Prevalence and Determinants of Smoking Behaviour in Raymond Mhlaba Local Municipality

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ABSTRACT Smoking behaviour is one of the negative social problems in South Africa and this is extensively rampant as it affects the education or learning process of learners in high schools. Previous studies indicate that smoking behaviour is highly dangerous to both parents and children. The objectives of this study was to investigate the prevalence and determinants of smoking behaviour among high school learners in Raymond Mhlaba Local Municipality; to examine the attitudes of high school learners in Raymond Mhlaba Local Municipality towards stopping smoking tobacco. A sample of 180 learners was taken from three selected schools in Raymond Mhlaba Local Municipality. The learners were recruited and served as study participants. Data was collected using a self-administered questionnaire which was designed to measure the prevalence and attitudes of high school learners toward smoking tobaccos. Descriptive and Inferential statistics were used to analyse the data. The results showed that male students are 3.65(OR=3.652, 95%CI (1.527, 8.733)) more likely to smoke than female students. This implies being a male student increases the risk of smoking. In addition, the study also showed that students having the knowledge of harmful effects of smoking are 2.34(OR=2.342, 95%CI (0.946, 5.797)) more likely to smoke than those who do not know the harmful effects of smoking. The study suggests that the knowledge of smoking is not proactive to smoking.

INTRODUCTION

The accumulation of scientific evidence implicating smoking as a health hazard, and particularly as the major cause of lung cancer, has led to an increased sense of responsibility among individuals and agencies concerned with public health to see that young people are made aware of these hazards before they have established smoking as their regular habit. Smoking is a habit that is difficult to break once started and only few number of people succeed to quit this habit, thus it is not a good idea to start smoking. It has become a complex global public health problem and a major health-risk factor linked with development of cancer, heart diseases and diabetes (Winter and Winter 2018).

Several researchers have also reported that cigarette may be the first drug to be used by adolescents in a sequel that may include alcohol, marijuana and hard drugs. Individuals who are not smoking cigarette by the age of 20 are unlikely to become smokers (Mayhew et al. 2000; Faeh et al. 2006). Most adult smokers began to smoke or were already addicted to smoking before the age of 18 (Choi and Stommel 2017). The younger the age at which young people start to smoke, the more likely they are to become regular smokers in adulthood (Filippidis et al. 2015; Shortt et al. 2016; Rhodes et al. 2016; Nuyts et al. 2018). The learners are also not aware that even if they do not smoke but spend most of the time with smokers that too can affect their health.

The World Health Organization (WHO) has declared smoking as a risk factor for the first eight leading causes of death and has reported cigarette smoking as the underlying cause of one in ten causes of death. This is even urgent because smoking prevention is also an important measure in controlling drug abuses in the population. For other ways of preventing smoking prevalence among secondary school learners, it is critical to understand how they develop attitudes toward cigarette smoking and what affects their smoking behaviour.

It has been suggested that the most effective strategy in tobacco control is preventing youth from taking up smoking (Harvey et al. 2016). Similarly, with high prevalence of smoking among the adults, preventing youth from taking up the habit early is the most effective strategy for reducing smoking prevalence and
therefore reduces smoking related diseases in the population in the future. Currently, smoking habit is one the greatest threats for public health particularly in developing countries.

As smoking is usually initiated during adolescence (Treur et al. 2015; O’Loughlin et al. 2017), it should be a public health and teachers’ priority to educate the learners regarding the hazards of smoking, so that their behaviour can be modified. Before initiating such awareness programs, it is important to understand the factors contributing to adolescent smoking and design effective interventions to prevent it. All tobacco products and particularly cigarette smoking lead to serious diseases and deaths worldwide (Sinha et al. 2018).

A series of studies noted that cigarette smoking among youth is a complex behaviour with several identifiable determinants: interpersonal factors (such as family and peer influence), intrapersonal factors (such as self-esteem, individual motivational and attitudinal determinants, as well as cultural setting (Orsini et al. 2016). Peer exerts a negative attitude among adolescents and individuals by challenging them to prove their manhood through performing a risky stunt such as smoking. As such as both girls and boys are made to indulge in risky behaviour they ordinarily they would not have taken, but taking such risky behaviour is the only way of assuring their acceptance among others. By doing so, they become addictive to such behaviour with inherent consequences on their personal well-being and health.

