data collection

The authors were all involved in the process of data collection. The authors had initially visited the various faculties and departments for preliminary sensitizations and consents prior to commencement of the study. Participants selected were approached on lecture days in their departments and requested to fill the questionnaires, which took an average of about 10 to 15 minutes to fill. The authors gave necessary assistance when required and double-checked

to ensure adequate information was given. This process was continued till the required sample size was met. The study was commenced in September 2012 and duration of data collection was about 2 months.

Data analysis
Data collected were recorded and analysed using the Statistical Package for Social Sciences version 16 (SPSS-16). Chi-square was used to analyse categorical variables while student's t-test and analysis of variance were used for continuous variables. Level of significance was set at 0.05 and below. Results are presented in charts and tables.

Results

A total of 615 questionnaires were given to the participants but only 600 participants' questionnaires were finally analysed. Fifteen (15) questionnaires were rejected due to poor completion, inconsistent or conflicting data. The response rate was therefore 97.6%. The males were 295(49.5%) while females were 305(50.8%). Their ages ranged between 18-41 years with a total average age of 23.2 ± 3.39 years. The mean age of males was 23.98 years while that of females was 22.45 years. The males were significantly older ($t=5.52$, $p<0.003$). Most of the participants (93.8%) were within ages 18 and 29 years. Christianity was the most common religion (74.5%) and most of the participants (31.5%) were from the North Central geopolitical zone and the FCT. The participants were mostly from monogamous homes (71.8%) and homes in which family relationships are stable and cordial (94.3%). 5.7% were from dysfunctional homes. Five hundred and ninety-three (98.8%) were single or never married. More of the participants (59.4%) had parents with tertiary education and were from either the upper or middle socioeconomic strata based on their fathers' occupation. The socio-demographic information of participants is shown in Table 1.

Table 1: Socio-demographic variables

Variable		Number (n)	%
Gender	Male	295	49.2
	Female	305	50.8
Age group (In years)	18 – 23	276	46.0
	24 – 29	287	47.8
	30 – 35	26	4.4
	36 – 41	11	1.8
Religion	Christianity	447	74.5
	Islam	141	23.5
	Others	12	2.0
Geopolitical zone	NC + FCT	189	31.5
	NE	28	4.7
	NW	54	9.0
	SE	126	21.0
	SW	85	14.2
	SS	118	19.7
Marital status	Single	593	98.8
	Married	5	0.8
	Divorced/separated	1	0.2
	Widow/widower	0	0
	Others	1	0.2
Family background			
Father's education	Primary	60	10.2

	Secondary	93	15.8
	Tertiary	364	61.9
	No formal education	50	8.5
	Don't know	3.6	3.6
Mother's education	Primary	73	12.5
	Secondary	91	15.5
	Tertiary	333	56.8
	No formal education	61	10.4
	Don't know	26	4.8
Father's occupation	Groups 1-5	442	73.6
	Other groups	158	26.4
Family setting	Monogamous	431	71.8
	Polygamous	169	38.2
Family relationship			
Parents separated/divorced/dead parent(s)		22	3.7
Friendly/cordial		559	93.2
Not friendly		12	2.0
Missing data		7	1.1
Financial constraints	Frequent	222	37.0
	Seldom	77	12.8
	Never	282	47.0
	Missing data	19	3.2

Abbreviations: North Central (NC), North East (NE), North West (NW), South East (SE), South West (SW), South South (SS)

The reported lifetime cigarette smoking among the study participants is 23.8% (143), while the rates for smoking in the past year and 30 days are 17% (102) and 14% (84) respectively. Majority of those who smoked cigarette had their first smoke between the ages of 11 and 18 years (Table 2).

