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# Prevalence and correlates of being bullied among in-school adolescents in Malawi: results from the 2009 Global School-Based Health Survey

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## Abstract

### Background

Physical and emotional violence against adolescents is a neglected, but growing problem globally. Violence against adolescents negatively affects the victim in terms of physical health, school attendance and performance and social adjustment. The literature on the prevalence and associated factors of bullying against adolescents is sparse in southern Africa outside South Africa. Such data are even sparser for Malawi. The current study was conducted to estimate the prevalence of self-reported bullying and its personal and social correlates.

### Methods

A secondary analysis of the Malawi School-Based Student Health Survey (2009) was done. Descriptive analyses were done to describe the sample and estimate the prevalence of reporting history of bullying in the past 30 days preceding the survey. Logistic regression analysis was done to assess the association between several factors and being a victim of bullying. Crude and adjusted odds ratios are reported.

### Results

A total of 2,264 in-school adolescents participated in the Malawi School-Based Student Health Survey of 2009. Just under half (44.5%) reported having been bullied in the previous month to the survey (44.1% among boys versus 44.9% among girls). Compared to adolescents of age 16 years or older, those who were 12 years old or younger and those who were 14 years of age were more likely to be bullied (AOR=1.54; 95% CI [1.41, 1.76]) and OR=1.26; 95% CI [1.21, 1.31]) respectively. The other risk factors that were identified in the analysis were loneliness (AOR = 2.23; 95% CI [2.20, 2.27]), and being worried (AOR = 2.80; 95% CI [2.76, 2.85]). Adolescents who had no close friends were 14% (AOR = 1.14; 95% CI [1.11-1.17]) more likely to be reporting bullied compared to adolescents who reported having close friends. Adolescents who smoked cigarettes were more than three times more likely to reporting be bullied compared to non-smokers (AOR=3.97; 95% CI [3.83, 4.10]), while those who drank alcohol were more than twice as likely to be bullied as adolescents who did not take alcohol (AOR=2.26; 95% CI [2.16, 2.35]).

### Conclusion

Malawian in-school adolescents report a high prevalence of having been bullied. Traditional associated factors such alcohol and smoking as well as emotional correlates (loneliness, worry)

were associated with being a victim of bullying. School officials and health workers caring for adolescents should be sensitized to the frequent occurrence of bullying and to its correlates and consequences.

## Background

Physical and emotional violence against adolescents is a neglected, but growing problem globally. In Malawi, research efforts have been directed toward HIV and AIDS, malaria, tuberculosis and maternal health, rather than to non-communicable adolescent problems. In southern Africa, the available literature on adolescent health and non-communicable disease is sparse. However, violence against adolescents has been known to negatively affect the victims in terms of physical health, school attendance and performance and social adjustment<sup>1,2</sup>.

A study by Strøm et al<sup>3</sup> in Norway found that students who reported having been bullied had lower grades compared to those who were not bullied. Further at the school level, the analysis showed that schools with higher levels of bullying performed worse academically. Siziya et al<sup>4</sup> in a study from Swaziland have reported that history of having been bullied was associated with being truant from school. Petrides et al<sup>5</sup> have reported an association between truancy and low academic performance.

## Methods

### Sample selection and data collection

The 2009 Malawi School-based Student Health Survey enrolled students in Standards (school grades) 7 and 8. A two-stage cluster sample design was used to produce data representative of all students expected to be within 13-15 years of age in Malawi. The first stage involved selection of schools with probability proportional to enrollment size. In the second stage of sampling, classes in the selected schools were randomly selected. All students in selected classes were eligible to participate. The school response rate was 100%, while the student response rate was 94%, resulting in an overall response rate of 94%; 2264 students participated. A questionnaire was self-completed on a computer scannable answer sheet.

### Data analysis

Descriptive analysis was done to estimate the prevalence of the outcome variable (having been bullied in the past month) and socio-demographic factors (sex, age, cigarette smoking, alcohol use) and emotional factors (feeling lonely, being worried). The outcome variable was obtained from the following question: During the past 30 days, on how many days were you bullied? Those who reported at least one day were categorized as having been bullied (Yes) and those who reported none, were categorized as No history of being bullied that month.

The exposure variables were obtained from the following question: During the past 12 months, how many times have you felt lonely? How many close friends do you have? During the past 30 days, on how many days did you smoke

cigarettes? During the past 30 days, on how many days did you have at least one drink containing alcohol?

Logistic regression analysis was carried out to assess the association between a selected list of variables known to be associated with having been bullied. The intention was two-fold: firstly to assess if these factors are associated with a history of having been bullied in Malawi, and secondly to estimate the size of the effect.

## Results

### Description of the study sample

A total of 2,264 in-school adolescents participated in the Malawi School-Based Student Health Survey of 2009. For those study participants whose data were available, 39.7% were of age 14 years, 48.8% were females. Just under half (44.5%) reported having been bullied in the past month (44.1% among boys versus 44.9% among girls). Further description of the study sample is given in Table 1.