Peer group exerts much influence on adolescents, and no matter how inappropriate their mode of operation may look to adults, being a part of the group gives something momentous to the young person. The acceptance and practice of risky behaviour like smoking among smokers can be traced back to their teens and the kind of moral principles accepted by the peer group. It may be seen like the current smokers are individuals encouraged to make use of different tobacco products by friends they make in school and accepting to smoke to tighten up the bond in their friendship whereas parents, may be the huge effect that leads them to smoke.

Problem Statement

As it is often says that tobacco smoking is dangerous to health and that it causes a lot of damage as well as reduces the life-span of people, yet people do not desist from consuming tobacco in South Africa. Smoking habits of people in South Africa have increased tremendously despite the huge awareness of dangers and high death rate occurrence in the country. Some of high schools learners in South Africa are also smoking tobacco due to the fact that some of their parents are also smoking. Some of the learners use smoking as a coping tool while others use it as personal growth accompanied by normal development stressors. This study therefore, reveals that the effect of smoking among high school learners in South Africa have affected their academic performance and also brought about negative behaviours especially towards their teachers, such as disrespect, disobedient, rudeness, nonchalant attitude, etc. It is on this note that that this study attempted to investigate the prevalence and determinants of smoking behaviour among high school learners in Raymond Mhlaba Local Municipality.

Objectives of the Study

- To investigate the prevalence and determinants of smoking behaviour among high school learners in Raymond Mhlaba Local Municipality.
- To examine the attitudes of high school learners in Raymond Mhlaba Local Municipality towards stopping smoking tobacco.

Research Questions

- What are the prevalence and determinants of smoking behaviour among high school learners in Raymond Mhlaba Local Municipality?
- What are attitudes of high school learners in Raymond Mhlaba Local Municipality towards stopping smoking tobacco?

Literature Review

Prevalence and Determinants of Tobacco Usage and Behavior among Secondary School Learners

Every eight seconds someone, somewhere in the world, dies as a result of using tobacco (Singh et al. 2010). The earlier a smoker quits
smoking the less the hazard, as evidence suggests that much of the projected mortality from smoking can be prevented by stopping. As it may seem too easy to start smoking than it is to stop by not starting at all will help the learners live longer than the ones who start using tobacco at an early age. Other researchers have reported that smoking prevalence in learners is complicated by the fact that these young adults believe that they can easily quit smoking, ignoring its addictive properties, and ultimately believe they can be spared from the long-term effects of smoking.

World Health Organization estimates that nearly 5.4 million deaths can be attributed to tobacco usage every year (Khazaei et al. 2016). As Tankard and Paluck (2016) suggested, measurement of several types of social norms will strengthen and show the real effect of social norms toward the measured behaviour (smoking) might be one of the contributing factors to the contradicted finding to those study.

It was reported that about 25 percent of all adolescents who experiment with cigarette smoking become regular smokers, and among the smokers, about one-third will die from a smoking-related diseases. Some of the learners use smoking as a coping tool while others use it as personal growth accompanied by normal development stressors. Worldwide, smoking among adolescents is a growing public health concern. It has been reported by researchers that the current smoking prevalence and behaviours have reported disturbing trends for the future. The secondary school learners are in a process between the adolescence and early adulthood, a time during which any unhealthy behaviour developed may be easily adopted into a lifetime patterns. “On the other hand, Sargent and Hannewinkel (2008 cited in Morrison 2011:16) suggested that the media was the dominant influence and that seeing smoking in movies had the effect of undermining parental anti-smoking practices.” As has been shown by different researchers, when a parent or school teacher uses tobacco, the adolescents in their vicinity tend to use tobacco as well (Rudatsikira et al. 2007; Osungbade and Oshimane 2008).

