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**SMOKING PREVALENCE AND KNOWLEDGE ABOUT ITS HEALTH**

**IMPLICATIONS AMONG HEALTH CARE PROFESSIONAL STUDENTS IN EKITI**

**STATE, SOUTH-WESTERN NIGERIA**

**ABSTRACT**

**Aims:**

This study examined smoking prevalence and knowledge about its health implications among health care professional students in Ekiti State, South-Western Nigeria.

**Theoretical framework:**

The Precede-Proceed Model was the theoretical framework for the study.

**Methodology:**

The research design for the study was quantitative. The sample size was determined using the rule of thumb. Simple random sampling technique was used in choosing the participants and sampling techniques was purposive and convenience. Self-developed questionnaire was the instrument used for data gathering. Data from the study was analyzed using both descriptive and inferential statistics.

**Results:**

The findings revealed that 21.6% of the participants have ever smoked cigarette and the majority (77.3%) smoked daily while 89.7% of the participants indicated that they smoke less than 10 cigarettes stick a day and 6.9% smoked more than 30 sticks daily. One-third (34.4%) of the participants commenced smoking between the age of 18 to 21 years while 27.6% between age 16 to 17 years. Almost half (45.2%) of the participants were introduced to cigarette smoking by their peers. The majority (55.0%) of the participants get their cigarette supply from friends while 35.0% normally buy from the shops. Almost all (99.1%) of the

27 participants are aware of the health risks that are associated with cigarette smoking, almost all  
28 (99.1%) and 81.8% of the participants indicated lung cancer while the remaining 18.2%  
29 highlighted cancer of the bladder. Also, 93.6% indicated that there was no tobacco treatment  
30 centre in their institution.

31 **Conclusion:**

32 The study recommended that Nurses and Midwives should ensure that comprehensive  
33 individual and group education is done in the clinics and during school health visits, to  
34 increase adolescents' knowledge regarding the health effect of cigarette smoking.

35 **Key words:** knowledge, smoking prevalence, health effects,

36

37 **INTRODUCTION**

38 Globally, between 82,000 and 99,000 young people start smoking everyday [1]. Smoking can  
39 cause many health effects including various types of cancers, cardiovascular disease as well  
40 as respiratory disease, and it can also impose a significant financial and social burden on the  
41 society. Therefore smoking prevention remains an important public health concern [1].

42 Tobacco smoking is one of the leading causes of diseases and death, between 1950 and 2000  
43 approximately 70 million people died from tobacco use [2]. The smoke from tobacco  
44 contains nicotine and harmane which is a monoamine oxidase (MAO) inhibitor, and the  
45 combination of both result in addictive stimulant and euphoriant properties [2].

46 Cigarette smoke is a complex mixture of chemicals produced by burning tobacco and the  
47 additives, its contains tar, which has more than 4,000 chemicals and many of these chemicals  
48 are known to cause cancer. Thus, cigarette smoking can result in many fatal respiratory  
49 disorders such as chronic obstructive lung disease (emphysema and chronic bronchitis),  
50 ischaemic heart disease, and various types of cancers such as lung, bladder, upper respiratory  
51 tract and pancreatic [3].

52 Globally, during the last two decades cigarette production has increased at an average of  
53 2.2% each year, out spacing the population growth rate of 1.7% [2]. The prevalence of  
54 smoking in Nigeria is reported to be 8.9% in the general population [2]. However, the  
55 distribution of smoking is not the same across all strata of the society. It varies from 7.7%  
56 among female secondary schools, 17.1% among secondary school students, 17.7% among  
57 health professional students, and 37.9% among the general population in northern part of the  
58 country [4].

59 According to Awopetu *et al.* [2], health-care professionals represent an important part of the  
60 population as they are the care providers, who are expected to advance the anti-smoke  
61 message to the general public. Therefore, health care providers who indulge in smoking are  
62 regarded as poor example of people who are promoting positive health behaviours and they  
63 have the potential to unintentionally affect the smoking behaviours of others through  
64 modelling. It was estimated that about 70% of smokers visit physicians each year with  
65 substantial opportunity to influence smoking behaviour. Medical advice to quit smoking can  
66 produces a year abstinence rate of up to 5-10%, which would have a significant public health  
67 impact if it were provided. However, there are many barriers that are responsible for the  
68 reduction in the effectiveness or willingness of health care professionals to provide patient  
69 counselling and they include, time constraints during consultation as well as the smoking  
70 status of the health care professional [1].

