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Exploring Peer Influence As A Pathway To Adolescent Substance Use In Nigeria

MPH Master Thesis

By

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STATUTORY DECLARATION

I hereby declare that I am the individual author of this thesis, which is now submitted for assessment at Hamburg University of Applied Sciences leading to the award of Master of Public Health.

I certify that, to the best of my knowledge, this thesis was completed with reasonable care to ensure that the work is original and does not violate any law of copyright.

Hamburg, September 2013

Signed by

A handwritten signature in cursive script, appearing to read 'Alexander Oni', with a small dot at the end.

Alexander Oni

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To God be the glory, great things He hath done.

ABSTRACT

BACKGROUND

Peer influence has consistently been found to be among the strongest predictors of substance use among adolescents by many literatures around the world including some Nigerian articles. However, Nigeria lacks literature that explores the various contexts and patterns of adolescents' substance use based on the influence of their peers. Therefore, this research attempts to show evidence of peer influence in the context of susceptibility to peer pressure, temptation to smoke and self-efficacy to use substances in various forms among adolescents in Lagos Island, Nigeria.

METHODS

A school based cross-sectional survey using anonymous self-administered questionnaires was carried out among 257 respondents from 4 senior secondary schools in Lagos Island, Nigeria. This was achieved by using simple random sampling technique. The collected data was analyzed with IBM SPSS Statistics 17 software.

RESULTS

For all the substances considered, about 75% of users admitted to being tempted to smoke in positive, negative and habitual/craving situations while about 50% of non-users admitted likewise. Users of substances are more susceptible to peer pressure to carryout perceived deviant activities than their counterpart non-users. When socializing with peers, it appears more boys are tempted to smoke than girls. Boys also appear to have a higher self-efficacy to smoke when anxious, stressed or angry and in habitual/craving situations than girls. As the adolescents grow older, they are more open to admit susceptibility to peer pressure to use substances when asked but willingness to disclose use of illicit substances is generally low.

DISCUSSION & CONCLUSION

The study showed that there is significant temptation to smoke in positive, negative and habitual/craving situations among users, but the findings are also remarkable in non-users. There is pressure on non-substance-using-adolescents to join their substance-using close friends in smoking and drinking in social situations. Also, they eventually over time develop confidence in carrying out this act of substance use. Moreover, once an adolescent starts using, the study makes it clear perpetual use is reinforced within the adolescent peer clusters; making the temptation to keep using even stronger than before initiation. As these adolescents closely mingle with new non-substance using peers (e.g. new boy/girlfriend or best friend), the influence is continually perpetuated thereby completing the revolving pathway of peer influence on substance use among adolescents.

EXPLORING PEER INFLUENCE AS A PATHWAY TO ADOLESCENCE SUBSTANCE USE IN NIGERIA

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LIST OF ABBREVIATIONS

NDLEA	National Drug Law Enforcement Agency
UK	United Kingdom
CIA	Central Intelligence Agency
GDP	Gross Domestic Product
UNICEF	United Nations Children’s Fund
ICPC	Independent Corrupt Practice Commission
EFCC	Economic and Financial Crime Commission
UNODC	United Nations Office of Drug and Crime
NEEDS	National Economic Empowerment and Development Strategy
DCMP	Drug Control Master Plan
GYTS	Global Youth Tobacco Survey
PCT	Peer Cluster Theory
SCT	Social Cognitive Theory
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

1.1. BACKGROUND ON NIGERIA

Nigeria is situated in the West African region and lies between longitudes 3 degrees and 14 degrees, latitudes 4 degrees and 14 degrees. Nigeria is the most populous black nation in the world with an estimation of 162,470,737 people as at 2011 (World Bank, 2013). This population is made up of about 374 distinct ethnic stocks. The major ethnic groups are Yoruba, Hausa and Igbo; collectively making up over 40% of the population. The gender divide of Nigeria's population, as indicated by the last census in 1991, reflected 51% of the population to be males while 49% were females. (Nigerian High Commission, UK, 2013)

In addition to its huge population, Nigeria is endowed with natural resources. Notable cash crops in Nigeria are cocoa, cotton, groundnuts, oil palm and rubber (Nigerian High Commission, UK, 2013). However, by value, crude oil is Nigeria's biggest mineral resource and mainstay of wealth generation considering the fact that Nigeria is the 6th biggest exporter of crude oil in the world out of 210 exporting countries with estimated 2,051,000 barrels/day (CIA, 2013). Nigeria has a Gross Domestic Product of \$243,985,812,280 (World Bank, 2013)

Despite all these natural endowment of wealth Nigeria possesses as a nation, there are various ironical problems of poverty that eats deep into the fabric of the Nigerian society and threatens the future of Nigerian adolescents and youths in general. According to the United Nations Children's Fund, "Nigeria possesses a stark dichotomy of wealth and poverty. Although the country is rich in natural resources, its economy cannot yet meet the basic needs of the people. Such disparity between the growth of the GDP and the increasing poverty is indicative of a skewed distribution of Nigeria's wealth" (UNICEF: Nigeria, 2013).

As at 2012, Nigeria is the 35th most corrupt nation in the world (Transparency International, 2012). Corruption is one of the major challenges in Nigeria, raising the cost and risk of doing business in the country and making the country unattractive to investors (UNICEF, 2013).

In the effort to curb corruption in Nigeria, Legislators passed the Anti-Corruption bill and the Executive arm of Government established anti-corruption agencies like Economic and Financial Crime Commission (EFCC) and Independent Corrupt Practices Commission (ICPC) in 1999.

The Unemployment Rate in Nigeria increased to 23.9% in 2011 from 21.1% in 2010 (Trading Economies, 2013). Currently, it is at an all-time high of 30.6% (National Bureau of Statistics, 2013). Health care and general living conditions in Nigeria are poor, especially for children and women. Infant and under-five mortality rates are high. The weak health system has led to low coverage of primary health interventions with attending high disease burden. Nigeria's educational system is also in a state of neglect largely due to decaying institutional infrastructure. This compromises quality education for the Nigerian child (UNICEF, 2013).

As part of Nigeria's plan for overcoming poverty and generating national wealth and employment, the Federal Government developed the National Economic Empowerment and Development Strategy (NEEDS) in 2004. NEEDS has four elements: re-orientating values, reducing poverty, creating wealth and generating employment. The NEEDS project is currently in its second phase of implementation. (UNICEF, 2013)

1.2. HISTORY OF DRUG USE IN NIGERIA

Drug abuse became a public health issue in Nigeria in the 1960s with the discovery of cannabis farms in the country, arrests of Nigerian cannabis traffickers abroad, and reports of psychological disorders suspected to be associated with cannabis use. By the 1980s, the abuse of cocaine and heroin was added to the public health burden. Soldiers and sailors returning from Second World War introduced cannabis into Nigeria. The later introduction of cocaine and heroin into Nigeria was attributed to Nigerian Naval Officers in training in India who were involved with trafficking activities in the early 1980s (Obot, 2003).

Nigeria is a transit point for heroin and cocaine intended for European, East Asian, and North American markets. Since 2004, drug trafficking organizations have been increasingly using West African countries including Nigeria for smuggling large amounts of cocaine from South America into Europe and North America consequently increasing the availability and use of cocaine and heroin. Nigeria

currently has the third highest one-year prevalence of cocaine and opioids use in Africa at 7% for both drugs (UNODC, 2011).

The most abused illicit drug in Nigeria is cannabis, mainly in its herbal form. This is due to the fact that cannabis is home grown and relatively cheap. The price of one unit of cannabis is often about the same as that of a bottle of beer (UNODC, 2013).

At 14.3%, the country has the highest one-year prevalence rate of cannabis use in Africa (UNODC, 2011) (Onifade et al, 2011). The average globally assessed prevalence rate of cannabis use is 3% (UNODC, 2013).

1.3. LITERATURE REVIEW ON DEMOGRAPHIC PATTERN OF DRUG USE IN NIGERIA

There is no current data on the demographic pattern concerning substance use in Nigeria but the general perception is that most involved age group are the youths. Available data are center based and can't be generalized for the whole Nigerian population.

In a comprehensive review of 28 psychiatric units in health facilities in Nigeria by Ohaeri and Odejide, a total of 10,396 patients were assessed and cannabis was the most prevalent drug of abuse (77%), followed by alcohol and amphetamines in the northern part of Nigeria, while in the south, cannabis (60.6%) was followed by heroin and cocaine. The prevalence of abuse was more in males than females (Adamson et al, 2010)

In another review of drug abuse patients admitted at Yaba Psychiatric Hospital, Lagos, Nigeria, Lawal et al found the mean age to be $29.15 \pm SD 5.9$ years. They were mostly single, with formal education, heroin/cocaine were the most prevalent drugs of abuse (84%), followed by cannabis (76.3%), then alcohol (22.5%). Adelekan & Adeniran, in a follow up study among 62 drug abusers at the Drug Abuse Unit of the Neuropsychiatric Hospital, Aro, Abeokuta reported that the patients were mostly single, males with formal education, with cannabis being the most commonly abused drug (53.5%) with over half of the cohorts below 30 years of age. Similarly in the same center, another study gave the mean age of onset of drug use among inpatients to be between the adolescent age range of 15-19 years within a span of 1992 to 1997 and 2002 to 2007 (Adamson et al, 2010).

1.4. NIGERIAN DRUG LAWS AND POLICIES

The worsening of Nigerian involvement in substance abuse and international drug trade cannot be attributed to lack of drug policy and laws because Nigeria happens to have one of the most drastic drug laws in the world.

The Indian hemp decree of 1966 stipulated that cultivation of cannabis attracts death penalty or 21 years jail term. Cannabis exportation was punishable by 10 years of imprisonment. A stiff penalty of at least 10 years in jail was reserved for those found smoking or in possession of the drug and cocaine/heroin trafficking attracted a death penalty. This law was amended in 1975 and less severe penalties were instituted. For example, the death penalty was abolished and the punishment for cannabis smoking was reduced to six months and/or a fine. The death penalty was later re-introduced in 1984 through the Special Tribunal Decree by a new military government then to emphasize their seriousness in clamping down offenders. At least three cocaine traffickers were killed by firing squad before the law was repealed and replaced with life imprisonment in 1986 (Obot, 2003).

The most significant drug law in Nigeria has been the National Drug Law Enforcement Agency (NDLEA) Decree of 1989, a response to the United Nations Convention against Illicit Traffic in Narcotics Drugs and Psychotropic Substances of 1988. Among many of its provisions, the NDLEA Decree set up an agency of the same name and listed the punishment for drug offences, including the forfeiture of assets of arrested persons. In this Decree, trafficking of cocaine, LSD, heroin, or similar drugs is punishable by life imprisonment, while possession or use attracts a sentence of 15 years but not exceeding 25 years (Obot, 2003)

One of the drug policies implemented by Nigerian National Drug Law Enforcement Agency (NDLEA) was the Drug Control Master Plan (DCMP) launched in 1999 with the aim of achieving a drug free society (Obot 2003). In 2008, the NDLEA recorded the seizure of 335,535.34 kilograms of cannabis, 530.40 kilograms of psychotropic substances, 3655.49 kilograms of cocaine and 11.61 kilograms of heroin (UNODC, 2013). Despite all policies and efforts by the Nigerian Government to combat drug trafficking, Nigeria was for many years regarded as the major hub for drug trafficking and money laundering and transit point between the world's western and eastern drug hemispheres by the International Narcotics Control Strategy Report (Obot, 2003)

1.5. DRUG ABUSE TREATMENT IN NIGERIA

Historically, the orthodox treatment of substance abuse in Nigeria took place in general psychiatric settings until 1983 when the first stand-alone substance abuse treatment unit was established. Since then, many more substance abuse treatment units have evolved, existing alongside psychiatric units. However, there is no current national database of the structures and services developed to combat substance abuse problem in Nigeria (Onifade et al, 2011).

In 1998, the United Nations International Drug Control Program conducted a rapid situation assessment of drug abuse in Nigeria with one of the objectives being to determine the availability, adequacy, nature and location of secondary and tertiary drug prevention services and personnel. The study was conducted in 22 of the 36 states, covering all the 6 geopolitical zones in the country. The study revealed that substance abuse treatment facilities existed in all the 22 states but largely as part of psychiatric, general or university teaching hospitals. The report also indicated the existence of traditional and religious centers for substance abuse treatment and rehabilitation (Onifade et al, 2011).

In 2011, Onifade et al carried out a cross sectional survey with the aim of determining the types, spread and characteristics of substance abuse treatment centers in Nigeria. 31 units were invited and participated in filling an online questionnaire, adapted from the European Treatment Unit/Program Form (June 1997 version). According to the study, 17 of them belonged to Non-Governmental Organizations, 3 belonged to private individuals and 11 were subunits of Psychiatric Departments of Federal and State Hospitals. Overall, only half of these units were officially dedicated for provision of treatment for substance abuse. There was no identified sustainable network or a common evaluation framework among substance abuse treatment units in Nigeria.

It is pretty clear that so much effort over a long period of time has been put into supply reduction in Nigeria without significant reward in curbing the problem of substance abuse while demand reduction efforts are skeletal without proper coordination. Understanding the nature and characteristics of most vulnerable group (which are the youths) is paramount to devising a sustainable and effective demand reduction program in Nigeria. This study aims to explore this.

CHAPTER 2

BACKGROUND ON PEER INFLUENCE IN ADOLESCENT SUBSTANCE USE

2.1. RISK FACTORS FOR ADOLESCENT SUBSTANCE ABUSE

Understanding the risk factors surrounding substance use among adolescents provide the platform to pinpoint possible potential targets for intervention and subsequently curbing the problem. These risk factors are roughly divided into two. First are broad societal and cultural (i.e. contextual) factors, which provide the legal and normative expectations for behavior. The second group includes factors that lie within individuals and their interpersonal environments. (Hawkins et al, 1992).

2.1.1. CONTEXTUAL FACTORS

People exist socially as individuals or groups in accordance to certain values and structures in their society. Some of these structures and how it influences substance use are explored as follows:

1. **Laws:** Raising taxes on the sale of licit substances like alcohol and tobacco has been proven to be effective in reducing their use among adolescence and the general public. Specifically, age restriction laws on who can be sold alcohol have reduced teenage use. However laws making drugs like marijuana illegal has not reduced its cheap retail price or its availability in most societies.
2. **Availability of Drugs:** This depends partly on laws but can be considered as a separate factor. Studies have shown that the more a substance (licit or illicit) is available in a particular environment, the higher the prevalence of use in that environment.
3. **Extreme Economic Deprivation:** Although, there is no consistency in relationship between someone's socio-economic status and drug use, it is important to note that extreme poverty coupled with childhood behavioral problems as been strongly linked to future likelihood of drug abuse.
4. **Neighborhood Disorganization:** Rough dwelling places (i.e. places with high human traffic, poor public place surveillance and high adult crime rate) are associated with high prevalence of adolescent drug abuse. (Hawkins et al, 1992).

