Cigarette Smoking and Quitting among Young Adults In Enugu, Nigeria.

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SUMMARY

Background: Research on the dynamics of cigarette smoking and cessation though scarce in Nigeria are needed for successful tobacco control. The study evaluated cigarette smoking and quitting among young adults in Enugu, Nigeria.
Methods: This was a cross sectional questionnaire-based survey undertaken in March 2007. There were 714 study aged 18-35years selected using a 3-stage cluster sampling method.
Results: The current cigarette smoking prevalence among respondents was 150(21.0%) in all, 133(35.4%) in males and 17(5.0%) in females while the proportion of daily cigarette smokers were 83(11.6%) in all, 75(19.9%) in males and 8(2.4%) in females. Predictors of current smoking included the male sex, being aged more than 23 years and having a low perception of tobacco harm. The majority of current smokers desired 94(63.5%) and attempted 90(60.0%) to quit smoking but many 101 (67.3%) expressed the need for assistance. Among the past smokers, the popular reason for stopping smoking was health concerns 44 (59.4%). Nicotine patch was the only assisted cessation method used by one person (1.9%). Among lifetime smokers, the predictors of quitting were the female gender and a higher perception of tobacco harm.
Conclusion: *In the study environment, cigarette smoking is a problem especially among males older than 23 years but assisted tobacco cessation methods are scarce and should be provided for smokers. Raising awareness of tobacco harm will prevent cigarette smoking and enhance cessation.*
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INTRODUCTION

Tobacco continues to be used globally despite the accumulating evidence of the damaging effects of tobacco on health. Estimates indicate that nearly 1.1 billion of the world population use tobacco and 73% of users reside in developing countries. Also, an annual 5 million deaths is attributed to tobacco making it the 2nd leading cause of mortality among adults

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worldwide. The number of tobacco users is predicted to rise to 1.66 billion by 2025 while tobacco-associated mortality will double in the same period. There are considerable regional differences in tobacco use globally with the Asian region harbouring the greatest number of users while the African region has the smallest number of users. With litigation problems and other constraints leading to dwindling finances for tobacco companies in developed countries, their marketing focus has shifted to Africa where control efforts are still in their infancy. Concerted efforts need to be made to counter this exportation of the tobacco epidemic to Africa. There is also, an association between tobacco and poverty and poorest households in low income countries have been reported to use as much as 10% of their income on tobacco thereby reducing the money that would have been spent on food and other basic items.[1-4]

Smoking cessation has significant immediate and long term health benefits. People who quit smoking before the age of 35 years have the same life expectancy as never smokers. Cessation programmes are therefore an important strategy in tobacco control.[5-6]

To effectively organize and monitor tobacco control activities, prevalence studies and the dynamics of tobacco use and cessation in different population subgroups need to be undertaken in various settings in the country. A 1990 nationwide survey of tobacco use among adults in ten Nigerian cities reported a tobacco use prevalence of 15.4% in males and 1.7% in females [7]. A 2003 nationwide survey of women of child bearing age reported a tobacco use and cigarette smoking prevalence of 1.1% and 0.5% for women aged 15-49 years old. [8]
Tobacco cessation programmes are however scarce in Nigeria.

The present study evaluates cigarette smoking and cessation factors among young adults in Enugu city.

METHODOLOGY

Enugu city has a projected 2007 midyear population of 688,800 adults residing within a land area of 85 km[2]. The literacy rate is over 86% and main occupations are government service and trading. There are 52 secondary schools, 6 higher educational institutions and more than 284 health facilities in the town. Three tobacco companies have their depot in the city.

The study design was cross-sectional and a threestage cluster sampling method was used to select study respondents. The minimum sample size for the study was calculated as follows;

$$n = \frac{Z^2 P(1-P)}{d^2}$$

Z = 1.96 (confidence level of 95%)
P = 0.22 (current tobacco use from the Cross River study)
d = tolerable error is 0.05
Cluster design effect = 2
Minimum sample size is 528

In the 1st stage sampling, 1 of 3 Local Government Area in the town was selected randomly. In the 2nd stage, 24 of the 565 census enumeration areas in the chosen LGA were selected randomly. In the 3rd stage sampling, all consenting adults aged 18 35 years residing in every third house were studied. Visitors and non consenting adults were excluded from the study. The survey was conducted in March 2007. The survey instrument was a 30 item questionnaire which was interviewer administered for illiterate respondents and self administered for the literate respondents. Information sought in the questionnaire included; respondents' age, sex, marital status, educational level attained, occupation, perception of tobacco- associated health harm, tobacco use and cessation history. To ensure reliability of data, questions were pretested for clarity and respondents were assured of the confidentiality of information given. Also, identity markers like names and addresses were not requested for in the questionnaire.

