

Prevalence and correlates of serious injury among students of classes 7 and 8 in Kenya

Dear Sir,

Injuries are a major public health problem. A household injury survey in Kenya reported 300,000 injuries per 100,000 people per year,^[1] while young adults, i.e., 15-44 years old, were reported as “most affected” in a rural health center-based study in western Kenya.^[2] A prospective hospital-based survey reported 71% of injuries in males and 29% in females out of a total of 1304 casualties in Eldoret town in Kenya.^[3] In United States, injuries are responsible for more deaths in adolescents than all other diseases combined, and about 15,000 adolescents (10-19 years old) die each year as a result of injuries.^[4]

To investigate prevalence and correlates of injury in relation to gender, class, having missed classes/school without permission, sexual experience, use of illicit drugs and involvement in physical fight with self-reported serious injury in the past 12 months in students of classes 7 and 8 in Kenya, we used data from the Global School-based Student Health Survey for Kenya (GSHS-Kenya) conducted in 2003 by the Kenyan Ministry of Health in collaboration with the World Health Organization and the Centers for Disease Control and Prevention, United States.^[5] We selected all the respondents from classes 7 and 8, who responded

to the question “During the past 12 months, how many times were you seriously injured?” Students responding affirmatively to this question with one or more serious injuries were identified as having suffered serious injury in the past 12 months. A two-stage cluster sample design was adopted for the GSHS-Kenya to produce nationally representative estimates for 13-15 years old students. Design-based analysis with SUDAAN 9.01 was done using logistic regression. Odds ratios (ORs) were computed for the association of self-reported serious injury in the past 12 months with gender, class and various risk-taking attributes.

Serious injury was defined as one that makes a person miss at least one full day of usual activities, like school, or necessitates treatment by either a doctor or a nurse. The overall prevalence of serious injury in the past 12 months among the students of classes 7 and 8 was 76%, and 95% confidence interval (CI) was 72%- 80% ($n= 2993$). In male students, prevalence of “seriously considering suicide attempt” was 76%, with 95% CI being 71%-81%; and in female students, 75%, with 95% CI being 71%-79%. No statistically significant association was found between gender and serious injury in the past 12 months in terms of ORs. Compared to students from class 7, students from class 8 were less

likely to report serious injury (OR, 0.46; 95% CI, 0.35-0.60). Students who reported ever having had sexual intercourse and those who reported being involved in a physical fight on one or more occasions in the past 12 months were also more likely to have suffered serious injury in the past 12 months (OR, 1.43; 95% CI, 1.01-2.05 and OR, 3.0; 95% CI, 2.12-4.23, respectively); while no statistically significant association was found between ever having used illicit drugs like marijuana or having missed school/classes without permission on one or more days in the past 30 days and having suffered serious injury in the past 12 months. Results of Hosmer-Lemeshow Wald goodness-of-fit test concluded that the model was a good fit for the data.

The results of this unique nationally representative survey demonstrate that class 7 students in Kenya, regardless of their gender, were more likely to report having suffered serious injury in the past 12 months if they had ever engaged in sexual intercourse in their lifetime, or had been involved in a physical fight one or more times during the past 12 months. Results augur for the need on the part of parents, school nurses and health educators to prioritize their efforts towards those class 7 students who had been involved in physical fights and those who had sexual relations and intercede appropriately to positively impact the burden of serious injuries. For attaining the goal of improved general health, public health education efforts at identifying adolescents

at high risk of serious injury would be particularly beneficial for this school-going group in the country, in addition to professional continuing education of primary care physicians and other cadres of health providers.

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