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## **REALITIES AND CESSATION EXPERIENCES OF** TOBACCO SMOKERS IN IBADAN, OYO STATE NIGERIA

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#### ABSTRACT

In Nigeria, almost half (45.4%) of all smokers had tried to quit smoking. Appropriate and widely accessible tobacco cessation programs for tobacco smokers are yet to be addressed in Nigeria. This study aimed to identify the cessation experiences of tobacco smokers in Ibadan, Oyo State Nigeria. This is a descriptive cross-sectional study of 280 tobacco smokers selected using convenience sampling methods and snowball technique toexamine tobacco cessation experiences. Data was collected with a semi structured interviewer administered questionnaire. Data were analyzed with SPSS version 21.0. The mean age of smokers was 29.6  $\pm$  5.1. In all, 208(74.3%) smoke daily. Only 40(14.3%) have thought of quitting tobacco smoking and 4(10%) were aware of any tobacco cessation programs in Nigeria. Also, 141(50.4%) wanted tobacco cessation programs in a neutral place out of the hospital. Comfort 65(57%) and accessibility 22(19.3%) were the reasons for choosing a neutral place. Only 18(6.4%) were willing to pay \$1 for each tobacco cessation consultation cession. Encouraging smokers to participate in cessation programs will involve health education 92(32.95), mobilization 11(3.9%), provision of incentives 10(3.6%) and media advertisement 5(1.8%). Among female smokers, 5 (29.4%) were willing to quit compared to 23(8.7%) male smokers p=0.006. There is a need to publicise the existing cessation programs. Services should be made non-hospital based while the fee should be made affordable. The use of incentives should be considered. More research would be needed to also understand the perspectives of health workers on tobacco cessation.

Key words: Tobacco, Smoking, Cessation, Smoking cessation, Smokers

#### **INTRODUCTION**

preventable death in the world and a risk factor for several Non-Communicable Diseases including Cancer, Cardiovascular Disease, Diabetes and Chronic Respiratory Diseases (Ezzati and Lopez, 2003; Mbulo et al. 2015). About 6 million people die annually from tobacco, and if nothing is done to reverse or halt the epidemic, tobacco-related deaths could rise to 8 million by 2030 (Matthews and Loncar, 2006; Asma et al. 2015).WHO estimated that about 8% (approximately 7,358,700 persons) of Nigeria's population smoked in 2010. With the current efforts put into tobacco control continuing at the same intensity, the WHO projects that in 2025 around 12% of Nigeria's population (approximately 16,868,400 persons) will be smokers (WHO, 2015). Only 5.6% of adult Nigerians use any tobacco and 66% attempted to quit (Mbulo et al. 2016).

Global Adult Tobacco Survey (GATS) is a global standard for steadily monitoring adult

tobacco use and tracking key tobacco Tobacco use is a leading cause of control indicators (GATS, 2010). Nigeria GATS 2012 shows that two-thirds of smokers (66.3%)were interested in quitting and almost half (45.4%) of all smokers aged 15 years or above had made an attempt to quit smoking in the past 12 months (WHO, 2012).

> It is not clear if available health care services are capable of meeting their needs, or whether the smokers are likely to be able to quit without any intervention. However, research contextualizing the need for cessation programs in Nigeria is limited. Studies conducted on social determinants of smoking in low- and middleincome countries did not include Nigeria (Hosseinpoor et al. 2011). Furthermore, studies from the point of view of the smokers with regards to the type of services they needed are yet to be conducted in Nigeria.

> Furthermore, according to the Nigeria GATS data, six out of ten current smokers who attempted to guit smoking in the past 12 months tried without success. Also, only six out of ten

(61.2%) current smokers who had visited a health care provider in the past 12 months received advice to quit smoking from the provider. Overall, only 1 in 3 (35.6%) current smokers planned to or were thinking about quitting smoking in the next 12 months. Lack of success in quitting largely depends on the acceptability and quality of the services received. Detailed understanding of the following questions is required: Are the services available socio-culturally acceptable and welltailored to meet the needs of the smokers? Can the smokers afford the cost of cessation services? Are the available services effective? Also, clear understanding of the following concepts is needed: What solutions have already been tried to stop smoking? How successful have they been? What untried solutions might be possible? What parts of the problem need further study?

