Increasing uptake of iron and folic acid pills among pregnant and lactating women in India: A field study

India

Partner
Ashoka University - Centre for Social and Behaviour Change (CSBC)

Sector
Health

Project Type
Field experiment

Sample Size
1,200 people

Behavioral Themes
Recall, Adherence, Perceptions and Attitudes

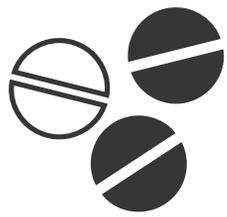
Summary

This project is a field validation of two lab-tested interventions, a calendar reminder and a counselling card with side effects information, aimed at improving adherence of iron and folic acid pills among pregnant women in India. Following the success of these two interventions in a lab study, Busara designed an Randomized Controlled Test (RCT) and implemented them across 1200 women to measure their effectiveness in a field setting. Successful interventions will be considered for national scale up.

Busara designed a field experiment that measured the effectiveness of two interventions (a calendar and a side effects counselling card) to improve adherence of iron and folic acid (IFA) pills among pregnant women. We targeted 1200 pregnant women across two districts in Madhya Pradesh, India namely: Vidisha and Hoshangabad. Participants were invited by their local Anganwadi (local child care center) worker to the Anganwadi centers where they are usually offered regular counselling for their pregnancy. For this study, participants were randomized into 4 possible treatment conditions: 1) a control group that only received regular counselling, 2) a calendar treatment group that received a take-home calendar, 3) a counselling card treatment group that was walked through the counselling card by the Anganwadi worker and 4) a calendar and counselling card treatment group that received both interventions. The results suggest that participants who received any intervention recorded higher self-reported adherence compared to the control group.

Busara

A Behavioral Science Approach



From the fourth month of pregnancy until a child is 6 months old, pregnant and lactating women in India are recommended to take iron and folic acid (IFA) pills everyday day to help increase their energy levels, support baby development and to help ensure a smooth delivery. Although women in rural areas are aware of IFA supplements, persistent gaps in information retention, value perceptions and adherence need to be addressed to increase uptake and usage. Even in regions with constant supply of IFA pills and maternal care counselling from ASHAs and Anganwadi workers, literature suggests that pregnant and lactating women still do not adhere to the medication schedule.

Therefore, in addition to the structural motivators to uptake already in place, we sought to develop interventions that addressed specific behavioral barriers to adherence. Following in-depth qualitative research with pregnant women and health workers, we collaborated with the Centre for Social and Behaviour Change (CSBC) at Ashoka University, to identify the key behavioral barriers - adherence, recall, and perception of side effects - to uptake and adherence of IFA pills from which we designed and tested interventions to address them.

Design

To address recall, adherence and perception of side effects, we designed the following two interventions:

1

A tracking calendar

This calendar was designed to help with recall and habit formation. Aside from regular counselling participants were presented with a take home calendar that they could peel off everyday after taking their IFA pill. This would allow women to track how often they remembered to take their pills over time. In addition, underneath each peel-off sticker was an image of a happy baby to reinforce the benefits of the pill to the baby.

2

A counselling card

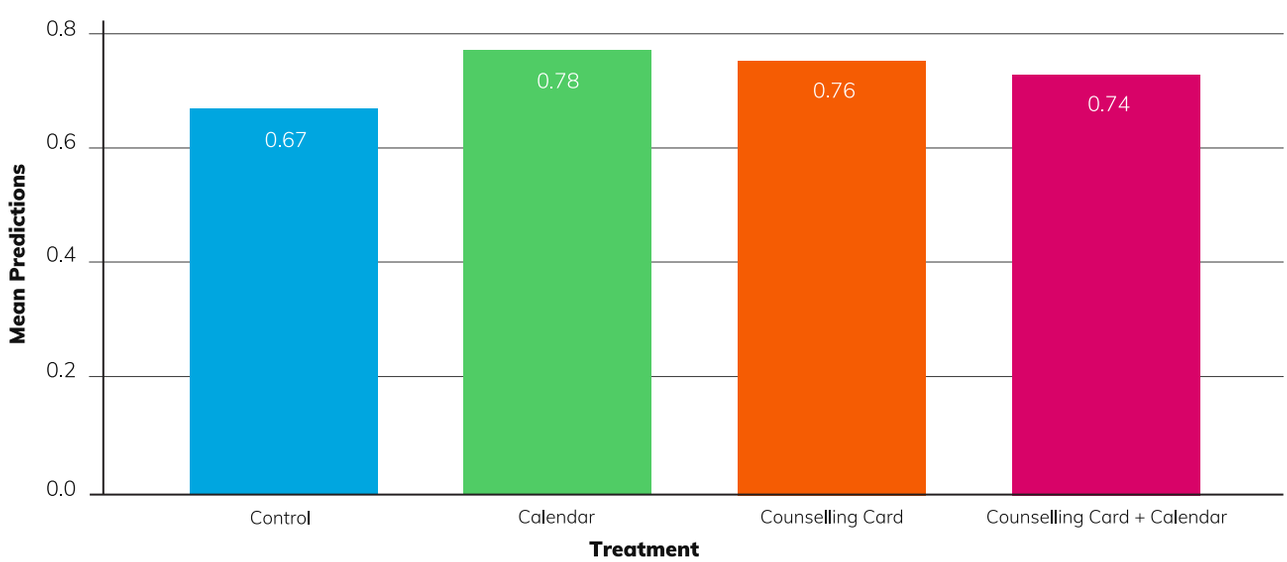
This visual card was designed to help with recall and perception of side effects. We trained Anganwadi workers to show the visual card along with a standard script that included information on the potential side effects of the pill and how to cope with them. The hope was that the information would reduce the rate of non-adherence due to experienced side effects.

