Alcohol, Tobacco and other Drug Use and Bullying among High School Students in Nakuru District, Kenya

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Abstract

The objective of this study was to determine the prevalence of alcohol, tobacco and other drugs (ATOD) use among secondary school students in Nakuru District, Kenya, and its association with bullying. A total of 1000 form one to four male and female students aged between 13 and 19 years were selected from 40 private and 45 public secondary schools were surveyed between January and June, 2009. The mean or median age for male students was 14 (SD=4.90) and for female students 13.8 (SD=4.8). GSHS was used to collect data which was analyzed by frequencies, chi-square and logistic regressions. In the study, 33.7% of students reported having been bullied by students abusing ATOD in the last 30 days preceding the survey and 15.9% reported the use of alcohol, 12% cigarettes and 8% smokeless tobacco in the last 30 days preceding the survey. Cumulatively, 9.6% of students recorded having used other drugs. There was a significant relationship between alcohol and tobacco use with bullying. However, there was no statistically significant association between the use of other drugs and bullying ($\chi^2 = 3.583$, df=1, p=0.058). The prevention of ATOD and bullying among students represents an essential public health measure that may allow for total children's development, qualifying them for a healthy and safe social coexistence. The researchers recommend that focus on prevention programs against alcohol and drug use in secondary schools in general should be mounted to reduce or eliminate bullying altogether.

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Introduction

Adolescence is characterized by experimentation and acquisition of behaviors that carry high risks of morbidity and mortality (Turagabec, et al, 2008). Studies have shown that high school students are faced with decisions whether or not to smoke cigarettes, drink alcohol, use one or more illegal drugs or indulge in sex and violence by the end of adolescence (Lutomia, et al, 2006, Fuhrmann, 1986). Although most adolescents navigate through this stage to become healthy and productive adults, some fail to do so. Public and private secondary school students from Nakuru district, Kenya, are not exceptional to these challenges.

Bullying, a form of school violence is a global public health challenge and it causes serious individual and social damages especially to young people, (Krug, et al, 2002). It affects the bully, victim, witness, family, school and community at large in different ways. Violent or any antisocial behavior detected before puberty tend to increase with age and peak with damaging attitudes during adolescence, persisting up to the adult age (Nichhd, 2003, Dawkins, 1995). The bullies are less satisfied with school and family, prone to absenteeism and have increased tendency to display other problem behaviors like fighting, carrying a weapon and consumption of alcohol, tobacco and other drug (Due, et al, 1999).

Bullying

A study conducted by Rigby (Rigby, 2003) suggests that being a victim of aggression by peers is significantly related to low levels of psychological well-being and social adjustment. Similarly, a study carried out by Pearce & Thompson (Pearce,. et al, 1998) shows that victims of bullying were emotionally distressed, socially marginalized among their classmates and displayed the highest level of misconduct, school and peer relationship problems.

Even though majority of students may not be directly involved in bullying, witnessing the acts is enough to make them unhappy with the school and affect their academic and social performance (Pearce. et al, 1998). The victims' parents may be enraged by the school for not protecting their children from bullying. The victims or bullies require care from services such mental health, child and adolescence justice system, special education and social programs that have financial implications (Turagabeci, et al, 2008). Despite far reaching consequences of bullying, research has shown violence can be prevented, its impact minimized and factors that contribute to violent responses be changed (USDHHS, 2005).

The vast majority of students in many places of the world tend to experiment with alcohol and cigarette and few proceed to abuse them and use other addictive drugs like marijuana, heroine and cocaine (Kandel, et al, 1978). ATOD behaviors increase the risk of poor academic performance, dropping from school, early and unsafe sexual experiences, unwanted teenage pregnancies, poor health and even death, strained relationships with their fellow students; parents and teachers, school unrest and destruction of property (Gathiari, 2002, NACADA, 2009, USAID, 2006).With these widespread negative consequences on individual users, abstainers, schools and community at large, it is imperative to put a strategy in place that would prevent, reduce or cease the likelihood that students will indulge in ATOD behaviors.

The above mentioned health risk behaviors do not occur in isolation but there is a complex interplay among them. The associations between bullying and other health adverse behaviors have been globally documented (Craig, et al, 2004, Morris, et al, 2006, Pickett, al, 2006, Turbin, et al, 2006). However, similar studies in developing countries especially from Africa are sparse. A research conducted by Brown et al. (Brown, D. W. et al, 2008) on African countries (Kenya, Namibia, Morocco, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe) observed that there was significant relationship between exposure to bullying and multiple

adverse health risk behaviors. The above study was based on data collected in 2003-2004. Besides, the Global school-based student health survey (GSHS)(WHO 2003) Survey conducted in Kenya covered standard seven, eight and form one and two students whereas the current study extended to cover forms three and four. The current study covered forms one to four and was designed to establish prevalence of ATOD behaviors and their associations with prevalence of exposure to bullying.

