Effect of Diabetes Education on Anthropometric Indices, Blood Pressure and Glycaemic Control in Type 2 Diabetes Mellitus Patients in Lagos, Nigeria

**Background:** Morbidity and mortality associated with diabetes mellitus (DM) can be reduced by good control of glycaemia, lipidaemia and other cardiovascular risk factors. Studies have shown that diabetes education (DE) improves diabetes knowledge, attitudes, self-care behaviours, metabolic control and quality of life.

**Objectives:** The purpose of this study was to determine the effect of DE on anthropometric indices, blood pressure and glycaemic control of Nigerians with types 2 diabetes mellitus (T2DM) attending the Lagos University Teaching Hospital.

**Methodology:** This was a prospective randomized intervention study using a structured DE programme. One hundred and fifty-three T2DM patients were randomised into two groups i.e intervention group (102) and control (51) group. Subject were seen six times over a period of 16 weeks at weeks 0,1,2,3,10 and 16. The intervention groups had 4 sessions of DE at weeks 0,1,2 and 3. Data collected at baseline and end of study included HbA1c, FPG, anthropometric indices and blood pressure. Analysis was performed with IBM SPSS 22. P-value < 0.05 was considered statistically significant.

**Result:** The intervention group experienced significantly greater reductions in waist circumference [0.60(0.09, 1.11)cm versus -0.69(-1.22, -0.16)cm, p = 0.004], SBP [6.33(3.50,9.15)mmHg versus -2.10 (-7.04, 2.84)mmHg, p<0.001], DBP [1.76 (-0.27, 3.80)mmHg vs -5.04 (-7.97,-2.11)mmHg, p<0.001] and HbA1c (1.00(0.69,1.31)% versus 0.23(-0.15,0.61)%, p<0.001) compared to the control group.

**Conclusion:** In T2DM Nigerians, DE is effective in improving anthropometric indices, blood pressure and glycaemic control over a sixteen-week period. Participants need to be followed up for a longer duration to assess the long-term effect of DE.