71 Abdalla *et al.* [5], indicated that smoking is a real problem among medical students  
72 irrespective of the level in which they are enrolled. Smoking often starts in early adolescence  
73 and addiction can occur rapidly [1]. Smoking is socially patterned, with high smoking  
74 prevalence among people of low socio-economic status, smoking is the leading cause of  
75 health inequalities. Addressing inequalities in tobacco use is therefore a public health priority  
76 [1]. The health consequences of cigarette smoking can be slow, gradual, or cumulative.

77 Tobacco smoke is mild enough to be inhaled in an overdose quantities and its addiction has  
78 historically been one of the hardest addictions to break. Although the hazards of smoking are  
79 well-known, the number of smokers among adolescent students is still high. Factors  
80 influencing adolescent students to smoke include their socio-economic status, the  
81 environment and having parents, siblings or friends who smoke [1, 6].

82

83 The adverse effect of tobacco smoking on health has been established and on an average,  
84 cigarette smokers die ten years younger than non-smokers [7]. There is increasing evidence  
85 that contact with smokers, particularly family members increases ones risk of smoking.  
86 Moreover, the health impact of smoking will be more among adolescents of today due to the  
87 early initiation of smoking as well as in the case of adolescents who smoke during adulthood  
88 and adolescents who have become habitual smokers due to long term use and these  
89 adolescents are more likely to develop cancer and cardiovascular diseases [7].

90 Efforts to delay or prevent children from smoking is necessary because the earlier a child  
91 starts to smoke the less likely they are to quit the habit as adult, and the more likely such a  
92 person dies prematurely from smoking related diseases [1]. Ebirim et al, [6] stated that  
93 despite the growing problem of global cigarette use, accurate information on the prevalence  
94 as well as the pattern among Nigerian adolescents remains sparse. Hence, the study seeks to  
95 assess the knowledge of medical students towards the health implications of tobacco smoking  
96 and to determine the prevalence and their attitude towards tobacco smoking. The findings of  
97 the study will depict the factors predisposing medical students towards smoking and also  
98 create awareness in promoting attitudinal change towards tobacco smoking.

### 99 **Theoretical framework**

100 The Precede-Proceed Model [8] was the theoretical framework for the study. Precede-  
101 Proceed model provides a comprehensive structure for assessing health and quality-of-life. It