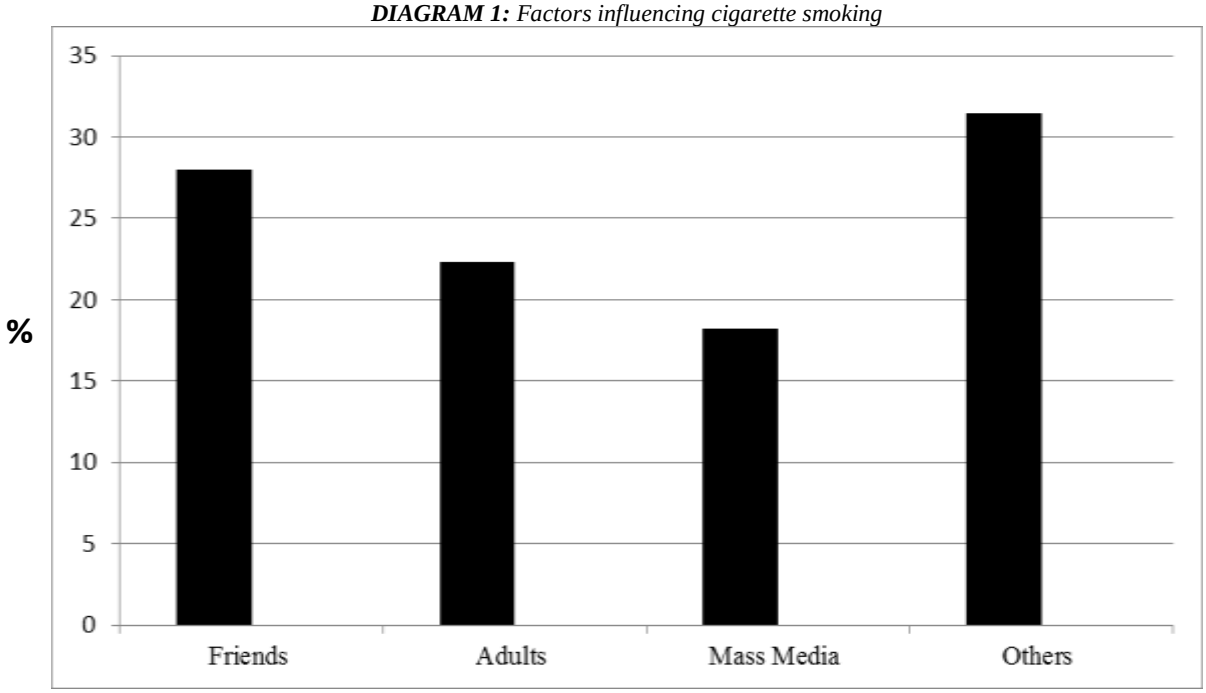
Table 2: Prevalence of cigarette smoking and age at first smoke

Variable	Present N (%)	Absent N (%)	Missing data N (%)
Cigarette smoking			
Lifetime use	143 (23.8)	457 (76.2)	0
Last 1 year	102 (17)	495 (82.5)	3 (0.5)
Last 30 days	84 (14)	504 (84)	12 (2)
Age at 1st smoke (in years)			
Never smoked	457 (76.2%)	N/A	N/A
10 and below	8 (1.3%)	"	"
11 to 18	113 (18.8%)	"	"
19 and above	22 (3.7%)	"	"

N/A – Not applicable

They were influenced into cigarette smoking mostly by friends (28% and 33%), watching adults (22.3% and 26%) and mass media (18.2% and 19%) respectively, amongst others (Diagram 1).

DIAGRAM 1: *Factors influencing cigarette smoking*



KEY:

Cigarette

Current cigarette smoking is highest among males and those from polygamous or dysfunctional homes (Table 3). It is also highest among age group 18 to 23 years compared to other age groups (Table 4). No significant association was found between current smoking and marital status, geopolitical origin, religion, participants' year of study or faculty. However, participants in the faculty of social sciences reported the highest current cigarette smoking among all the faculties.

Indian Journal of Medical Research and Pharmaceutical Sciences
December 2014; 1(7) ISSN: 2349 – 5340

Table 3: Gender prevalence of cigarette smoking.

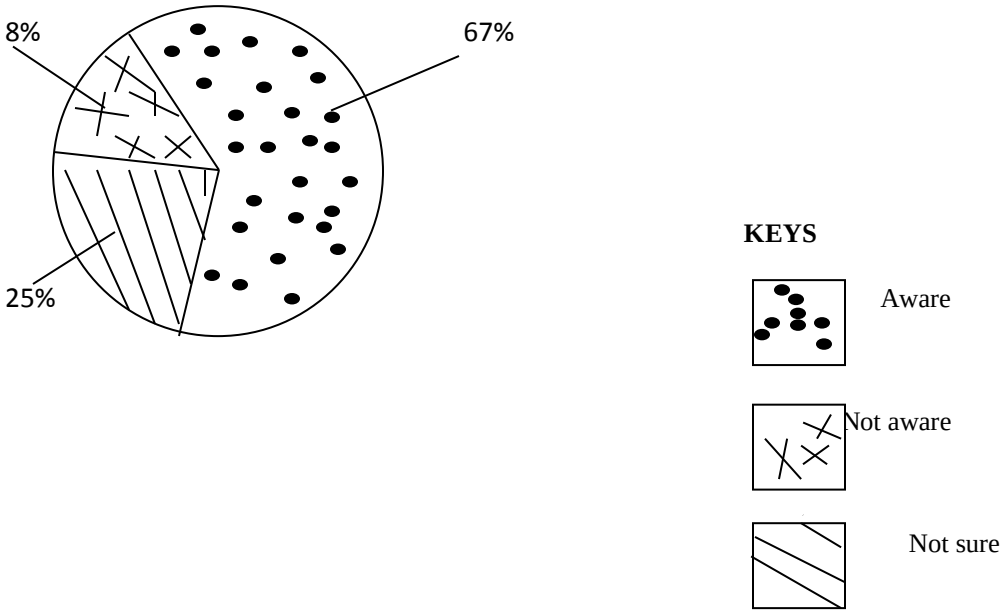
Variable	Present N(%)	Absent N(%)	Missing data N(%)	Chi-square
Lifetime cig. Smoking				p=0.002
Males	115(19.2)	180(30)	-	
Females	28(4.6)	277(46.2)	-	
Current cig. Smoking				p=0.005
Males	71(11.8)	220(36.6)	4(0.7)	
Females	13(2.2)	284(47.4)	8(1.3)	

Table 4: cigarette smoking among age groups.