Non-Communicable Diseases including cancer, cardiovascular disease, diabetes, and chronic respiratory diseases will continue to increase because of smoking. In 2012, 5.6% (4.7 million) Nigerian adults aged 15 years or older currently used tobacco products. If nothing is done about smoking cessation the adverse effect will continue to increase. The problems caused by tobacco smoking are not limited to the smokers but also those exposed to second-hand smoke and the economic effect on the family. Health care services available in Nigeria do not have easily accessible or available tobacco cessation programs.

It is important to know, for instance if Ibadan (one of the largest cities in Nigeria) residents who smoke are interested in tobacco cessation program. Tobacco use is seen as individual problem; therefore, the essence of having cessation program is not obvious to many people and health care providers. The few programs targeted at cessation of smoking have not achieved their desired aim. This is partly because the programs were not tailored to meet the needs of the smokers. This study will serve as a premise on which a tobacco cessation program should be instituted and organized to suit the needs of the smokers. Provision of effective smoking cessation programs to smokers interested in cessation has been a long-term concern to many different people, the smokers, family members, and health care worker. No

study has already addressed the problem of appropriate tobacco cessation programs for smokers. This study will therefore provide information on how a cessation program that will meet its objectives can be initiated. This study aimed to find out the views of smokers about tobacco cessation, to explore the readiness of smokers to participate in tobacco cessation programs and to identify how best tobacco cessation services should be delivered.

## MATERIALS AND METHODS Ethical Approval

Ethical approval for the study was obtained from Oyo State Health Research Ethics Committee, Oyo State Ministry of Health, Ibadan, Oyo State.

## Study area and population

The study area is Ibadan, the capital of Oyo State. It is in the South-West geopolitical zone of Nigeria. Ibadan is divided into 11 local government areas: 5 in the metropolis and 6 in the peri-urban area. The 2006 census put the population of Ibadan at 2.4 million people (World Bank, 2011). Ibadan is the centre of trade and farming, producing cocoa, palm oil, yams, cassava, corn, and fruit. It is also an industrial city. The inhabitants are mainly Yorubas.

## Sample design

A *descriptive cross-sectional study* was used to study tobacco smokers in Ibadan, Nigeria.

This study used interviewer administered questionnaires to examine cessation experiences among adult smokers in Nigeria.

## Sample size determination

The sample size was calculated using the Leslie Kish formula for sample size determination for single proportion as follows:  $n=Z\alpha^2 p(1-p)/d^2$ 

n= Minimum desired sample size

Z= the standard normal deviate, usually set as 1.96 which corresponds to 5% level of significance.

p= 5.6 % the prevalence of smoking in Nigeria, according to GATS 2012.

d= Degree of accuracy (precision) set at 3 % (0.03)

 $n=1.96^{2} \times 0.056 \times (1-0.056)/0.0009=226$ 

Compensating for non-response rate of 10% (Ns)

Ns= nx1/1-r, where r= proportion of non-response

n = 226x1/1-0.1 = 226x1/0.90 = 251

A total of 280 smokers were interviewed.

## **Sampling technique**

Participants were recruited at mechanic villages, motor parks, restaurants, bars, brothels and night clubs. Attempts were made to purposively recruit smokers with different background characteristics to represent the spectrum of adult smokers. Smokers across different educational attainment, socioeconomic circumstances, employment status, religion, parity, and marital status were interviewed.

## Inclusion/exclusion criteria

A screening question ("Are you currently smoking?") was administered such that only current smokers were eligible to participate.

#### Data analysis

Questionnaires were checked for omissions and errors after collection and respondents asked to provide clarifications when required. Data were analysed with SPSS version 21.0. Descriptive statistics (frequency, mean  $\pm$ standard deviation) were calculated. Correlation of waist-to-hip ratio and blood glucose was assessed using Pearson correlation. The Chi Square test and binary logistic regression analysis were used to explore associations at a 5% significance level.

#### RESULTS

## Socio-demographic characteristics of the respondents

The mean age was  $29.6 \pm 5.1$  years and 230 (82.1%) of the respondents were within the age range of 25-39 years. Majority 263 (93.9%) of the respondents were male and about half 145 (51.8%) of the respondents were currently married. 158 (56.4%) of the respondents had at least secondary education and they were either Muslim (n=151, 53.9%) or Christian (n=121,

43.2%). The occupation of the respondents reflected the purposive sampling strategy and was mainly transport (n=118, 42.1%) and trading (n=100.35.7%) (Table 1).