2.1.2. INDIVIDUAL AND INTERPERSONAL FACTORS

The following are individual characteristics with their immediate personal environment which have been known to influence adolescent drug use

1. **Physiological Factors:** Many studies link varying enzyme level across races to predict level of alcohol consumption. However, worthy of note is the fact that poor impulse control in childhood is a predictor of frequent marijuana use at 18 years (Shedler et al, 1990).
2. **Family Drug Behavior and Attitude:** Poor parenting practices, high levels of conflict in the family, and a low degree of bonding between children and parents appear to increase risk for adolescent problem behaviors generally, including the abuse of alcohol and other drugs (Brook et al, 1990).
3. **Poor and Inconsistent Family Management Practices:** Initiation of drug use by adolescent is predicted by inconsistent parental discipline, lack of maternal involvement in a child's development and low parental educational aspirations for a child. (Kandel et al, 1987).
4. **Early and Persistent Problem Behaviors:** The greater the variety, frequency, and seriousness of childhood antisocial behavior, the more likely antisocial behavior is to persist into adulthood and the more likely a child is prone to drug use. (Robin, 1978).
5. **Alienation and Rebelliousness:** Alienation from the dominant values of society, low religiosity and rebelliousness has been associated with drug use and delinquency. (Hawkins et al, 1992).
6. **Academic Failure:** Academic failure in school associated with truancy, early drop out from school or school absenteeism is a prognostic factor to adolescent drug use. (Holmberg, 1985).
7. **Early Onset of Drug Use:** Early onset of drug use is said to predict subsequent misuse of drugs. Also, the earlier the onset of a particular drug use, the greater the frequency of use and the more likely to be involved in use/misuse of other drugs. (Hawkins et al, 1992).

8. **Peer Influence and Association with drug using Peers:** Peer use of substances has consistently been found to be among the strongest predictors of substance use among youth. In fact, the influence of peers on adolescent drug use is stronger than that of parents for White American, African American, Asian American and Hispanic American youths. (Newcomb et al, 1986).

2.2. PEER INFLUENCE

2.2.1. DEFINITIONS

Peers are a group of people of the same age, status or interests. Peers could include friends, classmates, team members or co-workers. Influence is the effect that a person or thing has on another. Influences can be positive or negative (Alberta Health Services, 2009)

Peer Influence is defined as pressure, planned or unplanned, exerted by peers to influence personal behavior (Glossary of Education, 2013). It is a peer or group of peers trying to persuade you to think or act in a certain way, or to make a particular decision (Alberta Health Services, 2009).

2.2.2. FORMS OF PEER INFLUENCE

- Peer influence comes in a variety of forms. It can be:
- Positive e.g. peers may influence others to become involved in a school sports team or club.
- Negative e.g. peers may influence others to try alcohol, tobacco, other drugs or gambling.
- Direct e.g. peers may put deliberate pressure on a friend to play poker for money at lunch.
- Indirect e.g. someone might want to belong to a peer group that is playing poker at lunch, and might copy their behavior to fit in with the group. (Alberta Health Service, 2009)
- Peer influence is evident in children and adults alike, but children who are still in the process of developing a value system are more vulnerable to negative influences (Rimm, 2013). Therefore, it is imperative to teach adolescents personal coping skills to resist negative influences leading to drug use.

2.3. LITERATURE REVIEW ON PEER INFLUENCE AND ADOLESCENT SUBSTANCE USE: GLOBAL EVIDENCE

Gardner and Steinberg carried out an experimental study titled “Peer Influence on Risk Taking, Risk Preference, and Risky Decision Making in Adolescence and Adulthood”. In this study, 306 individuals in 3 age groups (in years) namely: adolescents (13–16), youths (18–22), and adults (24 and older) all completed two questionnaire measures assessing risk preference and risky decision making, and one behavioral task measuring risk taking. Analyses indicated that (a) risk taking and risky decision making decreased with age; (b) participants took more risks, focused more on the benefits than the costs of risky behavior, and made riskier decisions when in peer groups than alone; and (c) peer effects on risk taking and risky decision making were stronger among adolescents and youths than adults. These findings support the idea that adolescents are more inclined toward risky behavior and risky decision making than adults and that peer influence plays an important role in explaining risky behavior during adolescence. (Gardner & Steinberg, 2005)

Although, an adolescent may carry out risky behavior as a result of the influence of peers, close parental monitoring can dampen this exuberance. In 1994, Steinberg et al carried out a longitudinal study on parental monitoring and peer influence on adolescent substance use in Wisconsin and Northern California. The study showed parental monitoring is a protective factor against drug use and poorly monitored adolescents are more likely to use drugs. It also showed that drug-using adolescents seek out like-minded friends. Once an adolescent associates with drug-using peers, his or her own substance use approaches their level (Steinberg et al, 1994). In a similar fashion, Mount & Steinberg also demonstrated the positive impact of having a high-achieving friend is stronger among adolescents whose parents are relatively more authoritative; while the deleterious impact of having a drug-using friend is stronger among adolescents whose parents are relatively less authoritative. (Mount & Steinberg, 1995)

Steinberg’s work shows that the group of friends an adolescent keeps dictates his/her type of peer influence (positive or negative) and the degree of parental supervision is key in determining the type of peer influence an adolescent will experience. In a study carried out by Shilts on 237 7th and 8th graders, several trends emerged from data on users, abusers, and nonusers of drugs/alcohol. Abusers reported little involvement in extracurricular activities, spent more time with friends than with family, and identified friends as individuals who use/abuse drugs and alcohol.

Users differed from abusers in their reported reasons for substance use and in the percentage of students who reported that friends were substance users. Non-using students tended to be highly involved in extracurricular activities and spent more time with family and less time with peers/friends. (Shilts, 1991).

This definitely raises the question of how will we determine which group of friends an adolescent will choose in life; is it the abusers or users or non-users and what really makes them choose any of these groups? A two-stage model of peer influence in adolescent substance use carried out by Uberg K et al showed that: (1) adolescents who did not value school achievement or spending time with parents were more apt than others to choose friends who smoked cigarettes more than they did. (2) Only high peer acceptance and high friendship quality resulted in adolescents being more apt to conform to their friend's substance-use behaviors. (Uberg et al, 2003).

Furthermore, in a study on peer influence and selection mechanisms, Ashby and Sean pointed out that difficult temperament, poor self-control, and deviance-prone attitudes were related to an initial choice of peers an adolescent move with. They not only concluded that temperament related attributes predisposes an adolescent to early experimentation and deviant-peer affiliations but also emphasized that peer influence is the most potent factor during middle adolescence in determining their choices (Ashby & Sean, 1999).

2.4. LITERATURE REVIEW ON PEER INFLUENCE AND SUBSTANCE USE: AFRICAN & NIGERIAN EVIDENCE

Rudatsikira et al carried out a study on the prevalence and determinants of adolescent tobacco smoking in Addis Ababa, Ethiopia. The researchers used the data from Global Youth Tobacco Survey (GYTS) 2003 to determine smoking prevalence, determinants, attitudes to, and exposure to tobacco advertisements among 1868 adolescents. The results showed that having smoking friends was strongly associated with smoking after controlling for age, gender, parental smoking status, and perception of risks of smoking (OR = 3.3; 95% CI [1.6, 9.6]). Male gender and having one or both smoking parents were associated with smoking. Perception that smoking is harmful was negatively associated with being a smoker (odds ratio 0.3; 95% confidence interval, 0.2–0.5).

However there was a low prevalence of smoking in the study because out of 1868 respondents, only 4.5% males and 1% females were identified to be smokers. (Rudatsikira et al, 2007)

Not in all cases do we have a negative association between peer influence and adolescent substance use. In fact peer support was said to be a protected factor against tobacco use in a study carried out in 6 African countries (Kenya, Namibia, Swaziland, Uganda, Zambia and Zimbabwe). Karl Peltzer carried out this study among 20,765 students aged from 13 to 15 years to assess the prevalence and correlates (mental distress and protective factors) of substance use among school-going adolescents. Other results in the study showed that school truancy, loneliness, sleeping problems, sadness, suicidal ideation, suicide plans, and poverty were associated with substance use (tobacco, alcohol & illicit drugs), while school attendance and parental supervision and connectedness were protective factors for substance use. (Peltzer, 2009)

In Nigeria, some relevant studies on peer influence as it relates to substance abuse have been carried out.

Adelekan et al carried out a cross sectional study published in 1993 among University of Ilorin undergraduate students titled “Psychosocial correlates of alcohol, tobacco and cannabis use: findings from a Nigerian university”. The results showed that peer influence, self-reported poor mental health, religiosity, parental/guardian supervision, perceived availability and perceived harmfulness were the identified factors that emerged as common correlates for the use of alcohol, tobacco and cannabis. The study also identified males to be more involved in smoking and drinking and found a positive association between cannabis use and polygamous family background.

A cross sectional study on the prevalence of psychoactive substance use among commercial motorcyclists and its health and social consequences was carried out in Zaria, Nigeria. All 200 motorcyclists involved in the study were males with age range of 21-25years.

Peer influence, keeping awake, and suppression of fatigue were the identified factors influencing psychoactive substance use. The commonest used substances are cannabis (25.8%), solution (24.5%), caffeine (15.8%) and coffee (4.8%). A high prevalence of road traffic accident (59.5%) was associated with the use of psychoactive drugs among the motorcyclists in the study. (Alti-Muazu et al, 2008).

A descriptive cross sectional study on psychoactive substance use amongst 215 out-of-school adolescents in two communities in a Local Government Area in Nigeria showed that the two important sources of introduction to tobacco use were friends (72%) and relatives (20%). Use of tobacco amongst significant others were: friends (27%), fathers (8.0%), relatives (4.2%) and mothers (0.5%). The most common sources of supply were motor parks (52%) and friends (16%). The study showed that peer influence is an important source of introduction to tobacco use while selling of tobacco to adolescents in youth aggregation areas is common. (Adebiyi et al, 2010).

In a cross sectional study carried out in Ojo, Lagos, Nigeria, among 1000 undergraduate students living outside university campus, it was found that Family/Peer influence had the highest percentage (25.1%) out of all predisposing factors to drug use and addiction. Other factors were don't fit (15.3%), depression (15.1%), low self-esteem (14.3%), personality (9.9%), drug availability (8.6%), poverty (6.4%) and genetic predisposition (5.4%). The students were between 19 to 30 years of age.

Coffee (43.1%) was the most commonly used drug, followed by alcohol (25.8%) and marijuana (7.4%). Despite chronic use of these drugs (5 years and above), addiction is not reported to be a common finding. The study also revealed the poor attitudes of the undergraduates to drug addicts even after rehabilitation. The study concluded that the awareness, knowledge, practices and attitudes of Nigerian undergraduates towards drug abuse are very poor. (Oshikoya et al, 2006).

2.5. THEORETICAL CONSIDERATIONS FOR THE STUDY

The use of theories is important for guidance and direction to scientific research. They are also used as a foundational basis to understand public health issues and consequently provide efficient and sustainable solutions.

2.5.1. PEER CLUSTER THEORY (PCT)

Oetting and Beauvais developed this theory in 1986 as a template to explain the use of drugs by adolescents. After a decade of extensive research work and

identification of the psychosocial characteristics responsible for drug use in adolescents, they consistently found out the highest correlations related to drug use were from peer encouragement to use drugs and peer sanctions against drug use. Eventually, Peer Cluster Theory emerged from trying to understand the importance of peer influence and how it relates to key psychosocial characteristics in adolescent substance use. (Oetting & Beauvais, 1986).

Psychosocial characteristics set the stage for drug use; making an adolescent susceptible or innocuous to drug use. Adolescent drug use is strongly linked to membership in small groups of people including best friends, boy and girlfriends, close siblings within the same age bracket etcetera.

These groups are peer clusters which: (1) introduce the drug and make it available (2) teach the adolescent how to use it (3) formulate values, beliefs, attitudes and rational that propagate it's continuous use (4) formulate group membership and identification around drug use. (Oetting & Beauvais, 1986)

TABLE 1: SOURCE: OETTING & BEAUVAIS, 1986.

Psychosocial Characteristics Associated with Adolescent Drug Use: Factors Underlying Formation of Drug/Non Drug Using Peer Clusters	
Social Structure	Age, sex, ethnic group, religion, socio-economic status, family structure
Socialization Links	Religious identification, family relationships, family sanctions against drugs, social success, liking for school, peer sanctions against drugs, peer encouragement to use drugs
Psychological characteristics	Self-confidence, feeling of social acceptance, shyness, social isolation, unhappiness, anxiety, feeling “blamed”, anger
Attitudes & Beliefs	Tolerance of deviance, importance of being a good person, expectancy for the future, belief in drug dangers
Rationales	Like drugged feeling, use at parties, bored, use with friends, reducing social anxiety, feeling unhappy, to be free, to get back at parents, sex, feeling lonely, being angry
Behaviors	Drug use, deviant behaviors, peer context

Drug use is viewed as one of the symptoms of psychosocial problems. Other symptoms of psychosocial problems can be vandalism, precocious sexuality, criminal acts and the likes. However, psychosocial problems are not viewed as the sole cause of drug use. In fact,

established drug use can eventually also lead to psychosocial problems. Therefore, in respect to causation between drug use and psychosocial problems, we have a vicious circle. Drug use is not a problem in which cause and effect can be separated. It is a complex, interactive system in which the chain of cause and effect cannot be easily broken. (Oetting & Beauvais, 1986).

Peer Cluster Theory provides basis for intervention strategy (especially for trained counselors working with adolescents). To help an adolescent who is using drug, one needs to identify his/her peer cluster: where, when and with whom drug is used, the rationale behind its use and how it determines the identity and membership in the cluster. Unless an adolescent is guided in associating with non-drug using clusters, there is little hope in stopping drug use. It is also important to identify the underlying psychosocial conditions that predispose the adolescent to drug use because if they are not taken care of, the adolescent is vulnerable to going back to drug use after stopping. (Oetting & Beauvais, 1986).

