Elderly Women Are Disproportionately Vulnerable to Hypertension in Bangladesh: Evidence from the National Nutrition Surveillance Study

Abu Abdullah Mohammad Hanif[1], Abu Ahmed Shamim[1], Md. Mokbul Hossain[1], Mehedi Hasan[1], Moyazzam Hossaine[1], Mohammad Aman Ullah[2], Samir Kanti Sarker[2], S M Mustafizur Rahman[3], Dipak Kumar Mitra[4], Md. Emdadul Haque[5], and Malay Mridha[1]

[1]Centre for Non-Communicable Diseases and Nutrition, BRAC James P Grant School of Public Health, BRAC University; [2]Institute of Public Health Nutrition, Ministry of Health and Family Welfare, Government of Bangladesh; [3]National Nutrition Services, Institute of Public Health Nutrition, Ministry of Health and Family Welfare, Government of Bangladesh; [4]North South University, Bangladesh; and [5]Bangladesh Bureau of Statistics

Objectives: Bangladesh has a dearth of information on the prevalence and factors associated with hypertension among elderlies. We assessed the prevalence, sex differences in prevalence, and factors associated with hypertension in the most recent national nutrition surveillance round (2018–19).

Methods: We analyzed data of 4817 elderlies (≥60 years) from 82 clusters (57 rural, 15 urban and 10 slum) selected by multistage cluster sampling. Hypertension was defined as systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg and/or having a history of hypertension. We analyzed data using Stata 15.0.

Results: The weighted prevalence of hypertension was 42%, and 56% for elderly males, and females, respectively; and was higher among females for many socio-demographic, behavioural and anthropetric variables including age 70 + years (58% vs. 46%); high waist circumference (69% vs. 65%); diabetes (69% vs. 65%); living in rural (55% vs. 41%), urban (63% vs. 45%) and slum (50% vs. 30%) area; Muslim (56% vs. 42%); insufficient physical activity (60% vs 52%); and inadequate fruits/vegetables intake (56% vs. 43%). Among females, the factors associated with hypertension were age 70 + years (AOR: 1.40, 95% CI: 1.15–1.71), waist circumference ≥80 cm (AOR: 2.20, 95% CI: 1.82–2.67), diabetes (AOR: 1.82, 95% CI: 1.35–2.45), and inadequate physical activity (AOR: 1.38, 95% CI: 1.15–1.67). Among males, these factors were age 70 + years (AOR: 1.32, 95% CI: 1.09–1.60), waist circumference ≥90 cm (AOR: 2.76, 95% CI: 2.22–3.43), diabetes (AOR: 1.36, 95% CI: 1.02–1.82), slum-dwelling (AOR: 0.71, 95% CI: 0.52–0.96), > 10 years of education (AOR: 1.83; 95% CI: 1.38, 2.44), inadequate physical activity (AOR: 1.50, 95% CI: 1.25–1.81), and current smoking (AOR: 0.74; 95% CI: 0.61, 0.89). In both males and females, fruits and vegetables intake was not assicaited with hypertension.

Conclusions: In Bangladesh, the elderly female population is disproportionately affected by hypertension. They were found having a consistent pattern of higher prevalence of hypertension for many socio-demographic, behavioral, and anthropometric variables. The ministry of health of Bangladesh should consider this disproportionately high prevalence of hypertension among elderly females while designing and implementing health programs.

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