**Attitudes of High School Learners towards Stopping Smoking Tobacco**

It was found that having good knowledge about harmful effects of smoking and access to anti-smoking media served as protective factors against susceptibility to smoke. The learners who were not taught about the danger of smoking in the class are more likely to use tobacco than those who were taught. Evidences in studies show that adolescents offer cigarettes to, and initiate smoking with their peers (Kirke 2004; Lucas and Lloyd 1999; Robinson et al. 2006). There is therefore need to appraise young people with knowledge about the short and long term harmful effects of smoking. By increasing the cost of tobacco products in local markets and limit the availability of tobacco among learners, may induce current smokers to quit, reduce the consumption of continuing smokers and reduce the initiation of tobacco products by potential smokers. Before initiating awareness programs against tobacco use, one needs to focus on important factors that might contribute to adolescents smoking and design effective intervention to prevent it.

The International Agency for Research on Cancer (IARC) found that there is sufficient evidence to conclude that increase in tobacco taxes increases prices, reduces the initiation and uptake of tobacco use among young people (Chaloupka et al. 2011). Anti-smoking messages written on the cover of the tobacco are seen to be protective of tobacco use among learners. The level of understanding, knowledge and awareness of the danger of cigarette smoking might be related to discipline.

Programs must be implemented to educate parents on how their smoking behaviour is being transmitted to their children, with a special focus on maternal influences. Thus, the parental counselling about the influence of family tobacco use on their children may bring about encouraging results on initiation of tobacco among children. Tobacco use prevention campaigns aimed at the youth should be implemented (Ross et al. 2015), and laws restricting tobacco marketing must be enforced. The idea of having friends who smoke or family members also increases the prevalence of smoking among
learners, thus such factors need to be considered, educate learners not to start taking tobacco as it is hard to quit. Thus, it is hoped that this study may contribute to serve as foundation for relevant programs to control tobacco and its products.

It is very important to mention that various studies conducted have revealed that since tobacco use is a habit that has been shown to start at young age (Watt et al. 2003; Silva et al. 2006, Kwamanga et al. 2003), it is therefore important to ascertain the magnitude of tobacco use and its associated factors and institute appropriate intervention at this young age. Thus, it will be wise to introduce awareness, restriction of tobacco use and focus primarily on intervention strategies among secondary school learners. As smoking is usually initiated during young age (Treur et al. 2015; Shortt et al. 2016), it should be a public health priority to educate children in their residences regarding the hazards of smoking so that their behaviour can be modified. It has been suggested that the most effective strategy in tobacco control is preventing youths from taking up smoking (Harvey et al. 2016).

RESEARCH METHODOLOGY

The cross-sectional study with 2-stage sampling was designed to determine the prevalence and determinants of smoking among secondary school learners, selected schools in Raymond Mhlaba Local Municipality in the Eastern Cape. The respondents were interviewed about their experience with tobacco smoking and community, friends and family exposure to tobacco, whether they were taught to stop smoking in school, about harmful effects of tobacco use and attempts to quit smoking. The method of questionnaire administration which was self-administered and conducted in three randomly selected schools was used to collect the data. Before the questionnaire was distributed to learners it was explained and the confidentiality of personal data was assured. The respondents were ordered to tick on a single answer to each question or fill in where appropriate, the importance of giving truthful and sincere results were emphasized to respondents. The assistance during the procedure of filling in the questionnaire for those who may need clarification on any of the questions was provided. Then the filled questionnaires were collected and entered into the computer (Microsoft Office, Excel).

Three randomly selected schools were chosen and the questionnaire was distributed among these selected schools. One of the schools that was supposed to take part in the study refused and gave their reasons for not taking part in the study. Since the survey was carried out during the high school examinations it was not easy to get all the grades intended, especially grade 12. Others lower grades were also busy writing their examinations although the researchers managed to get number of students who had finished writing. As a result, participations from grade 11 and 12 students were generally low from all the sampled schools. The initial total population sample size intended for the study was 256 students; however the researchers finally had 181 eligible students who returned completed questionnaires. The study population included the students in grade 9 – 12. All the students within the selected classes who were eligible were invited to participate regardless of their ages. A class from each school was selected randomly and self-administered questionnaire was explained to learners and distributed.