Peer Cluster Theory applies to most scenarios of adolescent drug use. However, there are notable exceptions. The theory disregards biological and hormonal influences, which could predispose to adolescent drug use. When an adolescent is not using drugs in social contexts or is exclusively or intensely focused on the excessive use of a particular drug, physical/neurological and personality problems should be explored. (Oetting & Beauvais, 1986)

2.5.2. **SOCIAL COGNITIVE THEORY (SCT)**

In 1941, Miller and Dollard proposed the theory of social learning. In 1963, Bandura and Walters broadened the social learning theory with the principles of observational learning and vicarious reinforcement. Bandura added his concept of self-efficacy in 1977, which led to the emergence of Social Cognitive Theory (by Bandura) in 1986. (University of Twente, Theory Clusters, 2013)

Social Cognitive theory explains how people acquire and maintain certain behavioral patterns, while also considering the social environment in which they perform the behavior. The theory takes into account a person's past experiences, which dictates whether behavioral action will occur. Like peer cluster theory, it also provides a basis for intervention strategies. The goal of Social Cognitive Theory is to explain how people regulate their behavior through control and reinforcement to achieve goal-directed behavior that can be maintained over time. (University of Boston, Behavioral Change Model, 2013).

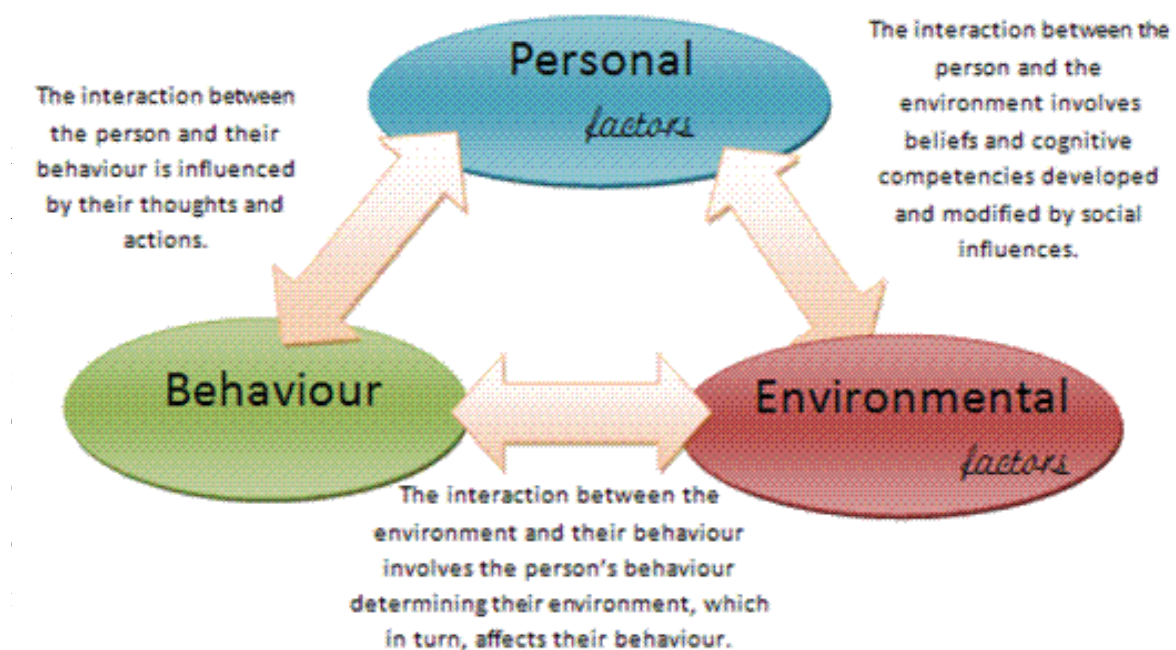
The 6 constructs of Social Cognitive Theory are as follows:

1. **Reciprocal Determinism** - This is the central concept of SCT. This refers to the dynamic and reciprocal interaction of person (individual with a set of learned experiences), environment (external social context), and behavior (responses to stimuli to achieve goals).
2. **Behavioral Capability** - This refers to a person's actual ability to perform a behavior through essential knowledge and skills. In order to successfully perform a behavior, a person must know what to do and how to do it. People learn from the consequences of their behavior, which also affects the environment in which they live.
3. **Observational Learning** - This asserts that people can witness and observe a behavior conducted by others, and then reproduce those actions. This is often exhibited through "modeling" of behaviors. If individuals see successful demonstration of a behavior, they can also complete the behavior successfully.
4. **Reinforcements** - This refers to the internal or external responses to a person's behavior that affect the likelihood of continuing or discontinuing the behavior. Reinforcements can be self-initiated or in the environment, and reinforcements can be positive or negative. This is the construct of SCT that most closely ties to the reciprocal relationship between behavior and environment.
5. **Expectations** - This refers to the anticipated consequences of a person's behavior. Outcome expectations can be health-related or not health-related. People anticipate the consequences of their actions before engaging in the behavior, and these anticipated consequences could influence successful completion of the behavior. Expectations derive largely from previous experience. While expectancies also derive from previous experience, expectancies focus on the value that is placed on the outcome and are subjective to the individual.
6. **Self-efficacy** - This refers to the level of a person's confidence in his or her ability to successfully perform a behavior. Self-efficacy is unique to SCT although other theories have added this construct at later dates, such as the Theory of Planned Behavior. Self-efficacy is influenced by a person's specific capabilities and other individual factors, as well as by environmental factors (barriers and facilitators). (University of Boston, Behavioral Change Model, 2013).

Social Cognitive Theory assumes that changes in the environment will automatically lead to changes in the person, which may not always be true. The theory is loosely organized, based solely on the dynamic interplay between person, behavior, and environment. It is unclear the extent to which each of these factors into actual behavior and if one is more influential than another. It focuses on processes of learning and in doing so disregards biological and hormonal predispositions that may influence behaviors, regardless of past experience and expectations. The theory does not focus on emotion or motivation, other than through reference to past experience, thereby providing minimal attention on these factors. Lastly, the theory can be broad-reaching, so can be difficult to operationalize in entirety. (University of Boston, Behavioral Change Model, 2013)

FIGURE 1. SOCIAL COGNITIVE THEORY: BANDURA'S CONCEPT

Source: Jessica Ring, 2013



2.6 LITERATURE REVIEW ON PEER INFLUENCE, SELF-EFFICACY AND ADOLESCENT SUBSTANCE USE

From the above Peer Cluster & Social Cognitive theories, it is certainly of interest to find out if there is a positive correlation between peer influence, self-efficacy and substance use and to see if there are other factors that probably moderate this correlation. This is worthy of note not just because the two variables (peer influence and self efficacy) are the crops of the two theories but it will give a guide to understanding the degree of strength of these variables in dictating the nature and behavior of adolescents in order to have more clarity on the pattern of adolescent substance use and how to map

out effective and sustainable intervention programs in Nigeria.

A longitudinal study was carried out by researchers from Texas to examine the relationships among peer influence, self-efficacy, stress, family environment and adolescent alcohol use and to test for the potential moderating effects of parental expectations regarding adolescent alcohol use.

The findings showed that parental expectations of adolescent alcohol use significantly moderated all structural relationships, and greater parental disapproval was associated with less involvement with friends and peers who use alcohol, less peer influence to use alcohol, greater self-efficacy for avoiding alcohol use, and lower subsequent alcohol use and related problems. (Nash et al, 2005).

This research clearly shows that with parental disapproval of alcohol use, there exists an inverse relationship between peer influence and self-efficacy for avoiding substance use. Also, many studies have pointed to the fact that parental encouragement of substance use is a significant predictor of an adolescent's use (see section 2.4).

However, in a study carried out in Texas by Flay et al using structural equation modeling of smoking influence, parental smoking was seen to only have an indirect effect on adolescents' will to initiate smoking, whereas friends smoking (peer influence) had both direct and indirect effect on the will to initiate smoking by an adolescent. In fact, peer influence had a stronger effect on adolescents' smoking behavior. This shows that there is increased self-efficacy for use of substance in the midst of smoking habit of significant others like peers and parents but more because of influence of peers. (Flay et al, 1994).

With the above studies in Texas, one would assume that the substance use behavior of significant others like parents and peers automatically determine the direction of self-efficacy of the adolescent (either to use drugs or to avoid using drugs) thereby eroding the place of self will (to choose the direction by the adolescent) and makes self-efficacy the least important factor (in comparison to peer influence and parental influence) when it comes to adolescent substance use. This may not be the case in all instances.

In a study carried out to identify moderators of peer influence in adolescent smoking, it was discovered that self-efficacy judgments significantly moderated the predictive effects of peer influence (peer smoking and peer approval) on smoking tendencies. Other considered moderators were parental supervision after school, self-esteem, perceived stress and gender. (Stacy et al, 1992).

The study by Stacy et al shows that an adolescent can still develop confidence/will to avoid substance use even in the presence of significant others who use drugs. These finding is consistent with Social Cognitive theory which suggests that self-efficacy can act as a buffer that either protect the adolescent against social influence or make the adolescent more susceptible to such influence.

2.7. STUDY GOAL, RESEARCH OBJECTIVES/QUESTIONS & JUSTIFICATION OF STUDY

STUDY GOAL

This study attempts to explore the context in which peer pressure and self-efficacy relate to substance use among secondary school adolescents in Lagos Island, Nigeria; with a view to make evidence based recommendations for health promotion.

TABLE 2. RESEARCH OBJECTIVES AND QUESTIONS

Research Objectives	Research Questions
<p>1. Describe the pattern of use of various substances among adolescents in Lagos Island, Nigeria.</p>	<p>What is the pattern of use for common substances used by adolescents?</p> <p>What substance is used most among adolescents and why?</p> <p>What is the level of willingness of adolescents to admit to use of illicit substances?</p>
<p>2. Explore the context in which peer pressure relates to adolescents substance use</p>	<p>What is the adolescents’ perception of peer pressure on their choices to use various substances?</p> <p>In what context does peer pressure dictate the initiation of substance use among non-using adolescents?</p> <p>In what context does peer pressure ensure the continuation of substance use among adolescents who already use one substance or the other?</p>
<p>3. Explore the context in which self-efficacy relates to adolescents substance use</p>	<p>What are the various situations in which an adolescent develops confidence to use a substance?</p> <p>In what context does self-efficacy dictate adolescent substance use across gender and among users and non-users of substances?</p> <p>.</p>

JUSTIFICATION OF STUDY

All studies carried out in Nigeria concerning substance abuse have only been able to point out/identify peer influence as one of the possible factors responsible for substance use amongst young adults and in this regard, very few studies were carried out specifically on adolescents. However, the various contexts or pathways in which peer influence plays a major role in explaining substance use among Nigerian adolescents is not fully understood.

Therefore, this study will attempt to show evidence of peer influence in the context of susceptibility to peer pressure, temptation to smoke and self-efficacy to use substances in various forms among adolescents in Lagos Island, Nigeria.

CHAPTER 3

METHODOLOGY

3.1. STUDY DESIGN

A school based cross-sectional survey using anonymous self-administered questionnaires was adopted. The choice of a school-based study using senior secondary school students as against out-of-school adolescents is based on the following:

1. It is cost effective and relatively easy to conduct. Moving around to look for out of school adolescents will require substantially high logistic cost compared to going to designate schools. Gaining access to out-of-school adolescents is extremely challenging and administering questionnaires in informal settings is cumbersome.
2. It is easy to choose an appropriate school and respective classes needed that will have desired number of adolescents. Achieving this with out-of-school adolescents (usually the ones on the streets or dangerous drug joints) will require the use of key opinion leaders within the drug environment to help in gathering them. Such services are pricy.
3. Students are usually available in classes on school days and school hours compared to out-of-school adolescents who may not have a specific time to reach them in large numbers.
4. Young people feel more comfortable admitting to illegal or socially disapproved behaviors such as drug use in the school setting (when assured of confidentiality) rather than the home setting when the parents are present or even in the next room.
5. The mode of data collection is relatively easy to standardize and control in school settings because the researcher can employ the use of schoolteachers to maintain order (only).
6. The response rate in school surveys is usually high. In fact, the response rate in most studies is equal to the number of students present in class on the day of data collection; refusals are uncommon in most surveys. (UNODC, Conducting School Surveys On Drug Abuse, 2003)

However, since there is the assumption that out of school adolescents and adolescents who make themselves absent from classes are more prone to deviant behaviors like smoking illicit substances (UNODC, 2003)(Holmberg, 1985), the researcher is taking the risk of missing out a vital population to the study, which could make it more difficult to generalize the results for all adolescents in Lagos State.

The choice of a cross sectional study is based on the following:

1. It allows the researcher to measure peer influence and self-efficacy (the exposures) as it affects substance use (the outcome) **at the same time** in senior secondary school adolescents, therefore saving cost (labor, time and money) of coming back to follow up the outcomes.
 2. It can be performed quickly which makes it cost effective
 3. It is suitable to explore issues of substance abuse and smoking as it relates to adolescents
 4. A control group is not needed (unlike analytical and experimental studies), the researcher doesn't need to interfere actively in the study (unlike experimental studies), and he/she only needs to observe the variables.
 5. It can be used to generate hypothesis for further testing at the end of the study
- However, this study cannot establish a causal relationship between the variables, the researcher can only show if there is a possible correlation, which can be subjected to further testing.

The choice of a self-administered questionnaire is based on the fact that the respondents (senior secondary school adolescents) are educated enough to read and write answers for simple and easy to understand questions. The researcher adopted "fill-in-forms" as against using machine-readable forms because of financial constraints.

3.2. SETTING.

The research was conducted in four senior secondary schools located in Lagos Island Local Government in Lagos State.

Lagos Island Local Government is one of the 20 Local Governments in Lagos State, Nigeria. It is 9km squared in area having a total population of 859,849 people with 461,830 males and 398,019 females. Lagos State in itself has a population of over 17 million people (Lagos State Bureau of Statistics, 2005). There are 10 senior secondary schools in Lagos Island (Lagos State List of Schools, 2012).

3.3. MINIMUM SAMPLE SIZE

Nigeria has a 14.3% one-year prevalence rate of cannabis use as at 2011 (UNODC, 2011). However, the prevalence rate among Nigerian adolescents for any substance use is not known and the countries prevalence rate on alcohol and tobacco consumption is not known.