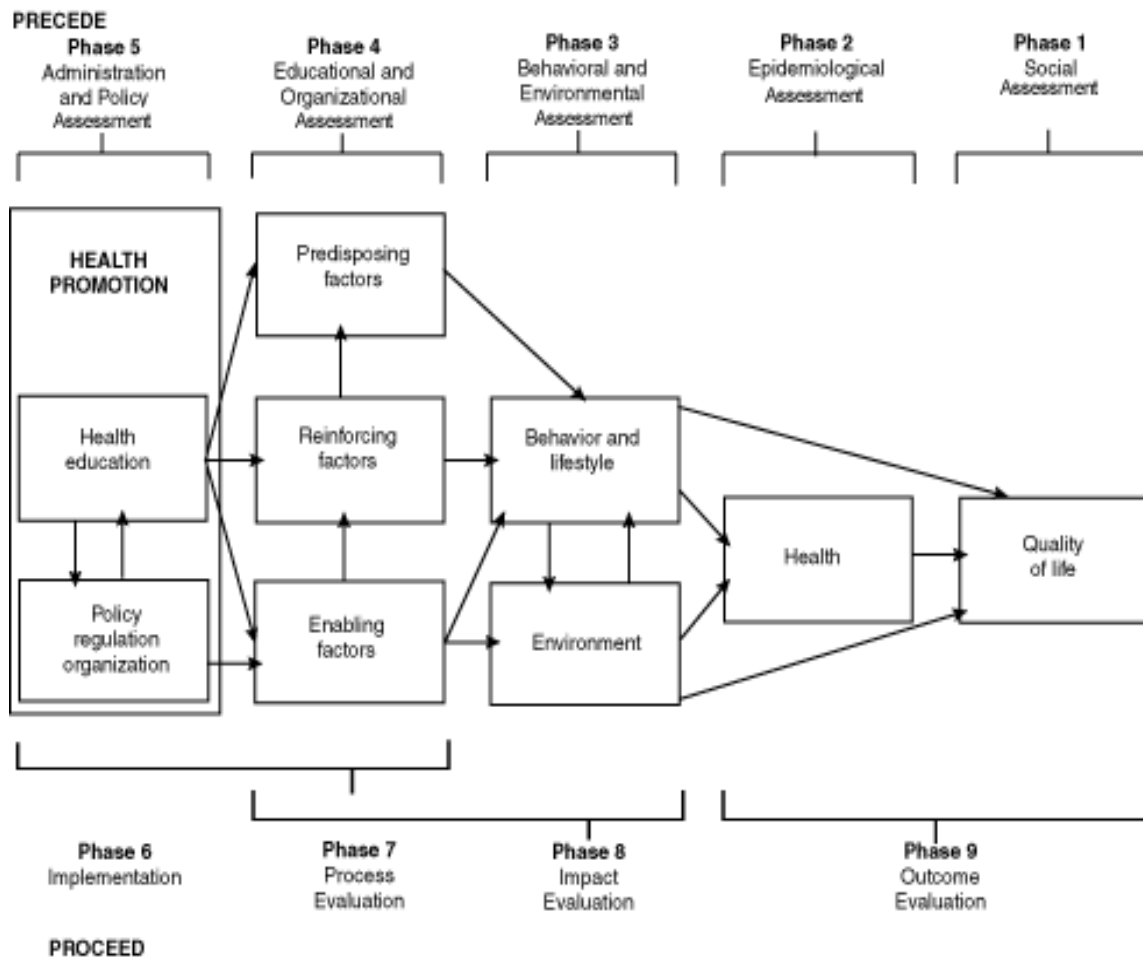
102 was proposed in 1974 by Dr. Lawrence W. Green, it is a cost-benefit evaluation framework  
103 that that can help health program planners, policy makers, and other evaluators to analyze  
104 situations and design health programs efficiently [8]. The theory was used to assess health  
105 related behaviours and environments that affect health and quality of life. The framework has  
106 two components. The set of phases consists of series of planned assessments that generate  
107 information that can be used to guide subsequent decision.

108

109 Precede is an acronym for predisposing, reinforcing, enabling, constructs in educational  
110 diagnosis and evaluation. It consists of three phases, the first phase, social assessment and  
111 situational analysis which concern quality of life or social problem determination as well as  
112 the needs of a given population. The second phase is epidemiological assessment to identify  
113 health determinants of these problems and it also involves analyzing the behaviour and  
114 environmental factors that link to the health problems. Educational and ecological assessment  
115 is the third phase, it involves the causal factors influencing health behaviours or  
116 environmental factors. These factors are grouped into three: predispose, reinforce, and enable  
117 factors [9].

118

119 The second component is referred to as proceed for policy, regulatory, and organizational  
120 constructs in educational and environmental development (phase 4, 5, and 6). These three  
121 phases involve the strategic implementation of multiple actions based on the findings from  
122 assessment in the initial phase. Precede-Proceed model provides a continuous series of phases  
123 in planning, implementation, and evaluation [9]. Figure 1 illustrates a diagram explains the  
124 Precede-Proceed model;



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**Fig. 1: The Precede-Proceed Model (Green & Keuter, 2005)**

128

In application of this theory to this study, this study focuses on smoking among adolescents.

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In order to understand the influencing factors for smoking among health professional

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students, it will be important to develop anti-smoking public health programs. This study will

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only address the third phase of the Precede-Proceed Model. This particular phase assesses the

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cause of health behaviour (smoking). This phase was used to identify the three important

133

factors that play important roles in changing a person's behaviour as well as the environment.

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These factors are predisposing factors, enabling factors, and reinforcing factors.