Data Collection Procedure

Questionnaires were administered to all learners from grade 9-12. All the students expressed their willingness to participate. To ensure the privacy of students, the teachers were not present during the administration of the questionnaire. Questionnaires were collected same day they were distributed and it only took the respondents 5-10 minutes to complete. The questionnaire aimed to collect the information on prevalence of cigarette smoking, knowledge and attitudes of learners towards smoking. A structured questionnaire having two sections A and B with 23 questions in all was used to collect the data. Section A which dealt with general information of participants and while section B contained questions on knowledge and attitudes towards smoking habits.
Sample Size

The sample size of the study was 198 and questionnaires were distributed as follows: school one 63, school two 35 and school three 100. The total number that was returned was 180 out of 198 which indicates of 91 percent response rate.

Data Analysis

All the questionnaires were reviewed and data collected from all three schools were arranged together, entered into computer (that is, Microsoft Excel 2010) and analyzed using Statistical Package for the Social Science (SPSS) data analysis software. Descriptive variables are expressed as frequency, mean and overall range (minimum and maximum). An independent sample t-test was used to compare the mean scores of knowledge, attitude, religion, and perceived vulnerability of those who were current smokers, and those who were non-smokers. Simple frequency tables were generated as well as cross-tabulation done to check for levels of statistical significance at p < 0.05. Using the statistical significance multiple logistic regression analyses were carried out to determine the factors associated with tobacco smoking. Variables were first examined descriptively both to characterize the sample and to determine whether they appeared related to smoking status. Variables that appeared related to smoking status (current smoking) were then analyzed using univariate logistic regression analysis.

FINDINGS AND DISCUSSION

Demographic Characteristics of Respondents

Out of 198 students who completed the survey, only 180 were returned by the respondents, that is, 90.91 percent response rate. Of them, 86(47.8%) were male and 94(52.2%) were female. Since the researchers could not managed to get all grade level, they only found the 51(28.3%) of grade 9, 53(29.4%) of grade 10, 53 (29.4%) of grade 11 and 23 (12.8%) of grade 12 due to process of final examination which grade 12 already started as at the time of the administration of the questionnaire. The researchers only got 12.8 percent of respondents which were grade 12 learners that were available during survey. Thus grades 9 and 10 were the most represented by both 29.4 percent of response. One-third of the respondents, 16.7 percent, had ever smoked while the prevalence of current smoking was 12.2 percent with 11.1 percent being regular smokers and 8.9 percent being occasional smokers. Learners that repeated class reported as 23.3 percent. The most influential reasons to smoke were having the friends who smoke 53.9 percent. Judging at their academic performance there are few that obtain excellent 23.9 percent, good 51.7 percent, moderate 24.4 percent which you can tell that some of these learners their behaviour of smoking affects them academically. The other baseline characteristics of respondents are showed in Table 1.

The findings of the study as reflected in Table 2 show the knowledge and attitudes of respondents toward smoking. The main reasons of starting smoking were imitation of friends with 67.2 percent, curiosity 13.3 percent, it is thought to be relaxing 15 percent and others being 4.4 percent. Similarly, the results from the findings of the study conducted by Baheiraei et al. (2016) revealed that the main reasons of starting smoking were a result of the following “personal factors which include subcategories of imitation, show-off and independence, inexperience and curiosity, personal interest and desire, improved mood, and social defiance.” In addition, Tam and Foo (2013) cited in El-Kazdouh et al. (2018) revealed that “for adolescents, substance use tends to be acquired through experimentation and curiosity, particularly through peers”. However, Haddad (2015) “reported that environmental variables such as curiosity and experimentation may be important factors for substance use among male adolescents while in females, such determinations are more likely to be emotional and psychodynamic in nature.” Realistically, the finding of this study has shown that most of these learners 77.8 percent have been taught about health problems when taking tobacco. Despite the awareness or knowledge about the harmful effect, the consumption of tobacco smoking still persists. This is similar to the study conducted by Haddad (2015) who also revealed that, in Nigeria, despite a lot of awareness created by teachers to many Senior Secondary School
students in the study area with regards to the negative effects of taking, the consumption of tobacco still remains rampant. Haddad further revealed that, these students were warned severely about smoking hazards or health problems of taking tobacco and advised to quit smok-