For this study, we recruited 1200 pregnant women and randomized them evenly across 4 treatment conditions: 1) a control group, 2) a calendar only group, 3) a counselling card only group and 4) a group that received both interventions. The fourth treatment condition was designed to demonstrate the combined effectiveness of both interventions.

Results

Overall Intervention Effectiveness
When compared to the control group, participants who received one or both of the two interventions recorded significantly higher self-reported adherence.

Are you currently taking IFA pills? Variable Response: YES (across treatments)

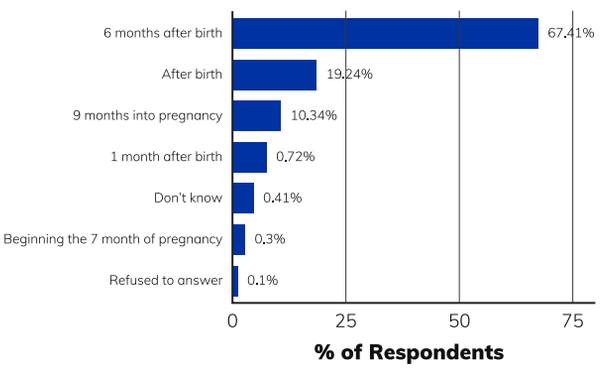


Calendar Intervention

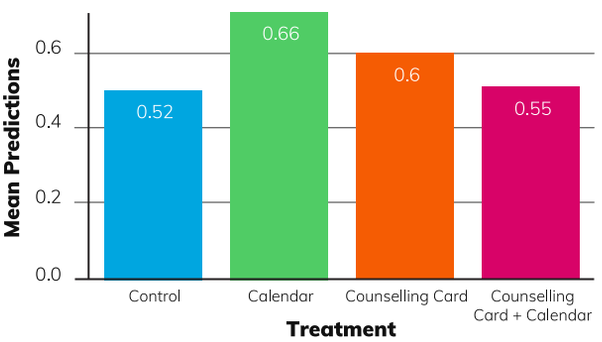
The calendar was most effective at helping women remember when to stop taking IFA pills.

Of the total sample, 57% of pregnant women correctly recalled when to stop taking IFA pills. Across the treatment groups, 66% of women who received the Calendar only treatment remembered that IFA pill intake should stop 6 months after giving birth. This is in comparison to 51% of women in the control group.

When should pregnant women STOP taking IFA pills?



When should pregnant women STOP taking IFA pills?
(Correct response: 6 months after birth)

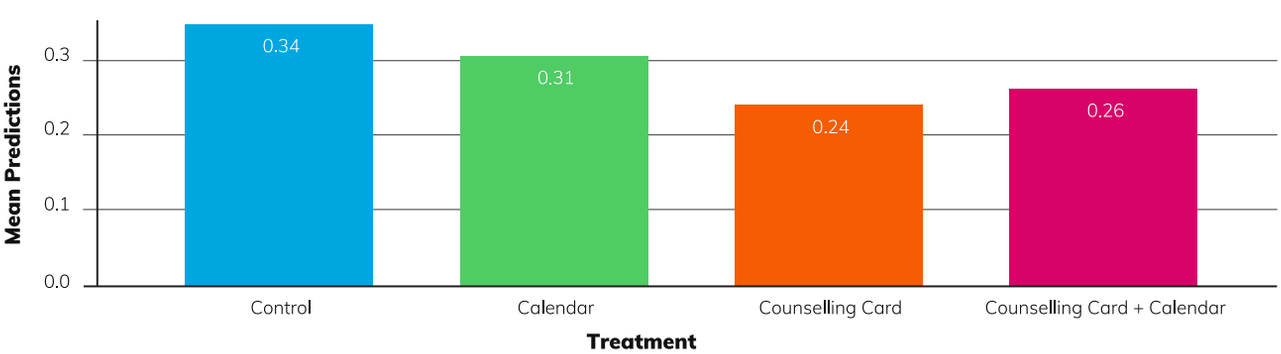


Counselling Card Intervention

The counselling card reduced women's likelihood to stop adhering due to side effects. When given reasons for why women might stop taking IFA pills, pregnant women who interacted with the counselling card were significantly less likely to stop as a result of experiencing side effects (10% less likely than the control group).

Notably there was no recorded negative effect of sharing side effects information with the participants in the study demonstrated by the consistent reporting of experienced side effects across all treatment conditions.

Reason for not taking pill: Side effects (Response: Yes)



Discussion and Exploration

There were a number of findings and recommendations that came out of the research study, however the key findings from the study are outlined below:

Both interventions demonstrated effectiveness in improving adherence among participants who engaged with them and where possible should be considered for iteration and eventual scale up. However, more interestingly, rolling both the counselling card and the calendar together may result in information overload with each intervention succeeding better when presented individually. When considering scale up it might be better to roll out the interventions one at a time as opposed to all at once.

Part of the information included in the counselling card was that the length of time women were likely to experience side effects was 3-7 days. However, women who claimed to have experienced side effects reported that their symptoms lasted 7-10 days which is longer than what was stipulated on the counselling card. Future iteration of the counselling card should take this into consideration.

Finally, there was a potential risk of sharing side effects information with women in case it led to overreporting of experienced side effects. Fortunately, our research revealed that this risk was low. Therefore, this information can be considered for scale up to demonstrate to women how to cope with side effects and thus encourage them to adhere to their IFA pills.