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The predisposing factors are antecedents to behaviour change that provide the motivation for

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the behaviour. They include individual or population knowledge, attitudes, belief, and

137 perceptions that facilitate or hinder motivation for change [9]. Enabling factors are  
138 antecedents to behaviour or environment change that allow a motivational or environment  
139 policy to be realized. It includes accessibility, availability, skills and laws that can help or  
140 hinder the behavioral changes along with the environmental factors [9]. This study explores  
141 the accessibility to cigarettes and peer smoking as enabling factors. Reinforcing factors are  
142 factors following behaviour that provide the continuing reward or punishment as a  
143 consequence of behaviour. It consists of social support, peers influence, advice and feedback  
144 by health care providers.

145

146 In conclusion, the Precede-Proceed model is a participatory model for creating successful  
147 community health promotion and other public health interventions. It is a multi-assumptions  
148 model for intervention for health behaviour change. It is based on the premise that behaviour  
149 changes are voluntary, and that health programs are more likely to be effective if they are  
150 planned and evaluated. Identification of these factors may be useful to provide interventions  
151 required towards behaviour change as the outcome and to conduct prevention and control  
152 measures of smoking among medical students.

153

## 154 **METHODOLOGY**

155 This research is a descriptive study aimed at finding out the knowledge of medical students  
156 about the health effects of smoking in the university. The study was conducted in Afe  
157 Babalola University, Ado-ekiti, Ekiti State Nigeria. The total number of students in the  
158 College of Medicine and Health Sciences of Afe Babalola University was about 1,600, since  
159 the target population of this research was limited to students in the department of Medicine,  
160 Nursing Science and Medical Laboratory Science, the population was reduced to 506. The  
161 sample size was determined using the rule of thumb, therefore, 24% of the target population,

162 which is 120 students was selected for the study. The simple random sampling technique was  
163 used in choosing the participants. The sampling techniques was purposive and convenience.  
164 Self-developed questionnaire was the instrument used for data gathering. The questionnaire  
165 has two sections. Section A investigates the demographic characteristics of the participants.  
166 Section B was on questions that sought to assess the knowledge of medical students towards  
167 the health implications of tobacco smoking and to determine the prevalence and their attitude  
168 towards tobacco smoking. The reliability of the questionnaire was done using the test-retest  
169 method.

170

171 The research proposal was approved by the Department of Nursing Science, Afe Babalola  
172 University, Ado-Ekiti. Before the commencement of the study, approvals were obtained from  
173 The Research Ethics Committee of Afe Babalola University. Written and verbal informed  
174 consent was sought and obtained from participants before administration of the questionnaire.  
175 Participation was made voluntary without coercion, manipulation or undue inducement. The  
176 participants were told that they could freely withdraw at any point during the study process.  
177 The researcher administered the questionnaire to the participants. The questionnaires were  
178 retrieved from the participants immediately after completion. There were 120 students  
179 recruited for the study out of which 111 responded adequately to the questionnaire. Data  
180 gathering was from August to September 2015. Data from the study was analyzed using both  
181 descriptive and inferential statistics.

182

## 183 **RESULTS AND DISCUSSION**

184 The analysis of the socio-demographic status of the participants (Table 1), the majority  
185 (81.1%) of the participants were female while 18.9% were males. Table 1 established that the  
186 majority 78.4% of the participants were 18-21 years of age while only 1.8% was age 22-25



187 years old. With regards to participant's religion, 87.3% were Christians while 12.7% were  
188 Muslims. Almost all (99.1%) the participants were single and the majority (57.7%) were in  
189 their 4<sup>th</sup> year. Participants were asked about their monthly allowance and more than half  
190 (55.8%) of the participants received between N10, 000 to N30, 000 while only 5.8% received  
191 above N100, 000.

192

193 As shown in Table 2, 73.9% of the participants have never smoked a cigarette before, while  
194 26.1% of the participants responded positively. With regards to participants frequent of  
195 smoking, the majority (77.3%) smoked daily while only 3.4% indicated that they smoked  
196 every week. When the participants were also asked to indicate the number of cigarette that  
197 they smoke daily, the majority (89.7%) of the participants indicated that they smoke less than  
198 10 cigarettes stick a day while 6.9% smoked more than 30 sticks a day.

199

200 With respect to participants age at smoking initiation, about one-third (34.4%) of the  
201 participants commenced smoking between aged 18 to 21 years, 27.6% between age 16 to 17  
202 years and 31.1 started smoking above the age of 21 years. When asked about the person that  
203 introduced them to smoking, almost half (45.2%) of the participants indicated peer group,  
204 16.1% and 9.7% indicated boyfriend and girlfriend respectively while 25.8% said it was their  
205 personal choice. With regards to question on what predisposes the participants to smoking,  
206 the majority (77.4%) of them stated that they started smoking because of fun, 12.9% was due  
207 to peer pressure, while 6.5% indicated stress as what predisposed them to smoking.

