

ORIGINAL RESEARCH

Use Of Cell Phone Technology in the Management of Type 2 Diabetes at Kikuyu Hospital, Kenya

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Abstract

Background: Diabetes is a chronic illness characterised by hyperglycaemia due to the inability of the pancreas to produce insulin to regulate blood sugar or insufficient insulin production. Diabetes has been termed the largest global emergency of the 21st century with a continuous increase in prevalence rate. **Objectives:** This study sought to assess the use of Cell phone technology in management of type 2 diabetes at Kikuyu Hospital. **Methods:** A cross-sectional research methodology using a structured questionnaire to collect data including demographics and socioeconomic factors was considered. Simple random sampling technique was used to identify and recruit study participants. **Results:** A total of 240 participants were recruited, and 4 (2%) incomplete questionnaires were identified thus providing a 98% response rate at the end of the study. Participants aged 60-64 years 23.7% (56) were the majority while the least number 20.2% (24) participants were 45-49 years. The mean use of cell phone technology on healthy eating and glycaemic control was 1.42 and 1.33 respectively. Although 75% (177) of the participants reported frequent use of cell phone technology 73.3% (173) never used the cell phone to communicate diabetes-related information. The frequency and pattern of use of cell phone technology had a significant relationship with management of type 2 diabetes ($\beta = 0.367$, p-value = 0.000) at the 1% significant level. The challenges faced by patients in using cell phone technology had a significant relationship with the management of type 2 Diabetes ($\beta = -1.806$, p-value = 0.000). **Conclusion:** This study confirms that there is a low uptake of cell phone use in the management of diabetes at Kikuyu Hospital despite the proven benefits of its use in other studies. Higher incidences of challenges with use of cell phone technology correspond to poorer management of type 2 diabetes and consequently poor health outcomes. Further research comparing different health facilities on the same subject should be explored.

Keywords: Glycaemic control, Type 2 diabetes, Cell phone technology, Diabetes management