Globally, 2 billion adults (48% of the adult population) are current users of alcohol, 1.1 billion adults (29% of the adult population) are current smokers of cigarettes and 185 million adults (4.5% of the adult population) are current users of illicit drugs; indicating that prevalence of illicit drug use is less than one-tenth that of alcohol use and less than one-fifth that of tobacco use (Anderson, 2006)

RULE OF TEN

This concept is used in sampling to ascertain a sample size appropriate to achieve a valid result in a study. This method considers the minimum sample size a researcher needs to perform a factor analysis and achieve a valid result for the population being studied. (Vittinghoff et al, 2007).

With the above facts in mind, using the Rule of Ten, minimum sample size for this study was calculated using the cannabis prevalence rate (of 14.3%) bearing it in mind these will presumably be the lowest prevalence rate between tobacco, alcohol and cannabis. Using 2 independent variables (peer influence and self-efficacy) and 1 dependent variable (substance abuse), the researcher was able to mathematically arrive at a minimum sample size of 139 adolescents as shown below

$$100/14.3 \times 20 = 139$$

The researcher was eventually able to use 257 respondents in this study, which is conveniently higher than the minimum sample size.

3.4. POPULATION & SAMPLING

Simple random sampling method is adopted for the study

Adolescents in Lagos Island, Lagos State, Nigeria are the target population. Logbook of all senior secondary schools in Lagos Island was adopted as the sample frame. This is provided by Lagos State Ministry of Education online.

A standard document for random sampling to pick as many classes that will cover the desired number of students for the study was considered for use. However, in order to minimize disruption of regular school activities, the school Principals exercised their prerogative in handpicking the senior secondary classes to be used.

3.5. PROCEDURE

The questionnaire was designed using existing validated and reliable scales. A pilot study was carried out among 17 respondents in an all-male senior secondary school (in Ogun State, Nigeria) to test the questionnaire and necessary adjustments were made. Afterwards, the questionnaire was administered on respondents in the designated schools.

Under the directive and consent of the Lagos State Ministry of Education, the research team approached the Principals of selected schools. The research team explained the importance of the research and its advantages as regards national planning and development with the aim of convincing the Principals to allow the schools to be used for the study despite the inconveniences the study may cause (e.g. disruption of regular school activities etcetera).

During the collection of data, class teachers were excused in order to make the students feel free to fill their substance use history without fear of punishment. The research team maintained order in the classes and explained the purpose of the study to the students. The primary unit of survey was the senior secondary classes and all students were encouraged to participate although Students were given the choice of participation or to decline participation. Apart from an initial verbal explanation made about the study to the students, Information Sheets/Consent Forms (See Appendix B) were given to all students to read (before filling the questionnaire) and sign (after filling the questionnaire).

The students were informed that an external team (not the school authority) is conducting the study. Teachers were not allowed to wander in between the rows when the students were filling the questionnaires. These encouraged an honest response from the students.

Data collection in a school was carried out at the same time in all participating classes. The main reason for this was to avoid discussions in the breaks that might influence the answers of those students who have not yet taken part in the study.

In other to improve the perception of anonymity, the research team ensured the students were spaced out in the classrooms while answering the questionnaires. Students were reminded not to write their names or any form of identification on the questionnaires.

The study is in keeping with the guidelines of the Nigerian Ethics and Medical Research Committee. The Ethics Committee of the Lagos University Teaching Hospital in Lagos State approved the study under the directive of Nigerian Ethics and Medical Research Committee in Federal Capital Territory of Nigeria, Abuja (See Appendix C). Also, a permission letter was issued from the Lagos State Ministry of Education to use secondary school children in Lagos Island. (See Appendix D).

3.6. INSTRUMENT

A self-administered questionnaire titled “Youth Survey Questionnaire” (see Appendix A) was created by borrowing 3 scales in original format that are deemed reliable and valid. These scales were aimed at collecting information on personal drug history, susceptibility to peer pressure and self-efficacy as it relates to adolescents substance use.

The scale about personal drug history titled “About You” was adopted from a WHO Youth Survey Questionnaire (WHO, 1980). The peer pressure scale (titled “About You & Your Friends” in the questionnaire) was adopted from a research work titled “Susceptibility to Peer Pressure, Self Esteem, and Health Locus of Control as Correlates of Adolescents Substance Abuse” (Dielman et al, 1987).

To assess self-efficacy as it relates to adolescent substance use, a short version of a “self-efficacy/temptation scale” designed by Velicer and colleagues in 1990 was adopted (Velicer et al, 1990). It was titled “About Being Tempted” in the questionnaire. This scale also provided vital information about peer pressure.

Retitling of the scales was done in the questionnaire to make it easy to understand and attractive to fill by adolescents. All substances in which questions were asked were described with popular slang names for the adolescents to recognize.

Considering the feedback of respondents after pretesting the questionnaires among 17 male students in a secondary school in Abeokuta, Ogun State, Nigeria, the researcher modified the following questions in the “About Being Tempted” section (self-efficacy/temptation scale)

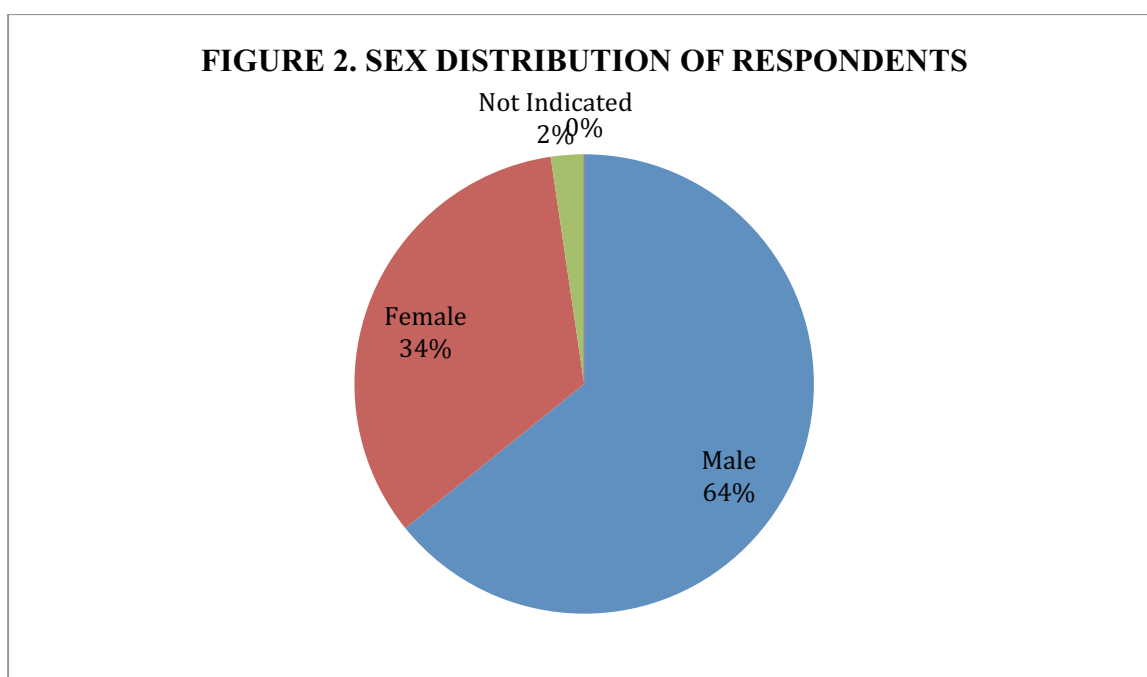
Question 4: Over coffee when talking & relaxing. It was modified to “Over lunch when talking & relaxing” because eating lunch is a better description of a regular activity in the Nigerian context as against drinking coffee among adolescents.

Question 5: “When I feel I need a lift” was replaced with “When I feel I need inspiration”. This is because it is a local believe in Nigeria that substance use gives inspiration to sing & respondents during pre-testing could not relate with the initial question.

RESULTS AND DISCUSSION

4.1 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

This chapter discusses the results obtained from this study. Two hundred and fifty seven (257) students served as total number of respondents. Figure 1 shows the sex distribution of the respondents. Majority (64.5 %) of the respondents used in this study were males and 33.5% of respondents were females. The ratio of females to males is 1 female to 1.9 males. 2.3% of respondents didn't indicate their sex.



The age distribution of the students was between 15 – 20 years; with 40.5% of the respondents being 15 years of age, 31.5% being 16 years of age and 23.7% of the respondents being between the ages 17-20 years.

All the respondents used in this study were in senior secondary school with majority of them in SS1 (Senior Secondary School 1). The rest were in SS2 or did not indicate their class.

4.2 PREVALENCE OF SUBSTANCE USE AMONG RESPONDENTS

Figure 3 shows the proportion of adolescents that have used different substances before in their lifetime. Alcohol is the most used substance among the respondents with 100 adolescents (38.9% of total respondents) admitting to drinking alcohol. Strikingly, 4.7% of the respondents have used cocaine before and 22.6% have taken sedatives/cough syrups without doctor's prescription. 12.5% of them have smoked tobacco while 6.6% of them have used cannabis before.

FIGURE 3a. DISTRIBUTION OF SUBSTANCE USERS

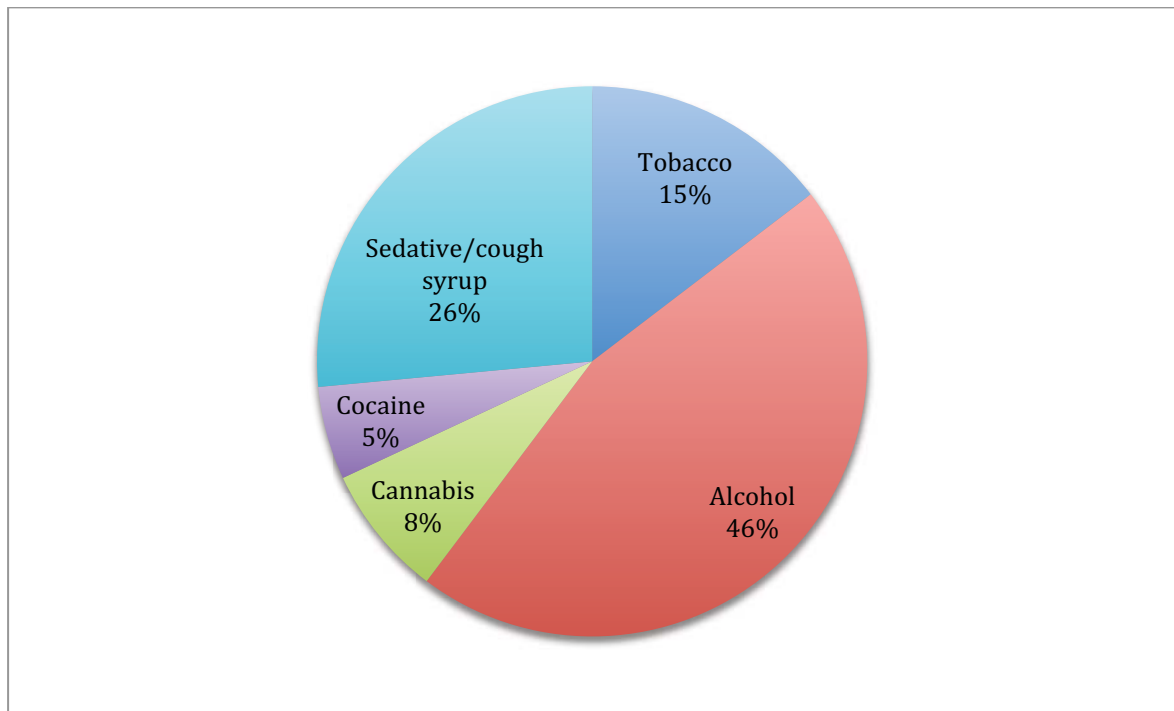


FIGURE 3b. PERCENTAGE DISTRIBUTION OF USERS AND NON-USERS FOR VARIOUS SUBSTANCES

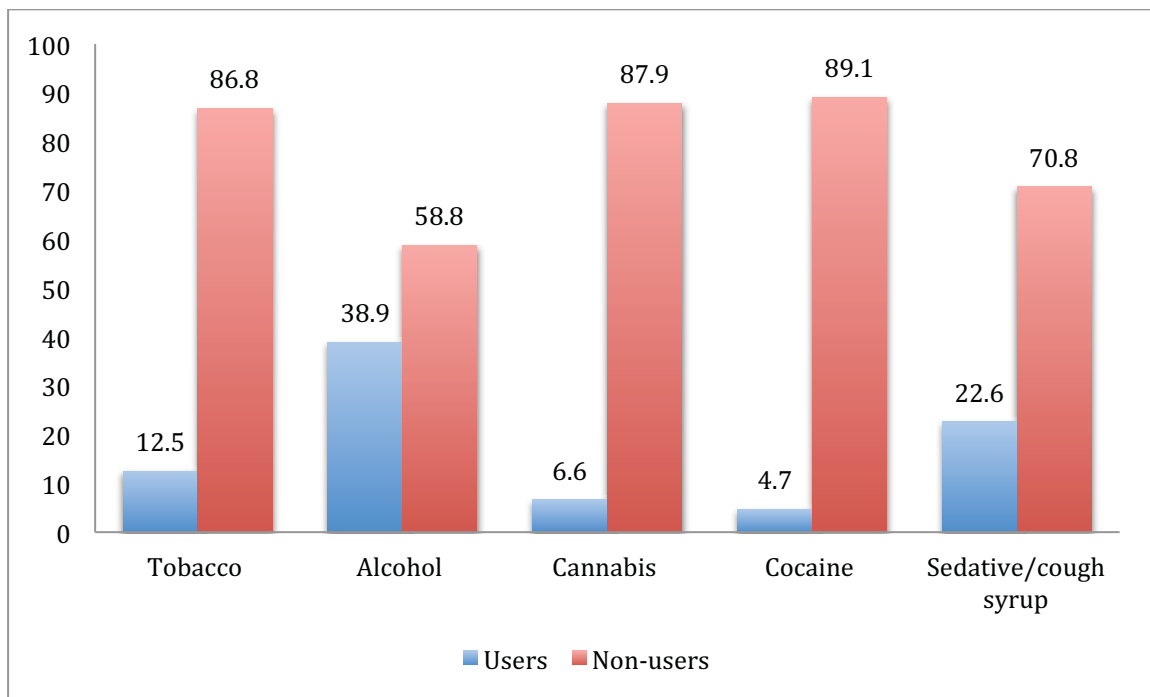


Figure 4 shows the sex distribution of use of substances among respondents. For all substances, the total number of males admitting to use is more than double the number of females. Considering the ratio of females to males in this study (1 female to 1.9 males), this may reflect that the males are using all the categories of substances more than the females. However, this conclusion should be made with caution since we already have the gender distribution skewed towards males than females.

