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**Towards reducing risk factors of cardiovascular diseases (CVD) among among rural population in Bangladesh: Assessing knowledge and feasibility of community-based non-communicable disease interventions**

**Tilak Chandra Nath**<sup>1</sup>, Kakali Nag<sup>2</sup>, Adnan Mahfuz<sup>4</sup>, Saiful Islam<sup>3</sup>

<sup>1</sup>Department of Public Health, Sylhet Agricultural University, Bangladesh

<sup>2</sup>Department of Pathology, Shaheed Suhrawardy Medical College, Bangladesh

<sup>3</sup>Department of Non-communicable diseases, International Centre for Diarrhoeal Disease Research, Bangladesh

<sup>4</sup>Department of Pathology, University of Hawai'i, United States

**Objectives:** Cardiovascular diseases (CVD) are the leading causes of death and disability worldwide including Bangladesh. This study was done to evaluate knowledge about cardiovascular diseases among rural population and to assess the feasibility of community-based non-communicable disease (CBNCD) intervention in the local context of Bangladesh.

**Methods:** A quasi-experimental study was conducted in Dhaka and Sylhet districts of Bangladesh. A total of 640 adults were randomly assigned to the intervention or control group based on geographic proximity. A baseline survey was conducted by a pre-tested questionnaire, followed by CBNCD intervention in terms of awareness creating and warning messages containing leaflets/games on NCD risk factors. The intervention has been developed based on social cognitive theory. A post-intervention endline survey was conducted among all the participants using the same questionnaire six months after the intervention.

**Results:** Out of 640 participants, 311 (48.6%) had heard the term "CVD" and 278 (43.4%) considered that CVD is a severe public health problem. Attitude towards CVD prevention was negative, 217 (33.9%) correctly answered questions regarding the symptoms, prevention, and treatment of CVD. Quantitative findings revealed that CBNCD intervention had a significant role ( $P < 0.05$ ) to improve the mean knowledge score in the intervention group (3.35) compared to the control group (0.29). Significant pre- and post-test differences were found for decreasing the number of smoking cigarette, frequency of raw tobacco intake, amount of added salt intake, drinking alcohol, increasing consumption of fruit and vegetables intake and also increasing the total weekly physical activity. CVD preventive behaviours and attitude were also significantly increased in the intervention group compared to the control group.

**Conclusions:** This study illustrated poor knowledge and practice regarding CVD among the study participants. Increased knowledge score and behaviour changes hint that CBNCD intervention is feasible and can be promising to sensitize community peoples and to reduce CVD in this setting.