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ABSTRACT

Tobacco smoking is the cause of premature morbidity and mortality worldwide. The rate of smoking is increasing. This study was to determine how senior secondary II students in Uyo Local Government Area perceived the effects of tobacco smoking on health. Three research questions and one hypothesis were formulated. A survey research design was adopted, stratified proportionate sampling technique was used to select 319 senior secondary II students from 5 out of 13 public schools that were randomly selected. A well validated questionnaire with reliability index of .88 was designed and administered. Percentage was used to analyse research questions. Chi square was used to test the hypothesis at .05 level of significance. Hypothesis was rejected based on findings. Appropriate recommendations made.

Keywords: Perceived Effects, Tobacco Smoking, Health, Secondary School Students and Uyo Local Government Area

INTRODUCTION

Tobacco smoking is an addictive behavior that has grave health problems in health and adolescents in developed and developing countries. In this study, tobacco smoking is the act where tobacco is burned, the vapour inhaled, exhaled and non-smokers inhaling the exhaled tobacco smoke. Hornby (2005) defined effects as a change that something causes in something else. In this study effects are those consequences of tobacco smoking on smokers and non-smokers. Hornby defined perceive as being to notice or become aware of something. Health is a state of complete physical, mental and social wellbeing and not merely the absence of diseases or infirmity (World Health Organization, 1990). Perceived effects of tobacco smoking on health by secondary school students is therefore the awareness of the consequences of tobacco smoking on the health of smokers and non-smokers by secondary school students. Health is shaped by factors which are not entirely medical and it is something individuals achieve by themselves (Hamzat, Okpeze & Olaleye, 2004). Food insecurity often influences unhealthy dietary choices, such as reliance on cheap, low-nutrient foods, which can weaken health outcomes. Further explained by kunlere, (2025) Malnutrition, which includes under nutrition, micronutrient deficiencies, and obesity, has far-reaching health and developmental implications, disproportionately affecting children.

Several studies have reported that children develop the intention to smoke and start smoking from age ten to twenty (Global Youth Tobacco Survey (GYTS), 2002). Centres for Disease control and Prevention (CDC), (2003) stated that 46.2 million United States of America adults were currently smokers and this is 22.8% of all adults. Many smokers begin during adolescence or early

adulthood and approximately 83% tried their first cigarette before age 18 (Chassin, Presson, Prost & Sherman, 2002). A large number of youths in secondary schools and tertiary institutions smoke cigarettes (Oghenekevwe, 2002).

Tobacco products are made entirely or partly of leaf tobacco as raw material, which are intended to be smoked, sucked, chewed or snuffed (WHO 2011). Tobacco is cultivated around the world and can be legally purchased in all countries. The dried leaf is smoked in form of manufactured *cigarettes, bidis, kreteks, hookah, pipes and sticks* (WHO, 2003a). Tobacco smoking is the practice where tobacco is burned and the vapour either tasted or inhaled and this began as early as 5,000 to 3,000 BC (Fairweather, Hinndmarch, Parkin&Shamsi, 1998). These authors continued that the substance was met with frequent criticism, but became popular nonetheless. Also that German scientist formally identified the link between smoking and lung cancer in the late 1920s and in 1950, health authorities began to suggest a relationship between smoking and cancer. They further wrote that the rates of consumption from 1965 onward in developed world have either peaked or declined, but continued to climb in developing world.

Hammond (1992) explained that *nicotianatobaccum* is the scientific name of the tobacco plant and it contains the volatile alkaloid *nicotine*, irritants such as *ammonia, benzopyrene, collodine and furfural*. The tobacco leaves when dried produce fruity aromatic flavours and before packaging, other additives are added in order to enhance addictive potency and improve the effects of smoke by making it more palatable (Fairweather, Hinndmarch, Parkin&Shamsi, 1998). Tobacco smoke contains 4,000 chemicals, the vast majority of which are present either naturally in the tobacco and transferred into the smoke or are formed when tobacco is burnt (Mitchell, 2005). The National Cancer Institute (2011) reported that Environmental Tobacco Smoke (ETS) also known as secondhand smoke, which is a mixture of smoke diffusing directly from burning tobacco into the atmosphere and smoke exhaled by smokers, contains 7,000 chemicals. After smoking for many years the avoidance of withdrawal symptoms and negative reinforcement become the key motivations to continue (Lloyd & Mitchinson 2008).