Hypotheses of the study

$H_0$1: There are no statistically significant relationships between ATOD and Exposure to bullying among secondary school students of Nakuru District, Kenya.

H_0 2: There are no statistically significant differences between odd ratios of ATOD and exposure to bullying among secondary school students of Nakuru District, Kenya.

Ethical issues

The researchers obtained a letter of introduction from Egerton University which was used to get research authorization and clearance from all the gatekeepers (provincial education officer, the district education officer and the school principals). Completing the survey was voluntary and students were assured of total confidentiality and students had an option of answering a question or leaving it blank if they chose to.

Definition of terms

Bullying is an act of a student or a group of students who say, do, bad and unpleasant things to another student or an act leaving a student out of an activity on purpose.

Bullying by colour is when a student is made fun because of race or colour.

Bullying by looks is when a student is made fun because of his or her body.

Bullying by sexual jokes is when a student is made fun with sexual jokes, comments and gestures.

Bullying by discrimination or social exclusion is when a student is left out of an activity on purpose or deliberately ignored.

Current use of drug is the use of drug during the30 days preceding the survey.

Frequent current use of drug is the use of drug 20 to 30 days preceding the survey.

Physical bullying is when a student was hit, kicked, pushed, shoved around or locked indoor by fellow students in 30 days preceding the survey.

Materials and methods

Study design

The study was a cross sectional descriptive survey that focused on the prevalence of both ATOD and bullying, and the linkage between the two in both public and private secondary schools in Nakuru District.

Study area

The study was carried out in Nakuru District, Kenya. The district consists of 45 public and 40 private secondary schools with a total student population of 23,404 as of July, 2008 (District Education Office 2009).

Study population

A total of 6450 students from 14 secondary schools constituted the study population.

Sample size

A total of 1000 students were selected for the study. The students were drawn from 14 schools of the 6 divisions that make up Nakuru district. The researchers ensured that the sample characteristics were representative of the population. The formula recommended by

Nassiuma (Nassiuma, 2000) was used to arrive at sample sizes.

Data processing and statistical analysis

Data were handled with confidentiality and codes were used to organize data. The data were verified and cleaned. Statistical analysis was done using SPSS 15.0 software. Analysis was done by descriptive statistics, (percentages, cross tabulation), chi-square and logistic regressions. All statistical tests were done at 0.05 level of confidence.

Results

Prevalence of ATOD and bullying

Alcohol was reported as the most currently used drug (15.9%), followed by smoking of cigarettes (12.0%), smokeless tobacco (9.6%) and other drugs (8.0%) as shown in Figure 1. However, for frequent current users (using the drug 20 or more days), the use of smokeless tobacco reported the highest (16.2%) prevalence followed by cigarettes smoking (15.8%). and alcohol use (5.6%).

The respondents who reported using drugs other than alcohol and tobacco in their life time were 9.6% and of these 12.5% had used these drugs 10 or more times as shown in Figure 2.

The prevalence of being bullied during the 30 days preceding the survey was 33.7%. Those who reported that they were frequently bullied (20 or more days) were 9.0 % as shown in Figure 3.

The highest number of respondents who were bullied reported that it was done because of their looks (16.2%) and color (16.2%) as shown in Figure 4.

A description of prevalence of health risk behaviors by demographic characteristics are presented in Table 1. The results indicate that there were more male students who reported current alcohol use (61.6%), cigarette smoking (74.2%) and use of smokeless tobacco (65.0%); lifetime use of other drugs (64.6%) and current exposure to bullying (56.7%) than female students. The results in Table 1 indicate that likelihood of respondents reporting ATOD and bullying increased with age. The students in public schools and those in senior forms were more likely than those in private schools and junior forms to report ATOD and bullying as indicated in Table 1.

