
SCIENTIFIC LETTER

Dear Sir,

PREVALENCE AND CORRELATES OF SELF-RATED HUNGER IN CLASS SEVEN AND EIGHT STUDENTS IN KENYA

Relationship of affluence with mental disorders and drug use is complex, especially in the context of adolescents. This complexity of contextual influence of either greater or lesser affluence is underscored by the fact that both have been empirically linked with increased physical and mental health burden. Greater affluence has been linked with high mental health burden and alcohol use in adolescents (1-2). While inadequate availability of food in a household is also empirically associated with the increased mental and physical health burden (3-4). A study of African American women in Philadelphia, United States, concluded that the relation of food insecurity with violence and compromised mental health (3). Another study in United States based on three year panel data of welfare recipients also reported similar relationship between household food insufficiency and mental health, especially with clinical depression (4).

To describe class, gender, drug use, involvement in fight, being depressed, and frequency of eating fruits and vegetables associated with going hungry owing to not enough food being present in home; we used data from the Global School-based Student Health Survey for Kenya conducted in 2003 by the Kenyan Ministry of Health in collaboration with the World Health Organization and the Centres for Disease Control and Prevention, United States (5). We selected all the students in class seven and eight who responded to the question "During the past 30 days, how often did you go hungry because there was not enough food in your home?". Students responding as never or rarely were recorded as one, sometimes as two, and most of the time or always as three. A two-stage cluster sample design was adopted for the GSHS-Kenya to produce nationally representative estimates for 13 - 15 year old students. Design-based analysis with SUDAAN 9.01 was done using ordinal regression (cumulative logit model) and adjusted odds Ratios (aOR) were computed for the association of self-rated hunger with the various attributes studied.

The percentage of class seven and eight students who reported going hungry as never or rarely was 48.82% and Standard Error (SE) was 2.62, while 35.64% (SE 1.73) students reported as sometimes and 15.53% (SE 1.46) reported as most of the time or always (n = 2993). The approximate likelihood-ratio

test of proportionality of odds across response categories and Brant test of parallel regression assumption were used to assess the adequacy of proportional odds assumption in STATA 10, and was satisfied. Adjusting for other variables present in the model, class eight students were less likely to report going hungry as never or rarely (aOR = 1.28; 95% CI 1.01, 1.63) compared to class seven students. Students who had used illicit drugs, that is, marijuana and others, more than once during their life time were more likely to report going hungry as never or rarely (aOR = 0.70; 95% CI 0.60, 0.82) compared to those students who did not use illicit drugs. Also students who were involved in a physical fight once or more during the past twelve months were more likely to report going hungry as never or rarely (aOR = 0.72; 95% CI 0.62, 0.85) compared to students who were not involved in a fight. Similarly students who ever felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing their usual activities during the past twelve months were more likely to report going hungry as never or rarely (aOR = 0.69; 95% CI 0.3, 0.89) compared to students who did not feel that way. Students who either did not eat fruits during the past thirty days or ate less than once per day were more likely to report going hungry as never or rarely (aOR = 0.65; 95% CI 0.52, 0.82) compared to students who ate fruits once or more per day. However no statistically significant association was found between use of vegetables and going hungry; or gender and going hungry.

The results of this unique nationally representative survey, demonstrate that especially class seven students who either used illicit drugs once or more in their lifetime, were involved in physical fight once or more in the past one year, ever felt so sad or hopeless almost everyday for two or more weeks in a row that they stopped doing their usual activities during the past one year, or either did not eat fruits in the past 30 days or ate them less than once per day were more likely to report going hungry as never or rarely; in other words they were less likely to have experienced serious hunger in the past 30 days, as in their homes there tended to be enough food available. Hence adequate food availability in their homes was associated with increased involvement with illicit drugs use, physical fight,

and with being depressed. Primary care physicians and paediatricians in Kenya need to keep their index of suspicion high when dealing with these population groups and perhaps probe for signs and symptoms more aggressively to identify any nascent mental health conditions, and poor lifestyle choices for their better management and prognosis and preventive health education.

Yours sincerely

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