

Prevalence and Risk Factors of Cardiovascular Diseases among Bangladeshi Adults: Findings from a Cross Sectional Study

Authors : Fouzia Khanam, Belal Hossain, Kaosar Afsana, Mahfuzar Rahman

Abstract : Aim: Although cardiovascular diseases (CVD) has already been recognized as a major cause of death in developed countries, its prevalence is rising in developing countries as well, and engendering a challenge for the health sector. Bangladesh has experienced an epidemiological transition from communicable to non-communicable diseases over the last few decades. So, the rising prevalence of CVD and its risk factors are imposing a major problem for the country. We aimed to examine the prevalence of CVDs and socioeconomic and lifestyle factors related to it from a population-based survey. Methods: The data used for this study were collected as a part of a large-scale cross-sectional study conducted to explore the overall health status of children, mothers and senior citizens of Bangladesh. Multistage cluster random sampling procedure was applied by considering unions as clusters and households as the primary sampling unit to select a total of 11,428 households for the base survey. Present analysis encompassed 12338 respondents of ≥ 35 years, selected from both rural areas and urban slums of the country. Socio-economic, demographic and lifestyle information were obtained through individual by a face-to-face interview which was noted in ODK platform. And height, weight, blood pressure and glycosuria were measured using standardized methods. Chi-square test, Univariate modified Poisson regression model, and multivariate modified Poisson regression model were done using STATA software (version 13.0) for analysis. Results: Overall, the prevalence of CVD was 4.51%, of which 1.78% had stroke and 3.17% suffered from heart diseases. Male had higher prevalence of stroke (2.20%) than their counterparts (1.37%). Notably, thirty percent of respondents had high blood pressure and 5% population had diabetes and more than half of the population was pre-hypertensive. Additionally, 20% were overweight, 77% were smoker or consumed smokeless tobacco and 28% of respondents were physically inactive. Eighty-two percent of respondents took extra salt while eating and 29% of respondents had deprived sleep. Furthermore, the prevalence of risk factor of CVD varied according to gender. Women had a higher prevalence of overweight, obesity and diabetes. Women were also less physically active compared to men and took more extra salt. Smoking was lower in women compared to men. Moreover, women slept less compared to their counterpart. After adjusting confounders in modified Poisson regression model, age, gender, occupation, wealth quintile, BMI, extra salt intake, daily sleep, tiredness, diabetes, and hypertension remained as risk factors for CVD. Conclusion: The prevalence of CVD is significant in Bangladesh, and there is an evidence of rising trend for its risk factors such as hypertension, diabetes especially in older population, women and high-income groups. Therefore, in this current epidemiological transition, immediate public health intervention is warranted to address the overwhelming CVD risk.

Keywords : cardiovascular diseases, diabetes, hypertension, stroke

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