Measured effect of Sexual Activities, Alcohol Consumption, Smoking and Aggression on Health Risk of Students in Rural Communities in Ikenne, Nigeria

Ezeokoli Rita. (PhD) 1  Ofole Ndidi. M. (Phd) 2
1. Department of Public Health, Babcock University, Ilisan, Ogun State
2. Department of Guidance & Counselling, Faculty of Education, University of Ibadan.

Abstract
This study examined the joint and relative contribution of sexual activities, alcohol consumption, smoking and aggression to the prediction of health risk of students in rural communities in Ogun State. Descriptive research design of correlational type was adopted. Multi-stage sampling Technique was used to draw 300 respondents from an approximated population size of 10,066 students. Two research questions guided the study. Thirty-nine item self-report questionnaire tagged “Health Risk Behaviours Questionnaire” was used for data collection. Result of Multivariate Analyses show that the predictor variables accounted for 38.9% of the variance in health risk of respondents (R= .657; R² = .389; F (3, 289) = 15.880; p <.05). Sexual activities made the most potent (β = .903) contribution to the prediction of health risk followed by alcohol consumption (β = .771), aggressive behaviours (β = .632) and smoking (β = .241). It concludes that the more students are involved in sexual activities, exhibits aggressive behaviours, consume alcohol and smoke the greater the likelihood that their health will be compromised. This outcome behooves counselling psychologists to design and implement health preventive, rehabilitative and reformatory counselling services for in-school adolescents

Keywords: Health risk, sexual activities, alcohol consumption, violent activities, drug abuse.

1.1 Introduction
The negative outcomes of adolescents risk behaviours especially as it creates burdens for the nation is well documented. Identifying factors associated with adolescents' risk behaviours is critical for developing effective prevention strategies. Health risk behaviours have been described as the pandemic of our times and have been receiving a lot of attention worldwide (Adenike, Wasiu & Olugbenga, 2009; Ofole & Agokei, 2014). Many youths engage in risky behaviours such as sexual activities, alcohol consumption, violent activities and drug abuse which had been indicted as the leading causes of death regardless of one's age (Centers for Disease Control and Prevention, 2010).

Alcohol consumption appears very rampant in schools and in the society at large. It seems to be the source of one of the country's major health challenge as well as social problems (Bada, 2014). The impact of alcoholism on youth has remained a source of worry to parents, schools, society and even the governments because of the attendant misbehaviours that usually follow and the negative effect it has on the health of the students (Johnston, O'Malley, Bachman & Schulenberg, 2004). There is also evidence of tobacco and marijuana use not only with higher institution students but also with secondary school students who are mostly adolescents in (Fatoye & Morakinyo, 2002). In a study conducted by Nwankwo, Obi, and Nwosu (2013) using secondary school students in Anambra State, 57% of the respondents had used marijuana and cocaine. The study found that substance use among secondary school students is assuming a dangerous dimension and hence a need for immediate eradication. Understanding the dynamics of adolescents risky behaviours is important because it is associated with many dangers and negative health outcomes which include increased heart rate and blood pressure, respiratory illness, heart attack, irreversible brain damage and death (Stanley & Odejide, 2002; Eneh & Stanley, 2004; Afolabi, Ayilara, Akinwunmi, & Ola-olorun, 2012).

In Nigeria secondary schools, according to Okosun (2010), aggressive behaviours have become a source of worry for teachers, parents, school authorities, and society at large. Uwakwe, Amusan-Ikpa, Ofole, Akanbi, Ojukwu and Ejiofor (2014) posited that aggressive behaviours have made some schools unsafe for normal academic processes. To this end, all stakeholders, including scholars from diverse disciplines are relentless in their efforts to unravel the factors responsible for aggressive behaviours among the adolescents. Dowd, Singer and Wilson (2006) defined aggression as behaviour (verbal or physical) that (a) is intended to harm another individual; (b) is expected by the perpetrator to have some chance of actually harming that individual; and (c) is believed by the perpetrator to be something that the target individual wishes to avoid. Physical aggression is conceived as existing along a severity continuum ranging from mild (e.g., a weak slap) to severe (e.g., shooting); and that violence (or violent behaviour) refers to physical aggression towards the severe end of this continuum (Anderson & Huesmann, 2003).