Tobacco smoking is the leading preventable cause of premature morbidity and mortality (CDC 2003). Moronkola (2006) noted that tobacco smoking remained one of the most dangerous activities human beings voluntarily engage in and it is a very serious public health problem. This study is mainly concerned with tobacco smoking and its physiological health problems, and problems of personal hygiene of smokers and non-smokers.

Physiological health problems are the adverse effects of tobacco smoking on the normal functioning of the body organs and systems. Tobacco smoking generally leads to a number of physiological health problems including cough (smokers' cough), cardiovascular diseases, many types of cancers like oesophagus, larynx, mouth, kidney, bladder, pancreas, stomach, blood (leukaemia) cervical and about 70% of lung cancer (WHO, 2011). Studies conducted by the Nigeria Heart Foundation between 1994 and 1998 showed that smoking-related hypertension is a major risk factor for heart diseases in Nigeria (Okafor, 2005). Lloyd and Mitchinson (2008) reported that smoking causes a condition known as Peripheral Vascular Disease (PVD), which is when blood flow to the feet and hands is slowed down, cutting off oxygen supply to those areas and some smokers end up having their limbs amputated. A man with PVD may have erectile dysfunction, people who are Human Immune Virus (HIV) positive are twice as likely to develop full blown Acquired Immune Deficiency Syndrome (AIDS) and tobacco causes almost the same number of deaths as malaria, tuberculosis and AIDS combined (CDC, 2003). Smoking lowers a person's immunity causes

oxidative stress leading to early aging process, cause poor appetite and loss of weight (Rodin & Wack, 2009).

Tobacco smoking also affects the health of non-smokers. Involuntary (or passive) smoking is the exposure of non-smokers to and inhaling of secondhand tobacco smoke (WHO 2003b). Exposure of pregnant women to ETS is associated with a doubled risk of rare but devastating condition called Persistent Pulmonary Hypertension of the newborn in which infants starve of oxygen because blood is not pumped through the lungs to the body (Wilson, 2007). National Cancer Institute (2011) reported that ETS cause pneumonia, more severe asthma, cough, slow growth of lungs and difficulty breathing children, generally irritates airways and harms blood vessels. Moronkola (2006) opined that smoking has a variety of health effects including chronic bronchitis, emphysema, arteriosclerosis and peptic ulcer.

Mental health problems are the distortion of the normal functioning of the brain by tobacco smoking. Previous investigations conducted in Nigeria concluded that some mental related disorders found among secondary school students are associated with tobacco smoking (Moronkola & Onuaha 1997). Tobacco smoking has been found to have adverse effects on a person's intelligence (Oyerinde 2005). In a study conducted in a University in United States of America to compare the Intelligence Quotient (IQ) of more than 20,000 healthy 18 to 21 year old males enlisted in the Israeli Army, men who smoked scored about 7 points lower on average than their non-smoking peers (Ablar, 2010). The researcher also wrote that a procarcinogen commonly found in tobacco promotes an inflammatory condition of the brain, inflicts subsequent neuronal changes in the brain's immune cells (*microglia*) to attack healthy cells damaging the brain and causing mental retardation, sleep problems, brain cancer and mental illness. CDC (2003) in a study revealed that smoking during pregnancy leads to denial of proper oxygen supply to the baby, causing fetal brain damage. CDC continued that when the baby is born, it adversely affects development and the child's learning ability causing attention deficit disorder and retarded mental growth.

