

Predictors of blood pressure control among hypertensive Type-2 diabetic patients in Dodoma Region, Central Tanzania: A cross sectional study - Ezekiel Noah Moirana - University of Dodoma, Tanzania

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Background: Hypertension is one of the most common conditions in patients with type 2 diabetes. It increases morbidity and mortality if remains uncontrolled. Very few studies have been done in sub-Saharan Africa to determine degree of blood pressure control among patients with type 2 diabetes. This study aimed at determining the degree of blood pressure control and associated factors among type 2 diabetics.

Methods: A cross sectional study was conducted among type 2 diabetic patients on hypertension treatment for at least 6 months attending diabetic clinic at Dodoma regional referral hospital. A structured questionnaire was used to collect sociodemographic and clinical data. Blood pressure was taken for all participants and classified based on JNC 7.

Adequate control was defined as a blood pressure of <130/80mmHg. Data was analyzed using SPSS version 16; continuous variables were reported as mean/median with respective standard deviation/interquartile range and categorical variables were reported as frequency with their respective percentages. Logistic regression was used to determine association between blood pressure control and other variables. Analysis was done at a 95% level of confidence, a p value of ≤ 0.05 was considered significant.

Results: A total of 498 participants were enrolled for the study. Out of the participants, 60.8% were male, 60.2% were living in urban setting, and 68.9% were married, 93% were using oral hypoglycemic, while 42.8% are known diabetic for 6-10 years. Only 30.9% of the participants had their blood pressure controlled at the time of study. After adjustment for other variables, living in urban setting (AOR=5.85, 95% CI 3.88-6.98), being a peasant (AOR=2.01, 95% CI 1.27-3.64), and using a beta blocker (AOR=1.66 95% CI 1.23-2.08), were significantly associated with blood pressure control.

Conclusion: Very few type 2 diabetic patients with hypertension attain the recommended blood pressure target despite being on treatment. Living in an urban setting, being a peasant and the use of a beta blocker were significantly associated with good blood pressure control. Results highlight the need to scale up interventions geared at assisting diabetic patients control their blood pressure to prevent severe complication.