FIGURE 4. SEX DISTRIBUTION OF SUBSTANCE USE

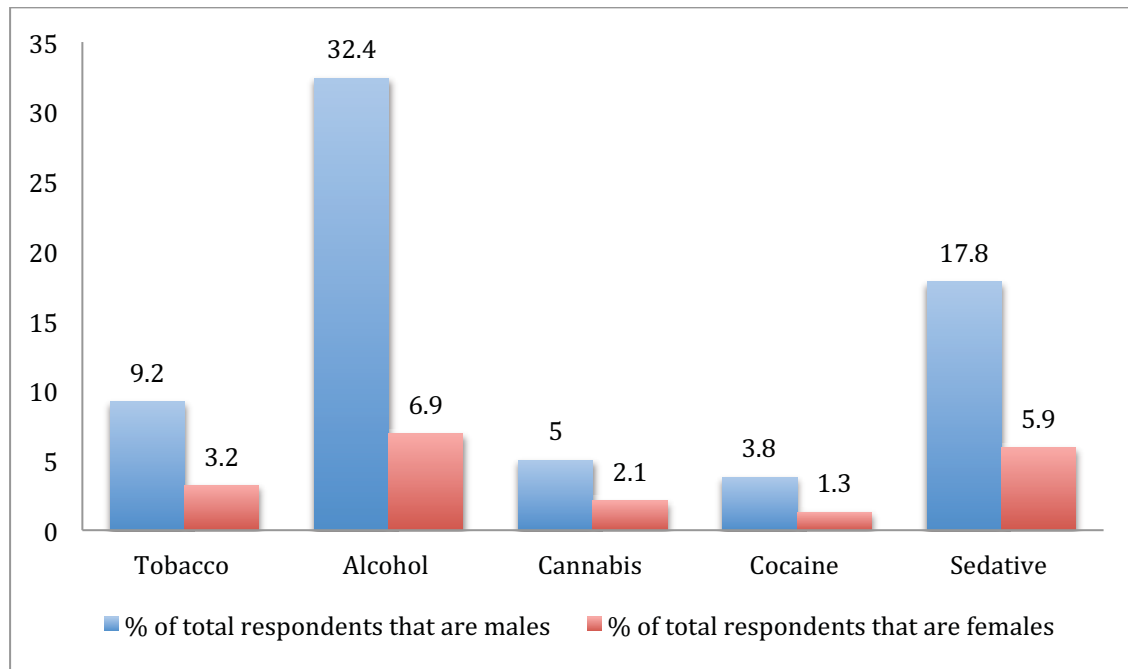


Figure 5 shows age of onset of substance use. For all the 5 categories of substances, majority of respondents started using substance at ages 13-16 years. However, for adolescents that use cocaine and smoke tobacco or marijuana, the second most conspicuous age of onset is 10 years or below. For the peak age category of starting substance use (13-16 years), the number of males initiated was more than double that of the females for all categories of substances. For the proportion of total males to females in this study (1 female to 1.9 males), this may mean more males started smoking at ages 13-16 years than the females. However, more females than males were initiated to using cocaine and smoking tobacco and cannabis at 10 years of age or less.

FIGURE 5. AGE OF ONSET OF SUBSTANCE USE

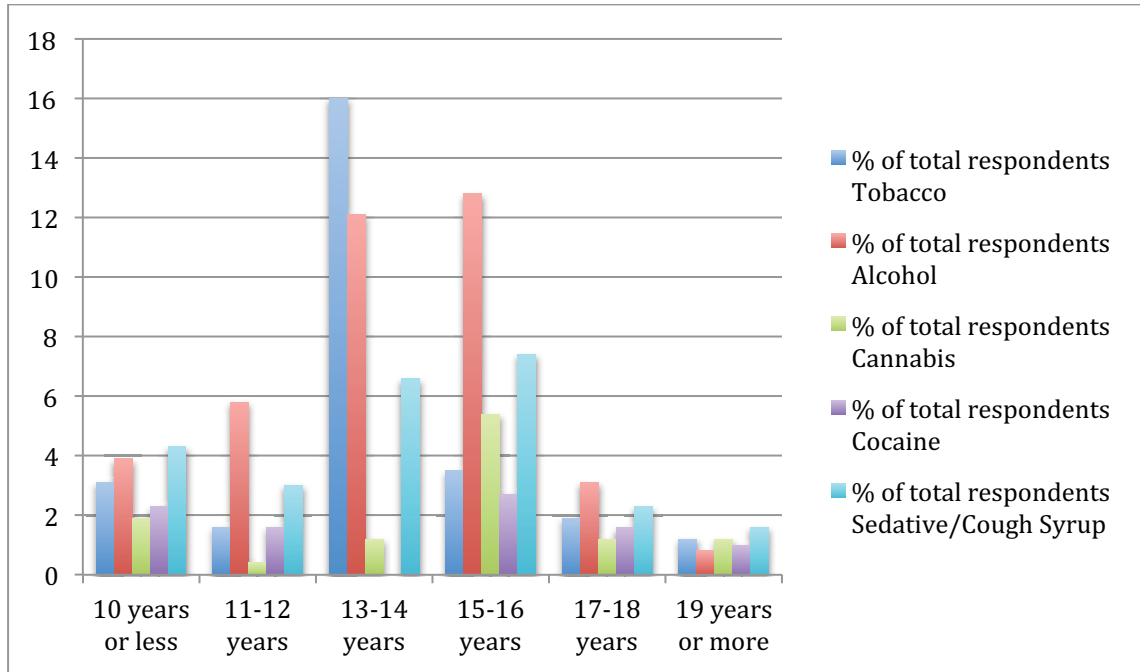
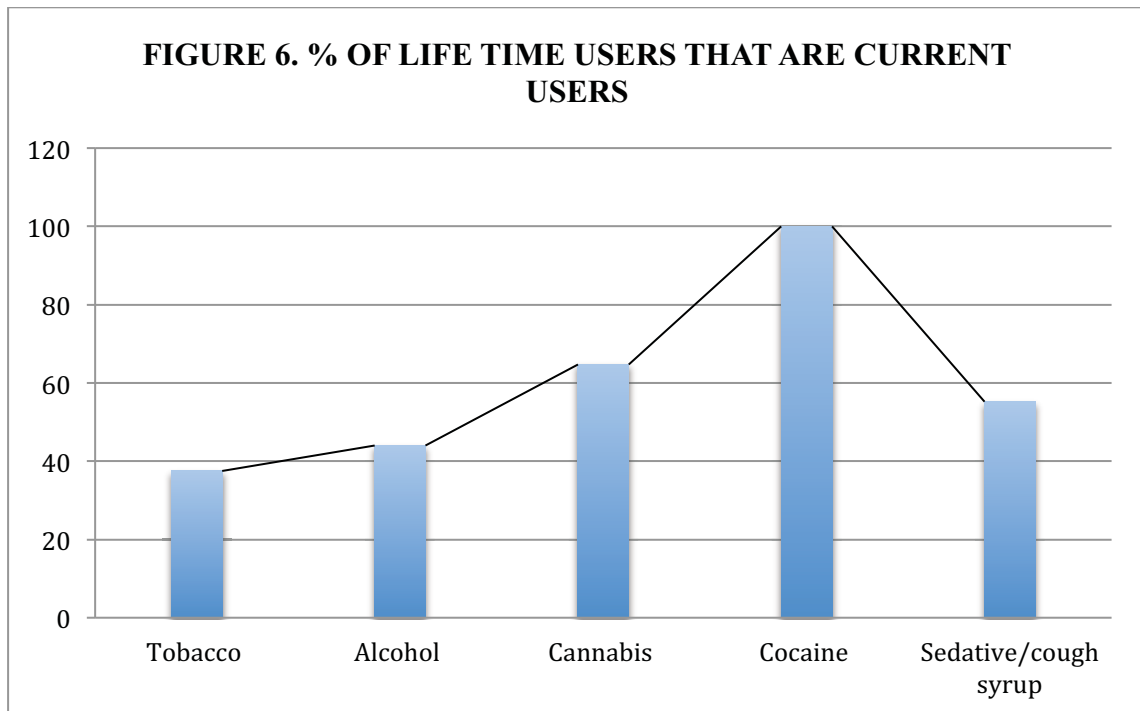


Figure 6 shows proportion of “current users” among total number of respondents who have used a substance in their lifetime (regarded as “lifetime users” in this study). It is striking to see that 100% of respondents who have used cocaine before are still current users; so is 64.7% and 55.2% of cannabis and sedative/cough syrup users respectively. However, less than 50% of respondents who have used tobacco and alcohol before are still current users.



KEY: Life time users= adolescents who have used a substance before in their life

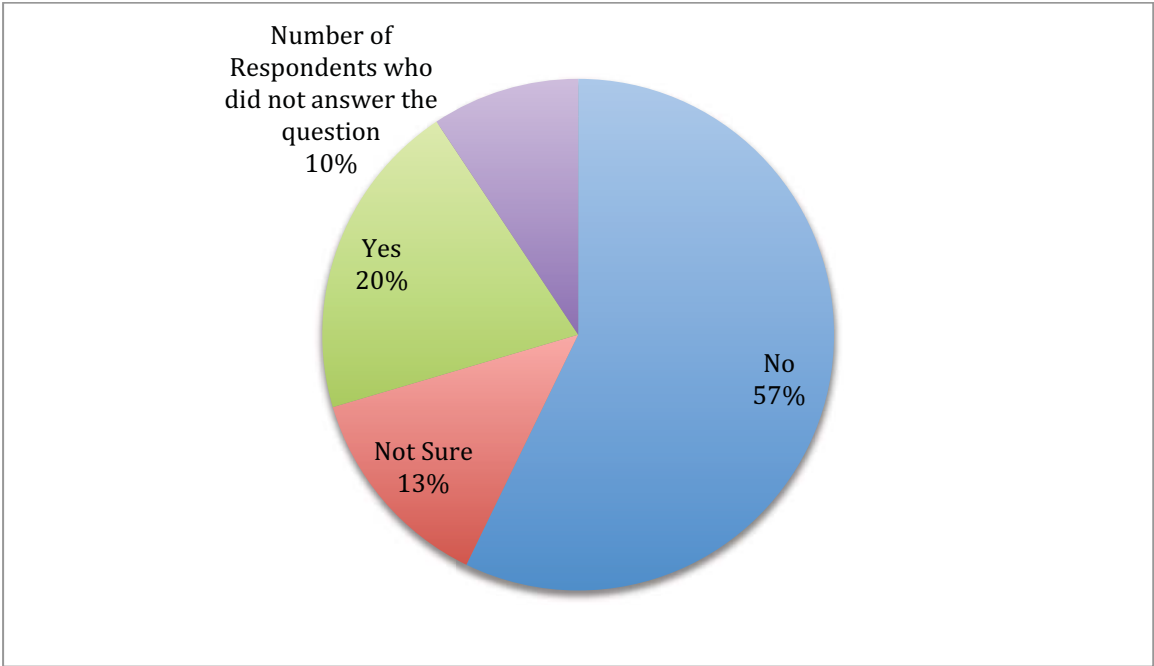
Current users= adolescents who are currently using a substance.

The study assessed frequency of substance use by respondents and the findings showed that alcohol and cocaine users have remarkably high frequency of consumption than other substances. For current users of alcohol, more respondents drink alcohol for 20 days or more in 30 days than any other category of alcohol consumption (which are less than 20 days in 30 days). In fact, for cocaine, majority of current users (10 out of 13 respondents) use cocaine on 6 or more days in 30 days (with 5 respondents taking cocaine for 6-19days and 5 other respondents taking cocaine for 20 days or more). A reverse trend is observed with current users of cannabis and sedatives/cough syrups with current users taking these substances only 5 days or less in 30 days. Frequency of use for tobacco was not assessed.

4.3 ASSESSMENT OF WILLINGNESS TO DISCLOSE SUBSTANCE USE

In assessing how many respondents will truthfully disclose if they are using a substance (especially illicit), Figure 7 showed that more respondents will not disclose their cannabis use than the ones who will and some are not sure if they should disclose their use.

FIGURE 7. WILLINGNESS TO DISCLOSE SUBSTANCE USE



4.4 AGE, SEX AND SUSCEPTIBILITY TO PEER PRESSURE

As regards substance use among adolescents:

Susceptibility to peer pressure is almost the same across gender. Overall, fewer adolescents admitted their susceptibility to peer pressure when asked directly.

10.9% of total respondents (28 out of 257) admitted to susceptibility to peer pressure.

10.9% of males (18 out of 165) admitted to susceptibility to peer pressure while 11.6% of females (10 out of 86) admitted to susceptibility to peer pressure. (Chi square=0.029, p value=0.864).

On an average, the older an adolescent is the more open he/she is to admit susceptibility to peer pressure when asked directly.

100% of 20 years old respondents (2 out of 2) admitted to being susceptible to peer pressure. (Chi square=19.644, p=0.001).

15.8% of 18 years old respondents (3 out of 19) admitted to being susceptible to peer pressure. (Chi square=19.644, p=0.001).

12.3% of 16 years old respondents (10 out of 81) admitted to being susceptible to peer pressure (Chi square=19.644, p=0.001).

8.7% of 15 years old respondents (9 out of 104) admitted to being susceptible to peer pressure (Chi square=19.644, p=0.001).

5.9% of 17 years old respondents (3 out of 34) admitted to being susceptible to peer pressure (Chi square=19.644, p=0.001).

4.5. LIFE TIME SUBSTANCE USE AND SUSCEPTIBILITY TO PEER PRESSURE

Table 3 assesses how many substance users are actually using substances based on the influence of their peers. Generally for all the substances considered, more lifetime users of each substance admitted to being susceptible to use substances based on peer pressure than adolescents who are non-users of such substances.

33.3% of all respondents using cocaine (4 out of 12) admitted to being susceptible to peer pressure while 8.7% of all respondents who have never used cocaine before (20 out of 229) admitted to being susceptible to peer pressure (Chi square value=7.695,

p=0.006).