Table 1: Sample description of study participants in the Malawi 2009 Global School Health Survey

Factor	Total, n (%)*	Male, n(%)*	Female, n(%)*
Age			
≤ 12	113 (1.2)	25 (1.0)	88 (1.5)
13	1116 (23.9)	280 (20.0)	836 (27.6)
14	1327(39.9)	417 (39.7)	910 (40.1)
15	851(33.1)	307 (36.5)	544 (29.9)
≥ 16	34(1.9)	20 (2.9)	14 (0.9)
Sex			
Male	1054(51.2)		
Female	1210 (48.8)		
Loneliness			
Yes	1380 (65.6)	630 (63.9)	750 (67.4)
No	815 (34.4)	396 (36.1)	419 (32.6)
Worried			
Yes	1298 (63.1)	590 (61.5)	708 (64.9)
No	948 (36.9)	456 (38.5)	492 (35.1)
Had close friend			
Yes	2017 (92.1)	928 (91.3)	1089 (92.9)
No	196 (7.9)	102 (8.7)	94 (7.1)
Smoked cigarettes			
Yes	213 (8.9)	135 (11.2)	78 (5.3)
No	1725 (91.1)	782 (88.8)	943 (93.7)
Drank Alcohol			
Yes	186 (5.8)	123 (7.9)	63 (3.5)
No	1910 (94.2)	848 (92.1)	1062 (96.5)
Bullied			
Yes	881 (44.5)	395 (44.1)	486 (44.9)
No	1213 (55.5)	576 (55.9)	637 (55.1)

Table 2: Factors associated with being bullied among adolescents in Malawi, 2009

Factors	Crude odds ratio (95% CI)	Adjusted odds ratio (95% CI)
Age		
≤ 12	1.26 (1.17 - 1.39)	1.54 (1.41 - 1.67)
13	0.93 (0.86 - 0.99)	0.84 (0.81 - 0.87)
14	1.09 (0.97 - 1.23)	1.26 (1.21 - 1.31)
15	1.01 (0.98 - 1.12)	0.96 (0.93 - 1.0)
16+	1	1
Sex		
Male	1.02 (1.01 - 1.04)	1.01 (0.99 - 1.02)
Female	1	1
Loneliness		
Yes	3.13 (3.09 - 3.18)	2.23 (2.2 - 2.27)
No	1	1
Worried		
Yes	3.5 (3.45 - 3.55)	2.80 (2.76 - 2.85)
No	1	1
Had close friend		
No	1.18 (1.15 - 1.21)	1.14 (1.11 - 1.17)
Yes	1	1
Smoked cigarettes		
Yes	5.78 (5.61 - 5.95)	3.97 (3.83 - 4.10)
No	1	1
Drank Alcohol		

## Factors associated with being a victim of bullying

Compared to adolescents of age 16 years or more, those who were 12 years old or younger and those who were 14 years of age were more likely to be bullied (AOR=1.54; 95% CI [1.41, 1.76]) and OR=1.26; 95% CI [1.21, 1.31]) respectively. The other risk factors that were identified in the analysis were loneliness (AOR = 2.23; 95% CI [2.20, 2.27]), and being worried (AOR = 2.80; 95% CI [2.76, 2.85]). Adolescents who had no close friends were 14% (AOR = 1.14; 95% CI [1.11-1.17]) more likely to be bullied than adolescents who had close friends.

Adolescents who smoked cigarettes were more than three times as likely to be bullied as non-smokers (AOR=3.97; 95% CI [3.83, 4.10]), while those who drank alcohol were more than twice as likely to be bullied as adolescents who did not take alcohol (AOR=2.26; 95% CI [2.16, 2.35]).

## Discussion

In a nationwide survey of school-based adolescents in Malawi, 44.5% reported having been bullied in the past month. Boys were equally likely to report to have been bullied as girls. By contrast, in the 2004 Zambia School-Based Health Survey however, Siziya et al<sup>4</sup> reported a higher prevalence of bullying (62.8%) than in our study, and they also showed a small gender-difference (60.0% among boys and 65.0% among girls).

In our study, individuals who self-reported being lonely, worried, lacking best friends, smoking cigarettes or sometimes drinking alcohol were more likely to report having been bullied than those who did not report such exposures.

We did not assess the different forms of bullying that the students reported. In a study of high school students in North Carolina<sup>6</sup>, the prevalence of having ever been bullied was 55% with 18% of respondents reporting cyber bullying. The North Carolina population is likely to be different in many ways. However, there has been proliferation of internet and other communications technologies in Malawi, and it will be important in future studies to assess whether technology-facilitated bullying ('cyber-bullying') occurs in Malawi.

The lack of sex difference in reporting bullying experience, as opposed to previous reports from neighboring Zambia and other countries<sup>7-9</sup>, deserves mention. Our current results are similar to the Zambia results with regard to the personal and social correlates that are associated with having been bullied in past 30 days. We found, just as was found in Zambia, that being lonely, feeling worried and consuming alcohol were associated with history of having been bullied.

Problem behaviours such as alcohol use and cigarette smoking, as well as emotional stress (lack of social support) have been reported to be associated with a history of being a bullying victim<sup>10,11</sup>. Our study also found that Malawian adolescents who reported having experienced worry, loneliness or not having a best friend were more likely to report having experienced bullying. While we cannot assume causality, it is plausible that those behaviours may be both causes and consequences of bullying. In any case, we can fairly say that adolescents who are bullied may also have other areas of their life that need exploration and support (e.g. no social support and substance use).

## Limitations of the study

Although this study has several strengths including a large

sample size and national scope, there are also associated limitations. Firstly, data were obtained via self-reports which were not corroborated. Further, the study enrolled adolescents in school while excluding out of school and those adolescents who were absent on the day a particular school was visited. Like all observational studies, the extent to which other unmeasured confounders bias the results is unknown. For example, Cluver et al<sup>12</sup> reported that being a victim of physical or sexual abuse or domestic violence at home, living in a high-violence community, and experiencing AIDS-related stigma were associated with a history of having been bullied. These co-variables were not assessed in our study.

## Conclusion

Malawian in-school adolescents report a high prevalence of being bullied. Traditional associated factors such alcohol and smoking as well as emotional correlates (loneliness, worry) were associated with being a victim of bullying. School officials and health workers caring for adolescents should be sensitised to the frequent occurrence of bullying, its correlates and consequences.

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