

Evaluation of The Effect of Diabetes Education Given to Type 2 Diabetic Patients and Monitoring Via Telephone Communication on Metabolic Parameters

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Objective: The aim of this study was to evaluate whether follow-ups and tip-offs given via short messages (SMS) and diabetic education have an impact on metabolic parameters of type 2 diabetic patients.

Method: 120 diabetic patients were randomly selected for control, education and SMS groups. Each group contained 40 patients. Data were collected using Multi Dimensional Diabetes Questionnaire and Diabetic Recognition Form as pre-post test. Results were shown by frequency and mean±standard deviation. For parametric data, t-test, ANOVA, Kruskal-Wallis tests and for non-parametric data, chi-square, Kolmogorov-Smirnov and analysis of variance were used.

Results: At the end of three months, glycosylated hemoglobin (Hb A1c) dropped (1.8%) in intervention, (0.58%) education and (0.59%) in control groups. Fasting blood glucose dropped more compare to control, post prandial glucose dropped in only SMS; systolic pressure dropped in both SMS and education groups. Those who eat irregular meal decreased, who eat 3+3 regular meal increased in SMS group. Frequency of checking blood sugar increased both in intervention and education groups. 36 patients began to check blood glucose stepladder method which 26 of them in SMS group although there was none before. Physical exercise frequency and duration increased both in intervention and education groups. Interference and Misguided Support Behavior value decreased in SMS group.

Conclusion: We concluded that using phone SMS message is effective on managing glucose control and adaptation to life style changing in type II diabetics

Key words: Education, glycosylated hemoglobin, nurse, type II diabetes, short message service