

## Unintended consequences: understanding intimate partner violence within a mobile health intervention

### IN BRIEF

We set up a trial in Bangladesh to see if mobile phone messages could increase post-abortion contraceptive use. The results revealed something else entirely. Although the main aim wasn't achieved – there was no increased uptake in long acting reversible contraception – a higher proportion of women who got the messages reported intimate partner violence than those who didn't.

We believe this is the first trial to adequately measure and demonstrate a link between a mobile health (mHealth) intervention and intimate partner violence. So now we need to know why and consider the implications for our programming.

### THE CHALLENGE

#### Finding more effective ways to inform clients

In Bangladesh, 85% of married women who are using contraception are using short acting methods. Just 4% use more reliable long acting reversible contraceptive (LARC) methods. In 2014, almost half (48%) of pregnancies in Bangladesh were estimated to be unintended and 28% were terminated.

Abortion is restricted in Bangladesh but menstrual regulation (MR) offers an alternative. Women using MR often want to delay their next pregnancy so they are a key group to reach with family planning services.

Mobile phones are a cheap and quick way to deliver targeted information and are widely used by reproductive health programmers, so we aimed to test the impact of interactive mobile phone voice messages about contraception – to see if they could increase LARC uptake. We were aware that intimate partner violence can be associated with family planning so we also monitored this.

### WHAT WE DID

#### An interactive automated mHealth trial

We recruited 972 women for the trial across 41 clinics and randomized them to create control and intervention groups. To take part, women had to be 18 to 49 years of age, had had an MR, had a personal mobile phone and agreed to receive messages about contraception. To reduce the risk of harm, women who were interested in participating were shown an example message and asked what would happen if their husband or someone else heard it. If a possible problem was raised, they were advised not to participate.



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Those in the intervention group were sent 11 automated voice messages over a four-month period after their MR, including four that were tailored to the method of contraception they were using.

The interactive messages aimed to support contraceptive use by addressing common information gaps and misconceptions. They also allowed participants to connect to a call center counselor if they needed further information. For privacy reasons the messages did not mention MR. Women could stop the messages at any time by using their keypad during a call or by contacting the call center or study team. Women in the control group weren't sent any messages.

We interviewed women in person at the start, and then by phone after two weeks and four months. In the four-month interview we asked about specific acts of violence as well as any positive or negative effects of the project. We also conducted in-depth, face-to-face interviews with 30 trial participants to explore the findings in more detail.

**Measuring harm**

In the last four months since the MR when you joined this study:

- 1** Has your husband/partner hit, kicked, slapped, or otherwise physically hurt you?
- 2** Has your husband/partner physically forced you to have sexual intercourse with him even when you did not want to?
- 3** Have your in-laws hit, kicked, slapped, or otherwise physically hurt you?
- 4** Did anything happen to you as a result of being in this study, good or bad?

**WHAT WE FOUND**

**An unexpected negative consequence**

The phone messages had had no effect on LARC use. This contrasted with results from a similar intervention in Cambodia that increased LARC use. In Cambodia, the intervention focus was to link women to the call center. Also, counselors were able to book appointments. These may be reasons for the differing results.

But in our study, women in the group who got the messages were more likely to report physical intimate partner violence (IPV) than those in the control group during the four-month intervention period. Importantly, this was only apparent when we asked women specifically about acts of violence and not when we asked a general question about intervention effects.

Adverse outcomes at 4-months	Intervention group	Control group	Overall risk*
Q1: Physical intimate partner violence	11%	7%	1.97 (1.12-3.46)
Q2: Sexual intimate partner violence	12%	10%	No significant difference
Q3: Physical violence from in-laws	2%	1%	No significant difference
<b>Anything happened to them as a result of being in the study</b>			
Nothing	92%	96%	
Something Good	7%	3%	2.25 (1.14-4.44)
Something Bad (all responses were physical problems from the MR or contraception)	<1%	<1%	No significant difference

\*Odds of experiencing this outcome if in intervention group (with 95% confidence interval) – adjusted for age, socioeconomic status and in questions 1-3, experience of violence before joining the study

Delving into the in-depth interview results, we found that phone sharing in families is common, so the potential for messages being overheard was high. Some women said that their mobile phone use is monitored and controlled by their husbands. And long calls or calls from unknown numbers can raise the suspicion of infidelity.

None of the 30 women interviewed in-depth said that they had any problem as a result of the mHealth project and the majority confirmed that their partners had been informed about it. However it's possible that women who had had a problem may not have agreed to being interviewed in person.



**WHAT THIS MEANS**

**Minimizing risk in programming and research**

Overall, the trial highlights the importance of carefully considering how to minimize risk when delivering messages on sensitive topics:

- avoid content revealing someone's contraceptive use or any other sensitive behaviors
- non-automated calls made from a provider may be safer as they can conceal the purpose of the call until they've verified who they are speaking to
- scripts ensuring confidentiality for out-bound calling are recommended
- apps that can be password protected may offer more options for privacy
- programs need to develop specific measures to monitor potential adverse effects

With growing interest and investment in interventions using mobile phones it's vital that the social impacts are carefully considered during the development phase.

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