

Self-care practice and glycaemic control among Type 2 diabetes patients in a secondary health care in south west, Nigeria

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Background: Diabetes mellitus is a global health problem that is associated with morbidity and mortality. Crucial to the goal of management is active involvement in the process of self-care practice (SCP). The objective of the study was to assess the effect of change in diabetes SCP on blood glucose control among Type 2 diabetes patients.

Methods: A 12 week intervention study was conducted among 80 previously diagnosed Type 2 diabetes patients who were randomized into intervention and control groups. Forty patients in the intervention group had three sessions on diabetes self-care education while the control group continued on previous plan of care until the end of study. Data was collected on self-care practice and sample taken for blood glucose both before and after three months intervention. Categorical variables were tested using Chi square, continuous data by t test and ANCOVA. Correlation and linear regression were further done.

Results: Baseline parameters of the respondents were similar in socio-demographics, clinical, biochemical and SCP. At the end of 12 weeks, the mean of self-care practice increased in all domains of SCP while means of fasting blood glucose, two hours postprandial and glycated haemoglobin (HbA1c) reduced with change in SCP per day among the intervention compared to control group. In the study group, reduction in HbA1c correlated significantly with mean increase in SCP, a drop from baseline 7.72(2.09) % to end-line value 6.7 (1.85) % ($p=0.01$). Linear regression showed increase in average number of days of physical activity and following healthy diet were predictors of reduction in HbA1c.

Conclusion: Increase in SCP resulted in significant improvement of glycaemic control, underscoring active patient participation in comprehensive diabetes management.

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