Food insecurity: the adolescent experience in rural Pakistan

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Adolescence is an important period of growth whereby the consequences of malnutrition during childhood, such as stunting, can be mitigated[1]. Food insecurity (FI) is a key determinant of malnutrition, which, if not addressed during adolescence can lead to prolonged macro- and micro- nutrient deficiencies. This can seriously impact cognitive and physical growth, which can restrict an individual's personal, social, and economic productivity in adulthood, with an indirect effect on their children, ultimately resulting in an intergenerational cycle of malnutrition[2]. However, there is a paucity of information on how adolescents experience FI, therefore the primary aim of this research is to assess how male and female adolescents experience FI in relation to each other, and to the household in Pakistan. A convenience sample of 170 households with unmarried male and female adolescents (10–16 years), from the Khyber Pakhtunkhwa region of northwest Pakistan were enrolled in the study. The mother of the household completed the Household Food Insecurity Access Scale (HFIAS)[3] and the adolescents completed an adapted HFIAS to assess FI at the individual level. The HFIAS provides both continuous (FI score between 0–27) and categorical (either food secure or mildly, moderately or severely FI) measures of FI. 24-hour dietary recalls were used to gather data on the food groups typically consumed by the male and female adolescents, and a Dietary Diversity Score (DDS) calculated using the food categories from The Minimum Dietary Diversity Score for Women[4], which generates a DDS between 1–10, with a threshold value of 5 indicating a minimum DDS. A one-way univariate (between subjects) ANOVA and a chi-square test was conducted on the continuous and categorical FI data respectively. FI categorical: FI was reported from 100% of the households (24% moderate, 76% severe) and male adolescents (1% mild, 30% moderate, 69% severe) and 99% of female adolescents (25% moderate, 74% severe). FI Continuous: One-way ANOVA showed the household reported significantly greater FI than the male ($F_{(1,338)} = 10.62$, $p < .001$, $P\eta^2 = 0.03$) and female ($F_{(1,338)} = 11.01$, $p < .001$, $P\eta^2 = 0.03$) adolescents, however there were no significant differences in the male and female adolescents' score. Dietary Diversity: There was no difference in the DDS for the male and female adolescents, the median and IQR for both was 4 (3,5), which is below the minimum threshold value, indicating that they consume a diet that is monotonous and low in nutrient density FI is highly prevalent in the study area and there are potentially pockets of marginalised communities failing to consume a nutritionally adequate diet.

Further research is required into the adolescent and household experience of FI and adolescent's dietary habits to ensure the nutritional needs of all adolescents in Pakistan are met.

References

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