HEALTH COMMUNICATION CAPACITY COLLABORATIVE

Evaluation of the Effects of the Smart Client Digital Health Tool

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FROM THE AMERICAN PEOPLE

Contact:

Health Communication Capacity Collaborative
Johns Hopkins Center for Communication Programs
111 Market Place, Suite 310
Baltimore, MD 21202 USA
Telephone: +1-410-659-6300
Fax: +1-410-659-6266
www.healthcommcapacity.org

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Cover photo: Recruitment of Smart Client participant in Kaduna, Nigeria. © 2017, Stella Babalola, all rights reserved.

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ACRONYMS

CCP	Johns Hopkins Center for Communication Programs
DID	Difference-in-differences
FP	Family Planning
HC3	Health Communication Capacity Collaborative
IVR	Interactive Voice Response
LGA	Local Government Area
MAMA	Mobile Alliance for Maternal Action
MARS	Market Audits and Research Services
M4RH	Mobile for Reproductive Health
SBCC	Social and Behavior Change Communication
SIM	Subscriber Identity Module
SMS	Short Message Service
USAID	United States Agency for International Development

INTRODUCTION

Women and men interested in planning their families often go through a process of deliberation and decision-making as they choose whether to adopt family planning (FP), what method to use, where to obtain it and whether to continue using it. During this process, a woman or man may consider her or his own fertility desires, seek out information on family planning, talk with her or his partner and discuss experiences with family and friends. At some point in this process, the client is likely to visit with a provider – which is one short, but important, point in time in this decision process.

Communication is a core skill running throughout this process – communicating with one's partner, communicating with family and friends and communicating with a health care provider. However, women and men are often not equipped with the skills they need to communicate effectively about personal and sensitive subjects – such as sex, fertility desires and using FP methods – that may go against cultural taboos. Many demand generation programs, programs that increase awareness of and demand for health products or services among an intended audience, address the information needs of clients prior to visiting a provider and encourage them to seek out FP counseling. But those programs usually fall short in preparing the clients to be active and engaged communicators during the counseling itself. Furthermore, in many countries and settings, efforts made to improve providers' communication skills and provide client-centered counseling has led to some improvement in client engagement, but the client is dependent on the provider to lead this process. This is troublesome given that social and gender norms often do not support engaged and empowered clients, especially female clients. As a result, female clients are often passive participants in FP counseling, resulting in discussion and decision-making led by the provider.

The Health Communication Capacity Collaborative (HC3) FP team is interested in providing tools for implementing partners to use to increase the number of FP clients who are informed, empowered and confident – in other words "smart clients" – who are able to engage with providers and talk about their FP needs. Given the global proliferation of mobile technologies and the success of their use for increasing women's knowledge about their health (i.e., Mobile Alliance for Maternal Action (MAMA) in Bangladesh and South Africa, MOTECH in Ghana and Mobile for Reproductive Health (M4RH) in Kenya and Tanzania), this project leverages this technology to develop a digital health tool to prepare women to become smart clients and encourage them to talk with their provider and partner about contraceptive methods.

This report presents findings from a cluster-randomized control trial designed to assess the effects of the smart client digital health tool among women of reproductive age in Kaduna city, Nigeria, from March to June 2017.

OBJECTIVES

The specific objectives of the study are to:

1. Explore user acceptability and comprehension of the content and key messages.
2. Explore user experiences using and interacting with the technology.
3. Assess the link between exposure to the digital health tool and contraceptive-related ideation, intentions and behaviors.

BETA LIFE TOOL

The digital health tool, named *Beta Life* in Nigeria, was designed to inform, empower and promote "smart clients" by reaching them directly through mobile phones. It consists of prerecorded interactive voice response (IVR) calls that include a variety of segments – an introduction, a serial drama, a friend-to-friend chat, a personal story and a sample dialogue. The three short quiz calls ask users a few brief questions to reinforce key messages, evaluate user understanding of content and encourage user engagement. In addition, users receive a short message service (SMS) reminder about the key message from each call. The digital health tool audio recordings and SMS were provided in Hausa for this study.

The tool is based upon Social Learning Theory, which posits that people learn from each other through observation, imitation and modeling. The "smart client" tool therefore uses fictional role models, who demonstrate the desired behaviors and behavior change process in a drama format, as well as personal stories and examples of "smart client" dialogues. This allows the intended audience to observe an action, understand its consequences and become motivated to repeat and adopt it. While drama is a common approach used in behavior change communication, it is usually delivered via television, radio or community theatre. This digital health tool is exploring how drama can be adapted to mobile phones via IVR, using shorter and simpler story lines and episodes while maintaining the fictional drama style.