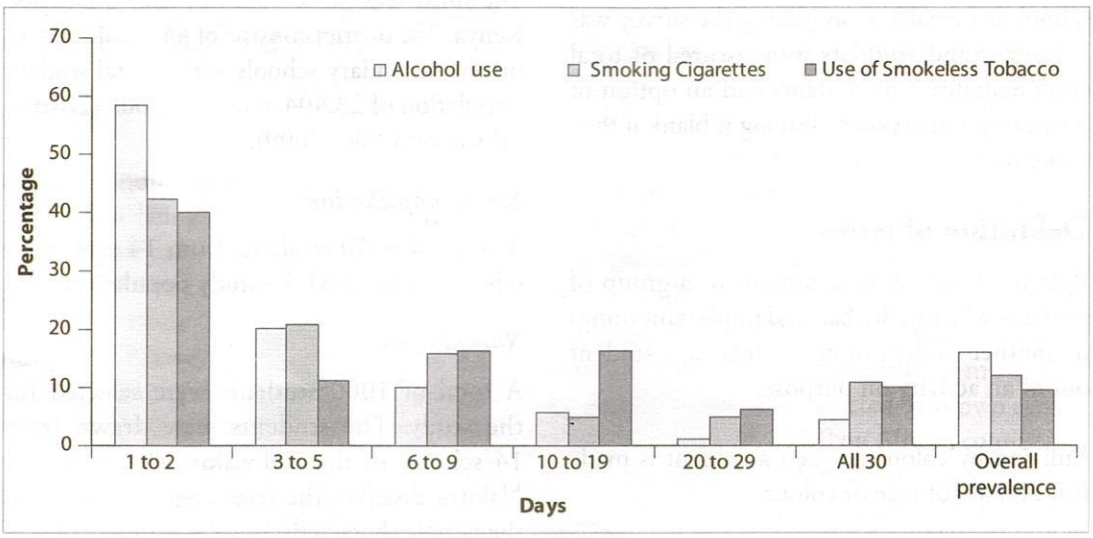

Figure 1: Prevalence of current use of Alcohol. cigarettes and Smokeless Tobacco

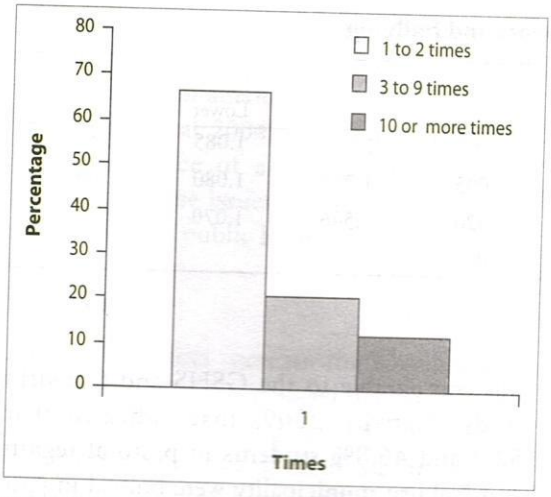

Figure 2: Prevalence of lifetime use of other drugs.

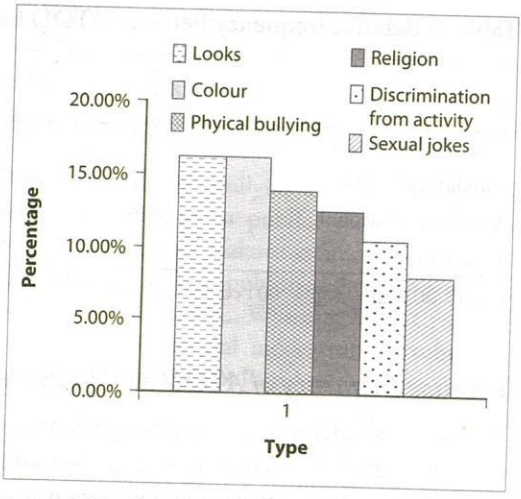

Figure 4: Prevalence of Bullying by Type.

Table 1: Prevalence of Health Risk Behaviors by Demographics Characteristics of Respondents

Characteristics	Alcohol Use	Cigarette Smoking	Use of Smokeless Tobacco	Use of Other Drugs	Exposure to Bullying
	Total=159	Total=120	Total=96	Total=80	Total=337
Age					
13 or above	3 (1.8%)	3 (3.1%)	2 (2.5%)	3 (2.5%)	14 (4.2%)
14 years	2 (1.2%)	3 (3.1%)	5 (6.3%)	3 (6.3%)	33 (9.8%)
15 years	25 (15.2)	11 (11.5%)	10 (12.5%)	19 (15.9%)	71 (21.1%)
16 years	118 72.0%)	67 (69.8%)	51 (63.8%)	76 (63.3%)	171 (50.7%)
Sex					
Male	101 (61.6%)	89 (74.2%)	52 (65.0%)	62 (64.6%)	191(56.7%)
Female	60 (36.6 %)	27(22.5%)	25 (31.3%)	30 (31.4%)	138 (40.9%)
School Category					
Public	114 (71.7%)	90 (75%)	72 (75%)	49 (61.3%)	244 (72.4%)
Private	45 (28.3%)	30 (25%)	24 (25%)	31 (38.7%)	93 (27.6%)
Form					
Form 1	13 (8.1%)	15 (12.5%)	6 (6.3%)	14 (17.5%)	88 (26.1%)
Form 2	40 (25.2%)	29 (24.2%)	24 (25%)	13 (16.3%)	94 (27.9%)
Form 3	42 (26.4%)	28 (23.3%)	28 (29.2%)	23 (28.2%)	77 (22.8%)
Form 4	64 (40.3%)	48 (40.0%)	36 (37.5%)	30 (37.5%)	78 (23.1%)