25% of all respondents using tobacco (8 out of 32) admitted to being susceptible to peer pressure while 9% of respondents who have never used tobacco before (20 out of 223) admitted to being susceptible to peer pressure (Chi square value=7.358, p=0.007).

23% of all respondents using cannabis (4 out of 17) admitted to being susceptible to peer pressure while 8.8% of all respondents who have never taken cannabis before (20 out of 226) admitted to being susceptible to peer pressure (Chi square value=3.828, p=0.05).

15% of all respondents taking alcohol (15 out of 100) admitted to being susceptible to peer pressure while 8.6% of all respondents who have never taken alcohol (13 out of 151) admitted to being susceptible to peer pressure (Chi Square value=2.479, p=0.115).

12.1% of all respondents using sedatives/cough syrup (7 out of 58) admitted to being susceptible to peer pressure while 9.3% of all respondents who have never used sedatives/cough syrup before (17 out of 182) admitted to being susceptible to peer pressure (Chi square value=0.364, p=0.546).

TABLE 3. PERCENTAGE OF SUBSTANCE USERS ADMITTING TO PEER PRESSURE

Substance	Number of Total Life Time Users	Number Admitting To Use Based on Peer Pressure	% Of Total Life Time Users Admitting to Use Based on Peer Pressure	P Value. Pearson Chi Square. Asymp. Sig. (2 sided)
Tobacco	32	8	25	0.007
Alcohol	100	15	15	0.115
Cannabis	17	4	23.5	0.05
Cocaine	12	4	33.3	0.006
Sedative/Cough Syrup	58	7	12.1	0.546

4.6. TEMPTATION TO SMOKE IN POSITIVE SOCIAL SITUATIONS

Positive social situations that were assessed are when adolescents are socializing with one another:

- a. When with close friends at a party
- b. Hanging out with a close friend/boyfriend/girl friend who is smoking
- c. Having lunch with close friends

Unlike earlier on when susceptibility to peer pressure was almost the same across gender, more boys are tempted to smoke than girls this time. Also, more respondents were willing to admit their temptation to smoke due to peer pressure.

51.4% of total respondents (132 out of 257) admitted to being tempted to smoke.

57.4% of males (95 out of 165) admitted to being tempted to smoke while 38.4% of females (33 out of 86) admitted to being tempted to smoke. (Chi square=11.669, p=0.009)

Figure 8 shows that for all the substances considered, users of each substance were more tempted to smoke than non-users except sedatives/cough syrups. 41.7% of respondents who have never drank alcohol in their life (63 out of 151) admitted to being tempted to smoke while 77% of alcohol lifetime users (77 out of 100) admitted to being tempted to smoke. (Chi square value=26.272, p=0.000)

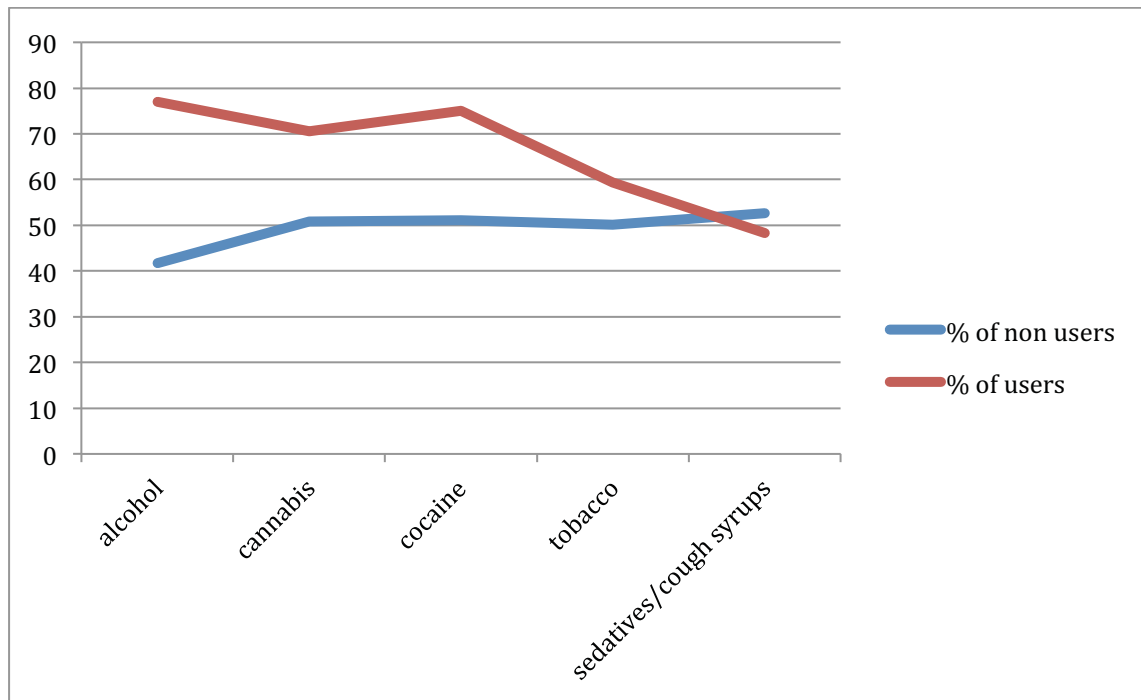
50.9% of non-cannabis users (115 out of 226) admitted to being tempted to smoke while 70.6% of cannabis lifetime users (12 out of 17) admitted to being tempted to smoke. (Chi square value=4.245, p=0.236)

51.1% of non-cocaine users (117 out of 229) admitted to being tempted to smoke while 75% of lifetime cocaine users (9 out of 12) admitted to being tempted to smoke. (Chi square value=3.82, p=0.282)

50.2% of non-tobacco users (112 out of 223) admitted to being tempted to smoke while 59.4% of lifetime tobacco users (19 out of 32) admitted to being tempted to smoke. (Chi square value=3.673, p=0.299)

52.7% out of all respondents who has never used sedatives/cough syrups without a doctor's prescription (96 out of 182) admitted to being tempted to smoke while 48.3% of all respondents who have used sedatives/cough syrups without a doctor's prescription (28 out of 58) admitted to being tempted to smoke. (Chi square value=1.310, p=0.727)

FIGURE 8. TEMPTATION TO SMOKE IN POSITIVE SOCIAL SITUATIONS



4.7. TEMPTATION TO SMOKE IN NEGATIVE SITUATIONS

Negative situations that were assessed are when an adolescent is anxious and stressed, angry about something or with someone or when frustrated.

Majority of respondents admitted to being tempted and more boys are tempted to smoke than girls. 55.6% of total respondents (143 out of 257) admitted to being tempted to smoke. 63.6% of males (105 out of 165) admitted to being tempted to smoke while 39.5% of females (34 out of 86) admitted to being tempted to smoke. (p value=0.005)

Figure 9 shows that for all the substances, users of each substance were more tempted to smoke than non-users except for cannabis & sedative/cough syrups with very close values. 47% of respondents who have never taken alcohol in their lifetime (74 out of 157) admitted to being tempted to smoke while 77% of lifetime alcohol users (77 out of 100) admitted to being tempted to smoke (Chi square value=11.466, p=0.022).

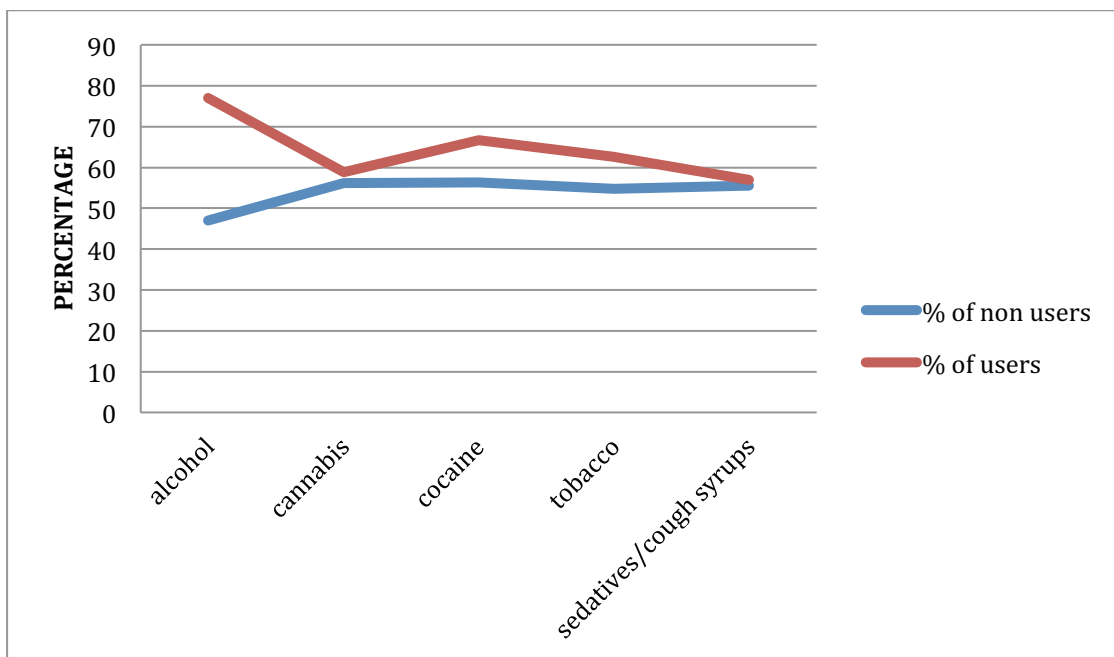
56.2% of non-cannabis users (127 out of 226) admitted to being tempted to smoke while 58.8% of lifetime cannabis users (10 out of 17) admitted to being tempted to smoke. (Chi square value=1.027, p=0.899).

56.3% of non-cocaine users (129 out of 229) admitted to being tempted to smoke while 66.7% of lifetime cocaine users (8 out of 12) admitted to being tempted to smoke (Chi square value=3.372, p=0.498)

54.7% of non-tobacco smokers (122 out of 223) admitted to being tempted to smoke while 62.5% of lifetime tobacco smokers (20 out of 32) admitted to being tempted to smoke (Chi square value=5.007, p=0.287)

55.5% out of all respondents who has never used sedatives/cough syrups without a doctor’s prescription (101 out of 182) admitted to being tempted to smoke while 56.9% of all respondents who have used sedatives/cough syrups without a doctor’s prescription (33 out of 58) admitted to being tempted to smoke. (Chi square value=4.362, p=0.359)

FIGURE 9. TEMPTATION TO SMOKE IN NEGATIVE SITUATIONS



4.8. TEMPTATION TO SMOKE IN HABITUAL AND CRAVING SITUATIONS

Examples of habitual and craving situations that were assessed for are:

- a. When a respondent first gets up in the morning
- b. When a respondent feels he/she needs inspiration
- c. When a respondent realizes he/she hasn’t smoked in a while

Almost half of respondents admitted to being tempted and more boys are tempted to smoke than girls.

48.6% of total respondents (125 out of 257) admitted to being tempted to smoke.

53.9% of males (89 out of 165) admitted to being tempted to smoke while 38.4% of females (33 out of 86) admitted to being tempted to smoke. (p value=0.092).

Figure 10 shows that for all the substances, users of each substance were more tempted to smoke than non-users except sedatives/cough syrups. 38.4% of respondents who have never drunk alcohol in their life (63 out of 151) admitted to being tempted to smoke while 64% of alcohol lifetime users (64 out of 100) admitted to being tempted to smoke. (Chi square value=17.236, p=0.002).

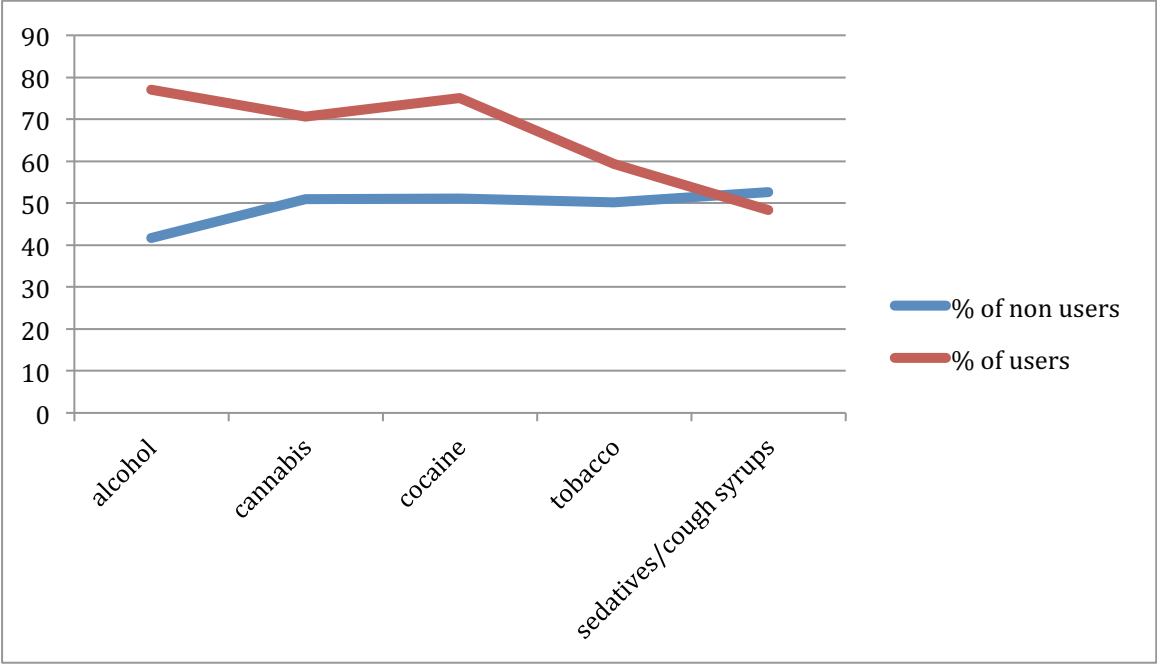
46.5% of non-cannabis users (105 out of 226) admitted to being tempted to smoke while 70.6% of cannabis lifetime users (12 out of 17) admitted to being tempted to smoke. (Chi square value=13.411, p=0.004).

47.2% of non-cocaine users (108 out of 229) admitted to being tempted to smoke while 75% of lifetime cocaine users (9 out of 12) admitted to being tempted to smoke (Chi square value=9.704, p=0.021).