The *Beta Life* digital health tool is delivered via mobile phone and includes 17 prerecorded IVR calls. The calls include one welcome call, 13 regular program calls and three quiz calls. The call starts with an introduction by the hosts, followed by the drama segment, after which participants are expected to use the numeric keypad on their mobile phone to select the other components they desire to listen to during each call and to answer call-related quizzes. The content of the calls is described in Table 1.

Table 1: Description of IVR calls for the *Beta Life* Smart Client Program
Call 1: **Welcome call**. The participants are called by the *Beta Life* program and listen to an introduction about the tool, which explains how it works and what to expect from the content. They will answer three questions regarding age, frequency and time of day to receive calls using their numeric keypad. The pre-study call questions are asked at the end of this call.
Calls 2, 3, 4, 5, 6, 7: **Regular Calls.** These are part of the "13 regular calls." Participants are called by the *Beta Life* program, listen to the hosts and drama segment, listen to sample dialogue and/or personal story, listen to the host at the end of the call and answer one or two question(s) using their numeric keypad.
Call 8: **Short quiz call.** Participants are called by the *Beta Life* program, listen to the host ask four questions and answer these questions using their numeric keypad.
Calls 9, 10, 11: **Regular Calls.** These are part of the "13 regular calls." Participants are called by the *Beta Life* program, listen to the hosts and drama segment, listen to sample dialogue and/or personal story, listen to the host at the end of the call and answer one or two question(s) using their numeric keypad.
Call 12: **Short quiz call.** Participants are called by the *Beta Life* program, listen to the host ask up to five questions and answer using their numeric keypad.
Calls 13, 14, 15, 16: **Regular Calls.** These are part of the "13 regular calls." Participants are called by the *Beta Life* program, listen to the hosts and drama segment, listen to sample dialogue and/or personal story, listen to the host at the end of the call and answer one or two question(s) using their numeric keypad.
Call 17: **Short quiz call.** Participants are called by the *Beta Life* program, listen to the host ask six questions and answer using their numeric keypad. The post-study call questions are asked at the end of this call.

Call format. Each call includes five types of segments in which callers are able to choose how many segments they would like to hear:

1. **Brief welcome and introduction** to the story by friendly host characters, a female and male.
2. **Short drama**, which follows a cast of characters over each episode. The characters include a couple, Laila and Musa, along with their family and friends, who all face different situations and decisions related to using FP methods.
3. **"Friend-to-friend" chats,** in which the host "friends" deliver follow-up messages and tips related to the core message and the drama, and ask the user a quiz question. Some messages in this segment are tailored for male and female users, based on their user preferences set on enrollment, or tailored to the user response to the question.
4. **Personal story**. This is an optional segment, requiring users to "press 1" to hear the content. Personal stories, told by females and males, express diverse experiences with FP that correspond to the key message of the episode.

5. **Sample Dialogue** is also an optional segment, requiring users to "press 2" to hear the content. Sample dialogues feature a friendly provider and a client or a couple, modeling what to expect during a visit to an FP clinic and how to discuss needs, preferences and concerns.

METHODOLOGY

STUDY DESIGN

A quasi-experimental, pre-post design with intervention and control groups was used for this study. Women aged 18 to 35 years in Kaduna city were the intended audience in this study (see "Inclusion Criteria" in Participants section). Trained field agents went door to door in selected local government areas (LGAs) in Kaduna (Table 2) to recruit never-users or lapsed users of modern contraceptive methods into either the intervention or control groups.

Consenting participants in the intervention group were registered to receive the *Beta Life* calls, enabling them to use the digital health tool on their mobile phones and respond to questions using their numeric keypad. Participants were instructed not to pick up the call if the timing was not convenient. For each call, the system was automated to call participants back up to six times within a window of time as chosen by each participant (e.g., morning, afternoon or evening). Participants who did not pick up the call or who terminated it within seconds of picking it up had the option of "flashing" the *Beta Life* phone number to receive a free call back with the previous call. In addition to the full *Beta Life* series, participants in the intervention group also received the pre-intervention and post-intervention surveys on their mobile phones. The post-intervention survey directly followed Call 17, between three weeks and eleven weeks after they started the intervention, depending on the frequency of the calls.

The control arm did not receive the *Beta Life* intervention but received two calls on their mobile phone: one at the beginning of the study for the pre-intervention survey and one six weeks later for the post-intervention survey.

Data from the platform-facilitated pre-intervention and post-intervention survey calls, as well as user analytics collected by the IVR platform, were combined with pre-study and post-study data to conduct the analyses presented in this report.