208

209 On the participants' attitudes towards smoking, as revealed Table 3, when the participants  
210 were asked if they will smoke a cigarette offered by their best friend, the majority (63.6%) of  
211 them indicated definitely not, 12.1% answered probably not and 15.9% indicated probably

212 yes while 8.4% answered definitely yes. With regards to participants probability of smoking  
213 in the next 12 months, more than half (65.1%) of the participants indicated definitely not,  
214 13.8% probably not, 11.9% probably yes and 9.2% indicated definitely yes.

215 As revealed in Table 4, participants were asked if they have ever tried to stop smoking in the  
216 past year and more than half (52.2%) highlighted yes while the remaining 47.8% indicated  
217 no. When the participants were asked how they usually obtain their cigarette, the majority  
218 (55.0%) of the participants get their cigarette supply from friends while 35.0% indicated that  
219 they normally buy from the shops.

220 As shown in Table 5, participants were asked if they are aware that smoking is dangerous to  
221 their health and almost all (99.1%) of the participants indicated yes with exception of only  
222 one (0.9%) participants who indicated no. In addition, when the participants were asked if  
223 they are aware of the health risks that are associated with cigarette smoking, almost all  
224 (99.1%) of the participants indicated yes with exception of only one (0.9%) participants who  
225 indicated no. On the participants' knowledge on the health impacts of smoking, the majority  
226 (81.8%) of them indicated lung cancer while the remaining 18.2% highlighted cancer of the  
227 bladder.

228

229 When the participants were asked if they know the benefit of smoking cessation and The  
230 majority (65.4%) of the participants indicated yes while the remaining 34.6% indicated no.

231 Almost all (93.6%) of the participants indicated the absence of a tobacco treatment centre in  
232 their institution.

233 Table 6 shows that 40.2% of the participants strongly agree that smokers are more popular  
234 while 22.3% strongly disagree. Also, 35.7% of the participants strongly agree that smoking  
235 helps people forget their worries and 26.8% disagree. 27.7% of the participants strongly agree  
236 that non-smokers dislike being around people who smoke while 17.9% strongly disagree.

237 Almost half (44.6%) of the participants strongly disagrees that smokers find it hard to get  
238 dates while 13.4% strongly agree. More than half (53.6%) of the participants strongly  
239 disagree that smoking is something you need to try before deciding to do it or not, 17.9%  
240 agree, 17.9% strongly agree, while 8.9% disagree. Almost half (44.6%) of the participants  
241 strongly disagree that there is no harm in having a cigarette while 13.4% agree. Almost half  
242 (44.6%) of the participants strongly disagree that smoking helps people to relax, 26.8%  
243 disagrees, and 8.9% strongly agree. About one third (34.8%) of the participants disagrees  
244 that smoking makes people look sexy while 27.7% strongly disagree. The majority (53.6%)  
245 of the participants strongly disagree that smoking is enjoyable while 37.5% disagree. More  
246 than half (55%) of the participants strongly agree that smokers are often stressed while 31.3%  
247 agree. And lastly, the majority (62.5%) of the participants strongly agree that non-smokers  
248 should be proud to be smoke free, 11.6% agree, 15.1% strongly disagree, while only 10.7%  
249 disagree. A total of 71.4% of the participants indicated that they will prefer a smoke-free  
250 institution.

251 SA and SD represent 'strongly agree' and 'strongly disagree', respectively. Participants were  
252 asked to tick which of the option was applicable to them.

253

254 In this study, about one-third (34.4%) of the participants commenced smoking between the  
255 age of 18 to 21 years and 27.6% of the participants were between age 16 to 17 years.  
256 According to Ebirim et al. [6], the prevalence of ever smoked adolescents was 15.3% and  
257 11.2% for current smokers according to a study conducted using adolescents in Owerri  
258 South-Eastern Nigeria. Similarly in this study, 26.1% of the participants do smoke  
259 cigarettes and the majority (77.3%) smoked daily. Likewise 89.7% of the participants smoke  
260 less than 10 cigarettes stick a day while 6.9% smoked more than 30 sticks daily.