Data was entered with Epi-Info version 3.4.4 and analysed with SPSS version 15 soft wares. Chi-square and ANOVA were used to test the significance of findings at 95% confidence limits.
In this study, the following definitions were used:
Lifetime smoker refers to someone who had smoked cigarette at least once in a lifetime.
Never smoker is someone who had never smoked a cigarette.
Past smoker is someone who used to smoke cigarettes in the past but do not smoke any more.
Current smoker is someone who smoked cigarette within the 30 days prior to the survey.
Non-smoker is someone who at the time of survey does not smoke cigarettes at all.
Daily smoker refers to a daily use of cigarettes at the time of study.
Occasional smoker refers to current use of cigarettes that is not daily.

RESULTS

A total of 750 questionnaires were distributed and retrieved but 36 were discarded due to incomplete filling or inconsistencies in response thus leaving 714 questionnaires for analysis. They were 377 male and 337 female respondents who were aged between 18 and 35 years of age. The majority 595(83.3%) were single, 684(95.9%) had completed at least a primary education and 391(54.8%) were schooling in either a secondary or tertiary educational institution. *Never smokers* constituted 492(68.9%) of the survey respondents and *past smokers* were 74(10.4%) while *current smokers* were 150(21.0%) in all. Up to 83(11.6%) of survey respondents smoked cigarettes on a daily basis while 67(9.4%) used cigarettes occasionally.

By gender, males significantly smoked more than females in the past, currently, daily and occasionally while females were over represented among never smokers. The mean number of cigarettes consumed per day by daily smokers was 9.0±6.5 in all, 11.2±5.0 for males, and 9.0±6.5 for females, and gender p value was 0.328. Up to 25(16.7%)

of current smokers also use other tobacco products. A majority of the study respondents perceive tobacco use as harmful to health and females had a higher perception than males: 564 (79.0%) for all, 285(75.6%) for males, 279(82.8%) for females and gender comparison p-value was 0.000. See table 1.

There were variations in cigarette smoking prevalence with other population characteristics as shown in Table 2. Non-smokers were relatively younger and found more among the 18-23 year olds while current smoking was associated more with those aged 24years and above. Current smokers were more likely to be ignorant or uncertain of the damaging effects of tobacco use while non-smokers had a higher perception of tobacco harm.
Among current smokers, 94(63.5%) would want to stop smoking altogether while 90(60.0%) tried to quit smoking in the previous year but 101(67.3%) believe external help is needed for one to achieve smoking cessation. The majority of past smokers 44(59.4%) discontinued the habit of smoking cigarettes because of health concerns and different combination of quitting methods was used to achieve cessation. However, having the self will to refuse buying cigarettes was reportedly the most popular quitting method used by 34(45.9%) past smokers. Up to 18(34.0%) of males and 3(13.6%) of females used it alone to achieve cessation. The above quitting factors did not vary

Table 1: Percentage of Young Adults by Cigarette Smoking Characteristics

Background charac-teristics of smokers	Male No (%)	Female No (%)	Total No (%)	Gender p-value
Cigarette use status:				0.000
Past smokers	53(14.1)	21(6.2)	74(10.4)	
Current smokers	133(35.3)	17(5.0)	150(21.0)	
Never smokers	191(50.7)	298(88.8)	489(68.7)	
Frequency of smoking:				0.000
Daily smokers	75(19.9)	8(2.4)	83(11.6)	
Occasional smokers	58(15.4)	9(2.7)	67(9.4)	
Non smokers	244(64.7)	320(95.0)	564(79.0)	
Total respondents	377(100)	337(100)	714(100)	

Table 2: Predictors of Smoking Among Young Adults in Enugu

	Non-smoker No (%)	Current smoker No (%)	Total No (%)	P-value
Sex:				0.000
Male	244(43.3)	133(88.7)	377(52.8)	
Female	320(56.7)	17(11.3)	337(47.2)	
Age group (years):				0.031
18-23	247(43.9)	48(32.0)	295(41.4)	
24-29	231(40.9)	74(49.3)	305(42.7)	
30-35	86(15.2)	28(18.7)	114(15.9)	
Perception of tobacco harm:				0.000
Yes	458(81.2)	106(70.7)	564(79.0)	
No	13(2.3)	18(12.0)	31(4.3)	
Don't know	93(16.5)	26(17.3)	119(16.6)	
Total respondents	565(100.0)	150(100.0)	714(100.0)	

significantly by gender. See table 3.
The lifetime cigarette smokers were 224(31.1%) in all, 186 males and 38 females. Age was not a predictor of quitting unlike gender and perception of tobacco harm. Females were more likely to quit smoking when compared to males (55.3% vs 28.5%). Those that perceive tobacco use as harmful quitted smoking at a higher rate than those who are uncertain or ignorant of tobacco harm (38.0% vs 18.8% & 14.3%). See table 4.

