

Family influences on practices of pregnant adolescents in Bangladesh

This is a summary of the following paper: Pike V, Ramage A.K, Bhardwaj A, Busch-Hallen J, Roche M.L. (2021). Family influences on health and nutrition practices of pregnant adolescents in Bangladesh. *Maternal and Child Nutrition*, 17(S1):e13159. Available at: <https://onlinelibrary.wiley.com/doi/10.1111/mcn.13159>

Adolescent pregnancy can lead to serious risks for both mother and baby, with pregnancy and childbirth complications representing the leading cause of death for adolescents globally. However, adolescents are among those least likely to access healthcare while specific nutrition or antenatal care (ANC) guidelines to support pregnant adolescents are unavailable. This study aimed to understand the experiences and decision-making of pregnant adolescents (aged 15-19 years) in Bangladesh related to ANC and nutrition practices to inform programming for pregnant adolescents.

Peer interviewers conducted qualitative interviews with pregnant adolescents (n=48), adolescent mothers (n=48), adolescent family members (n=64) and healthcare providers (n=32) in the urban slum areas of Dhaka and the rural

areas of Rangpur. Key themes explored included the perception and support of adolescent pregnancy, experiences in seeking ANC, dietary practices, sources of information and the roles of family members. Spheres of influence on adolescent pregnancy were identified through an analytical framework informed by the socio-ecological model that shows how individual behaviour is determined by personal, interpersonal, institutional, community and policy influences.

Respondents described adolescent pregnancy as overwhelming and 'life altering' and a time of increased isolation and reliance on family members. Most families endeavoured to provide adolescents with extra guidance and support. However, this did not always align with the advice from healthcare providers, although most acknowledged the importance of clinical support.

Families greatly influenced adolescent care-seeking, health and nutritional practices with mothers and mothers-in-law emerging as the principal influencers. Husbands also often played an active role although they were more commonly involved in smaller day-to-day decisions, often in relation to spending, than in bigger ones. Families valued both good nutrition and healthcare but financial constraints were commonly described as a barrier. Adolescents valued family support but felt a loss of autonomy and agency upon becoming pregnant. Only half of pregnant adolescents began taking supplements during their first trimester and about half in their second trimester.

Further research is needed to better understand social and cultural practices, family dynamics and systems, the types of support pregnant adolescent girls want and from whom and adolescent experiences of nutrition and health during pregnancy. Youth-led research approaches should be further utilised to tailor services for pregnant adolescents. In addition, it is essential to simultaneously engage adolescents and family members, particularly mothers and mothers-in-law, in initiatives that aim to improve pregnant adolescents' agency and health behaviour. This research can also inform the development of nutrition and ANC guidelines for pregnant adolescents.

Determinates of dietary intake among adolescents in Bangladesh

This is a summary of the following two papers:

- 1) Islam MR, Rahman SM, Tarafder C, et al (2020). Exploring Rural Adolescents' Dietary Diversity and Its Socioeconomic Correlates: A Cross-Sectional Study from Matlab, Bangladesh. *Nutrients*, 12(8): 2230. Available at: <https://doi.org/10.3390/nu12082230>
- 2) Salwa M, Subaita E, Choudhury SR, et al (2021). Fruit and vegetables consumption among school-going adolescents: Findings from the baseline survey of an intervention program in a semi-urban area of Dhaka, Bangladesh. *PLoS ONE*, 16(6): e0252297. Available at: <https://doi.org/10.1371/journal.pone.0252297>

Adolescence is a critical phase characterised by rapid physical, physiological and cognitive development. This period represents an additional 'window of opportunity' to correct deficits due to poor early life nutrition. Increased demand for macro- and micronutrients in this period heightens nutritional vulnerability. Understanding adolescent dietary diversity (DD) is the first step to addressing adolescents' nutritional vulnerability while tackling the multiple forms of malnutrition prevalent in Bangladesh.

The first study aimed to explore DD in a cohort of rural adolescents from Matlab in Bangladesh. The objectives were to: (i) describe and analyse DD and the consumption pattern of foods from different groups along with their social and economic stratification, and (ii) identify the socio-economic and demographic predictors

of inadequate DD among these adolescents. A cross-sectional study nested within a 15-year trial was used to explore DD and its underlying socio-economic predictors among 2,463 adolescents. DD was measured using 24-hour recall.

The second study aimed to describe the fruit and vegetables consumption habits of adolescents in Dhaka in Bangladesh as well as to identify the socio-environmental, personal and behavioural factors that influence these habits using baseline data from an intervention study involving 823 grade 10 students in a semi-urban area of Dhaka.

A total of 42.3% of adolescents had inadequate DD in Matlab. The consumption of nutrient-rich foods varied significantly across gender and socio-economic categories. Belonging to the poorest households, food-insecure households, having mothers with lower educational

attainment and adolescents' attainment of secondary education were associated with inadequate DD. In Dhaka, only 21% of adolescents had five servings of fruit and vegetables a day. Inaccessibility at home was reported as the most perceived barrier. Higher maternal educational attainment, more social support, adequate self-rated practice, positive behavioural intention, higher body mass index, better physical activity and adequate daily sleep were associated with higher fruit and vegetable intake.

The findings highlight the urgent need to invest in formulating and implementing targeted interventions to diversify the diet of rural adolescents. More research is needed into the determinants of dietary intake among adolescents in Bangladesh to enable interventions to effectively address the underlying predictors while targeting those most at risk.

