

審査の結果の要旨

氏名 Hartwig Lisa Mari

(ハートウィッグ リサ マリ)

Introduction

Lack of financial preparedness for pregnancy can lead to adverse outcomes during childbirth. Behavioral science interventions have been shown to influence savings behavior. Financial savings interventions can be adapted for the purpose of encouraging individuals to save towards maternal healthcare costs. I assessed the effectiveness of an intervention formulated with a behavioral science approach on the use of maternal health services through increased savings for birth preparedness and maternal healthcare costs among pregnant women or their partners in Kampala and Wakiso districts in the central region of Uganda.

Methods

I conducted a randomized controlled trial between June 1 – December 1, 2022. Two hundred ninety-three (293) pregnant women and 90 men were recruited during the pregnancy period (12-35 gestational weeks) for an intervention period of 2-6 months depending on gestational weeks at enrollment. Both intervention and control group participants received access to a committed mobile money health savings account provided by a local organization that also offers savings targets, reminders for antenatal care appointments, and health tips. In addition, the intervention group received behavioral designs encouraging savings behavior through short-message service text messages from the day of enrollment until two weeks after the delivery date. The primary outcomes were (1) usage of maternal health services, measured by level of birth preparedness and skilled birth attendance and delivery at a health facility, and (2) expenditures on healthcare, assessed using the validated amount of withdrawals in participants' accounts at the end of the intervention period. Secondary outcomes included male involvement in maternal healthcare and total savings for healthcare. Mixed-effect generalized linear models based on Poisson distribution and generalized linear models based on Poisson and Gaussian distributions were used to examine the effects of the intervention.

Results

Among 180 total participants (87: intervention, 93: control) who completed the endline survey by December 2022, more participants in the intervention group completed four or more ANC visits by delivery (RR = 1.95, 95% CI 0.65 – 5.87) than those in the control group. The percentage of intervention participants who exercised a high male involvement was higher in the intervention by 10% over the control group, adjusted for baseline level (RR = 1.10, 95% CI 0.60 – 2.03). Deposits over 100,000 UGX (approximately 28.50 USD) were higher by 12% in the intervention group over the control group (RR = 1.12, CI 0.68 – 1.86).

Conclusion

There was no evidence of the behaviorally informed messaging intervention in improving ANC attendance completion, male involvement in maternal healthcare, and savings for maternal healthcare among pregnant women or their partners in Kampala District, Uganda, though there was a positive tendency. There was also no evidence of the behaviorally informed messaging intervention was not effective in improving birth preparedness and financial savings for healthcare costs. With further research and caution, the behavioral science approach could be a potential option to promote other behavioral changes that incorporate mobile money savings accounts towards healthcare in SSA.

Contributions to society

To apply the intervention to a real-world setting, caution must be applied due to the inconclusive findings partly from the small sample size. The intervention used messages in this study for depositing savings in a safe location—in this case mobile money committed health savings accounts—during pregnancy to use for birth preparedness and childbirth. As development programs consider how to increase digital innovation and opportunities for health, this study could potentially provide the Government of Uganda, private companies such as telecommunication service providers, and civil society organizations useful information for what type of behaviorally informed messaging intervention would not be effective on saving and storing money for utilizing maternal health services. However, due to the positive tendency in attending ANC four or more times, involving men in maternal healthcare, and saving at least 100,000 UGX in a committed health savings account prior to childbirth, development programs could consider applying the findings from this study with caution and further research.

よって本論文は博士（保健学）の学位請求論文として合格と認められる。