

Abstract

Purpose

Advancements in management of non-communicable diseases using regular reminders on lifestyle and dietary behaviors have been effectively achieved using mobile phones. This study evaluates the effects of regular communication using a mobile phone on dietary management of Type 2 Diabetes Mellitus (T2DM) among patients attending Kitui County Referral Hospital (KCRH) in Kenya.

Methods

Pre/post-study design among eligible and consenting T2DM patients visiting KCRH was used for this study. One hundred and thirty-eight T2DM patients were enrolled; 67 in the intervention group (IG) and 71 in the control group (CG). The IG received regular reminders on key dietary practices through their mobile phones for six months while the CG did not. The Net Effect of Intervention (NEI) and bivariate logistic regression were used to determine the impact of mobile phone communication intervention at $p < 0.05$. SPSS version 24 was used to analyze the data.

Results

The results revealed an increase of respondents who adhered to the meal plan in the IG from 47.8% to 59.7% compared to a decrease from 49.3% to 45.1% in CG with corresponding NEI increasing (16.1%) significantly ($p < 0.05$). The proportion of respondents with an increased frequency of meals increased from 41.8 to 47.8% in the IG compared to a reduction from 52.1% to 45.1% in the CG with corresponding NEI increasing (13.0%) significantly ($p < 0.05$).

Conclusion

Regular reminders on lifestyle and dietary behaviors using mobile phone communication improved adherence to dietary practices such as meal planning and frequency of meals in the management of T2DM.