Table 3: Proportion of Young Adults by Quitting Factors.

Cessation factors	Male No (%)	Female No (%)	Total No (%)	Gender p-value
Current smokers who desire to quit smoking	86(65.6)	8(47.1)	94(63.5)	0.160
Current smokers who attempted quitting last year	82(61.7)	8(47.1)	90(60.0)	0.250
Current smokers who needs help to stop smoking	86(64.7)	15(88.2)	101(67.3)	0.051
Past smokers reason for cessation:				0.130
Health concern	35(66.1)	9(42.9)	44(59.4)	
Religious basis	5(9.4)	4(19.0)	9(12.2)	
Family & friends request	5(9.4)	4(19.0)	9(12.2)	
Dislike the taste	4(7.5)	2(9.5)	6(8.1)	
Not beneficial	2(3.8)	2(9.5)	4(5.4)	
To save money	2(3.8)	-	2(2.7)	
Past smokers quitting methods:				
Stopped buying cigarettes	28(56.6)	6(28.6)	34(45.9)	
Avoided smoking friends & places	9(17.0)	4(19.0)	13(17.6)	
Family & friends support	8(15.1)	4(19.0)	12(16.2)	
Prayers	7(13.2)	4(19.0)	11(14.9)	
Gradual reduction of cigarettes used	3(5.7)	-	3(4.1)	
Nicotine patch	1(1.9)	-	1(1.9)	
Others	8(15.1)	6(28.6)	14(18.9)	

Table 4: Predictors of Quitting Among Lifesmokers in Enugu.

	Current smoker No (%)	Past smoker No (%)	Total No (%)	P-value
Sex:				0.002
Male	133(88.7)	53(71.6)	186(83.0)	
Female	17(11.3)	21(28.4)	38(17.0)	
Age group:				0.147
18-23	48(32.0)	28(37.3)	76(33.8)	
24-29	74(49.3)	28(37.3)	102(45.3)	
30-35	28(18.7)	19(25.3)	47(20.9)	
Perception of tobacco harm:				0.013
Yes	106(70.7)	65(87.8)	171(76.3)	
No	18(12.0)	3(4.1)	21(9.4)	
Don't know	26(17.3)	6(8.1)	32(14.3)	
Total respondents	150(100.0)	74(100.0)	224(100.0	

DISCUSSION

Comparing study results to reports from respondents of similar age bracket in other countries, the cigarette smoking prevalence obtained for the males were lower than that obtained for males in Kuwait [9] but comparable to the 35% reported for Argentina males [10] but higher than the 25% for United States males[11]. The females smoking rates remained lower than what was obtained for females in these countries. Within the country, the measured prevalence and consumption pattern in the study area was higher than what was reported for both males and females of similar age at national level in 1990 and 2003 [7, 8]. These are alarming indications of increasing use of cigarettes by young adults in Enugu over the recent years. The advertising, promotional and marketing practices of cigarette companies in the study area may be behind this increasing trend in cigarette use and should be monitored and checked. The observed greater use of cigarettes by males has been noted in most countries of the world and the reported lower perception of tobacco harm by males in the study environment may be contributory. [11]

Quitting desire and attempts among current smokers in Enugu could be compared to reports from many states in the USA but higher than what was reported in the Kuwait and Argentina studies. Just like in most countries, one-third of lifetime smokers had quit smoking in the study area and mostly for health concerns. And 98% of them achieved cessation on their own by just refusing to buy cigarettes. However in the United States, gradual decrease in the number of cigarettes was the preferred option for unassisted cessation. Assisted cessation is comparatively very low in this environment and other developing countries unlike what was reported in developed countries like United States. The reason may be the absence of the necessary skills and facilities in health care institutions in the area and unfortunately a third of current smokers expressed their need for assisted cessation. [9-13]

CONCLUSION

In the study environment, cigarette smoking is a problem among a third of survey respondents more especially the males, those aged 24-35years and those with lower perception of tobacco harm. Up to two-thirds of smokers desired and attempted to quit smoking and also expressed a need for assistance. A third of lifetime smokers achieved cessation on their own and the majority mostly for health concerns. Assisted smoking cessation method in the form of nicotine patch was used by only one person. Raising awareness of tobacco harm could prevent smoking and enhance cessation in the area while proven smoking cessation methods should be provided for smokers.

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