

A study on the effect of intensive health education on the biochemical profile of the Diabetics living in the selected rural areas of Tirunelveli District in Tamil Nadu.

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ABSTRACT:

Background: Non-communicable disease diabetes mellitus is on the rise globally and developing countries are also witnessing the burden. Once diabetes is diagnosed, adequate treatment requires a significant amount of resources for patients of low economic standing. Being a chronic disease, there is great scope for cost effective strategies like motivation and health awareness in controlling this lifelong disease. The objective of this study was to determine the effect of intensive health education on the control of this chronic life long disease.

Methods: Nine villages were screened for diabetes among subjects aged above 20 years. Among the identified cases, data on blood pressure, anthropometric and biochemical profile were assessed. Their knowledge on the disease was also assessed. Based on their level of knowledge an education programme was planned. Fifty volunteers (25 males and 25 females) were chosen from the cases and were given an intensive personalized health education with the aim of motivating them to have effective control over the disease. The blood parameters such as HbA1c, Fasting blood glucose, HDL, LDL, urea, creatinine, microalbuminuria, along with Body Mass Index (BMI) and Blood Pressure (BP) were assessed both before and after three months of intervention through health education. The results were statistically analyzed for interpretation using t-test.

Results: Through the study 68 new cases and 163 old cases of diabetes were identified. Among the new cases 60.3% were pre-diabetics, 62.6% did not have control over the disease, 48.9% had varied grades of hypertension and 21.6% were pre-hypertensive. More than 90% of the cases had no idea on the complications of uncontrolled diabetes mellitus (DM) and hypertension (HT). The effect of intervention showed significant difference in BP, HbA1c, LDL, urea, creatinine and microalbuminuria but HDL, Waist Hip Ratio (WHR) and BMI did not have any significant difference.

Conclusion: Personalized diet counseling and health awareness on DM and HT had been found to be an effective means for achieving good control over this chronic lifelong disease and in preventing the dreaded complications of the disease among the rural population with low socioeconomic background.

Keywords:

Diabetes mellitus, pre-diabetes, hypertension.