

Smoking Settings, Intensity, Influencing Factors and Costs among Smokers in Amassoma, Nigeria

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Abstract

Cigarette smoking is the largest risk factor that leads to premature death globally. This study evaluated the common smoking settings, intensity of smoking, the factors influencing smoking and cost implications of smoking among smokers in Amassoma, a university town in Bayelsa state of Nigeria. 254 questionnaires were administered randomly to consenting respondents. Data was analyzed with SPSS version 20. 74.5 % of smokers sometimes smoked when they drank alcohol; 61% sometimes smoked when they were in the company of their friends; 62.9% and 62.4% respectively never smoked in the company of relatives and work mates. 51.8% claimed that friends were the major influence which resulted to their smoking habit. 58.2% and 76.6% respectively smoked 1-10 sticks per day and at a sitting; 41.8% smoked a stick in every 2-3hour; 22% smoked a stick in every 15-20mins, and 11.3% were chain smokers. 39% of respondents smoked anywhere, 25.5% reported they smoked at parties while 24.8% of the respondents smoked at home. 31.9% took Kola-nut; 31.2% smoked Indian hemp as well; 35.7% claimed that friends had high influence while 23.9% claimed that their family had moderate influence on their smoking habits. 91.4% procured cigarette with their own money; 94.3% spent 50 – 1000 naira daily and 78.2% spent 1000-5000 naira monthly on smoking. Anti-smoking campaigns and public enlightenment to create awareness on the adverse effects of smoking are strongly recommended in this community.

Key words: Cigarette smoking; Settings, Influencers, Costs, Nigeria

1. Introduction

Cigarette smoking is the largest risk factor that leads to premature death globally. In 2014 the surgeon general of United State reported that 480,000 deaths occurred due to cigarette smoking annually. In the United Kingdom, 30 most common causes of deaths were due to cigarette smoking (Carter et al., 2015). Despite its adverse effects, smoking prevalence continues to rise especially in developing countries like Nigeria (Abikoye, Fusigboye, 2010; Fawibe and Shittu, 2011; Adeyeye 2011; Odey et al, 2012). The prevalence of smoking among young adults is particularly on the increase and the tobacco industry globally is targeted at the young ones as older smokers are gradually decreasing in number (Oloughlin et al., 2014). It is a threat to human life. Beyond the hazard, smoking has an addictive effect and alters the behavioral pattern of the smokers. Smoking has been rated as the second cause of death in humans globally.

This study is aimed at evaluating the contextual correlates of smoking among inhabitants of Amassoma, Nigeria. The major thrusts are the evaluation of smoke settings and environments, frequency and intensity of smoking, influencing factors and cost implications.

2. Methods

2.1 Study population

This study was conducted in Amassoma, a university town in Southern Ijaw local Government Area of Bayelsa State, Nigeria. The community has a population of 20,000.

2.2 Study Design and Sample

Questionnaires were administered randomly 254 to consenting respondents. Determination of the sample size was done using the formula for evaluating the sample size population (Araoye, 2003). Data collected included smoking settings, method of procuring cigarette and Peer/family influence on smoking habits.

2.3 Data Analysis

Data obtained was analyzed using SPSS version 20. A t-test was also conducted using one way ANOVA.

3. Results

3.1 Demographic data

Most of the respondents were not married; there were more males; the prevalent age-group was 18-30 years mainly civil servants with a low income; majority were Christians and of the Ijaw tribe.

3.2 Best environments to smoke

About 74.5 % of smokers sometimes smoked when they drank alcohol; 61% sometimes smoked when they were in the company of their friends; 62.9% and 62.4% of respondents respectively never smoked in the company of relatives and work mates. About 51.8% of respondents claimed that friends were the major influence which resulted to their smoking habit; 29.1% claimed nobody influenced their smoking habit. See table 1 for details. See Table 1.