261 Several smoking surveys have revealed a decline in current cigarette smoking among adults  
262 far more prominent among boys than girls. After an initial rise among teenage boys, a decline  
263 in cigarette smoking has occurred. This has not been the case with teenage girls, who show a  
264 continuous increase in proportional smoking. Both males and females Nigerians are initiating  
265 smoking at earlier ages, among adolescents, male consumption of cigarettes per day has  
266 plateaued during the past 5 years, but some increases are noted for females. A study showed  
267 that students between aged 16 years and above have 2.4 times higher risk of smoking,  
268 compared to aged 13 years [10]. Another study revealed that the students commenced  
269 smoking between 15 to 22 years, more than two thirds (71%) of smokers were in the age  
270 group less than 18 years [11].

271

272 Krosnick and Judd [12] stated that a common term in life-span developmental psychology of  
273 young adults is a decrease in parental influence on the child and an increase in peer influence.  
274 Peer smoking is an important factor that can influence smoking in young adults. A study by  
275 Krosnick and Judd [12] found that peer smoking correlates with adolescent cigarette smoking  
276 and usually accounts for more of the variance in adolescent smoking than any other variable.  
277 This is consistent with the study as 45.2% of the participants agreed that peer pressure is a  
278 factor that influences them to smoking also 16.1% and 9.7% specified boyfriend and  
279 girlfriend respectively while only 25.8% said it was their personal choice. Merdad, Al-  
280 Zahrani and Farsi [13] also documented that both parental and peer smoking factors were  
281 important predictors of smoking. In this study, the majority (63.6%) of the participants will  
282 smoke a cigarette offered by their best friend and 65.1% will probability smoke within the  
283 next 12 months.

284 Cigarette accessibility is the gateway for all risk factors that contribute to smoking in  
285 adolescents; the higher perceived accessibility increases the risk of smoking among

286 adolescents. The study by Gilpin, Lee and Pearce [14] indicated that adolescents who  
287 perceived at baseline that cigarettes were easy to get were more likely to smoke. High  
288 prevalence of smoking among students may be relate to their accessibility to cigarettes, easy  
289 accessibility of cigarettes and tobacco products and lack of legislation prohibiting sale of  
290 tobacco to minors also increase the possibility of students to smoke [10]. In a study by  
291 Martini and Sulistyowati [15], on factors relating to cigarette smoking behaviour in Adison  
292 port, Saraburin Province in Indonesia, it was reported that the convenience for buying  
293 cigarette and getting cigarette from others were associated with smoking behaviour. Overall,  
294 accessibility to cigarettes is a very important factor related to smoking among college  
295 students, they are more likely to smoke with their friends. This is in consistence with this  
296 study as the majority (55.0%) of the participants gets their cigarette supply from friends while  
297 35.0% indicated that they normally buy from the shops.

298 From the study it shows that majority of the participants have high knowledge that about the  
299 health effects of tobacco smoking Almost all (99.1%) of the participants are aware that  
300 smoking is dangerous to their health and also aware of the health risks that are associated  
301 with cigarette smoking and 81.8% indicated lung cancer while the remaining 18.2%  
302 highlighted cancer of the bladder. Also majority of them knew that lung cancer is associated  
303 with cigarette smoking, furthermore, majority of them agreed that cigarette smoking is  
304 implicated in heart disease. This showed that the adolescents were conversant with these  
305 health problems that result from smoking cigarettes [6]. Majority of the students had good  
306 knowledge of the various health problems associated with cigarette smoking. This is probably  
307 due to the fact that many of them have been educated in school about these harmful effects.  
308 There are other health effects of smoking among adolescents, these include coughing,  
309 respiratory infections, increase heart rate, high blood pressure, increase stomach acid,  
310 decrease blood and oxygen supply and low appetite. There are also cosmetic effects and

311 premature ageing of skin, yellow-grey complexion, stains fingers and nails [16]. Smoking  
312 may lead to coughs and worsen respiratory diseases among young people. Adolescent  
313 smokers experience shortness of breath at higher rates compared to non-smoking adolescents  
314 and produce phlegm more often than those who do not smoke [17].

