

Original Research Article

CURRENT PREVALENCE OF CIGARETTE SMOKING AMONG ADULTS AT A TERTIARY HOSPITAL IN SOUTH EAST NIGERIA.

ABSTRACT

Purpose: The objective of this study is to ascertain the current prevalence of smoking among the adult patients presenting at the outpatient department of Federal University Teaching Hospital, Owerri, Imo state to enable access the impact and effectiveness of the current anti-smoking measures. **Methodology:** a cross-sectional study was conducted on consecutive patients aged 18 years and above from February to March 2023. Patients data were collected using interview administered questionnaire. **Results:** Six hundred and forty three patients (427 males vs 216 females) were enrolled in the study. The prevalence rate of smoking in the study population is 10.3%, with majority of male smokers 87.9% compared to female smokers 12.1%. Self employed patients and students accounted for majority of the smokers while there was no pensioner or housewife that smoked. **Conclusion:** The prevalence of smoking in the study population is still very high, hence, the need for more active measures to enforce smoking cessation.

Keywords: Cigarette smoking, Adults, Tertiary Hospital, Nigeria

1.1 Introduction. Tobacco smoking is adjudged to be one of the commonest risk factors of chronic medical conditions like diabetes mellitus, chronic obstructive airway disease and cardiovascular diseases including cancers in the world and ironically it is preventable.¹ It is responsible for more than 7 million deaths worldwide with secondhand smoking accounting for 10% of the deaths.² Among the 1.2 billion smokers worldwide, 80% live in low and medium income countries where there are suboptimal medical resources to take care of tobacco related illnesses.³

Comment [U1]: anti-smoking

Comment [U2]: Recast; the phrase "to enable access the impact and effectiveness of the current anti-smoking measures" did not make much sense in the context in which it was used.

Comment [U3]: cross-sectional

Comment [U4]: forty-three

Comment [U5]: self-employed

Comment [U6]: what about occupation, gender and marital status

Comment [U7]: recast the sentence

32 With the unrestricted and non-regulated use of tobacco products, tobacco could kill over
33 1 billion people in the 21st century^{4,5}. It is estimated that 100 million premature deaths
34 occurred globally in the 20th century, due to tobacco smoking. Equally, tobacco
35 smokers are believed to lose one decade of their life expectancy, when compared to
36 people who have never smoked⁶.

37 Though global current smoking rates among adults decreased from 23.5% to 20.7%
38 between 2007 and 2015⁴, this reduction was largely due to the declining smoking rates
39 in Northern and Western Europe, North America and the Western Pacific regions^{3,7},
40 where considerable measures have been implemented to tackle tobacco smoking.
41 However, smoking rate appears to be increasing in the Middle East and Africa. In sub-
42 Saharan Africa, the consumption of tobacco increased by 57% between 1990 and
43 2009⁷.

44 Nigeria is one of the largest country in Africa with a big tobacco market and
45 domesticated the convention agreement in 2005. Nigeria equally legalized the National
46 Tobacco Control (NTC) Act in 2015 which seeks to regulate all aspects of tobacco
47 control including advertising, packaging and smoke-free areas². In spite of all these, the
48 rate of smoking is still increasing by 4% annually by some reports⁸.

49 In the latest systemic research and meta analysis done by Adeloye et al, across 64
50 studies (n = 54,755), the prevalence of current smokers ranged from 1.2% recorded in
51 Yaba Lagos, South-west Nigeria in 2015⁴⁴, to 55.5% in Amassoma Delta State, South-
52 south Nigeria. Also in 2015⁶⁹, the pooled crude prevalence of current smokers in
53 Nigeria was 10.4% (95% CI: 9.0– 11.7). The pooled crude prevalence of current
54 smokers in Nigeria was 10.4% (9.0-11.7) and 17.7% (15.2-20.2) for ever smokers.
55 This is higher among men compared to women in both groups. There was considerable
56 variation across geopolitical zones, ranging from 5.4% (North-west) to 32.1% (North-
57 east) for current smokers, and 10.5% (South-east) to 43.6% (North-east) for ever
58 smokers. Urban and rural dwellers had relatively similar rates of current smokers (10.7
59 and 9.1%), and ever smokers (18.1 and 17.0%).⁹

Comment [U8]: systematic

Comment [U9]: meta-analysis

Comment [U10]: Year of publication required

Comment [U11]: no reference was listed as 44

Comment [U12]: no reference was listed as 69

60 It will be necessary to ascertain the current prevalence of smoking to get the current
61 trend considering the efforts by the Government to curtail the rate of smoking in our
62 environment. Most of the reported studies in our South East region of Nigeria were either
63 among university students or adolescents. There have been no recent studies on the
64 prevalence of smoking among adult patients in our locality and this study will enable us
65 appreciate the current picture of cigarette smoking among the adult population to enable
66 us access the effectiveness of the interventions thus far to reduce the rate of cigarette
67 smoking in Nigeria.

68 1.2 METHODOLOGY

69 In February 2023 we carried out a cross-sectional study among 643 consecutive newly
70 registered adults that presented to our general outpatients at Federal University
71 Teaching Hospital, Owerri, Imo State. We excluded patients with physical and
72 neurocognitive disorders and those that are more than 80 years of age.

73 Well trained assistants administered the questionnaire to the respondents which among
74 other questions requested them to confirm if they are currently smoking cigarette.
75 Informed consent was obtained from the respondents.