SAMPLE SIZE AND PROCEDURES

The HC3 research team calculated the required sample size based on the proportion of women who had discussed contraceptive use with their spouse in the past 12 months. As the team did not have this indicator for the study population, they assumed it to be 50 percent because this level provided the maximum variability. The team also assumed that this indicator would increase by 15 percentage points among the women in the intervention group. Based on these assumptions, the required sample size was 240 women for each arm. Assuming a loss to follow-up rate of 20 percent, the team set out to recruit 300 women into each arm. This number would provide 90 percent power to detect a difference of 15 percentage points between the intervention and the control groups in the proportion of women who had discussed FP with their husband or partner.

To recruit women into the study, six wards from each LGA – Kaduna North and Kaduna South – were randomly selected. The study wards are all part of the Kaduna metropolis and have comparable access to family planning services. Three wards from each LGA were assigned to the intervention group and three to the control group (Table 2).

Table 2: Wards for Intervention and Control

Kaduna North			Kaduna South		
	Name of Ward	**Ward Category**		**Name of Ward**	**Word Category**
1	Angan Shanu	Intervention	1	Barnawa	Intervention
2	Hayin Banki	Intervention	2	Sabon Gari South	Intervention
3	Ungwan Sarki	Intervention	3	Television	Intervention
4	Sardauna Crescent	Control	4	Badiko	Control
5	Shaba	Control	5	Kakuri	Control
6	Ungwan Rimi	Control	6	Kurmin Gwari	Control

Trained female field agents, fluent in Hausa, went door to door in sample wards to identify eligible women, explain the purpose and method of the study and recruit participants into the study.

SETTING

The study took place in North and South Kaduna LGAs of Kaduna State, Nigeria. The two LGAs are urban and make up the Kaduna metropolis. Residents include a mixture of Muslims and Christians, although the residents of Kaduna North are predominantly Muslim while Kaduna South is predominantly Christian. Kaduna metropolis includes an estimated 1.3 million inhabitants in 2017 and is a melting pot for various Nigerian ethnic groups. While the predominant ethnic group in the city is Hausa, the metropolis also includes a large proportion of Yoruba, Igbo, Fulani, Gbaju and other Nigerian ethnic groups.

Data from a 2015 survey revealed that the majority (78.6 percent) of the women in the city had post-primary education while one-fifth had tertiary education (secondary analysis performed by the author of survey data reported in Measurement Learning and Evaluation, 2016). In the same survey, 21 percent of women of reproductive age reported using a modern contraceptive method while 6.5 percent reported using a traditional method.

PARTICIPANTS

The participants in this study were women between the ages of 18 and 35 years, married or unmarried, and never-users or lapsed users of modern contraceptive methods.

A. **Inclusion Criteria:**

Participants were eligible for inclusion if they:

- Were female and aged between 18 and 35 years;
- Were using a traditional contraceptive method (e.g., amulets, concoction, grigri) or barrier method (male or female condom); were former users of modern non-barrier contraceptive methods (e.g., pill, IUD, implant, emergency contraceptives, tubal ligation, vasectomy, lactational amenorrhea method); or were not currently using any contraceptive method;
- Owned a mobile phone or had access to one;
- Were resident in Kaduna city; and
- Were fluent in Hausa.

B. **Exclusion Criteria:**

Participants were excluded if they:

- Were current users of non-barrier short-term or long-term modern contraceptive methods; or
- Were unable to respond intelligibly to study questions.

ANALYTIC METHODS

Results from several analytic methods are presented in this report. Data from the automated IVR interviews (e.g., pre-intervention and post-intervention) and user analytics (e.g., number of calls received, number of episodes and segments completed) are combined with the demographic information collected at the time of recruitment and analyzed using summary statistics to compare ideational and behavioral outcomes among participants in the intervention and control groups. To assess the short-term effects of the digital health tool, the difference-in-differences (DID) analytic method was employed. Note that each relevant outcome is measured in both the intervention and the control groups at two points in time: at the beginning and at the end of the study. DID evaluates the significance of the difference in gains over time between the intervention and control groups. More formally, the DID model is as follows:

$$\delta = (Y_{1p} - Y_{1c}) - (Y_{0p} - Y_{0c})$$

Where:

δ is the difference-in-difference estimator; Y_{1p} is the relevant outcome at the end of the study for the intervention group; Y_{0p} is the relevant outcome at the beginning of the study for the intervention group; Y_{1c} is the relevant outcome at the end of the study for the control group; and Y_{0c} is the relevant outcome at the beginning of the study for the control group.

To strengthen HC3's claim about the causal effect of the tool on assessed outcomes, the research team used regression methods and controlled for relevant sociodemographic variables in its estimation of DID. Specifically, the estimation models controlled for the following variables: religion, current age,

parity, education, marital status and number of days elapsed between the pre-study interview and the end-of-study interview.