315 The majority (65.4%) of the participants in this study know the benefit of smoking cessation.  
316 According to Fuller [18], there were some gender differences in knowledge and attitudes,  
317 with boys more likely to agree with the positive statements about smoking; that smoking  
318 helps people relax if they are stressed, that smoking is not dangerous if you do not smoke a  
319 lot and that smoking helps people cope with life. In the study, 8.9% of the participants  
320 strongly agreed that smoking helps in relaxation. Also there were also differences by age,  
321 with younger participants more likely to think that smoking is not dangerous if you do not  
322 smoke a lot while older participants were more likely to agree with the statements that  
323 smoking helps people to relax, that smokers stay slimmer than non-smokers, that smoking  
324 gives people confidence and that smoking helps people cope [18]. This may be a result of  
325 increasing personal experience with smoking and smokers were found to agree more with  
326 positive statements and less with negative statements than non-smokers [18]. Parrott [19]  
327 carried out a research on the topic that most smokers have stressful feeling more than non-  
328 smokers, and adolescent smokers believe that increasing levels of stress as they develop  
329 regular patterns of smoking. That means smoking can be caused as a result of stress that  
330 occurs in an individual. According to WHO, it can also result to social effects due to peer  
331 pressure and as a result it could lead to financial burdens for them and their families.

332

### 333 **CONCLUSION**

334 Smoking is one of most important health problems in the world. Smoking overuse results in  
335 serious consequences for the community health and the society as a whole. The major

336 impacts on health are physically, psychologically, socially and economically due to smoking  
337 [20]. There is an increasing prevalence of cigarette smoking among adolescents. The result of  
338 the study revealed that some of the students have attempted to stop smoking but a tobacco  
339 treatment centre was not available within the institution, this should be addressed because it  
340 could assist in the reduction of smoking prevalence among adolescents and young adults.  
341 There is no safe level of exposure to second-hand tobacco smoke because it causes more than  
342 600,000 deaths yearly. Every person should be able to breathe tobacco smoke-free air.  
343 Smoke-free laws protect the health of non-smokers, do not harm business and it encourages  
344 smokers to quit. Over 1.3 billion people or 18.0% of the world's population are protected by  
345 comprehensive national smoke free laws.

346

#### 347 **RECOMMENDATIONS FOR NURSING PRACTICE AND LIMITATION**

348 From the findings of this study, it is recommended that a comprehensive individual and group  
349 education should be done in the clinics and during school health visits, to increase  
350 adolescents' knowledge regarding the health effect of cigarette smoking. Also, emphasis  
351 should be placed on the consequences of smoking in the presence of children during adult  
352 health education.

353 In addition, nurses should create more awareness on cigarette smoking and this can be  
354 disseminated properly through seminars, conferences and workshops. They should also  
355 promote tobacco control activities like smoking cessation strategies, smoking cessation  
356 therapies and smoking prevention programs to students.

357

358 Besides, the government should provide facilities like a tobacco treatment centre in the  
359 communities and schools to aid in treatment of addictions and other illnesses. The  
360 government should also provide advocates to create health volunteers in the community by

361 training them on how to motivate smokers to quit smoking, how to promote healthy lifestyles,  
362 and how to maintain smoke-free lifestyles.

363

364 It is also important for the government to have measures in protecting non-smokers from  
365 environmental tobacco smoke while training should be provided to all health-care providers  
366 at primary care, community and national level to enable them to effectively deliver smoking  
367 cessation interventions and treatment.

368

369 The limitation for the study is the purposive and convenient sample of health professional  
370 students in Afe Babalola University, Ado-Ekiti. Hence the results are not generalizable to a  
371 larger context.

#### 372 **ACKNOWLEDGEMENT**

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375 participated in the study.

376

#### 377 **COMPETING INTEREST**

378 Conflict of interest- None

#### 379 **AUTHOR'S CONTRIBUTIONS**

380 Author OA designed the study, performed the statistical analysis and writes the manuscript.

381 Author EF, helped in the study design and data collection, both authors read and approved the  
382 final manuscript.