The effects on personal hygiene are the consequences of tobacco smoking on the physical appearance of the smoker which makes the individual unkempt. Okafor (2005) noted that tobacco smoking also affects the personal hygiene of smokers giving them offensive body odour, discoloured teeth, lips, mouth and fingernails. The bad odour clings to the body even if the person never smokes in the home, car but partakes of cigarette only while outdoor, the smell lingers, clings to the hair, clothes and cannot disappear with the use of perfumes and aftershave lotions. It exacerbates bad breath, that is, the chemical in tobacco smoke sticks to areas in the mouth that cannot be cleaned simply by brushing/flossing the teeth and using breath mints also having good oral hygiene cannot truly mask the odour of tobacco (Children, Youths and Women's Health Services, 2011). Ogundele and Adeniyi (2006) noted that smoking was a major source of health problems.

WHO (2011) stated that death of men and women dying in their prime between 35 and 69 years from tobacco smoking is on the increase. The organization reported that governments of countries were not doing enough to help people quit smoking or protect non-smokers from ETS. Also that there was still much ignorance of the health consequences of tobacco as follows: in 2002 tobacco killed 4.8 million people prematurely 50% coming from developing countries; in 2004, 1.6 million of the 7.4 million cancer deaths were due to tobacco smoking; if no preventive action was taken number of death will double in the next two decades and more than 70% of these deaths will be in developing countries. It will kill nearly 6,000,000 people this 2011 including 600,000 non-

smokers around the world; it could kill 8 million people a year by 2030; death toll could reach 10 million and if current trend persists, death toll could rise to a billion.

Some of the major resolution of WHO Framework Convention on Tobacco Control (FCTC) (the WHO FCTC was adopted on 21st May, 2003 and entered into force on 27th February, 2005) are the determination to protect present and future generations from tobacco consumption, lessen exposure to ETS and limit tobacco smoke advertising and promotion (WHO 2005). More government of countries were urged to sign the WHO FCTC, a tobacco control treaty that has already been signed by 172 countries. Nigeria signed since 28th June 2004 and the National Tobacco Control Bill only passed by the House of Representatives on 31st May 2011 as part of activities to mark 2011 World Tobacco Day (WHO 2011).

Jensen (2011) opined that cigarette smoking was a habit for adolescents and they were at higher risk of taking to smoking due to their social environment. The author also stated that adolescent smoke as a mark of independence to lose weight, keep fit, to be like their friends and to rebel or feel better about self. Obioha (2004) posited that adolescents smoke because the advertising industries have been linking smoking with athletic prowess, beauty, masculinity, youth success and intellect. The researcher concluded that adolescent smoke because their role models that is, their parents, teachers and heroes in movies smoke and were ignorant of the health consequences. More so, these young children were often sent by their parents or guardians to purchase cigarettes for them and this further exposed them to act.

Based on these this study was undertaken to examine the perceived effects of tobacco smoking on health by senior secondary II students in public secondary schools in Uyo Local Government Area.

Statement of the Problem

Tobacco smoking is one of the contemporary social problems facing our society today with adverse effects on the human health (Moronkola, 2006). Despite the widespread publicity and strong warning of harmful health effects of tobacco, people still smoke and production rates around the world continue to increase (Ogundele&Adeniyi, 2006). In tobacco industry marketing strategies, smoking is promoted as symbolizing youthfulness fitness success and wellbeing, which are at variance with the actual effects of tobacco on voluntary and involving users (Moroukola 2006). Oyerinde (2005) reported that smoking was a common phenomenon among secondary school students. Adolescence period is when long-term health risks seem to be of less concern (Jensen, 2011).

There is much concern for the increase in the rate of childhood and adolescent smoking (Oyerinde, 2005). Research efforts, especially of recent years, have unavoidably identified the youths as constituting the high-risks group of people that use tobacco (Obioha, 2004). Lloyd and Mitchinson (2008) reported that some 1.22 billion people aged 15 years and above among the world's 6 million people smoked tobacco. Okafor (2005) in a recent study reported that smoking imitation starts in secondary schools and youth smoking prevalence showed over 10% of young people smoking with an increasing trend in the subsequent years. Abasiubong, Atting, Basse and Ekott (2008) in a study conducted among secondary school students in Eket and Uyo Local Government Area of Akwa Ibom State discovered that out of 135 respondents used in Eket, 47 (34.8%) constantly smoked tobacco. Ogundele and Adeniyi (2006) in a study conducted among secondary school students in Akinyele Local Government Area in Oyo State discovered that out of 300 respondents used, 227

(75%) perceived the effects of tobacco smoking on health. Various studies revealed that more than one of three smokers die prematurely of smoke-related diseases (Hamzat, Okpeze&Olaleye, 2004). Moronkola (2006) noted that tobacco smoking accounted for about 5 million deaths worldwide every year and tobacco smoke present serious threats to health of families, associates and communities of smokers as well. Ukeji (2011) posited that 6.5 million Nigerians risk death from tobacco in 2011.