# Table 1: Socio-demographic characteristics of respondents

Variable Age	Frequency	Percentage
<25yrs	36	12.9
25-39yrs	230	82.1
40 & above	14	5.0
Sex		
Male	263	93.9
Female	17	6.1
Marital status		
Currently married	145	51.8
Not currently married	135	48.2
Level of education		
No formal education	36	12.9
Primary	86	30.7
Secondary	142	50.7
Tertiary	16	5.7
Religion		
Christianity	121	43.2
Islam	151	53.9
Traditional	8	2.9
Occupation		
Transport workers	118	42.1
Trading & business	100	35.7
Artisans	40	14.3
Others	22	7.9
Tribe		
Yoruba	227	81.1
Hausa	31	11.1
Ibo	14	5.0
Others	8	2.9

#### Concerns of respondents about tobacco use

The respondents who have smoked for less than 10 years were 214 (76.4%) while 19 (6.8%) have smoked for 15 years and most of them (n=208, 74.3%) are currently smoking daily. Regarding stopping tobacco smoking, 22 (7.9%) of the respondents tried to stop smoking while 271 (96.8%) of them do enjoy smoking. Twothird (63.9%) of respondents who smoked reported deriving energy from the products for work, while one-fifth (18.6%) derived inspiration/mental alertness from tobacco. Majority of the respondents, 259 (92.5%) were were worried about them were relations of the health (93.6%) as depicted in Table 2.

not worried about their smoking, while 211 respondents (siblings/friends 41.1%; spouse (75.4%) thought nobody was worried about their 37.0%; mother 21.9%). Majority of the smoking. Among those that have someone respondents believed tobacco had no effect on their worried about their smoking, the people who social relationship (92.1%), finances (94.3%), and

Table 2: Concerns of respondents about tobacco use

Table 2: Concerns of respondents about tobacco		
Variables	Frequency	%
Length of smoking (years)		
<10yrs	214	76.4
10-14	47	16.8
15-25	19	6.8
How often do you currently smoke tobacco		- / 2
Daily	208	74.3
1-2 times	36	12.9
3-5 times	36	12.9
During the past 12 months have you tried to		
stop smoking		
Yes	22	7.9
No	258	92.1
Do you enjoy smoking		
Yes	271	96.8
No	9	3.2
What benefits do you derive from use of		
tobacco?		
Energy for work	179	63.9
Calmness and comfort	29	10.4
Enjoyment and pleasure	15	5.4
Inspiration and mental alertness	52	18.6
For boldness	5	1.8
Are you worried/ distur bed about your smoking		
Yes	21	7.5
No	259	92.5
Is anyone worried/ disturbed about your		
smoking		
Yes	73	26.1
No	207	73.9
Who gets worried/ disturbed about your		
smoking		
Mother	16	21.9
Spouse	27	37.0
Siblings & friends	30	41.1
Does your use of tobacco have any effect on		
your social relationship?		
Yes	22	7.9
No	258	92.1
Does your use of tobacco have any effect on		,
your finances?		
Yes	16	5.7
No	264	94.3
The type of effect tobacco use has on your		2.00
finances? (N=16)		
Lack of savings	7	43.8
Extravagant spending	3	18.8
Affect other financial obligation	6	37.5
Does your use of tobacco have any effect on	-	0,10
your health?		
Yes	18	6.4
No	262	93.6
110	202	/3.0

## respondents

The respondents who thought of quitting tobacco use were 40 (14.3%), while 247 (88.2%) did not even know anyone who has quit smoking. The respondents who know someone who quit smoking gave the following as the reason for quitting smoking - development of diseases 9(27.3%), withdrawal from friends 6(18.2%)and God's help 3(9.1%) among others. Only few

Tobacco cessation attempts among the (n=28, 10%) of the respondents attempted quitting in the last one year, and 10(35.7%) of the respondents have attempted to guit once or twice 11 (39.3%) while 7(25%) have attempted to, more than twice. Among the respondents who have attempted to guit, 4 (14.3%) of the respondents reported that rejection from friends is one of the difficulties they encountered with quitting (Table 3).