According to Social Learning theory of Bandura (1973) when children watch others being rewarded for aggressive behaviours they are likely to learn this behaviour through vicarious reinforcement. Results of more
than 2000 scientific studies and reviews have provided unequivocal evidence that media violence increases the likelihood of aggressive behaviours among adolescents, desensitizes them to violence, and makes them believe that the world is a “meaner and scarier” place than it is (Center on Media & Child Health, 2009; Strasburger, Wilson & Jordan, 2009; American Academy of Pediatrics, 2010). The above assertion was corroborated in Kadiri and Muhammad (2011) findings which show that exposure to mass media have a positive relationship with aggression in Kwara state schools. In another recent study by Ukoha (2013) using Nigerian youths result show that aggressive behaviours were increasing in form, as the violent content of media increases in form and diversity.

Research conducted among young people indicated that an increasing number of adolescents are involved in risky sexual practices and hence face undesired health outcomes such as unplanned pregnancy, early childbirth, unsafe abortion and sexually transmitted diseases (Adenike et al, 2009). Those who have sex may change partners frequently and have more than one partner in the same time period or engage in unprotected sex. These risky sexual activities make this group disproportionately affected by reproductive morbidities including STI/HIV, unwanted pregnancies and their complications (Albert, Prosper & Bavon 2011; John, Opirite & Eme, 2012).

It is well reported that children develop the intention to involve in health risk behaviours from age ten to about twenty and that these periods are characterized with peer influence, inability to make self-enhanced decision devoid of the attention of parents and peers (Global Youth Tobacco Survey, 2002; Okafor, 2005). Thus, the earlier an individual quits health risk behaviours, the less the hazard and the longer the life expectancy, as evidence suggests that much of the projected mortality from health risk behaviours can be prevented by stopping. Hence, this study investigated the relationship between some risky behaviour among secondary school students on their health and come up strategies to enable young people to make responsible decisions before they reach adulthood. Previous studies examined health risk behaviours of adolescents and the consequences.

For example, Young (2011) utilized sample of Korean adolescents to examine the relationship of psychological variables with health risk behaviours. Similarly, Sychareun, Thomsen and Faxelid (2011) investigated the concurrent multiple health risk behaviors among adolescents in Luangnamtha province, Lao PDR. However, these studies were targeted non African respondents notwithstanding that Africa and indeed Nigeria has a growing number of adolescents infected with HIV, high level of youth restiveness increased school dropout among others there is paucity of researches that have examined the dynamics of adolescents health risk behaviours. It therefore, becomes imperative to examine the association among adolescents sexual activities, alcohol consumption, smoking, aggressive behaviours and health risk. Specifically, the study proffered answers to the under listed research questions.

1.2 Purpose of Study
The broad objective of this study is to examine the composite and individual contribution of the independent variables (sexual activities, alcohol consumption, smoking and aggressive behaviours) to the prediction of health risk behaviours of in-school adolescents in Ogun State Secondary schools. The study is thus proffered answers to the under listed research questions;

1.3 Research Questions
1. To what extent does independent variables (of sexual activities, alcohol consumption, smoking and aggression) to the prediction of health risk of students in rural community in Ogun State?
2. What is the relative contribution of the independent variables to the prediction of health risk of students in rural community in Ogun State?

Materials and Methods
2.1 Research Design
The study adopted descriptive survey research of correlational type. This design was considered most appropriate for the study because it enables the researchers to study the predictive influence of the phenomena on the prediction of the criterion variables as it exist in nature without any form of manipulation.

2.2 Sample and Sampling Technique
The target population for this study was students in public secondary schools in Ikenne Local Government Area of Ogun State. As at the time of study the total numbers of public secondary schools in Ikenne Local Government Area were 13 with approximated students’ population of 10,661. Multistage sampling technique was used to draw out representative sample size. This was considered most appropriate since the study was carried out in stages using smaller and smaller sampling units at each stage. In the first stage, the primary units consisting of five communities were selected from Ikenne Local Government Area, namely; Ikenne, Ilishan, Irolu, Ogere, & Iperu. The secondary unit was made up of six schools drawn from the communities within each
primary unit. In the third and final stage, three hundred (300) respondents were drawn irrespective of age, gender, religion, or socio-economic status from the identified schools.

2.3 Instrumentation
A thirty nine self-developed questionnaire tagged “Health Risk Behaviour Questionnaire (HRBQ)” was used to obtain information from the respondents. The instrument anchored on a 4-point Likert ratings ranging from strongly agree to strongly disagree. To establish the reliability of the instrument, a test-re-test was conducted using a group of 30 respondents from a secondary school that did not form part of the sample. The Cronbach’s coefficient of alpha was computed and this yielded reliability co-efficiency (r) of 0.81. The instrument was therefore deemed highly reliable and satisfactory to be used to collect data for the present study.

