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## Effects of a health education program to promote healthy lifestyle and glycemic control in patients with type 2 diabetes: A randomized controlled trial

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### ABSTRACT

**Background:** Type 2 diabetes mellitus (T2DM) is a common chronic disease with an increase in prevalence within developing countries. The aim of this study was to determine the efficacy of a structured educational program for improving lifestyle and health-related measures in Iranians with T2DM.

**Methods:** A randomized controlled trial was conducted in 80 participants with T2DM who were randomly assigned to either the intervention or a control group. A demographic questionnaire along with the Health Promoting Lifestyle Profile-II and related laboratory tests were used to assess the efficacy of the program. The intervention consisted of six educational sessions held over 45 days. The control group received routine diabetic care at the clinic. Three months after the intervention, participants completed the measures again. Within-group and between-group comparisons were then made.

**Results:** All subscales of lifestyle measure improved in the intervention group, whereas only the nutrition domain improved in the control group. After adjusting for baseline differences, physical activity and nutrition domains showed the greatest improvement in the intervention group compared to controls. All clinical measures were also significantly improved within intervention group from baseline to follow-up ( $p < 0.001$ ), whereas HbA1c, fasting blood glucose, HDL, triglyceride, cholesterol, and weight also changed significantly in the control group. The frequency of HbA1c  $< 7\%$  was increased from 27.5% at baseline to 37.5% at follow-up (10%) in the intervention group compared to only a 5% increase in the control group. **Conclusion:** This educational health program significantly improved lifestyle changes and health-related clinical characteristics in persons with T2DM, compared to routine diabetic care in Iran. Further research is needed to better understand the usefulness of such programs in diabetics and other medical conditions among those in different cultural settings.

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