Table 3: Tobacco cessation attempts among the respondents

Variable	Frequency	Percentage
Have you thought of quitting tobacco use?		
Yes	40	14.3
No	240	85.7
Do you know anyone who has quit smoking?		
Yes	33	11.8
No	247	88.2
How smoking was quitted (N=33)		
Withdrawal from friends	6	18.2
Development of diseases	9	27.3
God's help	3	9.1
Others	15	45.5
Have you attempted quitting in the last one year		
Yes	28	10.0
No	252	90.0
How many times have you attempted quitting? (N=28)		
Once	10	35.7
Twice	11	39.3
Three times and above	7	25.0
What were the difficulties you encountered with quitting? (N=28)		
Feeling uncomfortable	10	35.7
Find it hard to quit	14	50.0
Rejection by friends	4	14.3

**Availability of Tobacco Cessation Programs** Almost all the respondents 276 (98.6%) were not aware of any tobacco cessation intervention programs and only 4 (1.4%) that were aware knew where the programs were located. Majority 239 (85.4%) of the respondents believed it is the responsibility of government to offer tobacco cessation programs. Two-fifth 112 (40.0%) and about one-tenth 36

(12.9%) of the respondents wanted the services to be provided through seminars and awareness creation, respectively. Respondents who had some prior challenges in their interaction with health personnel because of their smoking status were 10 (3.6%) and out of this proportion, 5 (50.0%) usually feel shy when encountering these health workers. About 141 (50.4%) of the respondents would like for tobacco cessation

programs to be held if available, at a neutral place (outside hospitals) while only29 (10.4%) would like it to be held at the hospital. The reasons given by the respondents on the above places were mainly comfort 65 (57.0%) and accessibility 22(19.3%).

If tobacco cessation programs were available, 36.8% (n=103) indicated no willingness to pay for them, while one quarter (n=81, 28.9%) of the respondents were willing to pay up to 1 dollar. Majority 207(73.9%) said they will support the community tobacco cessation program. The respondents who believed that no opportunities exist in tobacco cessation were

196(70.0%), while very few believed that it will encourage interaction with health workers 25(8.9%), provide job opportunities21(7.5%), save lives 19(6.8%), and provide health education 19(6.8%).

However, about one-third 92 (32.9%) of the respondents suggested health education, while very few (3.9%, 3.6% and 1.8%) suggested mobilization, provision of incentives and social media respectively as a way of encouraging smokers to take part in the program. Also, 189(67.5%) of the respondents were of the view that the community will support tobacco cessation program as seen in Table 4.