The research team primarily conducted "per protocol" DID. In per protocol DID, only participants who met eligibility criteria were recruited into the study and who completed the post-study assessment were included in the analysis. The team chose to do per protocol analysis because of the high level of attrition and because of the heterogeneity between the women who participated in the post-study survey and their peers who were lost to follow-up. Nonetheless, in conformity with Consolidated Standards of Reporting Trials (CONSORT) recommendations, the team also performed intention-to-treat analysis with all the women recruited into the study and who participated in the baseline survey (Moher, et al., 2010). In intention-to-treat analysis, eligible and recruited participants are included in the analysis, irrespective of whether they completed the post-study or not. The research team did not have outcomes measured for women who did not participate in the baseline. For the intention-to-treat analyses, at post-study, the researchers attributed baseline responses to the women lost to follow-up because this was the most recent and only outcome information that they had for them. The significance of the intention-to-treat analysis should strengthen HC3's claim about the efficacy of the intervention.

Furthermore, for the intervention group, user analytics were analyzed to track usage patterns (e.g., number of calls, average length of time listened to segments, navigation patterns, number of questions answered in quizzes, number of episodes heard, etc.).

ETHICAL CONSIDERATIONS

This study was approved by the Johns Hopkins Bloomberg School of Public Health Institutional Review Board and by the National Health Research Ethics Committee of Nigeria. Every individual gave informed consent prior to their participation in any study-related activity. Every participant was made to understand that participation was entirely voluntary and that they could choose not to participate at any time.

At the completion of the study and consistent with what was stated in the consent script, all intervention participants who listened to any part of the final call and control participants who listened to any part of the post-intervention survey received an incentive of a nominal amount of airtime credit equivalent to $1.50 for their participation in the study.

CHALLENGES ENCOUNTERED

One major challenge encountered over the course of the study was the high attrition rate. A large number of women were recruited, but many of these recruits did not engage at all with the platform, and a significant number of participants dropped out during the course of the study. Fieldworkers recruited a total of 794 women (401 in the intervention group and 393 in the control) into the study. This number included 641 originally recruited and 153 replacements. Of this number, only 559 (221 in intervention and 338 in control groups) took the Welcome Call and initiated the pre-study survey. The rate of non-initiation was higher among the women recruited into the intervention group (44.9 percent) than for their peers recruited into the control group (13.7 percent). One possible explanation for the higher non-initiation for the intervention group is the intensity of the study – the intervention group was made aware there would be 17 calls, whereas the control group would receive only two. The number of women who participated in the post-study survey was 92 for intervention and 158 for control, a loss to follow-up rate of 58.4 percent and 53.3 percent, respectively.

Many factors might have contributed to the high attrition rate, especially to the non-initiation problem. For multiple reasons, there was a delay between when the participants were recruited and the date that the calls began. Another issue, as reported by participants during follow-ups, was that the beginning of the call made it sound like it was an automated call from a service or company, like the mobile service operator MTN. For this reason, some participants did not complete the calls.

The high attrition rate could have significantly hampered the ability to make inference. Fortunately, the research team had used a prevalence of spousal communication (50 percent) that provided a maximum variability to calculate the required sample size. It turned out that the prevalence of spousal communication about family size among the intervention group was 37.2 percent at pre-study and increased to 66.7 percent at post-study. With these parameters, the reduced sample size at post-study still afforded HC3 a 97.7 percent power to make inferences about the effects of the intervention. Furthermore, given the observed parameters, a repeated sample of 51 respondents is sufficient for a power of 80 percent.

In addition, among the women recruited into the intervention group, those who completed the intervention and their peers lost to follow-up were not significantly different by age, parity or marital status. The two categories were different, however, in terms of education and religion. Specifically, the women in the intervention group who completed the intervention (39.1 percent with post-secondary education) were better educated than their peers who were lost to follow-up (28.1 percent with post-secondary education). The women in the intervention group who participated in the post-study survey (73.9 percent) were also more likely to be Muslim, compared to their peers lost to follow-up (60.1 percent). As for the control group, the women who participated in the post-study interview were similar to their counterparts lost to follow-up in terms of age, education, parity, education and religion.

Another challenge encountered was that many participants in the intervention group did not answer all 17 program calls. Indeed, between 107 and 149 study participants in the intervention group listened completely to any of the 13 drama episodes included in the tool. In addition, very few women (between 13 and 65) listened to the optional components of the personal story and dialogue. Furthermore, few women (between 45 and 69) answered the in-call questions designed to gauge study participants' understanding of the call content, thereby making meaningful analysis of the message recall problematic.