### Table 1: General characteristics of respondents (n=180)

| Variables                      | n (%)         |
|-------------------------------|---------------|
| Age                           |               |
| 14-17                         | 136 (76.0)    |
| 18+                           | 43 (24.0)     |
| Mean (Std.dev)                | 16.38 (1.648) |
| Gender                        |               |
| Male                          | 86 (47.8)     |
| Female                        | 94 (52.2)     |
| Class Level                   |               |
| Grade 9                       | 51 (28.3)     |
| Grade 10                      | 53 (29.4)     |
| Grade 11                      | 53 (29.4)     |
| Grade 12                      | 23 (12.8)     |
| Religion                      |               |
| Christianity                  | 109 (60.6)    |
| Traditional                   | 69 (38.3)     |
| Muslim                        | 2 (1.1)       |
| Have You Repeated a Class?    |               |
| Yes                           | 42 (23.3)     |
| No                            | 138 (76.7)    |
| Are You Smoking?              |               |
| Yes                           | 30 (16.7)     |
| No                            | 149 (82.8)    |
| Knowledge of Harmful Effects  |               |
| of Smoking                    |               |
| Yes                           | 110 (61.5)    |
| No                            | 69 (38.5)     |
| Type of School                |               |
| Public school                 | 146 (81.1)    |
| Private school                | 34 (18.9)     |
| Most Influential Reason(s) to Smoke |       |
| Drinking (parties, dance/disco etc.) | 38 (21.1) |
| Friends who smoke             | 97 (53.9)     |
| Academic stress               | 30 (16.7)     |
| Other                         | 15 (8.3)      |
| Within The Last 30 Days, How Many Times Did You Smoke? | |
| Never                         | 142 (79.4)    |
| 1-10 times                    | 22 (12.2)     |
| 11-20 times                   | 6 (3.3)       |
| More than 20 times            | 9 (5.0)       |
| Your Smoking Status           |               |
| Non-smoker                    | 144 (80.0)    |
| Regular smoker                | 20 (11.1)     |
| Occasional smoker             | 16 (8.9)      |
| Your Academic Performance     |               |
| Good                          | 93 (51.7)     |
| Moderate                      | 44 (24.4)     |
| Excellent                     | 43 (23.9)     |

### Table 2: Knowledge and attitudes toward smoking (n=180)

| Characteristics                                             | n (%)         |
|-------------------------------------------------------------|---------------|
| Have you ever been taught in school about health problems due to smoking? | | |
| Yes                                                         | 140 (77.8)    |
| No                                                          | 40 (22.2)     |
| Do you think smoke from other people’s cigarette is harmful to you? | | |
| Yes                                                         | 126 (70.0)    |
| No                                                          | 54 (30.0)     |
| Do you think smokers have more friends than non-smokers?    |               |
| Yes                                                         | 131 (72.8)    |
| No                                                          | 49 (27.2)     |
| Preferable place for smoking                                |               |
| Don’t smoke at all                                          | 129 (71.7)    |
| Home                                                       | 13 (7.2)      |
| School                                                     | 9 (5.0)       |
| Outside home (other than school)                           | 29 (16.1)     |
| Reason(s) for smoking?                                     |               |
| Imitation of friends                                       | 121 (67.2)    |
| Curiosity                                                  | 24 (13.3)     |
| It’s relaxing                                              | 27 (15.0)     |
| Other                                                      | 8 (4.4)       |
| Did you make attempt(s) to quit smoking?                   |               |
| Yes                                                        | 97 (53.9)     |
| No                                                         | 83 (46.1)     |
| Why do you want to quit smoking?                           |               |
| Save money                                                 | 42 (23.3)     |
| Keep good health                                           | 89 (49.4)     |
| Self-discipline                                            | 45 (25.0)     |
| Other                                                      | 4 (2.2)       |
| I have friends that smoke                                  |               |
| Yes                                                        | 97 (53.9)     |
| No                                                         | 83 (46.1)     |
| Which of the following member of your family is a smoker?   |               |
| Father                                                     | 48 (26.7)     |
| Mother                                                     | 6 (3.3)       |
| Brother(s)                                                 | 46 (25.6)     |
| Sister(s)                                                  | 1 (0.6)       |
| Relative                                                   | 71 (39.4)     |
| Other                                                      | 8 (4.4)       |
| Father’s education                                         |               |
| High school or less                                        | 80 (44.4)     |
| College                                                   | 30 (16.7)     |
| University                                                | 65 (36.1)     |
| Other                                                      | 5 (2.8)       |
| Mother’s education                                         |               |
| High school or less                                        | 76 (42.2)     |
| College                                                   | 47 (26.1)     |
| University                                                | 54 (30.0)     |
| Other                                                      | 3 (1.7)       |
| Have you ever been offered free cigarette or tobacco?      |               |
| Yes                                                        | 27 (15.0)     |
| No                                                         | 121 (67.2)    |
| Many times                                                 | 32 (17.8)     |
ing. Most of them have tried to quit smoking (53.9%), the reasons of quitting smoking were to save money (23.3%), keep good health (49.4%), self-discipline (25.0%) and others (2.2%). 72.8 percent of the respondents claimed that smokers have more friends than non-smokers. Attitude of family members play a major role in influencing decision to smoke among adolescents. Since the backgrounds of learners affect their behaviours, the people who surround them can affect adolescents towards smoking. Adolescents are still at the stage of behavioural formation, they tend to emulate things they see around them. This study found that 39.4 percent relatives, 26.7 percent father, 25.6 percent brother(s), other 4.4 percent, 3.3 percent mother and 0.6 percent sister(s) are smokers. The study conducted by Taheri et al. (2015) similarly revealed “that the students had smokers in their family, father, mother, brother or sister”. The backgrounds depicted in the results may be one of the major risk factors of smoking among the adolescents sampled in the study.