Awareness of any tobacco cessation intervention Yes41.4No27698.6Whose responsibility is it to offer tobacco cessation Government23985.4Health Organization176.1Health Organization175.4Others93.2How tobacco cessation services should be provided400Awareness creation3612.9Seminars11240.0Counselling103.6Others12243.6Have had challenges in my interaction with health personnel who are aware that I smoke770Yes103.6No27096.4Challenges faced in your interaction with health personnel who are aware that J smoke?5Yes103.6No550.0Insistence on cessation550.0Where would you like tobacco cessation program to be held if available?11Hospital setting2910.4Neutral place14150.4School environment113.9Others97.9Comfortability2219.3Confidentiality97.9Others97.9How much are you willing to pay for the tobacco cessation7.9Others97.9How much are you willing to pay for the tobacco cessation7.9No payment10336.8N50-1004817.1N101-2008128.9 <th>Variable</th> <th>Frequency</th> <th>Percentage</th>	Variable	Frequency	Percentage
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Whose responsibility is it to offer tobacco cessation         239         85.4           Government         239         85.4           Health Organization         17         6.1           Health Workers         15         5.4           Others         9         3.2           How tobacco cessation services should be provided          40.0           Awareness creation         36         12.9           Seminars         112         40.0           Counselling         10         3.6           Others         122         43.6           Have had challenges in my interaction with health personnel             who are aware that I smoke              Yes         10         3.6            No         270         96.4            Challenges faced in your interaction with health personnel             who are aware that you smoke? (n=10)              Feeling shy         5         50.0             Insistence on cessation         5         50.0             Neutral place         141         50.4	•	4	1.4
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Health workers       15       5.4         Others       9       3.2         How tobacco cessation services should be provided	Health Organization	17	6.1
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who are aware that you smoke? (n=10)         5         50.0           Feeling shy         5         50.0           Insistence on cessation         5         50.0           Where would you like tobacco cessation program to be held if available?         5         50.0           Hospital setting         29         10.4           Neutral place         141         50.4           School environment         11         3.9           Others         99         35.4           What are the reasons for your preference?         1         3.9           Confidentiality         9         7.9           Comfortability         65         57.0           Free from distraction         9         7.9           Others         9         7.9           How much are you willing to pay for the tobacco cessation         9         7.9           How payment         103         36.8           N50-100         48         17.1           N101-200         81         28.9           N201-400         30         10.7			
who are aware that you smoke? (n=10)         5         50.0           Feeling shy         5         50.0           Insistence on cessation         5         50.0           Where would you like tobacco cessation program to be held if available?         5         50.0           Hospital setting         29         10.4           Neutral place         141         50.4           School environment         11         3.9           Others         99         35.4           What are the reasons for your preference?         1         3.9           Confidentiality         9         7.9           Comfortability         65         57.0           Free from distraction         9         7.9           Others         9         7.9           How much are you willing to pay for the tobacco cessation         9         7.9           How payment         103         36.8           N50-100         48         17.1           N101-200         81         28.9           N201-400         30         10.7	Challenges faced in your interaction with health personnel		
Feeling shy         5         50.0           Insistence on cessation         5         50.0           Where would you like tobacco cessation program to be held if available?         5         50.0           Hospital setting         29         10.4           Neutral place         141         50.4           School environment         11         3.9           Others         99         35.4           What are the reasons for your preference?         22         19.3           Confidentiality         9         7.9           Comfortability         65         57.0           Free from distraction         9         7.9           Others         9         7.9           How much are you willing to pay for the tobacco cessation         7.9           How much are you willing to pay for the tobacco cessation         7.9           How much are you willing to pay for the tobacco cessation         7.9           How much are you willing to pay for the tobacco cessation         7.9           No payment         103         36.8           N50-100         48         17.1           N101-200         81         28.9           N201-400         30         10.7			
Insistence on cessation       5       50.0         Where would you like tobacco cessation program to be held if available?       1         Hospital setting       29       10.4         Neutral place       141       50.4         School environment       11       3.9         Others       99       35.4         What are the reasons for your preference?       22       19.3         Accessibility       22       19.3         Confidentiality       9       7.9         Comfortability       65       57.0         Free from distraction       9       7.9         Others       9       7.9         Pothers       9       7.9         More much are you willing to pay for the tobacco cessation       9       7.9         How much are you willing to pay for the tobacco cessation       9       7.9         Program?       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7		5	50.0
