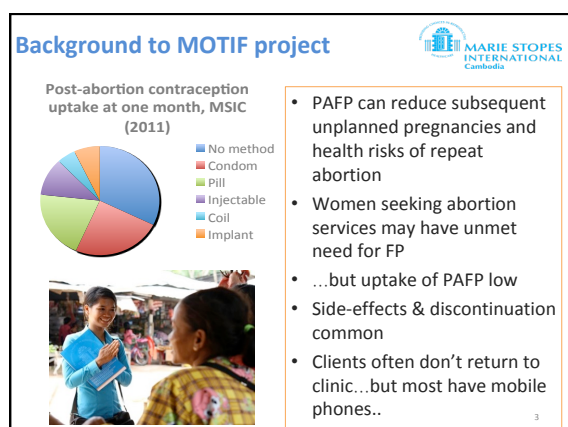
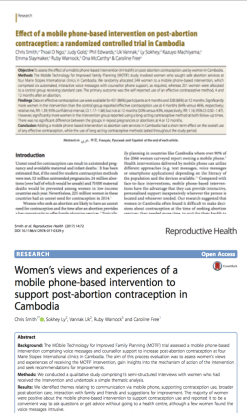


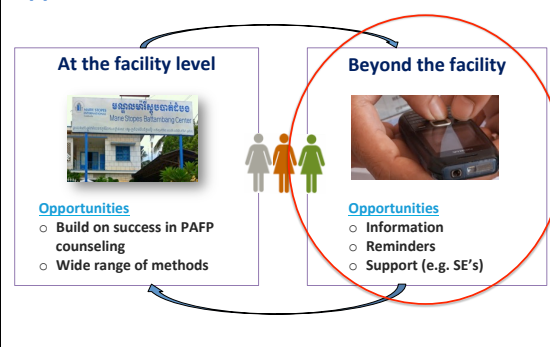


MOTIF project

1. Develop an intervention delivered by mobile phone to support PAFP in Cambodia
2. Evaluate the intervention with a RCT
3. Conduct a process evaluation

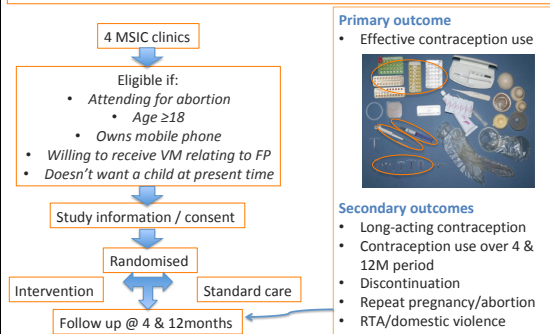


Hypothesis: additional mobile phone support can increase PAFP

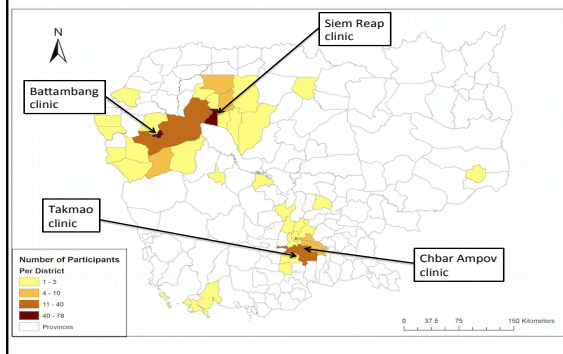


Evaluation with randomized controlled trial

Study design: 500 participants (80% power to detect 13% difference in contraceptive use at 5% significance ($p < 0.05$))



Location of trial participants



Results

	4 MONTHS				12 MONTHS			
	Intervention n(%)	Control n(%)	RR (95% CI)	p value	Intervention n(%)	Control n(%)	RR (95% CI)	p value
Primary outcome								
Self-reported use of effective PAFP	135 (64%)	101 (46%)	1.39 (1.17-1.66)	<0.001	84 (50%)	68 (43%)	1.16 (0.92-1.47)	0.208
Secondary outcomes								
Long-acting contraception use	61 (29%)	19 (9%)	3.35 (2.07-5.40)	<0.001	42 (25%)	19 (12%)	2.08 (1.27-3.42)	0.003
Pregnancy	6 (3%)	5 (2%)	1.25 (0.39-4.06)	0.701	22 (13%)	28 (18%)	0.74 (0.44-1.24)	0.248
Repeat abortion	2 (1%)	1 (0.5%)	2.10 (0.19-22.9)	0.535	8 (5%)	11 (7%)	0.68 (0.28-1.66)	0.397
Unintended outcomes	No domestic abuse or RTA reported							

Women's views and experiences of receiving the intervention

Aims of qualitative evaluation

- Assess women's views and experiences of receiving the intervention
- Gain insights into the mechanism of action
- Seek recommendations for improvement

Methods

- 15 semi-structured interviews with women who received the intervention and simple thematic analysis

5 main themes

- Communication by mobile phone
- Supporting contraception use
- Broader PAC
- Interaction with family and friends
- Suggestions for improvement

Communication by mobile phone

Themes

- Phone communication **convenient** way to obtain support, saving time and costs of clinic attendance
- Most women liked being able to respond to the voice message to request to speak to a counsellor (or not)
- A few women found the messages **intrusive**

- "I think that pressing number 1 or number 2 is better because when I face problem, I just press number 1 or number 2... That's why it is quite important for me" (student, married, aged 25)
- "Counselling via phone call gives advantage...because we don't have to come to PET [health worker], spend money to clinic directly, and we discuss with her and if we don't discuss with her and we have to come to PET, we spend money first for travel fee and second for PET fee" (self-employed, married, aged 34)
- "The message just tell me to click one or two for answer... at that time I still work but if I'm busy, it's ok but sometimes when I'm very busy and like stress and sometimes it's annoying" (aged 31, married, housewife)