Associations of ATOD and bullying

There were statistically significant relationships between current alcohol use (χ^2 = 11.569, df=1, p=0.001), cigarettes smoking (χ^2 = 9.149, df=1, p=0.002) and use of smokeless tobacco (χ^2 = 8.816, df=1, p=0.003) with exposure to bullying. However, there was no statistically significant relationship between using other drugs and exposure to bullying (χ^2 = 3.583, df=1, p=0.058). There was significant relationship between the form of respondents with ATOD and bullying. No statistically significant relationship was established between the school category with ATOD and bullying.

Table 2: Relative frequency between ATOD behaviors and bullying

	B	S.E	Sig.	EXP(B)	95% C.I for EXPO (B)	
					Lower	Upper
Use of smokeless tobacco	.391	.279	.002	1.479	1.085	2.557
Smoking of cigarettes	.253	.240	.003	1.288	1.080	2.061
Drinking of alcohol	.436	.188	.020	1.546	1.070	2.235
Constant	-1.898	.311	.000			

χ^2 = 17.003, df = 3, p = .001<0.05 R = 0.23

Relative frequency of ATOD and bullying

The overall model was statistically significant (χ^2 = 17.003, df=3, p=.001<0.05). The R-squared was 0.23 meaning approximately there was 23 % likelihood of respondents reporting exposure to bullying when using alcohol and tobacco, other factors controlled. The likelihood of being bullied was 1.55 times (95%. Confidence Interval (CI): 1.070-2.235) higher than not being bullied for respondents who drank alcohol within 30 days preceding the survey, other factors controlled as shown in Table 2.

Discussion

The current study observed that alcohol was the most used drug. Previous studies have postulated that alcohol was most commonly used drug among students (Johnston, L. D. et al, 2008, NACADA, 2004b, NACADA, 2006). The findings that more male than female students reported use of alcohol, tobacco and other drugs concurred with previous studies that indicated there were gender differences in use of these drugs. (Dusek, 1996, NACADA, 2004b, NSAUH, 2005, Van etten,. et al, 1999). The results that more older than younger students reported current use of alcohol, tobacco and other drugs were consistent with other studies that postulated that senior students were more likely to report current drug use than those who are younger (Gordon, M. Allan et al, 1999, Johnston, L. D. et al, 2006).

The current survey shows that 33.7% of students were bullied at least one day during 30 days preceding the survey. This percentage was comparable to the GSHS and Gatwiri's study (Gatwiri, 2009) that indicated that 52.2 and 46.8% students in pastoral region and Nakuru municipality were bullied in past 30 days respectively. The highest number of respondents who were bullied reported that it was done because of their looks and color. This is contrasted with findings of GSHS of (GSHS, 2003) that indicated most students were physically bullied. In support of the previous studies, male students were more likely to report exposure to bullying than female students (Pepler, et al, 2006). The respondents who were aged 16 or above and reported that they were exposed to bullying were more than those aged 13, which contrasted with past studies (Ravens-Sieberer, et al, 2004).

The current study established a significant association between bullying with alcohol drinking and tobacco use. These findings supported previous studies that established a significant relationship between consumption of alcohol and tobacco and bullying (Morris, B. E. et al, 2006, Smith-Khuri, et al, 2004). However, no statistically significant relationship was established between use of other drugs and exposure to bullying. This finding contrasts with Smith *et al.* (2007) who found a strong relationship between the use of illegal drugs and exposure to bullying.

The inferred association between alcohol and tobacco use to increased risk of being bullied was consistent with those reported in other studies (Morris, et al, 2006, Pickett, et al, 2002 and Smith-Khuri, et al, 2004). These findings were consistent with problem behavior theory (syndrome) which postulates that

adolescents involved in one problem behavior are involved in other health compromising behaviors simultaneously (Jessop, 1991, and Willoughby, et al, 2004). The findings reiterated the importance of a holistic approach in addressing these issues among adolescents as they are global public health problems.

Conclusion

ATOD behaviors increase the likelihood of being bullied and it envisaged that preventing, reducing, or mitigating the effects of these behaviors may reduce or eliminate the relative risk of being exposed to bullying. The use of alcohol accounted for the highest relative risk to being bullied.

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