The researcher being burdened with the increasing rate of deaths and diseases from tobacco smoking and the increasing trend of youth that smoke tobacco was challenged to investigate into the perceived effects of tobacco smoking on health by secondary school students in Uyo Local Government Area. It is by so doing that appropriate health education invention programmes will be targeted early enough to help reduce this life threatening act and problem among the youths and the entire populace.

Objectives of the Study

The main objective of this study was to examine the perceived effects of tobacco smoking on health be senior secondary II students in Uyo Local Government Area.

Specifically, this study was designed to determine:

1. The perceived effects of tobacco smoking on physiological health by senior secondary II students in Uyo Local Government Area.
2. The perceived effects of tobacco smoking one mental health by senior secondary II students in Uyo Local Government Area.
3. The perceived effects of tobacco smoking on personal hygiene by senior secondary II students in Uyo Local Government Area.

Research Questions

The following research questions were formulated to guide the study:

1. What are the perceived effects of tobacco smoking on physiological health by senior secondary II students in Uyo Local Government Area?
2. What are the perceived effects of tobacco smoking on mental health by senior secondary II students in Uyo Local Government Area?
3. What are the perceived effects of tobacco smoking on personal hygiene by senior secondary II students in Uyo Local Government Area?

Research Hypothesis

Ho: There is no statistical significant effect of tobacco smoking on health as perceived by senior secondary II students in Uyo Local Government Area.

Research Method

Design of the Study

A survey research design was used for the study. It allowed for the collection of information from a large population of respondents in their natural setting (Gay & Mills, 2006; Akpabio&Ebong, 2009). This design was selected in preference to others because it allows the drawing of inferences. The essence of this design was to make inferences about the population under study using the sample

drawn from that population. This study on perceived effects of tobacco smoking on health by senior secondary II students in public secondary schools in Uyo Local Government Area was achieved by selecting samples of senior secondary II students and studying some vital health facts from them. This was the justification for choosing this design for the study.

Population for the study

The population for the study consisted of 3190 senior secondary II students in all the 13 public secondary schools in Uyo Local Government Area of Akwa Ibom State (Planning, Research and Statistics, Akwa Ibom State Secondary Education Board, 2011).

Sample and Sampling Technique

The sample size of 319 senior secondary II students in Uyo Local Government Area was used. Multi-stage sampling was adopted for this study. Firstly, simple random technique was used to select 5 schools from 13 public secondary schools in Uyo Local Government Area. Secondly, stratified proportionate sampling technique was used to select the sample size from the selected 5 public secondary schools in Uyo Local Government. The choice of 319 samples from a population of 3190 senior secondary II students in all the 13 public secondary schools in Uyo Local Government Area of Akwa Ibom State was supported. Nwana (1993) suggested that if the population of the study is a few hundred, forty per cent (40%) or more sample should be used; if a few thousand, ten per cent (10%) will do and is several thousand five per (5%) or less of the total population will do. Based on this view the researcher used ten per cent (10%) of the population.

Instrument for the Data Collection

A researcher developed 15-item instrument titled “Perceived Effects of Tobacco Smoking on Health Questionnaire” (PETSHQ) was used to collect data for the study. The instrument consisted of one section, section A which gathered information on the perceived effects of tobacco smoking on health. Besides, the instrument was graded on a 4 point rating scale of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD) with their respective points of 4, 3, 2, and 1.

