

Abstract

Postnatal care is the provision of health services to the mother and newborn after delivery. It offers the opportunity to assess the mother for any medical, mental, emotional and social issues, and early assessment of risk factors and physical problems with the baby. Postnatal care services are offered by skilled health care workers during the postnatal visits. In Kenya mothers are expected to attend a minimum of four postnatal visits spread across the postnatal period though only a few do that. Globally, very few postnatal mothers seek postnatal services within two days. High maternal and neonatal mortality rate is observed during the first forty two days after child birth. This trend continues throughout the first year of the neonate. The main goal of the study was to determine the effect of mobile health technology in enhancing postnatal visits among postnatal mothers in Maternal Child Health and Family Planning (MCH/FP) clinics in designated health facilities in Kakamega County, Kenya. The study was designed as a cluster Randomized Controlled Trial (RCT) that involved four arms. In control arm the participants received only the routine written and verbal communication whereas in intervention arm 1, participants received routine verbal and written communication and mobile SMS, in arm 2 they received written and verbal communication and a voice call whereas in arm 3, the participants received written/verbal communication and combination of voice call plus Short Text Messages sent to remind them to visit the postnatal clinic. The reminders were packaged together with postnatal (PN) educational health messages. The research involved a study population of 320 postnatal mothers attending MCH/FP clinics. The study sites were purposively selected from four Sub Counties in Kakamega County. Study subjects were selected using a systematic sampling technique until the target was achieved. Quantitative and qualitative data was collected using interview, FGD and KII guides. Data was entered into Microsoft Access data base and analysed using SPSS version 24. At the baseline it was observed that 27% of the participants adhered to 2nd and 3rd postnatal clinic visits. After the intervention there was significant difference ($\chi^2=28$, $df=3$, $p=0.001$) between control and intervention arm. Majority of participants (82%) had no/low knowledge on postnatal care before the intervention, however there was significant difference in knowledge between control and study arms ($\chi^2=113$, $df=9$, $p=0.000$) after sending health messages. This study concluded that postnatal mothers in Kakamega County have low or no knowledge on postnatal care and only a few attend postnatal clinic within two weeks. This is likely to affect the uptake of postnatal services. Postnatal mothers had a positive attitude on use of mobile health technology in health care. There is a significant

relationship between mobile phone reminders and adherence to 2nd and 3rd postnatal visit. Kakamega County government should integrate use of mobile telephone services packaged together with postnatal educational health messages in the provision of health services.