Table 1: Alcohol, Peer and Family Influence

Variable	Frequency (N=141)	Percentage
Do you smoke when drinking alcohol?		
Always	30	21.3
Sometimes	105	74.5
Never	6	4.3
Do you drink alcohol when smoking		
Always	38	27.0
Sometimes	96	68.1
Never	7	5.0
Are you in the company of friends when you smoke?		
Always	54	38.3
Sometimes	86	61.0
Never	1	0.7
Do you smoke in the company of family/relatives? (N=140)		
Always	11	7.9
Sometimes	41	29.3
Never	88	62.9
Do you smoke in the company of work mates?		
Always	10	7.1
Sometimes	43	30.5
Never	88	62.4
What influenced your smoking habit?		
Parents	7	5.0
Relatives	8	5.7
Friends	73	51.8
Nobody	41	29.1
Others	12	8.4

3.3 Smoking Frequency and Cigarette Brands

Regarding number of sticks of cigarettes smoked, 29.1% of respondents smoked 1-5, and 6-10 sticks of cigarette per day. Most of the smokers smoked 1-5 cigarettes a day and at a sitting; 36.2% smoked 1-2 packets per day. About half the respondents (48.9%) smoked 1-5 sticks of cigarettes at a sitting; 42.6% smoked 6-15 sticks at a sitting. Still on smoking frequency, 41.8% smoked a stick in every 2-3hour; 22% smoked a stick in every 15-20mins, and 11.3% were reported as chain smokers.

Benson & Hedges brand of cigarette was mostly used among 36.2% of respondents, closely followed by St. Morris brand with 32.6%. 58.9% of respondents claimed that their favorite brands were always available. In the absence of favorite brand, 39% of respondents took alcohol while 36.9% smoked any available brand. Table 2

Table 2: Smoking Intensity and frequency

Variable	Frequency (n=141)	Percentage
How many sticks of cigarette do you smoke at a sitting?		
1-5	69	48.9
6-10	39	27.7
11-15	21	14.9
21-25	4	2.8
26-30	5	3.5
31 and above	3	2.1
How many cigarettes do you smoke per day		
1-5sticks	41	29.1
6-10sticks	41	29.1
1 packet	31	22
2 packets	20	14.2
Above 2 packets	8	5.7
How frequent do you smoke?		
A stick every 15-20mins	31	22.0
A stick every half-1hour	15	10.6
A stick every 1-2hours	20	14.2
A stick every 2-3hours	59	41.8
Chain-smoking	16	11.3
What is your favorite brand		
St Morris	46	32.6
Benson & Hedges	51	36.2
Marlboro	28	19.9
Sweet menthol	16	11.3
How readily available is your favorite brand		
Always	83	58.9
Sometimes	56	39.7
Never	2	1.4
If your favorite brand is unavailable, what do you do?		
Smoke any brand	52	36.9
Will not smoke	34	24.1
Take alcohol	55	39

3.4 Smoking Venues, Other Substances Used and Self-Image

Regarding smoking venues 39% of respondents smoked anywhere, 25.5% reported they smoked at parties while 24.8% of the respondents smoked at home.

About 31.9% of respondents claimed they took Kola-nut; 31.2% smoked Indian hemp as well; 10.6% took Snuff; 5.7% smoked heroine and 4.3% took cocaine in addition to cigarette.

Regarding self-image, 63.1% of smokers had a low self-image. See Table 3.

Table 3: Smoking venue, other substances and self-image

Variable	Frequency (n=141)	Percentage
Where do you normally smoke?		
At home	35	24.8
At parties	36	25.5
Ceremonies	10	7.1
At work	5	3.5
Anywhere	55	39.0
What other drugs do you smoke/take apart from cigarette?		
Indian hemp	44	31.2
Cocaine	6	4.3
Raw tobacco	12	8.5
Heroin	8	5.7
Snuff	15	10.6
kola nut	45	31.9
Amphetamine	1	0.7
Monkey tail	10	7.1
How do you rate your self-image as a smoker? (N=138)		
High	51	37.0
Moderate	67	48.6
Low	20	14.5