Validation of the Instrument

The content validity of the instrument was established by three experts in Health Education, Measurement and Evaluation Departments from the Faculty of Education, University of Uyo. This was to determine the appropriateness of measures in terms of general appearance, the extent to which items in the instrument were related to the sample of universe of content and to ensure that the items accurately and capably measured variables being studied.

Reliability of the Instrument

The instrument (PETSHQ) was administered once on 30 senior secondary II students who were not part of the study but were homogenous in all aspects to the samples used for the study. The cronbach alpha statistics was used to determine the reliability index of the instrument which stood at .88. This indicated the suitability of the instrument for the research work.

Method of Data Collection

The researcher obtained permission from principals of the selected schools. The questionnaire was carefully explained to the respondents. Afterwards, the researcher and three duly trained research assistants administered the questionnaire on the respondents and encouraged the respondents to fill on the spot and collection was made. After collecting all copies of the questionnaire, each was coded and given a serial number. A scoring sheet was provided where all respondents were scored. Each respondent was given an overall score by adding the scores for all the items as they were answered. The total score obtained was provided a dependable measure of the variables under consideration. Out of the 319 respondents, 312 filled the questionnaire correctly, 7 filled wrongly. Therefore all analysis were on 312 correctly filled copies of questionnaire.

Method of Data Analysis

For the purpose of this study, percentage was used to analyse research questions, while chi-square was used to test the hypothesis at .05 level of significance. The critical value was obtained by checking the degree of freedom (df). The calculated chi-square χ^2 was then compared in order to accept or reject the research hypothesis.

Results

The results of this study are presented in tables as follows:

Table 1: Analysis of frequency and percentage for perceived effects of tobacco smoking and physiological health by senior secondary II students in Uyo Local Government Area

S/NO	ITEM	n= 312								
		SA		A		D		SD		
		F	%	F	%	F	%	F	%	
1.	Tobacco smoking lowers immunity	162	51.9	34	10.9	72	23.1	44	14.1	
2.	Tobacco smoking causes heart disease	126	40.4	57	18.3	68	21.8	61	19.6	
3.	Tobacco smoking causes cancer of major body organs	168	53.8	12	3.8	41	13.3	91	29.2	
4.	Tobacco smoke inhaled by pregnant women causes a rare but dangerous type of hypertension of newborn baby	162	51.9	12	3.8	22	7.1	116	37.2	
5.	Tobacco smoke inhaled by children causes severe asthma	165	52.9	58	18.6	52	16.7	37	11.9	

Table 1 shows frequency and percentage analysis of perceived effects of tobacco smoking and physiological health by senior secondary II students in Uyo Local Government Area. The table reveals that greater frequencies and percentages of the respondents ranging between 126 (40.4%) and 168 (53.8%) strongly agree with all the five items that tobacco smoking has effects on physiological health.

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Table 2: Analysis of frequency and percentage for perceived effects of tobacco smoking and mental health by senior secondary II students in Uyo Local Government Area

S/NO	ITEM	n= 312							
		SA		A		D		SD	
		F	%	F	%	F	%	F	%
6.	Tobacco smoking damages the brain cells	144	46.2	18	5.8	131	42.0	19	6.1
7.	Mental disorders found among students are associated with tobacco smoking	144	46.2	24	7.7	87	27.9	57	18.3
8.	Tobacco smoking causes low intelligent quotient	144	46.2	24	7.7	18	5.8	126	40.4
9.	Tobacco smoking leads to sleep problems	94	30.1	126	40.4	11	3.5	81	26.0
10.	Tobacco smoking causes braincancer	99	31.7	103	33.0	29	9.3	81	26.0

Table 2 shows frequency and percentage analysis of perceived effects of tobacco smoking and mental health by senior secondary II students in Uyo Local Government Area. This table reveals that with the exception of the perceived effects of tobacco smoking on mental health which leads to sleep problems which is 94 (30.1%) and that which causes brain cancer which is 99 (31.7%) where the respondent agree a greater frequency 144 (46.2%) of respondents strongly agree with three of the five items that tobacco smoking has effects on mental health.