2.4 Procedures
The researcher met with the principals of the secondary schools selected for the study to obtain permission to give the questionnaire to the students. The instrument was administered on the sampled respondents personally with the help of two research assistants. 300 questionnaires was administered and collected on the spot on completion from the students. Of the 400 questionnaires distributed 300 were returned and correctly filled. The questionnaire return rate was therefore, 75%.

In order to adhere to ethical standard in implementing a research involving human beings, the respondents were told that the purpose of the study was to collect data for policy making. The names, GSM numbers and other contact information were not required in order to maintain the responses unanimous. Participation in the study was purely voluntary.

2.5 Data Analysis
Data generated from this study were analyzed using descriptive statistics of frequency counts and percentages for the demographic variables while inferential statistics of multiple regression analysis was used for the research questions.

3.0 Result
Sample Characteristics
Table 1: Frequency and percentage of demographic distribution

<table>
<thead>
<tr>
<th>Demographic distribution</th>
<th>Respondents of this study n=300</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>122</td>
</tr>
<tr>
<td>Female</td>
<td>178</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>13-15</td>
<td>197</td>
</tr>
<tr>
<td>16-19</td>
<td>103</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>Christian</td>
<td>188</td>
</tr>
<tr>
<td>Islamic</td>
<td>9</td>
</tr>
<tr>
<td>Traditional</td>
<td>16</td>
</tr>
<tr>
<td>Class</td>
<td></td>
</tr>
<tr>
<td>JSS</td>
<td>150</td>
</tr>
<tr>
<td>SS</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 1 shows the demographic distribution of the respondents in this study. From the table, 178 (59.3%) of the respondents were female while 122 (40.7 %) were male. The age distribution shows that majority of the respondents 197 (65.7) were between the ages of 13-19, while 103 (34.3%) were between the ages of 16-19 years. The result of their religious affiliations shows that188 (62.7%) were Christians, Islamic religion were 96 (32.0%), while the traditional religions were 16 (5.3%).The class distribution shows that 150 (50.0) were in Junior Secondary Schools while 150 (50.0) were in Senior Secondary School.

3.1 Research Question one: Would there be any significant joint contribution of sexual activities, alcohol use, smoking and aggressive behaviour to the prediction of health risk?
Table 2: Model summary of the Multiple Regression Analysis for the combined contribution of sexual activities, alcohol use, smoking and aggressive behaviour to the prediction of health risk.

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>946.510</td>
<td>3</td>
<td>315.503</td>
<td>15.880</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Residual</td>
<td>5701.830</td>
<td>287</td>
<td>19.867</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6688.340</td>
<td>289</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Multiple R (Adjusted) = 0.657  
Multiple R² (Adjusted) = 0.389

Stand error estimate = 8.341

The results in Table 1 indicated that all the predictor variables (sexual activities, alcohol use, smoking, aggressive behaviour) in the regression model jointly predicted health risk among secondary school students (R= .657; R² = .389; F (3, 289) = 15.880, p <.05). This showed that all the predictor variables accounted for 38.9% of the variance in the health risk behaviour reported by the participants. It could then be deduced that there is a significant joint contribution of sexual activities, alcohol use, smoking, aggressive behaviour on the health of the secondary school students.

Research Question two: What would be the relative contribution of the independent variables to the prediction of the dependent variable?

Table 3: Model summary of the Multiple Regression Analysis for the combined contribution of the causation of predictor variables on the criterion variable

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Unstandardised Coefficient B</th>
<th>SEB</th>
<th>Standardised coefficients Beta (β)</th>
<th>T-ratio</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol use</td>
<td>.498</td>
<td>.047</td>
<td>.771</td>
<td>5.614</td>
<td>.000</td>
</tr>
<tr>
<td>Sexual activities</td>
<td>.705</td>
<td>.091</td>
<td>.903</td>
<td>8.956</td>
<td>.013</td>
</tr>
<tr>
<td>Smoking</td>
<td>.301</td>
<td>.019</td>
<td>.241</td>
<td>2.765</td>
<td>.008</td>
</tr>
<tr>
<td>Aggressive behaviour</td>
<td>.429</td>
<td>.022</td>
<td>.632</td>
<td>4.398</td>
<td>.000</td>
</tr>
</tbody>
</table>

The results in Table 3 revealed the strength of causation of the predictor variables (alcohol use, sexual activities, smoking, aggressive behaviour) on the criterion variable (health risk). The most potent predictor of health risk against secondary school students among the predictor variables of the study is sexual activities (β = .903). Alcohol use is the next potent factor (β=.771), followed by aggressive behaviour (β=.632) and smoking (β=.241). This shows that all the variables (sexual activities, alcohol use, aggressive behaviour, and smoking are potent in the prediction of health risk among secondary school students.