383

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436 **Table 1: Demographic profile of participants (N=111)**

Socio demographic characteristics	Number	%
<b>Gender</b>		
Male	21	18.9
Female	<b>90</b>	<b>81.1</b>
<b>Age</b>		
14 – 17	2	1.8
18 – 21	87	78.4
22 – 25	20	18.0
26 – 30	2	1.8
<b>Marital status</b>		
Single	110	99.1
Married	1	.9
<b>Religion</b>		
Christianity	96	87.3
Islam	14	12.7
<b>Level of degree</b>		
Second year	2	1.8
Third year	11	9.9
Fourth year	64	57.7
Fifth year	34	30.6
<b>Monthly income</b>		
N10000 – N30000	58	55.8
N40000 – N60000	33	31.7
N70000 - N100000	7	6.7
Above N100000	6	5.8

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438 **Table 2: Predisposing factors to smoking as indicated by the participants**

Options	Number	%
<b>Have you ever smoked?</b>		
Yes	29	26.1
No	82	73.9
Total	111	100
<b>How often do you smoke?</b>		
Daily	23	77.3
Weekly	6	22.7
Total	29	100
<b>Number of cigarette smoked daily</b>		
Less than 10	26	89.7
11 – 20	1	3.4

Above 20	2	6.9
Total	29	100
<b>Age of smoking initiation</b>		
12 – 15 years	2	6.9
16 – 17	8	27.6
18 – 21	10	34.4
Above 21 years	9	31.1
Total	29	100
<b>Who introduce you to smoking?</b>		
Peer group	14	45.2
Boyfriend	5	16.1
Girlfriend	3	9.7
Relations	1	3.2
Personal choice	8	25.8
Total	29	100
<b>What led you to smoking?</b>		
Stress	2	6.5
Peer pressure	4	12.9
Fun	24	77.4
Other reasons	1	3.2
Total	29	100

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**Table 3: Attitudes towards smoking**

Options	Number	%
<b>Will you smoke a cigarette offer by your friend?</b>		
Definitely not	68	63.6
Probably not	13	12.1
Probably yes	17	15.9
Definitely yes	9	8.4
Total	107	100
<b>Probability of smoking in the next 12 months</b>		
Definitely not	71	65.1
Probably not	15	13.8
Probably yes	13	11.9
Definitely yes	10	9.2
Total	109	100

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**Table 4: Participants' quitting attempts and access to smoking**

Options	Number	%
<b>Quitting attempts</b>		
Yes	12	52.2
No	11	47.8
Total	23	100

Access to cigarette		
From the shop	7	35.0
From friends	11	55.0
Others	2	10.0
Total	20	100

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**Table 5: Participants' knowledge of the danger of smoking**

Options	Number	%
<b>Do you know that smoking is dangerous to your health?</b>		
Yes	110	99.1
No	1	0.9
Total	111	100
<b>Awareness of the health risks associated with smoking</b>		
Yes	110	99.1
No	1	0.9
Total	111	100
<b>Benefit of smoking cessation</b>		
Yes	68	65.4
No	36	34.6
Total	104	100
<b>Smoking cessation and treatment center</b>		
Yes	7	6.4
No	102	93.6
Total	109	100

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**Table 6: Participants' attitude towards smoking**

S/N	ITEMS	SA	%	Agree	%	SD	%	Disagree	%
1	Smokers are more popular.	45	40.2	15	13.4	25	22.3	25	22.3
2	Smoking helps people forget their worries.	40	35.7	15	13.4	25	22.3	30	26.8
3	Non-smokers dislike being around people who smoke.	31	27.7	29	25.9	20	17.9	30	26.8
4	Smokers find it hard to get dates.	15	13.4	25	22.3	50	44.6	20	17.9
5	Smoking is something you need to try before deciding to do it or not.	20	17.9	20	17.9	60	53.6	10	8.9
6	There is no harm in having a cigarette.	25	22.3	15	13.4	50	44.6	20	17.9
7	Smoking helps people relax.	10	8.9	20	17.9	50	44.6	30	26.8
8	Smoking makes people look sexy.	10	8.9	30	26.8	31	27.7	39	26.6
9	Smoking is enjoyable.	5	4.5	5	4.5	60	53.6	42	37.5
10	Smokers are often stressed.	55	49.1	35	31.3	10	8.9	12	10.7

11	Non-smokers should be proud to be smoke free.	70	62.5	13	11.6	17	15.1	12	10.7
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