3.5 Peer/Family Influence

Regarding the level of influence on smoking habit, 35.7% of respondents claimed that friends had high influence; on the other hand, 23.9% claimed that their family had moderate influence. Majority (82.2%) of respondents had friends that smoked; 26.6% had Uncles, 22% had brothers, and 18.2% had fathers that smoked. Over 60% of respondents were not living with smoking family members; 33.9% of respondents claimed that the smokers smoked inside the house. 53.2% of respondents had colleagues that smoked at work. 39.5% and 54.2% of respondents respectively claimed that the smoking colleagues smoked inside closed rooms and outside. Table

4

Table 4: Peer/family influence on smoking prevalence and patterns

Variable	Frequency	Percentage
How much influence do your friends have on your smoking habit? (n=140)		
High influence	50	35.7
Moderate influence	54	38.6
No influence	36	25.7
How much influence do your relatives have on your smoking habit? (n=138)		
High influence	10	7.2
Moderate influence	33	23.9
No influence	95	68.8
Do you have friends that smoke? (n=230)		
Yes	189	82.2
No	41	17.8
Which of the following relatives smoke? (n=214)		
Father	39	18.2
Mother	18	8.4
Brother	47	22.0
Uncle	57	26.6
Aunty	1	0.5
Sister	12	5.6
Son	8	3.7
Wife	2	0.9
Husband	7	3.3
Others	23	10.7
Do you live in the same house with any of these relatives that smoke? (n=233)		
Yes	87	37.3
No	146	62.7
Do you or the relatives smoke at home inside the house? (n=230)		
Yes	78	33.9
No	152	66.1
Does any of your colleagues at your workplace smoke? (n=220)		
Yes	117	53.2
No	103	46.8
If yes, do they smoke inside closed room? (n=181)		
Yes	65	35.9
No	116	64.1
If yes, do they smoke outside? (n=166)		
Yes	90	54.2
No	76	45.8

3.6 Method of procuring cigarette and costs

About 91.4% of respondents reported that they procured cigarette with their own money. 94.3% spent 50 – 1000 naira daily and 78.2% spent 1000-5000 naira monthly on smoking; 22.9% reported that the cost affected them greatly. Table 5

Table 5: Sourcing and supply chain of cigarette

Variable	Frequency	Percentage
How do you obtain the cigarette you smoke? (n=140)		
Buy with my money	128	91.4
Offer from friends	12	8.6
Do you readily afford the quantity of cigarettes you smoke per day? (n=140)		
Yes	117	83.6
No	23	16.4
Please state average amount you spend on smoking per day (Naira) (n=139)		
50-200	85	61.2
201-500	16	11.5
501-1000	30	21.6
1001-2000	4	2.9
Above 2000	4	2.9
State average amount you spend on smoking per month (Naira) (n=133)		
1000-5000	104	78.2
5001-10000	18	13.5
10001-15000	4	3.0
Above 15000	7	5.3
How does cost affect the availability of the quantity of cigarette you smoke (n=140)		
Greatly	32	22.9
Moderately	43	30.7
Minimally	34	24.3
No effect	31	22.1

4. Discussion

The major thrust of this study was to evaluate smoking settings, Intensity and frequency of smoking, factors that influence smoking and smoking-related expenditures among smokers in Amassoma community in Nigeria

4.1 Demography

Most of the respondents were males and single; the prevalent age-group was 18-30 years; they were mainly civil servants with a low income. Expectedly, majority were Christians and of the Ijaw tribe (NPC, 2007).

4.2 Best environments to smoke

One of the best environments for smokers in this community is the “alcohol” environment. Most of the smokers took alcohol while smoking. The link between smoking and alcohol consumption has been reported by several studies over the years (Bien and Burge, 1990; De Leon *et al.*, 2007; Kahler *et al.*, 2010; Owonaro and Eniojukan, 2015). This dual habit is of great concern. Smokers taking alcohol results to a synergic effect on their body since both are injurious to the body. For instance, progression of cancer will be faster since both substances can aggravate cancer (De Leon *et al.*, 2007; Hart *et al.*, 2010). The use of alcohol with cigarette is dangerous and should be discouraged.

Another prominent environment is the “friend” environment. Almost all (99.3%) smokers preferred smoking when they were in the midst of their friends. Several studies have proven that friends were major influence of smoking among the youths (Nargiso *et al.* 2013; Ukwaiyi *et al.*, 2012). A study carried out in Japan has proven that smoking habit was greatly influenced by friends (Naito *et al.*, 2009). Over half of smokers in this study actually claimed that friends were the major influence which resulted to their smoking habit. In the environment dominated by friends, there are no hold-bars, no inhibitions, no one breathing down the shoulder of any one; there is much freedom to do whatever they wished among friends. They all feel happy and want to be socially relating with each other and, in the process, share cigarettes with themselves freely.

The environments of co-workers and family appeared not to be conducive for smokers in this community; over 60% of smokers never smoked in these environments, similar to another community report (Owonaro and Eniojukan, 2015). There may be no-smoking policies at the workplace; smokers may be smoking surreptitiously, not wanting co-workers to be aware of their smoking status; most smokers in this cohort had low self-image; smoker have been reported as not warmly accepted by the public (Joffe *et al.*, 2014). The family may not be in

favour of their wards smoking and would take serious offence if they discovered that members of the family indulge in such habits. These are plausible reasons for smokers to disfavour these environments. Studies have shown that among adolescents, majority of the parents were unaware of their smoking status (Arute et al, 2015). Parents are supposed to be role-models for their wards. This is the more reason that parents should not be smokers themselves so that they will not unduly influence their wards to pick up the habit (Clark et al, 2006). Researchers have however reported that peers, siblings, and friends were more influential predicting factors on substance use than parents". (Allen et al, 2003). A community study in Bayelsa reported that friends and relatives had moderate influence on their smoking habit (Owonaro and Eniojukan, 2015).

The environment of parties and ceremonies were also favoured by smokers in this community. The popularity of these environments has been reported in other studies (Arute et al, 2015; Owonaro and Eniojukan, 2015). Most of these social ceremonies take place all through the night and they afford ample opportunities for the youths especially to indulge in smoking and other vices under the cover of darkness, away from home and from the watchful eyes of parents and guardians. In addition, alcohol consumption, almost *ad libitum*, takes place during these social activities; everybody is joyous and the guards are let down for people to indulge and possibly over-indulge (Owonaro and Eniojukan, 2015). There is certainly a distinct possibility for heavier smoking during social engagements that span throughout the night, which happen infrequently. One compounder of the situation is the copious availability of hawkers of cigarettes and alcohol usually in the close vicinity of such parties.

Smoking at parties should be controlled to ensure that non-smokers are not put at risk. No matter the level of control, the risk is always there for environmental tobacco smoking. Series of studies have reported that smoking in non-smokers' environment will equate them to be secondhand smokers which will have the same adverse effects as the current smokers (Jarvie, and Malone, 2008; McKee et al 2004).

Few of the respondents indicated they smoked anywhere. These may be "independent" adult people who are not under the scrutiny of any other persons. However, smoking anywhere should be discouraged as it can lead to public nuisance and make most people within the environment uncomfortable especially the non-smokers. This has been reported by other studies indicating that smoking in public places or in the mist of people is dangerous to their health (Jarvie and Malone, 2008).

4.3 Smoking Frequency and Cigarette Brands

Over half (58.2%) of smokers in this community indicated that they smoked 1-10 sticks of cigarette daily. Several studies have equally shown similar low smoking intensities (Salawu et al, 2011; Owonaro and Eniojukan, 2015). Thus, most smokers in this community may be considered to be light smokers. It is also significant to note that a substantial proportion of smokers (41.8%) in this community smoked a minimum of 1 packet of cigarette a day. The economic implication of this to the individual and his/her family is worrisome. Unfortunately, there are no distinguishing benefits between light and heavy smokers; either category is bedeviled by the inherent adverse effects of smoking (Bjartveit and Tverdal, 2005). The Million Women Survey has also shown that women who smoked up to 10 cigarettes a day, die early compared to non-smokers (Pirie et al, 2013). The frequency of smoking in this community is also worrisome; as high as 22% of smokers smoked a stick of cigarette every 15 -20 minutes. Depending on the venues for smoking, there is the possibility of environmental pollution with cigarette smoke which might affect others around them. A similar community study reported a higher frequency (49%) of smoking (Owonaro and Eniojukan, 2015). About a tenth of smokers were found to be chain-smokers. Taken together, the burden of smoking to the individual and the by-standers must be heavy in this community. Urgent efforts are needed to reduce this burden.

The favoured brands in this community were Benson & Hedges and St. Morris. About half of smokers always had their favorite brands of cigarette to buy. However, where the favoured brands were not available, they either smoked any brand that was available or drank alcohol. Thus, the ready availability of favorite brands and resorting to smoking of alternate brands must have influenced the high intensity of smoking in this community (Hoek et al, 2014).

About 39.2% of smokers reported that they used Indian hemp with cigarette. Studies had showed that some smokers mixed Indian hemp with tobacco. This is dangerous to the smokers due to the effect on them. This will lead to a higher level of narrowing of the respiratory tract presented with inflammation; which will eventually lead to death of the smokers (Roth et al, 1998). There is need to initiate strategies urgently to reverse this current trend as a high proportion of smokers are engaged in Indian hemp smoking in the community. Other substances consumed included kola nuts, snuff, raw tobacco, cocaine and monkey tail. These are all drugs of addiction that have deleterious health effects. People in this community need to have optimal information on these substances that can dissuade them from further indulgence.

4.4 Peer/ Family Influence

A majority of smokers in this community were influenced by friends, similar to several reports (França et al., 2009; Naito et al, 2009; Adeyeye, 2011; Ukwai et al, 2012; Nargiso et al 2013). Majority (82.2%) of respondents had friends that smoked; 26.6% had uncles, 22% had brothers, and 18.2% had fathers that smoked. Studies have demonstrated the strong influence of relatives on smoking initiation and maintenance (Allen et al,

2003; Lim et al, 2006; Owonaro and Eniojukan, 2015). However, majority of the respondents in this community stated that relatives had no influence on their smoking habit. This may be due to the fact that the relatives were non-smokers. Also the smokers reported that they smoked outside their living room which should be encouraged and promoted among smokers.

4.5 Cigarette Supply Source and costs

Almost all smokers reported that they bought cigarette with their own money. Self-financing of smoking by smokers have been reported in other studies (Eniojukan and Chichi, 2015; Owonaro et al, 2016). A few smokers shared with and from friends which is normal when friends come together with one purpose; two or more friends may share one stick of cigarette during hard times.

Smokers (78.2%) spent as much as 1000-5000 naira per month and 94.3% spent 50-1000 naira daily on smoking. This has negative effect on the smokers considering their annual income. The effect will definitely extend to their family since most of them were responsible for the upkeep of their families with a small income. This is similar to other studies pointing to the facts that smoking can lead to socioeconomic difficulties (Laaksonen et al., 2005). Hence there is urgent need to protect children in families of smokers with low income (Thomson et al., 2002).

5. Conclusion

Most smokers smoked anywhere, at home and at parties. Most smokers sometimes took alcohol while smoking. About 61% of smokers preferred smoking when they were in the midst of their friends; 35.7% of smokers were influenced by friends. Majority (82.2%) of respondents had friends that smoked; 26.6% had Uncles, 22% had brothers, and 18.2% had fathers that smoked. 39.2% of smokers used Indian hemp with cigarette. Over half (58.2%) of smokers smoked 1-10 sticks of cigarette daily; the smokers smoked outside their living rooms. Most (91.4%) of smokers bought cigarette with their own money; 78.2% spent 1000 – 5000 naira per month; 94.3% spent 50-1000 naira daily on smoking; 63.1% of smokers had low-moderate self-image. It is highly desirable to implement antismoking campaigns and upgrade the aware of the deleterious effects of smoking in this community.

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