4. Discussion

The result of research question one showed that the predictor variables (sexual activities, alcohol use, smoking and aggressive behaviour) jointly predicted health risk of secondary school students. Moses, Lokoyi & Falola (2012), reiterated this when they observed that health risk behaviours among adolescents entails smoking, sex and drugs abuse, physical inactivity, poor diet, alcohol misuse behaviours and tobacco use which had been indicted as the leading causes of death (Miller & Jones, 2007; Centers for Disease Control and Prevention, 2010). This further corroborated the findings of some researchers that despite recent attention to health promotion and illness prevention, young people continue to engage in a variety of risk behaviours, including many associated with a range of chronic diseases (Adlaf, Demers & Gliksman, 2005; Dawson, Schneider, Fletcher & Bryden 2007; Taylor, McCarthy, Herbert & Smith 2009; Dekeke & Sandy 2014), which not only influence individuals’ health but also hamper national growth and development due to life expectancy threatening effects (Igbanugo & Akeredolu, 2003; Ademuyiwa, 2004).

Research question two revealed the strength of causation of the predictor variables (alcohol use, sexual activities, smoking and aggressive behaviour) on the criterion variable (health risk) with sexual activities as the most potent, alcohol being the next, followed by aggressive behaviour and smoking. This is confirmed by (Albert, Prosper & Bavon 2011; John, Opirite & Eme 2012), that many adolescents aged 15-19 are sexually active. Also, Morrison, Gillmore, Hoppe, Gaylord, Leigh, & Damien (2003) established that there is relationship between adolescent alcohol consumption and their health risk. Licanin & Redzic (2005) further substantiated the association between adolescents’ alcohol consumption by enumerating the various aspects of health risk among adolescents who consume alcohol as: truancy, low success at school, suicidal thoughts, unprotected sex, drunken driving, non use of seat belts, delinquency (stealing) and destructive behaviour.

Furthermore, (Fatoye & Morakinyo 2002) observed that there is evidence of tobacco and marijuana use not only with higher institution students but also with secondary school students who are mostly adolescents in Nigeria. Thus, risk behaviours such as smoking, account for substantial morbidity and mortality throughout life.
McCormick (2006) also established that there is a strong positive correlation between health risk behavior and violence/aggressive behaviour. He stated that, many of the violent behaviours have resulted in disobedient, unruly behaviour, bodily harm, maim or even death. The outcome of this study gave credence to Jessor (1992) conceptual framework which suggests that in the assessment of adolescent risk behaviour, demographic-, socio-psychological- and environmental risk factors as such as should also be considered.

5. Conclusion
This study examined the influence of sexual activities, alcohol consumption, smoking and aggression on health risk of students in rural communities In Ikenne, Ogun State. The outcome suggests that the predictor variables (sexual activities, alcohol consumption, smoking and aggression accounted for 38.9% of variance in accounting for the health risk of respondents. The implication of this finding is that the more the adolescents involve in sexual activities, consume alcohol and become aggressive, the more they dispose themselves to health risks. Invariably, health risk has grave negative consequences such as, infection with sexually transmitted infections, cardiovascular illness and untimely death.

The second outcome of this study is that in with regards to magnitude, a sexual activity was the most potent contributor to health risk of respondents. This outcome is not surprising given the early sexual debut among adolescents that have been extensively documented. In view of these outcomes it becomes imperative for parents, psychologists, neighbours, educators and governments to synergize in order curb the level of risk behaviours among adolescents in schools.

6 Recommendations
The aim of Health risk behavior is the promotion and awareness of the highest degree of physical and social well-being of student in all schools. Based on the result of this study, the following recommendations are made:

1. Awareness of health risk behavior should be created to increase the knowledge of students on what health risk behavior entails, the danger they can encounter and how to safely avoid them.
2. Schools should establish a counseling unit where students would be counsel. Records will be kept for prevention, detection, diagnosis, treatment and rehabilitation.
3. Health risk behavior policy should be kept in place and be adhered to.
4. Periodic medical examination should be available. A periodic medical examination of student is necessary and most especially to student returning from abuse, disease and victimization to assess the nature and degree to which such student is recovering and to assess if such student can catch up with his/her academic obligations.
5. Adequate and prompt first aid services should be available because a properly applied first aid can reduce suffering and disability.

References


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