Where would you like tobacco cessation program to be held if available?         10.4           Hospital setting         29         10.4           Neutral place         141         50.4           School environment         11         3.9           Others         99         35.4           What are the reasons for your preference?         22         19.3           Confidentiality         9         7.9           Comfortability         65         57.0           Free from distraction         9         7.9           Others         9         7.9           Others         9         7.9           Program?         7.9         7.9           No payment         103         36.8           N50-100         48         17.1           N101-200         81         28.9           N201-400         30         10.7			50.0
if available?       29       10.4         Hospital setting       29       10.4         Neutral place       141       50.4         School environment       11       3.9         Others       99       35.4         What are the reasons for your preference?       22       19.3         Accessibility       22       19.3         Confidentiality       9       7.9         Comfortability       65       57.0         Free from distraction       9       7.9         Others       9       7.9         Others       9       7.9         Others       9       7.9         Pree from distraction       9       7.9         Others       9       7.9         How much are you willing to pay for the tobacco cessation       9       7.9         Program?       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7	Where would you like tobacco cessation program to be held		
Neutral place       141       50.4         School environment       11       3.9         Others       99       35.4         What are the reasons for your preference?       22       19.3         Accessibility       9       7.9         Confidentiality       9       7.9         Comfortability       65       57.0         Free from distraction       9       7.9         Others       9       7.9         How much are you willing to pay for the tobacco cessation       9       7.9         Program?       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7			
Neutral place       141       50.4         School environment       11       3.9         Others       99       35.4         What are the reasons for your preference?       22       19.3         Accessibility       22       19.3         Confidentiality       9       7.9         Comfortability       65       57.0         Free from distraction       9       7.9         Others       9       7.9         How much are you willing to pay for the tobacco cessation       9       7.9         program?       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7	Hospital setting	29	10.4
School environment       11       3.9         Others       99       35.4         What are the reasons for your preference?       22       19.3         Accessibility       22       19.3         Confidentiality       9       7.9         Comfortability       65       57.0         Free from distraction       9       7.9         Others       9       7.9         Others       9       7.9         Others       9       7.9         Others       9       7.9         Pree from distraction       9       7.9         Others       9       7.9         No payment       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7		141	50.4
What are the reasons for your preference?2219.3Accessibility2219.3Confidentiality97.9Comfortability6557.0Free from distraction97.9Others97.9How much are you willing to pay for the tobacco cessation9program?10336.8No payment10336.8N50-1004817.1N101-2008128.9N201-4003010.7		11	3.9
Accessibility       22       19.3         Confidentiality       9       7.9         Comfortability       65       57.0         Free from distraction       9       7.9         Others       9       7.9         How much are you willing to pay for the tobacco cessation       9       7.9         program?       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7	Others	99	35.4
Accessibility       22       19.3         Confidentiality       9       7.9         Comfortability       65       57.0         Free from distraction       9       7.9         Others       9       7.9         How much are you willing to pay for the tobacco cessation       9       7.9         program?       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7	What are the reasons for your preference?		
Confidentiality       9       7.9         Comfortability       65       57.0         Free from distraction       9       7.9         Others       9       7.9         How much are you willing to pay for the tobacco cessation       9       7.9         program?       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7		22	19.3
Comfortability       65       57.0         Free from distraction       9       7.9         Others       9       7.9         How much are you willing to pay for the tobacco cessation       9       7.9         program?       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7			7.9
Free from distraction       9       7.9         Others       9       7.9         How much are you willing to pay for the tobacco cessation       9       7.9         program?       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7		65	
Others       9       7.9         How much are you willing to pay for the tobacco cessation       9       7.9         program?       103       36.8         N50-100       48       17.1         N101-200       81       28.9         N201-400       30       10.7			
How much are you willing to pay for the tobacco cessation         Image: Comparison of the tobacco cessation           program?         103         36.8           No payment         103         36.8           N50-100         48         17.1           N101-200         81         28.9           N201-400         30         10.7			
program?10336.8No payment10336.8N50-1004817.1N101-2008128.9N201-4003010.7		-	
No payment10336.8N50-1004817.1N101-2008128.9N201-4003010.7			
N50-1004817.1N101-2008128.9N201-4003010.7		103	36.8
N101-2008128.9N201-4003010.7			
N201-400 30 10.7			
Above N400 18 6.4	Above N400	18	6.4