47.5% of non-tobacco users (106 out of 223) admitted to being tempted to smoke while 56.2% of lifetime tobacco users (18 out of 32) admitted to being tempted to smoke. (Chi square value=16.387, p=0.003).

49.5% out of all respondents who has never used sedatives/cough syrups without a doctor's prescription (90 out of 182) admitted to being tempted to smoke while 44.8% of all respondents who have used sedatives/cough syrups without a doctor's prescription (26 out of 58) admitted to being tempted to smoke. (Chi square value=1.705, p=0.636).

FIGURE 10. TEMPTATION TO SMOKE IN HABITUAL/CRAVING SITUATIONS



4.9. DISCUSSIONS

This section discusses the interesting results of the analysis and proposes possible explanations for such results.

In the study, it appears that more boys are using substances than the girls for all the categories of drugs considered. This goes along with the general societal notion that boys are more adventurous and daring to try new things or do things that are perceived to be risky and dangerous e.g. use of illicit substances like cocaine and cannabis. It is also in keeping with the findings of the 1993 Adelekan et al and 2007 Rudatsikira et al research works in Africa (See Chapter 2.4). Although, since a modeling method was not employed to adjust for the difference in the male to female ratio, this conclusion should be made with caution because we already have the gender distribution skewed towards males than females. The perception when a boy smokes & drinks in Nigeria is that he is tough while for a girl, people are worried she is loose and not “ladylike”. Despite the fact that the society generally frowns at adolescents drinking and smoking at their perceived tender age, it is obvious from this study they are not just drinking and smoking, they are involved in illicit substance use, which cuts across gender.

In fact, the study is prone to underreporting of the use of illicit substances (cannabis & cocaine). Adolescents probably take these substances in hidden places (e.g. drug joints and secluded corners of the streets); away from the prying eyes of adults. This owes to the fact that majority of respondents (57.2%) made it clear they will not disclose their cannabis use if they were in fact using. Only 20% of them were ready to be open. This collaborates the idea expressed in the WHO Drug Use Questionnaire stating adolescents may not be willing to disclose their drug use (WHO, 1980). This unwillingness to be open will be transferred to people responsible for their upkeep like parents, teachers, guardians and older ones in the neighborhood where they live. This is obviously so because boys and girls know they will be reprimanded for their use by concerned parents, concerned enough to send them to school for a brighter future.

Although the level of concern for adolescent substance use is extended to alcohol and tobacco, they are usually with less scrutiny because they are legal substances, only not legal to use at a certain age (less than 18 years). This may account for 132 out of 257 respondents admitting to alcohol or tobacco use, making them the highest set of substances used according to this study. Adolescents can easily purchase alcohol and tobacco without presenting any identification in Nigeria. In the same vein, cough syrups and sedatives are off-the-counter drugs and can be bought without a doctor's prescription. This may account for why sedatives/cough syrups are the second most used substance in this study (58 out of 257 respondents admitted to its use). Easy access of alcohol, tobacco and sedatives by adolescents reflects poor governmental regulations on these substances.

Just like earlier studies carried out globally and in Nigeria (See Chapter 2), this study was able to identify Peer Influence as one of the key factors in determining the use of substances among adolescents but distinctively, tried to explore the various patterns of this influence. In different situations where adolescents are socializing with one another, more than half of the respondents (51.4%) admitted to being tempted to smoke. Although, when asked directly if they feel their friends are in a way responsible for their use or non use of substances (or other actions in general), only 10.9% admitted to susceptibility to peer pressure. This demonstrates adolescents' knowledge of substance use based on peer influence but in a subtle way, shows adolescents don't feel it is the only reason why they decide to use or not to use a substance. On the other hand, these facts may simply point to the magnitude of their unawareness of how much they do things (substance use in this regard) based on the influence of their peers.

It seems peer influence cuts across gender and it is really not obvious which gender is most affected by peer influence to use a substance. When eating, drinking and partying with close friends, more males in this study admitted to been tempted to smoke (57.4% of total number of boys as against 38.4% of total number of girls; Chi square=11.669, $p=0.009$). On the other hand, when directly asked about the influence of close friends on their decision making to use substance (or carry out any other perceived defiant activity for that matter), percentage across gender seems the same in admitting to susceptibility to peer pressure in dictating their choices (11.6% of total number of girls as against 10.9% of total number of boys; Chi square=0.029, p value=0.864). At least in a social context, this may reflect boys are more susceptible to peer influence as regards substance use than girls but when confronted about it, both gender equally have fewer respondents willing to admit to it although the later conclusion is not significant.

As expected, the percentage of substance users admitting to being tempted to smoke when socializing with close peers are more than the percentages of non-substance users admitting to the same scenario for alcohol, tobacco, cannabis and cocaine. This may be because users not only have the knowledge, skills and the past euphoria of use to remind them of the much anticipated pleasure to use again (as explained by the social cognitive theory), but unlike non users, they may have formed a common ideology amongst their using peers which strongly promotes their use every time they are together in clusters (as explained by the peer cluster theory). The highest set of users admitting to being tempted to smoke is adolescents who use alcohol (with 77% of them admitting to being tempted to smoke). This might be because, socially, drinking and smoking are carried out together in the society as licit substances; hence, one substance could easily serve as a gateway drug for another. From the study 23% of people who take alcohol also smoke tobacco (Chi square=15.703 $p=0.000$).

Cocaine is known to be a very addictive substance. The study shows that 100% of all adolescents who admitted to using cocaine before in their lifetime (12 out of 12 adolescents) are still using cocaine at present. This indicates a craving pattern and dependency on cocaine has probably been established. 75% of cocaine users (9 out of 12) admitted to being tempted to smoke when socializing with close peers (Chi square=3.372, $p=0.498$). Although this is not significant, it is however significant that 33.3% of all respondents using Cocaine (4 out of 12) directly admitted to being susceptible to peer pressure (Chi square value=7.695, $p=0.006$).

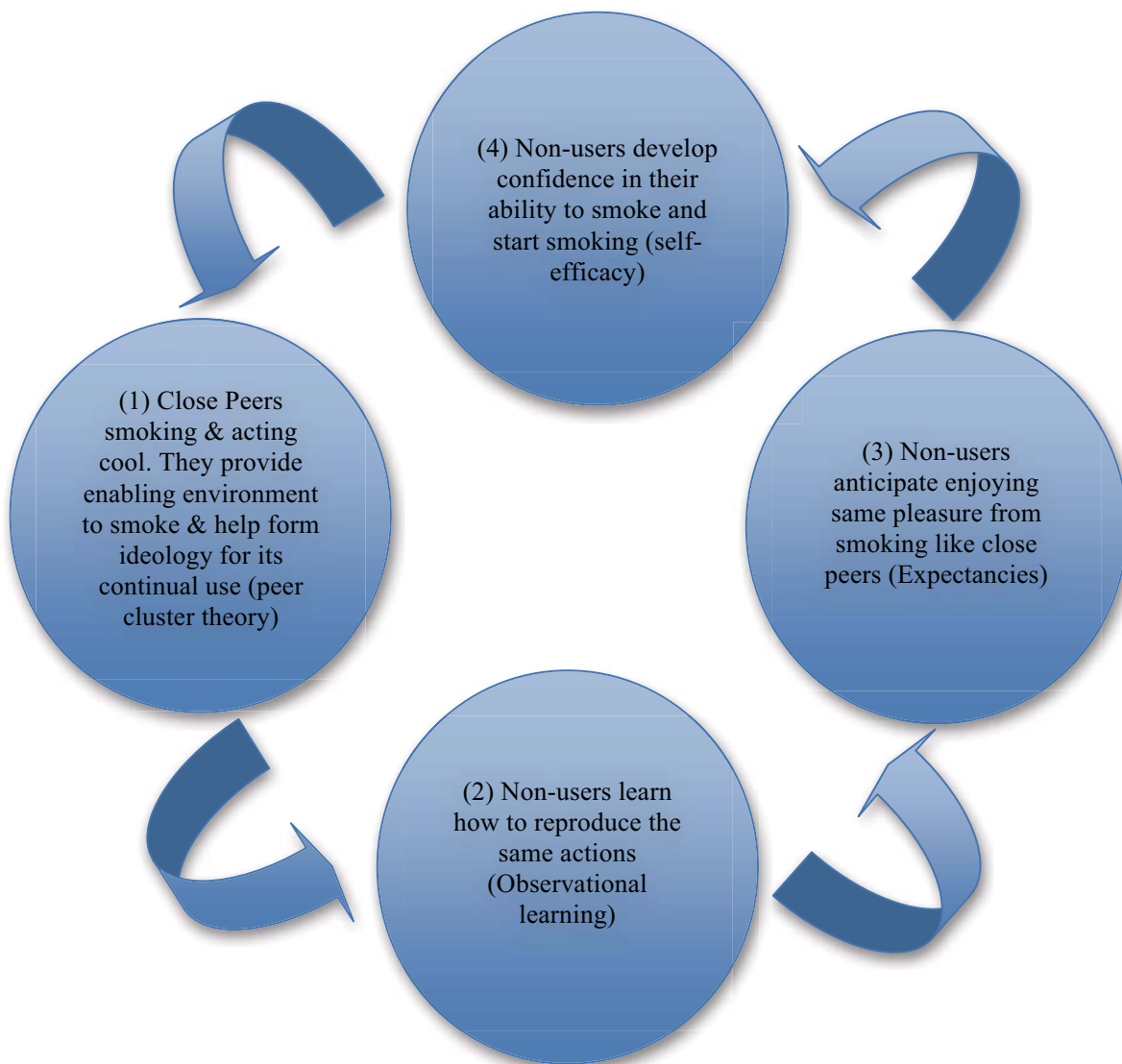
Therefore, it is not surprising that for such adolescents, when they socialize with peers who smoke, they easily feel like smoking too because their will not to use substances have been severely eroded. Already from the study, we have 50% of cocaine users also smoking tobacco (Chi square=16.34 p=0.000).

The pattern of Sedative/Cough syrup use may be a little different from the other substances considered in this study. While it is “cool” to pop drinks and smoke in adolescent social gatherings, it may be preferable to use pills and take cough syrups in less social contexts like in your bedroom alone or privately with a close friend. This gives the impression that peer influence may not be as strong in dictating sedative/cough syrup use like other substances considered (at least from a social point of view). This notion is supported with the fact that out of all respondents admitting to using one substance or the other, the sedative/cough syrup category of users had the least percentage of users admitting to being susceptible to peer pressure compared to other categories of users (12% for sedative users as against 15-33.3% of users in other categories of substances). When an adolescent is not using sedatives/cough syrups in social contexts or is exclusively or intensely focused on the excessive use of sedatives/cough syrups, physical/neurological and personality problems should be majorly explored rather than peer influence.

However, it is worthy to note that non-users have a noticeably high percentage amongst them admitting to being tempted to smoke by the virtue of socializing with close peers (41.7-52.7% of non-users for all category of substances considered). Close Peers that smoke will provide an enabling environment for non-users to smoke & help them form ideology for their continual use (peer cluster theory).

By observing close friends that smoke and act “cool”, non-users of various substances not only learn how to reproduce the same actions (observational learning in social cognitive theory) but gradually start developing interest and anticipate enjoying the same experience they perceive their smoking friends enjoy (expectancies in social cognitive theory). This anticipated enjoyment of smoking could build confidence in their ability to smoke (self-efficacy in social cognitive theory) which leads to successful completion of the act in the nearest future; thereby, completing the pathway of peer influence on substance use among adolescents.

**FIGURE 11. PATHWAY OF PEER INFLUENCE ON SUBSTANCE USE
AMONG ADOLESCENTS**



Logically, despite the identified peer pressure adolescents face to use substances, without an adolescent eventually using the substance, there is no remarkable prove of peer influence on adolescents to use substances. While exploring peer influence to adolescent substance use, this study identified that an eventual rate-determining step in deciding whether an adolescent will eventually smoke or not smoke despite the peer pressure he/she may be facing is based on confidence in his/her ability to carry out the action to smoke. This is known as Self-Efficacy. Therefore, it is important to balance the study’s exploration of the “cause and effect” of adolescent substance use (peer pressure being the “cause” and self-efficacy being the “effect”)

Therefore, this study explored some life scenarios that urges an adolescent to develop confidence in his/her ability to successfully carryout the use of a particular substance e.g. smoking tobacco, cannabis etcetera. Although, this study puts in cognizance the fact that

such developed confidence to smoke is influenced by individual and environmental factors in which peer influence in itself is a key member. Knowing fully well that the extent to which an individual is tempted to carry out an action is a full expression of the confidence developed in one's ability to carry out such an action, the study consequently measured self-efficacy to smoke by ascertaining the temptation to smoke in different scenarios.

Scenario 1: When an adolescent is anxious and stressed, angry about something or with someone or simply frustrated. The study showed that boys have a higher self-efficacy to smoke than girls (63.6% of males tempted to smoke as against 39.5% of females). Also, substance users (for all categories of substances) had a higher self-efficacy to smoke than their counterpart non-users for all substances considered.

Alcohol seems to be the most influential substance in times of stress among adolescents already into the use of one of the 5 substances considered; having the highest percentage of self-efficacy to smoke (in these situations) among substance using adolescents (77% of alcohol lifetime users are tempted to smoke as against 56.9%-66.7% of lifetime users of all other substances considered in the study). These may simply be so because in Nigeria, alcohol is licit, readily available, socially acceptable and easy to disguise for use. For example, an adolescent may take alcohol in a soft drink container in order to avoid scrutiny.

Scenario 2: Habitual and craving situations like:

- a. When a respondent first gets up in the morning
- b. When a respondent feels he/she needs inspiration
- c. When a respondent realizes he/she hasn't smoked in a while

Just like negative situations, the study showed that boys have a higher self-efficacy to smoke than girls (53.9% of males tempted to smoke as against 38.4% of females). Likewise, substance users (for all category of substances) have a higher self-efficacy to smoke than their counterpart non-users for all substances considered. However most interesting is the fact that many adolescents habitually smoke in order to achieve inspiration for their dreams like composing songs and becoming musicians. 70.6% of cannabis users smoke to achieve inspiration while 54.9% of tobacco users smoke for the same reason. This may be because of the notion that many successful Nigerian hip-hop musicians use cannabis to perform and write songs and the youths want to be like them.