There were also some initial challenges with the IVR platform that required multiple attempts by the platform administrators to fix. For example, women who missed a call were instructed to "flash" (call and hang up after three rings) the *Beta Life* phone number when they were ready to receive the call. The tool was programmed to return the call within minutes of receiving the flash. This option, however, did not work correctly during the first few weeks of the study, resulting in delays in completing the intervention for some women and causing others to drop out of the intervention. Issues also occurred with the SMS reminders not being delivered to all participants, an issue requiring time and effort by platform administrators to fix.

RESULTS

INTERVENTION DATES AND CALL FREQUENCY

The study took place from March 7, 2017 to June 5, 2017. On March 7, the first *Beta Life* call and pre-study survey was sent to the intervention participants and control participants received just the pre-study survey. Intervention participants could select the frequency for receiving the *Beta Life* calls – either every day or twice a week; and the time of day for receiving the calls – morning, afternoon or evening. Table 3 displays the number of participants for each selection.

Table 3: Selected Frequency and Time of Calls Selected by Intervention Participants

	Morning (8 a. m. - 12 p.m.)	Afternoon (12 p.m.- 5 p.m.)	Evening (5 p.m.- 9 p.m.)	Total
Every day	22	17	27	66
Twice a week	55	48	52	155
Total				**221**

The post-study survey was sent to participants in the intervention group after completion of the last program call. For this group, the timing of the post-study survey varied between three weeks and eleven weeks after the pre-study survey, with an average of six weeks. For the control participants, the post-study survey call was completed between four and 10 weeks after the post-study survey, with an average of six weeks.

SOCIODEMOGRAPHIC CHARACTERISTICS OF STUDY PARTICIPANTS

Table 4 compares the sociodemographic characteristics of the intervention and control groups. Among the pre-study sample, the average age was 26.8 years. No significant age difference was found between the intervention (mean age = 26.4 years) and the control groups (27.0 years). The intervention and control groups were also equivalent in terms of marital status, with 53.4 percent of the intervention group being currently married compared to 57.5 percent of the control group (p= 0.331). There were also no significant differences by education; 33.0 percent of the intervention group compared to 31.4 percent of the control group had tertiary education (p=0.6844). Similarly, the two groups were equivalent in terms of parity. In contrast, there were significant differences by religion. Specifically, the intervention group (65.6 percent) included proportionally more Muslims compared to the control group (57.2 percent; p<0.05).

Table 4: Pre-study sociodemographic characteristics of study participants before the intervention, by study group, Kaduna 2017

Sociodemographic indicator	Both Groups (n=565)	Intervention Group (n=221)	Control Group (n=344)	z (or t)/p for difference between groups
Mean age in years	26.8	26.4	27.0	1.380/0.167
Percent currently married	55.9	53.4	57.5	0.973/0.331

Percent with tertiary education	32.0	33.0	31.4	0.407/0.684
Percent Muslim	60.5	65.6	57.2	1.980/0.048
Mean parity	2.36	2.22	2.44	1.109/0.268

The differences in the pre-study sociodemographic characteristics between the women who participated in the post-study and their peers that were lost to follow up are presented in Table 5. Among the women who participated in the intervention, the two groups were not significantly different in terms of age, marital status and parity. The average age was 26.6 years in the group that participated in the post-study survey and 26.2 years in the lost-to-follow-up group. Mean parity was 2.43 for the post-study group compared to 2.08 for the women lost to follow up. In contrast, the two groups were significantly different in terms of religion and, to some extent, education. The differences by religion were such that 73.9 percent of the post-study group compared to 60.1 percent of their peers who were lost to follow up were Muslims. The difference by education was marginally significant: whereas 39.1 percent of the post-study group had tertiary education, only 28.1 percent of the women who were lost to follow up did.

In the control group, the research team found no significant sociodemographic differences between the women who participated in the post-study survey and their peers who were lost to follow up.

Table 5: Pre-study sociodemographic characteristics of study participants, by whether or not they participated in the post-study survey, Kaduna 2017

Sociodemographic indicator	Participated in post-study survey (n=92)	Lost to follow-up: did not participate in post-study survey (n=129)	z (or t)/p for difference between groups
Intervention Group			
Mean age in years	26.6	26.2	0.653/0.514
Percent currently married	55.4	52.3	0.453/0.560
Percent with tertiary education	39.1	28.1	1.716/0.086
Percent Muslim	73.9	60.1	2.123/0.034
Mean parity	2.43	2.08	1.145/0.253
Control Group			
Mean age in years	27.2	26.8	0.777/0.438
Percent currently married	57.3	57.0	0.063/0.950
Percent with tertiary education	35.4	27.9	1.470/0.141
Percent Muslim	59.7	54.1	1.052/0.293
Mean parity	2.44	2.43	0.011/0.991

PARTICIPATION IN THE INTERVENTION

The average time spent listening to each call, based on user analytics captured by the platform, is displayed in Table 6. As expected, the duration of listening differs by calls because the content of the calls varies. Some of the calls included program content such as drama, personal stories and sample dialogue. Others were just quiz calls. The average listening times varies between less than two minutes to more than 10 minutes. The shortest average listening times were for the quiz Calls 8 and 12. The longest average listening time was for the Welcome Call (10 minutes), which included the introduction and the pre-study survey, and the last call (almost 11 minutes), which included the last quiz and the post-study survey.

Table 6: Average duration of listening to *Beta Life* calls, Kaduna 2017

Call	Average duration of listening (in minutes)	Call	Average duration of listening (in minutes)
Call 1	10:02	**Call 10**	05:47
Call 2	07:15	**Call 11**	02:20
Call 3	09:22	**Call 12**	01:40
Call 4	05:15	**Call 13**	05:06
Call 5	04:43	**Call 14**	04:36
Call 6	05:40	**Call 15**	04:29
Call 7	05:11	**Call 16**	05:34
Call 8	01:45	**Call 17**	10:55
Call 9	05:27		
Mean duration across all calls		05:43	

Because the drama series was the main feature of the calls listened to, the level of exposure to specific episodes of the drama series included in the digital health tool is displayed in Table 7, as captured by the platform. The data showed that the majority (96 percent) of the women in the intervention group listened to at least one complete[1] episode. The episodes most likely to have been heard in their entirety by the study participants were the first three episodes, whereas exposure was relatively lower for the last three of the 13 drama episodes. The average number of episodes heard completely was 7.2.

Table 7: Exposure to drama segments of *Beta Life* episodes, Kaduna 2017; n=221

Episode Number	Did not at all listen	Listened to any episode content	Listened to the complete episode
Episode 1	25.8%	74.2%	64.7%
Episode 2	24.0%	76.0%	67.0%
Episode 3	20.4%	79.6%	61.5%
Episode 4	29.4%	70.6%	57.0%

[1] A "complete" episode is defined by a user's listening until the end of the final segment. Because of the way the calls are structured, a user does not have to listen to all content in order for the call to be considered complete.

Episode 5	29.9%	70.1%	57.0%
Episode 6	29.9%	70.1%	59.3%
Episode 7	29.0%	71.0%	56.6%
Episode 8	35.7%	64.3%	52.9%
Episode 9	37.1%	62.9%	49.3%
Episode 10	35.3%	64.7%	52.5%
Episode 11	41.6%	58.4%	48.0%
Episode 12	39.8%	60.2%	48.9%
Episode 13	35.7%	64.3%	49.8%
Exposed to at least one complete episode			**95.93%**
Mean number of complete episodes exposed			**7.24**

Table 8 describes variations in exposure to the drama series by key sociodemographic characteristics of the women in the intervention group. The data showed no differences in exposure to complete drama episodes by level of education or age group. On the other hand, exposure varied significantly by parity, religion and marital status. On average, Muslim participants completed more episodes (7.86) than Christian participants (6.03; $p<0.001$). Similarly, ever-married women completed more episodes (7.72), on average, than their never-married peers (6.56; $p<0.05$).

Table 8: Mean number of *Beta Life* drama episodes completed, by sociodemographic characteristics, intervention group, Kaduna 2017

Socio-demographic characteristics	n	Mean number of drama episodes completed	t/p
Age group			
18 – 24	83	6.85	1.127/0.261
25 +	138	7.45	
Education level			
Secondary or less	148	7.31	0.440/0.660
Tertiary	73	7.07	
Marital status			
Never married	94	6.56	2.240/0.026
Ever married	127	7.72	
Religion			
Muslim	145	7.86	3.456/0.0007
Christian	76	6.03	
Parity			
0 – 1	91	6.58	2.115/0.035
2+	130	7.68	

The proportion that accessed other segments of each call is provided in Table 9. The data showed that less than one-third of the women in the intervention group accessed any portion of each of the personal story segments. The proportion varied between 13.6 percent and 31.4 percent. The personal story segments most accessed were the first three episodes, whereas the last three were the least accessed. Most of those who accessed any of the personal stories listened to the complete segment. Relatively few women, varying between 5.9 percent and 26.4 percent, listened to a portion of any of the sample dialogues. Again, the most accessed sample dialogues were the first three episodes.

To assess the intensity of exposure to the content of the digital health tool, the research team computed a program exposure index by combining exposure to the drama segment, personal stories and sample dialogues. The index varied between 0 and 36, with a mean score of 11.8. The exposure index did not vary by education or age. There were, however, significant differences by religion, marital status and parity. Married women (12.9) had a higher level of exposure than their unmarried peers (10.6); higher parity women (14.0) than lower parity women (11.1); and Muslims (13.3) than Christians (9.1).

Responses to questions about audience perceptions of the tool and its content are presented in Table 10. These questions were asked as part of the post-study survey. Among those who answered the questions, the majority found the tool very easy to use, while only a handful were of the opinion that the tool was not easy to use. Similarly, the majority of the study participants reportedly liked the drama series or both the drama and the other segments. Proportionally more women liked the drama compared to the other segments. This is probably not surprising considering that relatively fewer women listened to the other segments of the program. For almost half of the participants, the chats and questions by the hosts were their favorite part of the program.

Table 9: Percent who listened to personal story or sample dialogue segments, Kaduna 2017; n=221

	Personal Story		Sample Dialogue	
Regular Call	Listened to any portion (%)	Listened to complete segment (%)	Listened to any portion (%)	Listened to complete segment (%)
Regular Call 2	31.4	29.1	26.4	25.0
Regular Call 3	25.5	24.5	24.1	23.2
Regular Call 4	27.7	25.9	23.2	22.3
Regular Call 5	25.9	25.5	19.5	18.6
Regular Call 6	21.4	20.5	15.5	15.0
Regular Call 7	16.8	16.4	10.9	10.0
Regular Call 9	26.4	25.5	16.4	15.9
Regular Call 10	19.5	18.2	9.5	9.1
Regular Call 11	15.9	14.1	14.5	11.8
Regular Call 13	22.7	20.5	17.3	16.8
Regular Call 14	13.6	13.6	12.3	11.4
Regular Call 15	16.4	16.4	13.2	12.3
Regular Call 16	14.5	13.6	5.9	5.9

It should be noted that because the respondents answering these questions probably had a much higher exposure to the series, the results here are somewhat biased in favor of the intervention and may be different for listeners with less exposure.

Table 10: Selected indicators of audience appreciation of the digital health tool, Kaduna 2017

Indicator/Responses	n	%
Perceptions about ease of use of the digital health tool (n=78)		
Very easy to use and navigate	63	80.8
Somewhat easy to use	10	12.8

Not easy to use	5	6.4
Perceptions about program content (n=78)		
Liked how drama ended	29	37.2
Liked the other segments	15	19.2
Liked drama and other segments	33	42.3
Liked neither drama nor other segments	1	1.3
Favorite segment of the program (n=78)		
Drama	28	35.9
Chats and questions by hosts	37	47.4
Personal stories	13	16.7

SMS

Table 11 provides an overview of the exposure to the SMS reminders that were sent to all participants following each "regular" call. The SMS messages reminded participants about the key message from the previous call. The number of participants reached by the SMS reminders ranged from 21 percent to 56 percent. The reason for the variation in the sample reached by the SMS reminders was initially believed to be due to issues with the local network operator. However, after further investigation by the technical team responsible for the platform, a bug in the platform software was discovered. The bug was fixed toward the end of the study; however, after that fix, the delivery numbers were still not very high and it is unclear whether there were additional issues with the platform or the network operators.

Table 11: SMS Exposure

Corresponding Call	Total	Failed	Sent	Sample	% of sample reached
1	98	14	84	233	36%
2	58	8	50	233	21%
3	81	13	68	233	29%
4	73	13	60	233	26%
5	83	14	69	233	30%
6	83	14	69	233	30%
7	89	17	72	233	31%
8	89	16	73	233	31%
9	89	17	72	233	31%
10	89	20	69	233	30%
11	89	19	70	233	30%
12	101	25	76	233	33%
13	116	32	84	233	36%
14	129	33	96	233	41%
15	121	26	95	233	41%
16	154	38	116	233	50%
17	173	43	130	233	56%

EFFECTS OF THE PROGRAM

To assess the effects of the tool, the research team used the DID analytic method to compare selected ideational and behavioral outcomes between the intervention and control groups. Effects of the tool were assessed among the participants that answered the post-study questions. It is pertinent to note that the women who participated in the post-study survey had a significantly higher level of exposure to the tool than their peers who did not participate in the post-study survey. For example, the mean number of drama episodes to which the women who participated in the post-study were exposed was significantly higher than for their peers who did not participate in the post-study interview. In other words, the effects reported below are probably indicative of what could be expected in the context of a high level of exposure to the tool to a wider audience.

The ideational and behavioral outcomes that were assessed include the following:

1. Ever given thought to the number of children desired
2. Level of confidence in one's ability to discuss one's concerns about contraceptives with a provider
3. Discussion of desired family size with one's spouse in past six months
4. Discussion of contraceptive methods with one's spouse in past six months
5. Rejection of the misconception that contraceptives can harm the womb;
6. Currently using any contraceptive method (i.e., traditional or modern)
7. Currently using a modern contraceptive method

Table 12 provides information on the prevalence of the outcomes at pre-study and post-study among the participants who remained in the study until post-study. The table also includes results of the per protocol DID estimation, adjusted for the participant's age, education, religion, parity and marital status.

Table 12: Change in selected ideational and behavioral outcomes and results of difference-in-differences, per protocol analysis, Kaduna 2017

Intervention Condition	Percent reporting outcome		Difference-in-differences results		
	Pre-study	Post-study	Estimate in percentage points	t	p
1. Outcome: Proportion that already thought of the number of children to have					
Intervention group	33.0	77.5	43.3	4.98	<0.001
Control group	42.5	43.8			
2. Outcome: Confident discussing family planning with provider					
Intervention group	35.5	73.6	61.5	6.93	<0.001
Control group	59.5	36.1			
3. Outcome: Discussed family size with spouse					
Intervention group	74.6	98.5	41.2	3.48	<0.001
Control group	65.2	66.7			
4. Outcome: Discussed contraceptive methods with spouse					
Intervention group	46.4	75.8	22.7	1.89	0.059
Control group	43.0	49.7			
5. Outcome: Rejects the myth that contraceptives can hurt a woman's womb					
Intervention group	50.6	78.8	48.5	5.46	<0.001
Control group	64.1	43.9			

6. Outcome: Using any contraceptive method					
Intervention group	31.0	76.7	47.6	5.5	<0.001
Control group	43.2	41.3			
7. Outcome: Using modern contraceptive method					
Intervention group	28.8	63.6	34.8	4.1	<0.001
Control group	32.7	32.7			

Table 13 provides the results of the intention-to-treat analyses. This report presents these latter results for comparison purposes.

Table 13: Change in selected ideational and behavioral outcomes and results of difference-in-differences, intention-to-treat analysis, Kaduna 2017

Intervention Condition	Percent reporting outcome		Difference-in-differences results		
	Pre-study	Post-study	Estimate in percentage points	t	p
1. Outcome: Proportion that already thought of the number of children to have					
Intervention group	24.8	43.5	17.8	3.43	0.001
Control group	24.5	25.4			
2. Outcome: Confident discussing family planning with provider					
Intervention group	20.4	36.3	27.8	5.10	<0.001
Control group	30.0	18.2			
3. Outcome: Discussed family size with spouse (currently married women only)					
Intervention group	23.6	32.9	15.5	2.14	0.032
Control group	32.1	26.0			
4. Outcome: Discussed contraceptive methods with spouse (currently married women only)					
Intervention group	17.3	30.0	9.6	1.34	0.182
Control group	16.5	19.6			
5. Outcome: Rejects the myth that contraceptives can hurt a woman's womb					
Intervention group	25.2	37.0	22.7	4.02	<0.001
Control group	30.4	19.5			
6. Outcome: Using any contraceptive method					
Intervention group	22.0	41.1	20.0	3.80	<0.001
Control group	25.0	24.1			
7. Outcome: Using modern contraceptive method					
Intervention group	22.9	37.4	14.8	3.00	0.003
Control group	20.9	20.6			

The results for each outcome are described in the following paragraphs.

1. ***Thinking about desired family size*****:** The per protocol analysis shows that at pre-study, women in the control group (42.5 percent) were more likely than their peers in the intervention group (33.0 percent) to have thought about their desired family size. At the post-study, essentially no change was seen in the control group (43.8 percent), but more women in the intervention group (77.5 percent) reported having given thought to their desired family size. The DID estimate shows that the intervention led to a significant 43.3 percentage point increase in this indicator. Results of the intention-to treat analysis reveal a lower, albeit significant, effect of 17.8 percentage points.

2. ***Level of confidence in one's ability to discuss one's concerns about contraceptives with a provider:*** According to the results of the per protocol analysis, between pre-study and post-study, the proportion of participants confident in their ability to discuss concerns about contraceptives with a provider increased significantly in the intervention group (from 35.5 percent to 73.6 percent), whereas it declined conspicuously in the control group (from 59.5 percent to 36.1 percent). The reason for the huge decline among the control group members is not clear. Results of the per protocol DID estimation reveal a 61.5 percentage point increase in this indicator attributable to the intervention. In the intention-to-treat analysis, the DID was a significant, albeit smaller, 27.8 percentage points.
3. ***Discussion of desired family size with one's spouse*:** