Identifying overnutrition risk groups in Bangladeshi ever-married women based on sociodemographic factors: A classification and regression tree model

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Abstract

Overweight and obesity are major health issues among women in Bangladesh. To develop strategies and introduce preventive intervention to deal with this epidemic, the identification of women who are at risk for overweight and obesity is critical. This study aims to identify a significant set of sociodemographic predictors and risk groups for overweight obesity among ever-married women in Bangladesh. The study has used a sample of 14207 married women aged 15–49 years from the 2017–18 Bangladesh Health and Demographic Survey. The overweight and obese status of women based on the body mass index is the primary outcome variable, and a range of sociodemographic variables are included as predictors. The Classification and Regression Tree (CART) is used to identify significant predictors and high-risk groups. The CART models show that household wealth status is the most important predictor of overweight and obesity in women. Women who live in affluent households aging from 26 to 49 and who do not work or breastfeed are at the high-risk group. This study suggests that the formulation and implementation of tailored strategies should consider the extent of overweight and obesity prevalence among women. Preventive interventions may target the high-risk group. Further research is needed to identify a greater number of risk groups to reduce the burden.

Keywords: overweight and obesity, women, risk groups, tree model