Table 4: Tobacco cessation interventions/ programs available

Respondent's view of the community's use of tobacco		
cessation programs if made available		
Support it	207	73.9
Not support it	73	26.1
Opportunities that exist		
Save life	19	6.8
Job opportunity	21	7.5
Interactions with health workers & others	25	8.9
Health education	19	6.8
No opportunity	196	70.0
Possible difficulties		
Difficulty in gathering people	32	11.4
Time factor	5	1.8
Lack of willingness to participate	20	7.1
Financial difficulty	20	7.1
Others	4	1.4
Don't know	199	71.1
How can the people who smoke in this community be		
encouraged to take part in such programme?		
Health education	92	32.9
Mobilization	11	3.9
Media advertisement	5	1.8

Respondents' characteristics associated with willingness to quit tobacco smoking

However, the willingness to quit among the different age categories, marital status, levels of education, religion, occupation, and tribe were not significantly comparable (Table 5).

A significant higher proportion of female smokers 29% were willing to quit tobacco smoking compared to 8.7% male (p=0.006).

 Table 5: Socio-demographic characteristics associated with willingness to quit tobacco smoking

Variable	Willingness	Willingness to quit smoking		p-value
	Yes n (%	⁄o) No		
Age				
<25yrs	6 (16.7)	30 (83.3)	2.098	0.348
25-39yrs	21 (9.1)	209 (90.9)		
40 & above	1 (7.1)	13 (92.9)		
Sex				
Male	23 (8.7)	240 (92.4)	7.578	0.006
Female	5 (29.4)	12 (70.6)		
Marital status				
Currently married	11 (7.6)	134 (92.4)	1.947	0.163
Not currently married	17 (12.6)	118 (87.4)		
Level of education				
No education	1 (2.8)	35 (97.2)	7.209	0.068
Primary	11 (12.8)	75 (87.2)		
Secondary	12 (8.5)	130 (91.5)		
Tertiary	4 (25.0)	12 (75.0)		
Religion				
Christianity	11 (9.1)	110 (90.9)	1.266	0.531
Islam	17 (11.3)	134 (88.7)		
Traditional	0 (0.0)	8 (100.0)		
Occupation				
Transport worker	9 (7.6)	109 (92.4)	1.450	0.694
Trading & business	11 (11.0)	89 (89.0)		
Artisans	5 (12.5)	35 (87.5)		
Others	3 (13.6)	19 (86.4)		
Tribe				
Yoruba	23 (10.1)	204 (89.9)	3.359	0.340
Hausa	2 (6.5)	29 (93.5)		
Igbo	3 (21.4)	11 (78.6)		
Others	0 (0.0)	8 (100.0)		

## DISCUSSION

This study describes the realities of tobacco smokers' cessation practices, their readiness to participate in tobacco cessation programs and how tobacco smokers think it should best be delivered in Ovo State, Nigeria. Respondents with ages 25 years and above have higher prevalence of smoking and this is similar to the findings of a study which reported that in all, Nigerians who were 25 years and above age group had the highest number of current smokers in all categories (GATS, 2010). The report further highlighted that the prevalence of daily smokers increased with age from 3.7% among those aged 25-44 to 4.7% among those aged 45-64 but dropped to 4.0 % among those aged 65 years or above. This implies that this age group comprises individuals who are more likely to be habitual smokers and should therefore be the target of any meaningful and effective tobacco cessation programs.

Findings from this study showed that more men than women engaged in tobacco smoking. This is in consonance with the nationwide GATS (2012) study outcome where more men (7.3%)than women (0.4%) and 3.9% of adults overall (3.1 million) smoked tobacco daily. Likewise, the WHO 2015 projected data for currently smoking men and women in Nigeria stood at 17.4% for men and 1.0% for women respectively (WHO, 2015). Though, the use of tobacco products was formerly largely a male phenomenon, the gap in use between male and female adults is now smaller in countries like Austria, Denmark, Ireland, Norway and the United Kingdom. However, in Sweden and Norway, the current prevalence of daily consumption of tobacco is higher in women. Also, more girls than young boys use tobacco in Bulgaria, Croatia, Poland and Slovenia (Baška et al. 2009; Padjen et al. 2012). The findings of this study indicate that balanced smoking cessation interventions should be focused on both men and women without consideration to the fact that lesser prevalence of smoking is common among women.

A lower proportion of respondents in this study have thought of and made attempt at quitting tobacco smoking. This finding contrasts with that of some studies that indicated higher rate of willingness and attempts to quit tobacco

smoking (West, 2004; Mbulo et al. 2016). Evidence abound that only a tiny fraction of smokers has successfully quitted the habit on their own, only with their own will power (Cahill et al. 2012). However, studies have shown that individual attempts to quit without engaging in cessation programs have low success rates with about 98% possibility of restarting smoking after a year (The World Bank, 1999).This finding suggests the unlikelihood of individuals to be successfully free from smoking addiction by relying on self-determination alone. It requires the recognition of available and appropriate smoking cessation programs for chances of a permanent solution to the problem.

Only 4(10%) respondents in this study were aware of any tobacco cessation program in Nigeria. This is consistent with the findings of a study among pharmacy students of tertiary institution in South-south Nigeria where a high rate of lack of awareness of smoking cessation programs was reported (Owonaro et al. 2015). It is interesting to know that majority of respondents are not aware of any available tobacco cessation program in Nigeria. The establishments of fully functioning smoking cessation programs and facilities have not fully taken effect in Nigeria. The commitment by required policy and decision-making bodies has been lacking or may have not been made public. Thus, the awareness of such cessation among tobacco addicts who are willing to quit have remained poor.

This study found that half (50.4%) of the respondents desire a tobacco cessation program situated in a neutral non-hospital environment with stated reasons of comfort and accessibility to the program. The current developing phase of tobacco cessation programs in Nigeria is unlikely to meet this study respondents' expectation. It is important to note that it is unlikely to expect smoking cessation programs that will not be coordinated from a medical facility and implemented by qualified health professionals. However, with respect to the respondents' reason of wanting accessibility to the tobacco quitting program, provision of wellequipped outreach facilities, solely for cessation services may be established in most strategic areas (WHO, 2017).

