Level of physical activity among type 2 diabetes patients in Bangladesh

Muhammad Millat Hossain
Bangladesh
M.Sc. in Rehabilitation Science (1st Batch; Session: 2014-2015)
E-mail: millatcbr@yahoo.com

Abstract of a thesis submitted to the SSARC Regional Interprofessional Master's Program in Rehabilitation Science of Centre for the Rehabilitation of the Paralysed (CRP) in conformity with the requirements for the Degree of M.Sc. in Rehabilitation Science, Bangladesh Health Professions Institute, Faculty of Medicine, the University of Dhaka, Bangladesh:

Background: The prevalence of diabetes is 7.4% in Bangladesh in 2015 (International Diabetes Federation, 2015b). Physical inactivity is the main cause for 27% of diabetes burden (World Health Organization, 2016a). Physical inactivity is highly prevalent (34.5%) among Bangladeshi adult population (Moniruzzaman, 2016). Prevalence of inactivity data in people with diabetes is limited (Lin et al., 2004). Little is known about physical activity in diabetes care management in Bangladesh; this study aims to identify these gaps. **Objectives:** The objective of this study was to determine prevalence type 2 diabetes patient's physical inactivity levels and to find out about integration of physical activity into diabetic care management in Bangladesh. **Methodology:** The study was conducted following cross-sectional survey design. Data were collected through face to face interviews using International Physical Activity Questionnaire (IPAQ) from type 2 diabetes patients from three hospitals, at Dhaka in Bangladesh. Other data were obtained from patients' diabetes guidebooks and other measurements such as waist circumference. **Results:** Of total 290 type 2 diabetes patients, 157 (54%) were men and 133 (46%) were women with a mean age of 50.6 years (± 9.8 years). Overall, prevalence of low physical activity was 29.7%, for men 27.4%, for women 32.3%, in urban areas 24.2% and semi-urban area 32.2%. About half (58.4%) of the women's total physical activity time was contributed by domestic and garden PA. Leisure-time physical activity was the major contributor (45.2%) to men's total PA. Walking (51.7%) was the major contributor to total physical activity for all. Older and male respondents had higher average sitting time than the younger and female. More than half (59.0%, n=171) of the patients were overweight. Three in five patients were in risk of developing diseases. Physical activity was co-advised with drug prescription and according to general physical activity guideline. Personal and environmental factors were mostly reported favorable to perform physical activity. **Limitations:** This study cannot indicate reasons behind physical inactivity. Rural adults with diabetes were not included in the study and the chances of under- or over-reporting of physical activity cannot be ruled out with certainty. **Conclusion and Recommendations:** Three in five diabetes patients were found in risk of developing diseases and were insufficiently active. General advice for physical activity is not enough, when it is an intervention. Therefore co-prescription of exercise and medication should be done by respective expertise. Reasons behind inactivity are an area where future research can be done.

Key words: Physical inactivity, type 2 diabetes, International Physical Activity Questionnaire (IPAQ), Metabolic Equivalent Tasks (MET) and Physical activity.