4.10. LIMITATION OF STUDY

For this study, it would have been most desired to serially explore the context in which peer pressure and self-efficacy relate to substance use among adolescent with

a Longitudinal Study so as to observe the trend over time. However, the time, additional human and financial resource to do this is a constraint. The category of analysis for the study is simple groups of users and non-users for each of the substances considered. For each category of non-users for any particular substance, there may be different subcategories of adolescents for example; non-users of alcohol can be further divided into 1) non users of alcohol who are non-users of any other substance considered 2) non users of alcohol who are users of tobacco 3) non users of alcohol who are users of cocaine etcetera. The pattern of use for various subcategories was not fully explored and this could be an avenue for further research work.

4.11. CONCLUSION AND RECOMMENDATION

From the study, it is clear that there is pressure on non-substance using adolescents to join their substance using close friends in smoking and drinking in social situations. Also, they eventually over time develop confidence in carrying out this act of substance use. Moreover, once an adolescent starts using, the study makes it clear perpetual use is reinforced within the adolescent peer clusters; making the temptation to keep using even stronger than before initiation. As this adolescent closely mingle with new non-substance using peers (e.g. new boyfriend/girlfriend etcetera) the influence is continually perpetuated hereby completing the revolving pathway of peer influence on substance use among adolescents. These findings have been drawn from adolescents going to school.

Schools are recognized as the citadel of acquiring knowledge and the platform to mold a young mind in the necessary qualities the society requires of every citizen especially during the impressionable years of adolescence. Looking at how potent peer influence is in determining the path adolescents take in life, schools can be structured to harness this important tool (peer influence) to mold adolescents in the productive and positive things of life and deter them from the harmful practices like substance abuse, substance dependency and consequent delinquency. School programs/activities can be designed to modify the total health of the Nigerian child putting peer influence into perspective. Dramas, Stage plays, Choreographies, and other adolescent fun activities could be organized to teach adolescents personal coping skills, how to say no to social vices and ultimately influence other peers on living a good life without drugs.

The concept of using peer influence to produce positive developmental benefits in adolescents as against substance use delinquency in schools can be transferred into the larger

society with the same goal of improving the quality of life of adolescents in Nigeria. The government and other partners can use a theory-based approach that seeks to understand the concept of peer influence as it relates to adolescents to design and implement relevant programs that will be beneficial to adolescents. Local mass media campaigns focusing on adolescents and community-based movements aimed at sensitizing all stakeholders will go a long way in effectively communicating the harmful nature of substance use to adolescents, parents and the society at large; consequently preventing drug abuse amongst Nigerian adolescents.

Lastly, it is important to consider point-of-sale restrictions within the context of a comprehensive adolescent drug control policy to prevent indiscriminate access of adolescents to tobacco, alcohol, sedatives and cough syrups. For illicit substances like cocaine and cannabis, it is also important for the government through its law enforcement agencies (NDLEA-National Drug Law Enforcement Agency) to work in partnership with relevant bodies not only in clamping down on illicit drug barons or raiding drug joints, but to harness resources and channel them into policies, preventive measures and programs that will rehabilitate unproductive end users of drugs and consequently reduce the vulnerability of the Nigerian adolescents to drug abuse.

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APPENDIX

APPENDIX A: YOUTH SCHOOL SURVERY

YOUTH SURVEY QUESTIONNAIRE

Young People's Views, Life Experiences with Peers & Substance Use

This Survey will find out about life experiences of adolescents as it relates to interaction with peers & substance use. It will help in formulating beneficial programs for youths

Kindly answer the questions honestly as there are no rights or wrong answers. It should take you about 30 minutes to complete this survey. DO NOT WRITE YOUR NAME PLEASE because we don't need your identity in this survey. Your cooperation is highly appreciated.

ABOUT YOU, Please put a cross (X) in the most appropriate box

1 Are you a male or a female? Male Female

2 What is your age? 15 16 17 18 19 20

3 What class are you? SS1 SS2 SS3

For Every Question, Please Read Parts A, B, C, D And Answer Each Part

4a. Have you ever smoked, chewed or sniffed any tobacco product (such as cigarettes, cigars, pipe tobacco, chewing tobacco)? No Yes

4b. Have you smoked, chewed or sniffed a tobacco product (such as cigarettes, cigars, pipe tobacco, chewing tobacco) in the past 12 months? No Yes

4c. Have you smoked, chewed or sniffed a tobacco product (such as cigarettes, cigars, pipe tobacco, chewing tobacco) in the past 30 days? No Yes

4d. How old were you when you first smoked, chewed or sniffed tobacco? (Age in years)

I have never smoked, chewed or sniffed a tobacco product

10 or less 11-12 13-14 15-16 17-18 19 or more

5a. Have you ever drunk any alcoholic beverage (including beer, wine and spirits) No Yes

5b. Have you drunk any alcoholic beverage in the past 12 months? No Yes

5c. Have you drunk any alcoholic beverage in the past 30 days?

No Yes, on 1-5 days Yes, on 6-19 days Yes, 20days or more

5d. How old were you when you first had a drink of beer, wine or spirits-more than just a sip? (Age in years)

I have never drank alcohol beverage (including beer, wine and spirits)

10 or less 11-12 13-14 15-16 17-18 19 or more

6a. Have you ever taken any cannabis (Marijuana, Weed, Igbo, Ganja)? No Yes

6b. Have you taken any cannabis during the past 12 months?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
6c. Have you taken any cannabis during the past 30 days?		
<input type="checkbox"/> No	<input type="checkbox"/> Yes, on 1-5 days	<input type="checkbox"/> Yes, on 6-19 days
<input type="checkbox"/> Yes, 20days or more		
6d. How old were you when you first took cannabis? <input type="checkbox"/> I have never taken cannabis (Weed, Igbo, Marijuana) (Age in years)		
<input type="checkbox"/> 10 or less	<input type="checkbox"/> 11-12	<input type="checkbox"/> 13-14
<input type="checkbox"/> 15-16	<input type="checkbox"/> 17-18	<input type="checkbox"/> 19 years old, or more
7a. Have you ever taken any cocaine?		
<input type="checkbox"/> No	<input type="checkbox"/> Yes	
7b. Have you ever taken any cocaine in the past 12 months?		
<input type="checkbox"/> No	<input type="checkbox"/> Yes	
7c. Have you ever taken any cocaine in the past 30 days?		
<input type="checkbox"/> No	<input type="checkbox"/> Yes, on 1-5 days	<input type="checkbox"/> Yes, on 6-19 days
<input type="checkbox"/> Yes, 20days or more		
7d. How old were you when you first took cocaine? <input type="checkbox"/> I have never taken cocaine (Age in years)		
<input type="checkbox"/> 10 or less	<input type="checkbox"/> 11-12	<input type="checkbox"/> 13-14
<input type="checkbox"/> 15-16	<input type="checkbox"/> 17-18	<input type="checkbox"/> 19 years old, or more
8a. Have you ever taken Codeine (Cough Syrup), Flunitrazepam (Refinol/Rohypnol) or Sedative (Sleeping pill) without a doctor or health worker telling you to do so?		
<input type="checkbox"/> No	<input type="checkbox"/> Yes	
8b. Have you ever taken Codeine (Cough Syrup), Flunitrazepam (Refinol/Rohypnol) or Sedative (Sleeping pill) in the past 12 months without a doctor or health worker telling you to do so?		
<input type="checkbox"/> No	<input type="checkbox"/> Yes	
8c. Have you ever taken Codeine (Cough Syrup), Flunitrazepam (Refinol/Rohypnol) or Sedative (Sleeping pill) in the past 30 days without a doctor or health worker telling you to do so?		
<input type="checkbox"/> No	<input type="checkbox"/> Yes, on 1-5 days	<input type="checkbox"/> Yes, on 6-19 days
<input type="checkbox"/> Yes, 20days or more		
8d. How old were you when you first took Codeine, Flunitrazepam (Refinol/Rohypnol) or Sedative (Sleeping pill) without a doctor or health worker telling you to do so? (Age in years)		
<input type="checkbox"/> I have never taken Codeine, Refinol or Sedative without a doctor telling me to do so?		
<input type="checkbox"/> 10 or less	<input type="checkbox"/> 11-12	<input type="checkbox"/> 13-14
<input type="checkbox"/> 15-16	<input type="checkbox"/> 17-18	<input type="checkbox"/> 19 years old, or more
8e. If you have ever taken sedatives (sleeping pills) write in the name of the one you have taken most recently (without doctors prescription).		
9a. Are there any other substances you drink or smoke not mentioned that you have taken in the past year?		
<input type="checkbox"/> No	<input type="checkbox"/> Yes	
9b. If yes, write in the name of the drug or drugs here.....		
10a. Do you know of any other substances that people are now taking to make them feel high or intoxicated?		
<input type="checkbox"/> No	<input type="checkbox"/> Yes	
10b. If yes, what are these substances called?.....		
11. If you had ever used any cannabis, would you have admitted it in this questionnaire?		
<input type="checkbox"/> No	<input type="checkbox"/> Not sure	<input type="checkbox"/> Yes

ABOUT YOU AND YOUR FRIENDS (CLOSE FRIENDS/ BOY OR GIRLFRIEND)

Please put a cross (X) in the most appropriate box.

- | | | |
|--|-----------------------------|------------------------------|
| 1. If your friend offers you a drink of alcohol, would you drink it? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |
| 2. If your friend offers you a drink of alcohol, would you want to try it? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |
| 3. If you are at a party where your friends are drinking alcohol, would you feel left out if you are not drinking alcohol? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |
| 4. If your friend dares you to smoke a cigarette and your parents don't want you to smoke, would you smoke it? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |
| 5. If your friend dares you to tear a page out of a school library book, will you do it? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |
| 6. If your friends are going to the movies and you have to study for a test, would you go to the movies anyway? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |
| 7. If your best friend is skipping school, would you skip too? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |

ABOUT

BEING

TEMPTED

Listed below are situations that lead some people to smoke. We would like to know HOW TEMPTED you may be to smoke in each situation below. Please put a cross (X) in the most appropriate box.

- | | 1:Not at all tempted | 2:Not very tempted | 3:Moderately tempted | 4:Very tempted | 5:Extremely tempted |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. With friends at a party. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. When I first get up in the morning. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. When I am very anxious & stressed. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Over lunch when talking & relaxing. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. When I feel I need inspiration. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. When I am very angry about something or someone. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. With my girl/boy friend or close friend who is smoking. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. When I realize I haven't smoked for a while. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. When things are not going my way and I am frustrated. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

THANK YOU FOR YOUR PARTICIPATION AND TIME.

APPENDIX B: INFORMATION SHEET/CONSENT FORM

INFORMATION SHEET AND CONSENT FORM

Title of Study: Exploring Peer Influence as a Pathway to Adolescent Substance Use in Nigeria

Investigator: Alexander Oni, Master of Public Health Student, Hamburg University of Applied Sciences, Hamburg, Germany.

You are being invited to take part in a research project. Before you decide, it is important for you to understand what taking part might involve for you. Please take time to read and discuss this information sheet with others or me if you would like to.

1. **Purpose of the study:** to find out about adolescents views about substance use.
2. **Participants:** adolescents in schools voluntarily filling questionnaire forms about their life experiences as it relates to substance use.
3. **Benefits of Participation:** the research is not expected to provide any direct benefit to you, but it is expected that the results will be beneficial to young people in general. This is because it will provide a better understanding of issues that affect young people.
4. **Risk of participation:** It is not expected to place you at any risk. If you experience some discomfort during the session, please let me know and I can stop your survey and guide you to get support.

STATEMENT OF PERSON OBTAINING INFORMED CONSENT.

I have fully explained this research to _____ and have given sufficient information, including about risks and benefits, to make an informed decision.

DATE: _____ **SIGNATURE** _____

NAME _____

STATEMENT OF PERSON GIVING CONSENT.

I have read the description of the research. I have also talked it over with the doctor to my satisfaction. I understand that my participation is voluntary. I know enough about the purpose, methods, risks and benefits of the research study to judge that I want to take part in it.

DATE: _____ **SIGNATURE** _____

NAME _____

SIGNATURE OF LEGALLY AUTHORISED REPRESENTATIVE

OF MINOR OR VULNERABLE ADULT _____

AUTHORITY TO ACT FOR PARTICIPANT _____

WITNESS/TRANSLATOR'S SIGNATURE (if applicable) _____

WITNESS' NAME (if applicable) _____

Researcher's Contact:

Name: Alexander Oni

Phone: 08037228206

Email: alexoni4life@yahoo.com

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9th July, 2013

NOTICE OF EXPEDITED REVIEW AND APPROVAL

PROJECT TITLE: "EXPLORING PEER INFLUENCE AS A PATHWAY TO ADOLESCENT SUBSTANCE USE IN NIGERIA".
HEALTH RESEARCH COMMITTEE ASSIGNED NO.: ADM/DCST/HREC/APP/1118
NAME OF PRINCIPAL INVESTIGATOR: DR. ALEXANDER ONI
ADDRESS OF PRINCIPAL INVESTIGATOR: DEPT. OF PUBLIC HEALTH, HAMBURG UNIVERSITY OF APPLIED SCIENCES, HAMBURG, GERMANY.
DATE OF RECEIPT OF VALID APPLICATION: 20-06-13

This is to inform you that the research described in the submitted protocol, the consent forms, and all other related materials where relevant have been reviewed and given full approval by the Lagos University Teaching Hospital Health Research Ethics Committee (LUTHHREC).

This approval dates from 09-07-2013 to 09-07-2014. If there is delay in starting the research, please inform the HREC so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of this dates. All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study. In multiyear research, endeavor to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research.

The National code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the code including ensuring that all adverse events are reported promptly to the HREC. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the code. The HREC reserves the right to conduct compliance visits to your research site without previous notification.

CHAIRMAN
HEALTH RESEARCH & ETHICS COMMITTEE
LUTH

DR. N. U. OKUBADEJO
CHAIRMAN, LUTH HEALTH RESEARCH ETHICS COMMITTEE



**LAGOS STATE GOVERNMENT
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LED/PPR&S/01/224/348

15th May, 2013.

Dr. Alexander Oni
7, Oba Adetona Street
Off Coker Road
Ilupeju
Lagos.

RE: LETTER OF REQUEST TO CONDUCT A SECONDARY SCHOOL BASED STUDY.

Sequel to your request to conduct a school survey among 500 Secondary School students in Lagos Island, Education District III, I am directed to convey the Ministry's approval to conduct the survey based on your request.

2. Grateful for your contribution.


Mrs. Oduyebo, S.A.
For: Permanent Secretary