Supporting contraception use

Themes

- Intervention (particularly phone counselling) supported contraception **uptake** and **continuation** by provision of **information, encouragement, reminders** to return to clinic, **reassurance** and **advice** for problems

- "After I got information from counsellors I then went to clinic to insert IUD...I learnt how to insert IUD and taking pills. Inserting of IUD is much more easier. Talking pill has to be on time and take it daily but for IUD we do not have to do like this. We can have sex whenever! Counselling service made me feel confident because I thought that medical science is better than our thought. Some people said that IUD can move around, but when I came to ask counsellor, she said that IUD did not have legs to move around.... I also told people I know to insert IUD as well" (aged 25, factory worker, married)
- "I was confident because she said that when we took the pill, we had to take regularly. If we didn't take the pill regularly, it was possible to be pregnant... so I changed my habit according to her" (Aged 22, housewife, married)

Broader post-abortion care

- | | |
|---------------|--|
| Themes | <ul style="list-style-type: none"> Women reported a sense of being cared for Support for additional physical (e.g. abdominal pain, vaginal bleeding) and emotional issues |
|---------------|--|
- "For that voice message that I received, I think that it's good. It's good and like makes me feel warm like there's someone take care about us" (aged 34, married, factory worker)
 - "Struggle in my life, because sometimes I want to commit suicide, but counsellor not allow me to do this, they encourage me to be strong" (25, entertainment worker, single)
 - "After I used medicine I asked her my problem 'why around my abdominal still painful? Why I cannot do something? Even just walking, I cannot walk'. Counsellor said that bleeding it just side effect of medicine, but if you has much bleeding you need to go back to clinic. I followed up myself and I found that there was just small bleeding, so I decided not coming to clinic" (student, aged 25)

Interaction with family and friends

- | | |
|---------------|--|
| Themes | <ul style="list-style-type: none"> Counselling allowed women to discuss issues with the counsellor in confidence In some cases intervention content was shared with others, either deliberately or unintentionally (there were no reported instances of harm as a consequence) |
|---------------|--|
- "The reason why I believe her because she encouraged me that she wouldn't tell other about my secret and what she talked with me she kept in secret...I believe that they can help a lot of other women, sister, because woman is shy, and sometimes she can't talk to other... it just sometimes we felt embarrassed. There're some matters that we don't want other to know" (aged 22, student)
 - "No one listens to my voice messages because my phone stays with me all the time. Even my husband, he also does not hack and listen alone. When new message coming, my husband told me" (student, aged 25)
 - "I never let anyone listen to it but I brought my younger sister who wanted to use IUD like me. I always told her that I felt well" (aged 30, self-employed, married)

Suggestions for improvement

- | | |
|---------------|---|
| Themes | <ul style="list-style-type: none"> Most women thought the duration of the intervention and frequency of messages were acceptable A few women wanted the intervention to continue A few expressed preference for direct phone call or text Most thought it should be offered to women in the future and reported they would be happy to pay a small fee |
|---------------|---|
- "I do not have any request because it is good enough already. I rarely to see services like this in others organization" (student, aged 25)
 - "Text message. Sometimes when I go bathroom when comeback, I can see message rather than missed call." (25, entertainment worker, single)
 - "There was a message said that this message was the last message. To me, when the message said that it was the last message, I felt regret and I didn't want" (aged 30, married)
 - "We go to small pharmacies, we have to spend the money too; therefore, I don't mind about paying this amount. This is for our health too" (aged 30, married)

Summary of main findings

Study provides some insights into how intervention might have worked and how it could be improved

- Communication by mobile phone**
 - Mostly positive.. convenient way to obtain support
 - Intrusive for some
- Supporting contraception use**
 - Information, reminders, support
- Broader PAC**
 - Physical, emotional
- Interaction with family and friends**
 - Intervention content sometimes shared
- Suggestions for improvement**
 - Duration, mode of communication etc.

Implications for practice

Intervention as delivered in the trial

- Support contraception use in the short term
- ...and support PAC more broadly
- Possible unintended consequences
- Caution sending messages to phones sensitive topics
- Importance of counselling prior to enrollment

Adapting the intervention

- Duration, language and mode of communication could be adapted
- Simple phone call could be better
- Intervention could be adapted for smartphones
- Content could be password protected
- Consider messages to support PAC more broadly

Acknowledgements

LSHTM Caroline Free, Phil Edwards, John Cairnes, Ona McCarthy, Isolde Birdthistle, John Cleland, Susannah Mayhew, Tim Clayton, Richard Hayes, Tim Collier, Clara Calvert, Kazuyo Machiyama, Emma Slaymaker

MSI Thoai Ngo, Judy Gold, Uk Vannak, Ly Sokhey, Ruby Warnock, Michelle Phillips, Antoinette Pirie, Stefanie Wallach, Sras Thorn, Sieklot Chinn, Mao Thyda, Melissa Cockcroft, Ali Fleming, Naomi Bryne-Soper, Thou Chum, Sarah Cooper, Nicky Jurgens, Seaklong Keam

InSTEDD Channe Suy, Tharum Bun

Other organisation Javier Sola, Jerker Liljestrand, Deborah Constant, Chris Vickery, Andrew Shantz, Anna Glasier, Azeem Majeed, Tung Rathavy, Richard Lester



EMAIL: christopher.smith@lshtm.ac.uk