76 The hospital ethics committee approved the study.

77 Statistical Analysis

78 All the data was analyzed using using SPSS version 9 results are represented in
79 frequencies and percentages.

80

81 1.3 Results

82 Our sample size is 643. There are 387 (60.2%) females and 256 (39.8%) males in the
83 study group. The male to female ratio is 1:1.5

Comment [U13]: provide more information about the items on the questionnaire, some of which can be found in the result section e.g. occupation, gender, marital status

Comment [U14]: delete; unnecessary repetition

Comment [U15]: identify that the results are contained in Table 1

84 A total of 643 respondents were studied, only 66 are smokers giving us an overall
85 prevalence rate of 10.3%. Among the 66 respondents that are smokers, 58 are males
86 while 8 are females giving a prevalence rate of 87.9% and 12.1% respectively (table 2).

87 In the occupational distribution of the population (table 3), businessmen accounted for
88 the majority of the respondents (28%), closely followed by students (24.3%) and self
89 employed people (18.7%) while the least are housewives (5.7%) followed by
90 pensioners (7.6%).

91 Self employed people have the highest rate of smoking (45.5%) followed by
92 students (27.3%) while none of the housewives and pensioners smoked.

93 Among the 643 respondents, 427 (66.4%) are married while 216 (33.6%) are single. The
94 prevalence of smoking among the married respondents is 48 (72.7%) while 18 (27.3%) of
95 the unmarried respondents smoke (table 4).

Comment [U16]: self-employed

96
97 **Table 1. Rate of smoking among the study population**

Smoking	Frequency	Percentage
No	577	89.7
Yes	66	10.3
Total	643	100

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106 **Table 2. Sex distribution of smoking habit amongst the sampled population.**

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Gender	Not smoking (%)	Smoking (%)	Total (%)
Male	379 (65.7)	8 (12.1)	387 (60.2)

108

109

110

Female 198(34.3) 58(87.9) 256(39.8)

Total 577(100) 66(100) 643(100)

111

112 **Table 3. Occupational distribution of the population and cigarette smoking**
113 **prevalence**

Occupation	Number not smoking(%)	Number smoking(%)	Total(%)
Business	168(29.1)	12 (18.2)	180(28.0)
Civil servant	96(16.6)	6(9.1)	102(15.9)
House wife	36(6.2)	0	36(5.6)
Pensioner	49(8.5)	0	49(7.6)
Self-employed	90(15.6)	30(45.5)	120(18.7)
Student	138(23.9)	18(27.3)	156(24.3)
Total	577	66	643

114

115

116 **Table 4. Marital status and smoking**

Marital Status	Not Smoking(%)	Smoking(%)	Total
Married	379(65.7)	48(72.7)	427(66.4)
Single	198(34.3)	18(27.3)	216(33.6)
Total	577	66	643

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121 **1.4 Discussion**

122 This article examined the prevalence rate of smoking and some related factors among
123 the patients attending the outpatient at our hospital.

124 The prevalence of cigarette smoking is 10.3%,this is almost the same, 10.5% reported
125 for South East region of Nigeria in a pooled prevalence by Adeloje et al in 2015⁹. A
126 study in Vietnam among outpatient attendees reported a prevalence rate of 18.6%¹⁰. A
127 closer study amongst our undergraduates in Imo state reported a prevalence rate of
128 27%¹¹. Our reported prevalence rate(10.3%) is surprisingly higher than the prevalence
129 rate of 9.2% reported in a population based study in the commercial city of Lagos,
130 Nigeria¹²

Comment [U17]: Adeloje et al (2015) was not listed;

131 In our study, the prevalence of smoking is higher among males(87.9%) compared to
132 females(12.1%). This is very consistent with almost all previous reports^{9,10,13}. This may
133 be due to sociocultural reasons.

134 In this study, businessmen and students recorded the highest rate of smoking while
135 pensioners and housewives recorded the least. Most students are adolescents and a
136 study done in our state reported a relatively high prevalence of 27% among our
137 undergraduates. An amazing high rate of 29.6% was however reported in a community
138 based study in Imo state.¹⁴ Most of other studies reported a relatively higher prevalence
139 of smoking among the youths. Interestingly, none of the housewives and pensioners
140 smoke cigarette possibly because the housewives are dependent on their husbands
141 fully while most of our pensioners are really not getting their regular pensions
142 anymore,hence, socioeconomic reasons may account for the findings.

Comment [U18]: Discuss why students recorded higher smoking rate than housewives/pensioners, was it because of peer pressure? Like housewives most Nigerian students lack economic empowerment. yet 27.3% of students smoked whereas none of the housewives did. Make further attempt to discuss the results

143 There are more married smokers than single smokers.

144

145 **Study Limitations.**

146 First, our participants were selected from a single outpatient clinic in our hospital at
147 Owerri, Imo State.

148 Secondly, the patients were selected on a convenience basis. This could result in
149 selection bias.

150 Thirdly, we used a nonprobability technique, and therefore cannot be generalized
151 beyond the study population.

152 Finally, a cross-sectional study design was used to analyze the association between
153 smoking and its associated factors.

154 This study, however, provided useful data concerning smoking and its associated
155 factors among adult patients attending an outpatient clinic in south east, Nigeria.

156

157 **Conclusion**

158 The prevalence of smoking among the population is very high. While the prevalence of
159 smokers may seem to be declining in Nigeria, one out of ten Nigerians still smokes
160 daily. There is need for comprehensive measures and strict anti-tobacco laws targeting
161 tobacco production and marketing. Our study highlights the need for more active
162 measures to enforce smoking cessation .

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Comment [U19]: many of the references cited and listed are not recent; it's advisable to use recent references, those published in the last 5 years.

Comment [U20]: This reference was cited as 2015

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