About one third (36.8%) of respondents in

this study were unwilling to pay \$1 for each session of tobacco cessation program, meanwhile they are willing to support the program if made available to them. As argued by many organizations, smoking cessation is primarily a responsibility of the health systems of the countries (WHO, 2015). The available evidence suggests that smoking cessation services are more effective when they are part of a coordinated program of tobacco control (WHO, 2015). Available evidence shows that paying for tobacco use cessation treatments is the single most cost-effective health insurance benefit for adults that can be provided to employees (Joseph et al. 2018). Coverage of tobacco-use cessation treatment increases both use of effective treatment and the number of successful quit attempts (Hopkins et al. 2001; Joseph et al. 2018). The attempts of governments to provide broad coverage of these services to their populations are diverse and still insufficient.

Despite these successes in combating tobacco addiction, only 30% of high-income countries (HIC) are fully reimbursing smoking cessation services even though they are more likely to be able to fund cessation services than occurs in low-middle income countries (LMIC). Both HIC and LMIC show progress in offering at least some coverage of costs for treatment of dependence to tobacco: 80% of high-income countries and about 40% of middle-income countries reimbursed some individual smoking cessation services in 2011. Only one of eight of the low-income countries provided reimbursement for currently available cessation services in 2011 (WHO, 2017).

Most of the respondents (32.9%) highlight health education, mobilization (3.9%), incentives provisions (3.6%) and media advertisement (1.8%) as vital components of tobacco cessation interventions. Studies have shown that some of the intervention strategies targeted at this population must include specific goals of increasing the awareness of the risk to self and others, the quality of life associated with cessation, and how the power of cessation is intrinsically motivated. Such intervention strategies should be developed within the population's cultural milieu so that smokers

generally will accept the messages and be motivated to consider quitting. Strategies may also include public education activities and media campaigns to motivate smokers at this stage to think of quitting (Manfredi et al. 2001).Similarly, adoption of strategies such as the use of graphic health warnings on cigarette packs and in conspicuous public places (e.g. billboards) have increased smokers' awareness of the health risks of smoking (Meijer et al. 2018).

Regarding the level of education, an insignificant higher majority of respondents with Tertiary education 25% are willing to stop tobacco smoking compared to those with Primary education 12.8%, Secondary education 8.5% and those with No education. This correlates with findings in literature that showed no significant difference in smoking cessation between educational groups (Paavola et al. 2001).

A significantly higher proportion of male than female smokers in this study are willing to quit. Owing to the strong nature of tobacco addiction, it is usually not possible to have majority of smokers planning on quitting irrespective of gender. What is ultimately desirable is to put in place accessible support mechanisms for those intending to quit. The stage the willing-to-quit-smoking individuals are is called contemplation stage. Despite the low proportion of smokers in the preparation stage, decision making and implementing authorities should strategically target smokers at this stage to move them into action. For example, in Bangladesh and Nigeria, each has more than 10% of smokers in the preparation stage.

Consciousness raising and dramatic relief strategies, combined with recognizing the need to quit, making the decision to quit, learning to be a non-smoker, and sustaining the quit attempt could also help motivate smokers to pass from the contemplation stage to the preparation stage (Meijer et al. 2018). More could be done by adoption of strategies that will motivate this group to take action and avoid relapses into earlier stages. Processes of change strategies could include self-evaluation that allows smokers to reflect on their self-image in relation to their behaviour (Hudmon and Berger, 1995). Health care providers with brief interventions or extensive intervention could be one strategy to help smokers reflect on their smoking behaviour. Additionally, communities can organize "smoker cessation clubs," wherein past smokers congregate and exchange their success stories, thereby influencing people in the stages of contemplation and pre-contemplation to move into the preparation stage (Hudmon and Berger, 1995).

#### **CONCLUSION**

Self-determination is insufficient to effect tobacco cessation among tobacco smokers in Oyo State. Public health education campaigns need to be intensified to motivate smoking cessation attempts among smokers. The services of health care providers are needed in the enhancement of the willingness and attainment of smoking cessation. We hereby recommend the availability of equitable and appropriate genderspecific smoking cessation interventions for persons with smoking addiction.

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