Table 3: Analysis of frequency and percentage for perceived effects of tobacco smoking and personal hygiene by senior secondary II students in Uyo Local Government Area

S/NO	ITEM	n= 312							
		SA		A		D		SD	
		F	%	F	%	F	%	F	%
11.	Tobacco smoker usually have body odour	164	52.6	42	13.5	29	9.3	77	24.7
12.	Tobacco smoking causes bad breath	173	55.4	41	13.1	17	5.4	81	26.0
13.	Tobacco smoking causes stains on the teeth	121	38.8	63	20.2	41	13.1	87	27.9
14.	Tobacco smoking causes discoloration of the fingers	120	38.5	76	24.4	22	7.1	94	30.1
15.	Tobacco smoking causes discoloration of the mouth	81	26.0	121	38.8	29	9.3	81	26.0

Table 3 shows frequency and percentage analysis of perceived effect of tobacco smoking and personal hygiene by senior secondary II students in Uyo Local Government Area. The table reveals that 121 (38.8%) of the respondents agree that tobacco smoking causes discoloration of the mouth and 121 (38.8%) also strongly agree that tobacco smoking stains the teeth. Greater frequencies 173 (55.4%) and 164 (52.6%) of respondents strongly agree that tobacco smoking has effects on personal hygiene causing bad breath and offensive body odour respectively.

Table 4: Result of chi-square test for perceived effects of tobacco smoking and health by senior secondary II students in Uyo Local Government

Variable	N	X	SD	x²cal	x² cri	df	Remark
Perceived effects of tobacco smoking on health	312	133.36	47.52	813.92	34.77	33	

Entries in table 4 reveal the calculated x^2 value of 813.92 with 33 degree of freedom and critical x^2 value of 43.77 at .05 alpha level. Since the calculated x^2 is greater than the critical x^2 the result is significant. Therefore the null hypothesis which states that there is no statistical significant effect of tobacco smoking on health as perceived by senior secondary II students in Uyo Local Government is rejected in favour of the alternate hypothesis. The result implies that senior secondary II students in Uyo Local Government Area perceive that tobacco smoking has significant effects on health ranging from physiological health, mental health to personal hygiene.

Discussion of the Findings

Discussion of the findings of this study is made based on the three variables examined. Table 1 shows the result of data analysis on perceived effects of tobacco smoking and physiological health by senior secondary II students. It reveals that the respondents perceived that tobacco smoking has effects on physiological health in all the five items. These are lowering immunity, causing heart disease, causing cancer of major body organs ETS inhaled by pregnant women causing a rare form of hypertension of newborn baby and ETS inhaled by children causing severe asthma. The findings of the study is in line with that of Okafor (2005), Moronkola (2006) Rodin and Wack (2009) and WHO (2011) that reported tobacco smoking as causin a number of physiological health diseases like cardiovascular diseases, many types of

CONCLUSION

Tobacco smoking is dangerous to health and it remains the leading cause of preventable premature morbidity and mortality worldwide. Based on the findings of this study it was realized that senior secondary II students in Uyo Local Government Area perceived tobacco smoking to have effects on physiological health, mental health and personal hygiene of smokers and non-smokers. Previous researchers from review of literature discovered that tobacco smokers began the act of smoking during adolescence and mostly when in secondary schools. This study further revealed that their indulgence in smoking does not correspond with their being aware of the health consequences of tobacco smoking. This poses dangerous threats to theirs health and to those of the people in their communities. Therefore, it is necessary to target this age group for proper monitoring and preventive programmes aimed at reducing and eradicating tobacco use in order to help reduce the increasing morbidity and mortality rates caused by tobacco smoking.

RECOMMENDATION

1. It is essential that government institutes well planned tobacco education intervention programmes in secondary schools with emphasis on the effects on human health.

2. Ministries of education and health and also the mass media should improve upon their campaigns to increase students and public awareness of the harmful effects of tobacco smoking on health in order to discourage their positive.
3. Health educators and other health professionals should liaise with school administrators in keeping abreast with evidence-based tobacco dependence treatment and cessation programmes to further discourage the act of smoking.
4. Nigeria and other countries should embrace and implement the WHO Framework Convention on Tobacco Control.

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