The findings of the study as reflected in Table 3 focuses on the variables such as the age, gender and other general information with regards to the knowledge and attitudes of respondents toward smoking. In addition, it is very important to mention that, Table 3 also shows the test statistics and present value. Students in the age group 14-17 years are almost half (OR=0.472, 95% CI(0.204,1.093)) less likely to smoke than students who are 18 years and above. These imply that being less than 18 years is protective

| Table 3: The variables such as the Age, gender and other general information with regards to the knowledge and attitudes of respondents toward smoking as well as their test statistics and present value |
|---|
| Variables | Yes | No | Test statistics and p-value |
| Age | | | |
| 14-17 | 19(63.3%) | 117(78.5%) | OR = 0.472, 95%CI(0.204,1.093) |
| 18+ | 11(36.7%) | 32(21.5%) | \(\chi^2=9.23, P=0.076, \text{ df }= 1\) |
| Gender | | | |
| Male | 22(73.3%) | 64(43%) | OR = 3.652, 95%CI(1.527,8.733) |
| Female | 8(26.7%) | 85(57%) | \(\chi^2=9.23, P=0.002^*, \text{ df }= 1\) |
| Do you have the knowledge of harmful effects of smoking? | | | |
| Yes | 23(76.7%) | 87(58.4%) | OR = 2.342, 95%CI(0.946,5.797) |
| No | 7(23.3%) | 62(41.6%) | \(\chi^2=3.522, P=0.061, \text{ df }= 1\) |
| I have friends that smoke | | | |
| Yes | 29(96.7%) | 68(45.6%) | OR = 34.544, 95%CI (4.585, 260.240) |
| No | 1(3.3%) | 81(54.4%) | \(\chi^2=26.195, P=0.000^***, \text{ df }= 1\) |
| Have you ever been offered free cigarette or tobacco? | | | |
| Yes | 11(36.7%) | 16(10.7%) | \(\chi^2=53.965, P=0.000^***, \text{ df }= 2\) |
| No | 3(10.0%) | 117(78.5%) | \(\chi^2=8.517, P=0.004^*, \text{ df }= 1\) |
| Many times | | | |
| Yes | 16(53.3%) | 16(10.7%) | \(\chi^2=3.305, 95\% \text{ CI}(1.440,7.585)\) |
| No | 17(56.7%) | 121(81.2%) | \(\chi^2=8.517, P=0.004^*, \text{ df }= 1\) |
| Do you think smokers have more friends than non-smokers? | | | |
| Yes | 26(86.7%) | 104(69.8%) | OR=2.813, 95%CI(0.928,8.528) |
| No | 4(13.3%) | 45(30.2%) | \(\chi^2=3.574, P=0.059, \text{ df }= 1\) |
| Have you ever been taught in school about health problems due to smoking? | | | |
| Yes | 27(90.0%) | 113(75.8%) | OR=2.867, 95%CI(0.821,10.012) |
| No | 3(10.0%) | 36(24.4%) | \(\chi^2=2.939, P=0.086, \text{ df }= 1\) |
| Type of school | | | |
| Public | 22(73.3%) | 123(82.6%) | OR=0.581, 95%CI(0.233, 1.449) |
| Private | 8(26.7%) | 26(17.4%) | \(\chi^2=1.379, P=0.24, \text{ df }= 1\) |