Age group (years)	Lifetime use N (%)		Current use N (%)	
	Yes	No	Yes	No
18 – 23	78(13)	198(33	45(7.5)	231(38.5)
24 – 29	59(9.8)	228(38)	33(5.5)	254(42.3)
30 – 35	4(0.7)	22(3.7)	5(0.8)	21(3.5)
36 – 41	2(0.3)	9(1.5)	1(0.2)	10(1.7)
p=	0.012		0.043	

Majority of those who have ever smoked cigarette (67%) are aware of some of the harmful effects; majority of current users' are willing to stop but find it difficult (54.7%) (Diagrams 2 and 3).

Diagram 2: Awareness of Harmful effects of cigarette smoking.



Discussion

The data showed that there were more female than male participants. This reflected the proportion in the total students' population. This is contrary to other studies on substance use among students in tertiary institutions which showed male dominances in populations (Daramola 2004, Onofa 2006). The admission policy of the university could account for this difference. The lifetime and current prevalence of cigarette smoking were found to be 23.8% and 14%. These are similar to those reported by some studies (Bloch et al 2005, CDC 2006) but lower to another (Salawu et al, 2008). The differences in the rates of use of these substances could be due to differences in methodologies and study populations. These figures indicate high rates of use of cigarettes among students of higher learning. Current smoking of cigarette was higher among males. Several studies have also reported higher prevalence of cigarette smoking among males (CDC 2006, Salawu et al 2009, GYTSCG 2003, Adebiyi et al 2010). Males are generally more adventurous and likely to experiment with substances than females. Most respondents smoked for the first time between the ages of 11 and 18 years. Similar ages of onset have also been previously documented (Salawu et al 2009, Adebiyi et al 2010, Awopeju et al 2014). This is the age of adolescence most people are very active, energetic and seeking new experiences. Adolescents are also prone to external influences as we found that most of them were influenced into using smoking by friends or watching adults who smoke (Akindutire and Adeboyega 2012). This therefore emphasizes the importance of promoting positive influences especially on adolescents. Current smoking of cigarette was found to be highest among those aged 18 to 23 years. This was also reported in other surveys previously mentioned (Salawu et al 2009, Adebiyi et al 2010).

Participants from polygamous homes and dysfunctional families were found to be smoking cigarette more than those from monogamous and/or stable families. Another study had found higher rates of smoking among students from polygamous, unstable or broken homes than those from monogamous or stable homes with cordial family relationship (Essien 2010, Fatoye 1998). It is easily appreciated that children from monogamous and stable homes are likely to receive more care and attention than those from polygamous and dysfunctional homes who are exposed to diverse influences. No significant difference was found in the rates of current cigarette smoking between the 3rd and 4th year students. It could be because both share almost similar campus exposures and experiences. Perhaps there may be differences between them and students at lower levels. This has to be further explored. Current cigarette smoking was highest among students in the faculty of Social Sciences. Majority of students who had smoked or are still smoking are aware of some of the major harmful effects. Most of the students also report to have difficulties stopping the habit.This underscores the importance of studying the extent of cigarette smoking among students with the aim of instituting relevant and appropriate interventions to help them.
The limitations of this study are that it was restricted to only full time and 3rd/4th year students. However, the reasons for these have been stated. The findings are reflective of what obtains among university students.

Conclusion and recommendations

Cigarette smoking is very common among students, especially in universities and other higher institutions all over the world. The trends are increasing in Nigeria and other developing countries. Also students have difficulties stopping habitual smoking. In view of the well-documented and avoidable morbidities and mortalities associated with the use of cigarette, it is important to extensively study this so as to have comprehensive data to enable planning and implementation of appropriate programmes and interventions to protect and improve the health and well-being of these students. It is also recommended that mental health and counselling programmes be incorporated into the universities health care system to cater for these needs.

Competing interests

The authors declare that they have no competing interest.

Authors' contributions

Both authors contributed at all stages in the conceptualization and conduct of the study. Specifically, UIU initiated the study and did the preliminary literature search and methodology. CUE did the data collation and analysis. Both read through and approved the final manuscript.

Acknowledgement
The authors wish to thank all participants and the authorities of the University of Abuja for their roles in making this study possible.

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