The effect of short message system (SMS) reminder on adherence to a healthy diet, medication, and cessation of smoking among adult patients with cardiovascular diseases

Abstract: Background: Cardiovascular Disease is the leading cause of death worldwide. Non-adherence to a recommended regimen among patients with Cardiovascular Diseases represents a significant problem which could lead to an increase in Cardiovascular Diseases. Purpose: This study aimed to assess the effects of Short Message System (SMS) reminders on adherence to a healthy diet, medication, and cessation of smoking among adult patients with Cardiovascular Diseases. Methods: Randomized controlled trial design with three groups was used for this study. A non-probability convenient sample of 160 patients was recruited in this study. The participants were assigned randomly to an experimental group (received SMS regarding adherence to a healthy diet, medication, and smoking cessation), placebo group (received general messages) and control group (routine care). Morisky 8-Item Medication Adherence Scale (MMAS), Mediterranean Diet Adherence Screener (MEDAS), and Readiness to Quit Ladder were used to assess patients’ adherence to medication, adherence to Mediterranean diet, and smoking cessation, respectively. The outcomes were assessed at the beginning of the study and three months later, following completion of the intervention. Result: One way ANOVA was used to assess the study hypothesis. Significant differences between study groups found in terms of adherence to medication \((p = .001)\) and adherence to a healthy diet \((p = .000)\); however, no significant difference was found between groups, in terms of intention to quit smoking, and/or the number of cigarettes smoked \((p = .327), (p = .34)\), respectively. Conclusion: It is documented that SMS is effective in improving adherence to a healthy diet and medication. SMS could be a promising solution for management of different chronic diseases. Implication of the study: It is recommended to apply Short Message System (SMS) via cellphone services to improve patient’s adherence to a healthy diet and medication. However, further research is needed to support