* p<0.05; **p<0.01; ***p<0.001
of smoking. The association between age and
smoking is not however significant, \( \chi^2 = 9.23, P = 0.076, \text{df}=1 \). Male students are 3.65(OR=3.652, 
95% CI(1.527,8.733)) more likely to smoke than 
female students. This implies being a male stu-
dent increases the risk of smoking. The associa-
tion between gender and smoking is also signif-
cant, \( \chi^2 = 9.23, P = 0.002, \text{df}=1 \).

The study also showed that students hav-
ing the knowledge of harmful effects of smoking
are 2.34 (OR=2.342, 95% CI (0.946,5.797) more
likely to smoke than those who do not know the
harmful effects of smoking. In the same vein, the
survey study conducted by Kennedy et al. 
(2011) revealed that, “despite more than 50 years
of literature about the adverse effects of smok-
ing, awareness of the range of health risks asso-
ciated with smoking is neither high nor uniform
among either smokers or non-smokers. Studies
have found that there are significant gaps in
smokers’ knowledge and understanding of the
health risks of smoking, in particular knowledge
about health conditions that affect quality of
life, including impotence (Hammond et al. 2006
cited in Kennedy et al. 2011), osteoporosis, and
early menopause (Roth and Taylor 2001, cited in
Kennedy et al. 2011). It is not well understood
to what extent smokers or non-smokers are aware
of the link between tobacco smoking and “blind-
ness”; however, there are indications that knowl-
edge of a causal association is very low” (Bintz
2006). This suggests that the knowledge of
smoking is not proactive of smoking. The associ-
ation between Do you have the knowledge of
harmful effects of smoking?; and smoking is not
significant, \( \chi^2 = 3.522, P = 0.061, \text{df}=1 \).

According to the study, students having
friends who smoke are 34. 54(OR = 34.544, 95% CI
(4.585, 260.240) more likely to smoke than stu-
dents whose friends are not smoking. This is an
indication that having friends that smokes in-
creases the risk of smoking. The association
between I have friends that smoke and smoking
is highly significant, \( \chi^2 = 26.195, P =0.000, \text{df}=1 \).

Students in the public school are 0.581(OR=
0.581, 95% CI(0.233, 1.449)) more likely to smoke
than students studying in the private school. From
this, the study showed that being in the public
school is protective of smoking. The association
between school type and smoking is however
not significant, \( \chi^2 = 1.379, P=0.24, \text{df}=1 \).
INCIDENCE OF SMOKING BEHAVIOUR IN SOUTH AFRICA

CONCLUSION

The study found that the prevalence of cigarette smoking among students in the samples school to be 16.8 percent. This figure contrasts some of the previous studies conducted in other places such as Nigeria which range from 3.4 – 5.3 percent and in South Africa which reported cigarette smoking prevalence of 27 percent.

RECOMMENDATIONS

Learners in high schools across the globe should be discouraged from smoking and they should be well informed of the both the danger and effects of smoking to health. Under-estimating the effect of smoking on health is apparent from the behaviours of high school learners as smokers are actually aware of these health hazards. Friends have major impact on learners’ decision regarding smoking. Smoking in school either during or after school hours should be banned. The school curriculum in both public and private schools should be evaluated for improvement and strategies adopted in educating learners on health related issues on smoking should be reviewed.

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