

Research Article

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## Patterns of tobacco use among commercial tri-cycle riders in Owerri municipal council, Imo state

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### Abstract

The purpose of this study was to ascertain the patterns of tobacco use among commercial tri-cycle riders in Owerri Municipality. Five objectives, five research questions and four null hypotheses guided the study. Related literatures were reviewed and summarized. Descriptive survey research design was adopted for the study. The sample for the study comprised three hundred and twenty seven (327) from sixteen units in Owerri Municipal Council. A self developed structured interview guide was the main instrument used for data collection. Validation of the instrument was ensured through a jury of Public Health Educators in Imo State University, Owerri, Split half method was used in ascertaining the reliability of the instrument A high positive correlation of 0.86 was obtained when the data were exposed to Pearson Product Moment Correlation Coefficient. Data collected were analyzed using descriptive statistics of frequency, percentage and grand mean as well as inferential statistics of chi-square The major findings of the study were: cigarette smoking was; the highest and most frequently used form of tobacco (30%), more tobacco was consumed during the morning hours (40%), single tri-cycle riders (53%) used tobacco more than the married (47%). Conclusion was that tobacco use by all patterns among the commercial tri-cycle riders is on the increase. Recommendations were made, pertinent among which is that government, through the educational institutions and non-governmental organizations, should embark on serious public enlightenment campaign on the consequences of negative lifestyle such as tobacco use, through periodic organization of seminars and workshops in the town and rural communities.

### Keywords

Tobacco,  
Commercial tri-cycle  
riders,  
Owerri Municipality

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## Introduction

Tobacco use is a global phenomenon cutting across the various ages and gender of human kind. It has gained social and legal approval in almost all the units of the human society and arguable, the most commonly used psychoactive substance by men, from the historic times and even in the present day, irrespective of the health and social problems associated with its usage. The continuous increase in the rate of tobacco use among people is an indication that the campaign against tobacco use so far has been poor (Aliyu, 2011).

In the views of Maxwell and Brain (2006) tobacco can be dencribed as an agricultural product processed from the leaves of plants & containing the active substance nicotine, which like other psychoactive drugs has the ability to alter the mind of the user to an extent. Tobacco use is the act of taking tobacco into the body system and can be done through various ways such as smoking, chewing and snuffing (Oliver, 2010). The pattern of tobacco use however varies among individuals and localities. The forms may include cigarette, snuff, chewing tobacco, cigars, pipes, hookah, Bidis, Kreteks. Time of use, form, age differences, marital status and level of education of individual has been considered important demographic factors in tobacco use.

Historically, tobacco use can be dated back as early as 800-3000 BC and even to the prehistoric times, when the major patterns of tobacco use were by chewing of cocoa leaves (Fitz & Hugh 1999). The urge to alter one's consciousness and perhaps to improve sexual desire according to Darke & Keiiy (2004), was the main facet for tobacco use among the early men. Smoking pattern of tobacco use historically has been in existence since 800 years ago, and men then have suffered such health problems resulting from tobacco use, such as cancer and other related health problems. Civilization and the introduction of western education have also helped in bringing different forms of tobacco into our society and today the substance is commonly found in almost all shops and is even hawked around the various destinations.

Onuzulike (2007) opined that tobacco use has been described as the commonest unhealthy lifestyle witnessed among people and is attributed to over 400,000 preventable deaths per year, It cuts across all age cohorts of the human society.

Onuzulike (2007) in the same vein opined that imitation or adt It models, peer groups influence, the superstitious belief that smoking can reduce weight and the influence of advertising companies are ail among the major factors that predispose individuals to smoking and other patterns of tobacco use.

In a study to determine the patterns of psychoactive substance use among two-wheel commercial riders in Maiduguri, Aliyu (2011) found out that 85% of commercial drivers use tobacco as stimulant while driving and that thirty percent (30%) out of eighty five percent (85%) are married with families.

Though many related researches have been carried out on tobacco use, such as that on risk factors associated with tobacco use by Lasenbikan and Ojediran (2012), and that by Aliyu, (2011) on patterns of psychoactive substance use among two-wheel commercial riders in Maiduguri, but little or no effort has been made to study patterns of tobacco use with particular attention to the commercial tri-cycle riders in Owerri. This is also important considering the high rate of tobacco consumption witnessed among these illiterate tri-cycle commercial riders popularly known as keke divers who have taken lead of commercial transportation in Owerri in rent years. Independent variables like marital status, level of education, age, as well as dependent variables like form of tobacco and time can influence the pattern of tobacco use among the tri-cycle commercial riders in Owerri Municipality. It is against the background of a healthy living that the researcher was motivated toward ascertaining the pattern; of tobacco use among the tri-cycle commercial riders in Owerri municipality.

## Aim

The aim of the study was to ascertain the patterns of tobacco use among tri-cycle commercial riders in Owerri Municipal Council.

## Methodology

### Area of the study

This study was carried out in Owerri Municipal Council.

### Population of the study

The population of the study consisted of all the three thousand, two hundred and sixty-nine (3, 269)

registered commercial tri-cycle riders from the sixty two (62) registered commercial tri-cycle riders units in Owerri Municipal Council.

### Sampling and Sampling Techniques

The sampling technique is represented in a table as shown below.

S/N	Names of selected units	No of selected commercial tri-cycle riders	Percentage
1.	Ama J.k unit	27	8.5%
2,	New market unit	20	6.10%
3.	Mbaise road unit	20	6.10%
4.	Amawusa unit	20	6.10%
5,	Assurnpta unit	20	6.10%
6.	World Bank unit	20	6.10%
7.	Akwakuma unit	20	6.10%
8.	New road junction unit	20	6,10%
9,	MCC road unit	20	60.0%
10.	Ikenegbu unit	20	6, 20%
11.	Works layout unit	20	6,10%
12	Aladinma unit	20	6.10%
13	Wethedral unit	20	6.10%
14.	Aba road unit	20	6.10%
15	Egbu unit	20	6,10%
16	Secretariat unit	20	6.10%
	Total	327	100%

### Instrument for Data Collection

A self-developed structured interview guide titled "patterns of tobacco use" was used to obtain data from commercial tri-cycle riders. Interview guide was used because some of the commercial tri-cycle riders are not literate.

Section 'A' of the instrument contained an informed consent by the researcher, seeking for permission to collect data on patterns of tobacco use from the respondents through the chairman of the commercial tri-cycle riders association. Section 'B' contained questions on the personal data of the respondents. Section 'C' contained questions on pattern of forms of use of tobacco. Section 'D' contained questions on pattern of time of tobacco use.

### Method of Data Analysis

Data collected were analyzed using descriptive statistics of frequency, percentage, and arithmetic as well as inferential statistics of t-test were used to test the hypotheses. Aliyu, (2011) used this method of data analysis in a study titled patterns of psychoactive substance use among two-wheel commercial riders in Maiduguri. This justifies the use of similar method in a study of this nature.

### Results

#### Research question 1

What is the pattern of tobacco use by ferns among the tri-cycle commercial riders in Owerri Municipal Council?

**Table 1 : Frequency distribution of forms of tobacco used among the respondents**

Forms of tobacco	F	%
Cigarette	99	30%
Snuff	78	24%
Chewing tobacco	32	10%
Hookah	30	10%
Bidis	13	4%
Kretek	13	4%
Cigar	48	15%
Pipe	14	4%
Total	327	100%

From the table on forms of tobacco used, 99(30%) of the tricycle commercial riders interviewed used the cigarette form of tobacco, seventy-eight (78) or twenty four percent (24%) were found to be using snuff. Chewing form of tobacco was used by thirty-two (10% of the respondents); while thirty or nine percent (9%)

of the respondents used hookah form of tobacco. Thirteen (13) that is four (4%) of the respondents used either the bidis or kretek forms of tobacco. Cigar form of tobacco was used by forty-eight (48) that is fifteen (15%) of the respondents, while fourteen (14) that is four percent (4%) of the respondents used pipe.

**Research Question 2**

What is the pattern of tobacco use by time among the tri-cycle commercial riders in Owerri Municipal Council?

**Frequency distribution of time of use of tobacco among the respondents**

Time of use of tobacco	f	%
Horning hours (6-11am)	131	40%
Afternoon hours (1 pm-3pm)	16	5%
Evening hours (4-6pm)	65	20%
Night hours (7-11pm)	82	25%
Daily (morning, afternoon, evening and	33	10%
<b>Total</b>	<b>327</b>	<b>100%</b>

From the result presented in table 2 under time of use of tobacco, it snowed that 131(40%) of the respondents indicated using tobacco in the morning hours, sixteen (16) five percent (5%) indicated using tobacco during afternoon hours, while sixty-five (65) twenty percent (20%) indicated using tobacco in the

evening hours. Eighty-two (82) ie twenty five percent (25%) of the respondents indicated using tobacco at night hours, while those that indicated using tobacco both morning, afternoon, evening and night hours were thirty three (33) ie ten percent (10%) of the total number interviewed.

**Research Question 3**

What: is the pattern of tobacco use by marital status among the commercial tri-cycle riders in Owerri Municipal Council?

**Table 3: Frequency distribution of pattern of tobacco use by marital status**

Marital status	f	%
Married	153	47%
Single	174	53%
Total	327	100%

From the data obtained on tobacco use by marital status as shown in table 3, one hundred and fifty three,

153 (47%) of married tri-cycle riders use tobacco, while 174(53%) of the singles use tobacco.

**Research Question 4**

What is the pattern of tobacco use by level of education among the commercial tri-cycle riders in Owerri Municipal Council?

**Table 4 Frequency distribution of pattern of tobacco use by level of education**

Levels of education	F	%
Non-formal education	197	60%
Primary education	65	20%
Secondary education	52	16%
Tertiary education	13	4%
Total	327	100%

Table 4 revealed frequency distribution of pattern of tobacco use by levels of education. From the table, 197 (60%) of respondents who use tobacco had non-

formal education; 65(20%) had primary education; 52 (16%) had secondary education, while 13(4%) had tertiary education.

**Research Question 5**

What is the pattern of tobacco use by age among commercial tricycle riders in Owerri Municipal Council?

**Table 5 : Frequency distribution of pattern of tobacco use by age**

Age brackets	F	%
Below 25 years	16	5%
25 years -35 years	147	45%
36 years -46 years	99	30%
Above 46 years	65	20%
Total	327	100%

Table 5 showed frequency distribution of pattern of tobacco use by age. From the table, 16(5%) of the respondents who use tobacco were below the age of 25 years; 147 (45%) were within the age of 25 35 years. Ninety-nine, 99(30%) of the respondents who use tobacco were within 36-46 years, while 65(20%) respondents were above 46 years.

commercial tricycle riders in Owerri Municipal Council.

T-test table data on difference in pattern of form of tobacco use between married and single tri-cycle commercial riders.

**Hypothesis 1**

H<sub>0</sub>: There is no significant difference in the pattern of form of tobacco use between the married and single

Married	Single
X <sub>1</sub> = 19	X <sub>2</sub> = 22
S <sub>1</sub> = 188.4	S <sub>2</sub> = 381.1
N <sub>1</sub> = 8	N <sub>2</sub> = 8

Level of significance - 0.05  
df = 14 t-tab. = 2.15 t calculated = 2.49

The result shows that since the calculated value of  $t \sim 2.49$  were  $<$  than critical table value of 215, the null hypothesis was rejected. Therefore, it was concluded that there was a significant difference between the married and single commercial tri-cycle riders in Owerri Municipal Council in their pattern of form of tobacco use.

Non-formal/primary  
education  $X_1$   
 $X_1 = 20.13$   
 $S_1 = 159.27$   
 $N_1 = 8$

Level of significance = 0.05  
df = 14, t-tab. = 2.145, t-calculated = 2.575

The result shows that since the calculated value of  $t = 2.57$  was  $>$  than the critical table value of 2.145 the null hypothesis was rejected, and conclusion drawn that there was significant difference among commercial tri-cycle riders of various levels of education in Owerri Municipal Council in their pattern of form of tobacco use.

$X_1 = 25-35$  years  $X_1$   
 $X_1 = 29.4$   
 $S_1 = 565.46$   
 $N_1 = 5$   
Level of significance = 0.05  
df = 8  
t-tab = 2.3  
t-calculated = 0.859

The result shows that the calculated value of  $t = 0.85$  for h comparison, while the critical table value was 2.3 for both.

Since the calculated  $t$  value of 0.85 for both is less than the critical value of 2.3 the null hypothesis was accepted. It was therefore concluded that there was no significant difference between 25-35 years old and 36-46 years old commercial tri-cycle riders in Owerri Municipal Council in their pattern of time of tobacco use.

#### Hypothesis 4

$H_0$ : There is no significant difference in the pattern of time of tobacco use between the married and single

#### Hypothesis 2

$H_0$ : There is no significant difference in the pattern of form of tobacco use between the non-formal/primary and secondary/ tertiary educated commercial tri-cycle riders in Owerri Municipal Council,

T-test table data on difference in pattern of form of tobacco use among tri-cycle commercial riders of various levels of education.

Secondary/tertiary  
education  $X_2$   
 $X_2 = 8.13$   
 $S_2 = 14.13$   
 $N_2 = 8$

$H_0$ : There is no significant difference in the pattern of time of tobacco use among the commercial tri-cycle riders of various ages in Owerri Municipal Council.

T-test table calculation on difference in pattern of time of tobacco use among commercial tri-cycle riders of various ages in Owerri Mtnidpai Council.

35-46 years  $X_2$   
 $X_2 = 19.8$   
 $S_2 = 59.54$   
 $N_2 = 5$

commercial tricycle riders in Owerri Municipal Council.

T-test table calculation on difference in pattern of time of tobacco use between married and single commercial tri-cycle riders

Married	Single
$X_1 = 52.4$	$X_2 = 15$
$S_1 = 315.65$	$S_2 = 137.5$
$N_1 = 5$	$N_2 = 5$

Level of significance = 0.05  
df = 8  
t-tab. = 2.78  
t calculated = 3.93

The result shows that the calculated value of  $t = 3.93$ , while the critical table value was  $2.78$ . Since the calculated  $t$  value of  $3.93 >$  the table value of  $2.78$ ; the null hypothesis was rejected. Therefore, it was concluded that there was significant difference among commercial tri-cycle riders of various levels of education in Owerri Municipal Council in their pattern of time of tobacco use.

## Discussion

The findings discussed in this section of chapter five were related to research questions and hypotheses formulated in chapter one.

**Research question one:** sought to ascertain patterns of forms of tobacco use among commercial tri-cycle riders in Owerri Municipal Council.

The result on pattern of forms of tobacco use (table 1) revealed that cigarette is the most consumed form of tobacco (30%) among the commercial tri-cycle riders, followed by snuff (24%) and chewing form of tobacco with 32(10%). This finding agreed with the findings of Aliyu, (2011) and WHO, (2008) thus; cigarette smoking is the most frequent form of tobacco use. The result also shows that other forms of tobacco such as Bidis and Kretek were consumed by 4% each, while cigar and pipe form of tobacco were at 15% and 4% consumption rate respectively.

**Research Question two:** sought to ascertain the pattern of time of tobacco use among commercial tri-cycle riders in Owerri Municipal Council. Morning had the highest with 131 (40%), afternoon had 16(5%), evening was 65(20%), 82(25%) were shown to be using tobacco during night hours, while 33(10%) of the population used tobacco on daily hours. The finding from the result therefore is that majority of the commercial tri-cycle riders use tobacco during morning hours, followed by night hours and early evening hours, while very few number use tobacco during afternoon hours. This finding seems to agree with Chandra et al. (2007), which revealed that smoking behaviour was high in the morning for adults, low in the afternoon hours, and high during the evening and at night.

**Research Question three:** sought to ascertain the pattern of tobacco use by marital status among the commercial tri-cycle riders in Owerri Municipal Council. Table 3 showed the result on tobacco use by married and single commercial tri-cycle riders in Owerri Municipal Council. The result from the table showed that the pattern of tobacco use was on the

increase among the single individuals with 174(53%) of the population, while 153(47%) of the users are married.

**Research Question four:** sought to ascertain the pattern of tobacco use by level of education among the commercial tri-cycle riders in Owerri Municipal Council. Table 4 showed tobacco use by level of education among commercial tri-cycle riders in Owerri Municipal Council. The result indicated that pattern of tobacco use by level of education was high among those with non-formal education (60%), while those with tertiary level of education had the; lowest (4%).

Primary level of education was a bit high with 65(20%), while for those with secondary level of education the pattern by usage showed a little decrease (16%). The findings here contradict with Parnpel (2007) who opined that higher level of education was associated with increased smoking. The finding however, agrees with the findings of Brown, (2012) thus: increased level of education reduces tobacco consumption rate.

**Research Question five:** Sought to ascertain the pattern of tobacco use by age among commercial tri-cycle riders in Owerri Municipal Council, The findings from the table showed that pattern of tobacco use by age was on the increase for users between the age range of 25-35 years 147(45%), those within the age bracket of below 25 years showed a decline in their tobacco use with 1(<5%), while for age bracket 36-46 years, there is an increase with 99(30%), as there is a little decline for those within the age bracket above 46 years (20%).

The finding here is contrary to (Chandra et al., 2007) which showed a great variation in the form of tobacco use between the married and single, with cigarette smoking being the highest form of tobacco used by the single individuals and snuffing being the commonest form for the married. However, variation in the pattern of form of tobacco use is believed to be influenced by the weather and availability of the forms of tobacco within the individuals' environment.

The result of hypothesis 2 showed that there is a significant difference in the pattern of form of tobacco use among commercial tri-cycle riders of various levels of education in Owerri Municipal Council, since the cal.  $t$ . of  $2.575 >$  tab value of  $2.145$  for non-formal/ primary and secondary/ tertiary educated commercial

tricycle riders. The findings here agreed with the stipulations of Brown (2012) that; the highly educated individuals are found to be using more tobacco than those with low level of education and that education has no direct influence on form or type of tobacco used by individuals.

The result of hypothesis 3 showed that there is no significant difference between commercial tri-cycle riders of age 25-35 and those of age 36-46 in Owerri Municipal Council in their pattern of time of tobacco use, since the calculated t value = 0.859 is < the table value of 2.3 for 25-35 and 36-46 years. The findings here therefore agreed with the stipulations of Stan and Wilfred (2010) that tobacco consumption in the morning hours is usually high for both the young and adult individuals and always low during the afternoon hours, but rises towards the evening for all irrespective of age differences. This however might have to do with the individual's activities during each time of the day and personal preference of a particular time to use tobacco.

Result of hypothesis 4 showed that there is a significant difference in the pattern of time of tobacco use between non-formal/primary and secondary/tertiary educated commercial tri-cycle riders in Owerri Municipal Council, since the calculated table value 3=93 is > the table value of 2.31 for the non-formal/primary and secondary/ tertiary educated commercial tri-cycle riders.

The findings here is in accordance with Tingzhong et al. (2008) assertion that average tobacco use per day is influenced mostly by other demographic factors and not just education.

## Conclusion

By form, cigarette smoking is the highest and most frequently used form of tobacco by the commercial tri-cycle riders (30%) followed by snuff (24%), cigar (15%), chewing tobacco (10%), hookah (10%), while the lowest forms of tobacco used among the commercial tri-cycle riders are Bidis, Kreteh and pipe, each with (4%) usage. By time of use, more tobacco was consumed during the morning hours (40%) by the commercial tri-cycle riders and in the night hours (25%), while few respondents used tobacco during the afternoon hours (5%) and on daily basis (10%). By marital status, single tri-cycle riders (53%) used tobacco more than the married (47%). By level of education, many (60%) respondents with non-formal

education used tobacco, followed by those with primary level of education (20%), and there is a decrease in tobacco use as level of education increases with secondary educational level (16%), while respondents with tertiary education (4%) used least. By age, pattern of tobacco use among the commercial tri-cycle riders is highest among respondents 25-35 years (45%). There was a significant difference in the pattern of form of tobacco use between the married and single commercial tri-cycle riders in Owerri Municipal Council. There was significant difference in the pattern of form of tobacco use among respondents of various levels of education. There was no significant difference in the patterns of tobacco use among commercial tri-cycle riders of various ages in Owerri Municipal Council. There was significant difference in the pattern of time of tobacco use between the married and single commercial tri-cycle riders in Owerri Municipal Council

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