

Title: Household food insecurity and its association with academic performance among primary school adolescents in Hargeisa City, Somaliland

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Abstract: Academic achievement is crucial for the social and economic development of young people and determines the quality of education of a nation. According to different studies, food insecurity adversely affects children's health, nutrition, and subsequent decline in academic performance by impairing students' ability to learn and therefore affects the achievement of the Sustainable Development Goals (SDGs) of quality education and lifelong learning opportunities for all. To provide evidence on the association of food insecurity with academic performance is necessary. The current study assessed household food insecurity and its association with academic performance among primary school adolescents in Hargeisa City, Somaliland. A school-based cross-sectional study was conducted among 630 primary school adolescents from December 2021 to March 2022. Students were selected using a multistage sampling technique. An interviewer-administered questionnaire was used to collect data on household food security and socio-demographic variables and entered into Epi data version 3.1. The data was exported to SPSS version 26 for descriptive and multivariable logistic regression analysis. Odds ratios and their 95% confidence intervals together with $p < 0.05$ were utilized to declare statistical significance. The prevalence of food insecurity among school adolescents was 59.21%. The majority (55.40%) of the school adolescents were poor academic performers. The frequency of adolescents' poor academic performance was significantly high (71.05%) among food insecure households ($P < 0.001$) as compared to their counterparts whose households were food secure (32.68%). On multivariable analysis, household food insecurity (AOR = 5.24, 95%CI = 3.17-8.65), school absenteeism (AOR = 3.49, 95%CI = 2.20-5.53), spending >2 h/day watching TV / screen media use (AOR = 9.08, 95%CI = 4.81-17.13), high and middle wealth households (AOR = 0.51, 95%CI = 0.30-0.88) (AOR = 0.40, 95%CI = 0.21-0.76) and habitual breakfast consumption (AOR = 0.08, 95%CI = 0.03-0.20) had shown statistically significant association with academic performance among primary school adolescents. The present study revealed that household food insecurity has a high association with adolescents' academic performance. The prevalence of food insecurity is moderate, based on the household food insecurity access scale. The results indicate the need for policies and programs intended to improve household income by developing income-generation programs for lower-income families and enhance feeding programs such as national school lunch and school feeding across schools in the country.

Keywords: Academic performance, Food insecurity, Primary school adolescents, Logistic regression

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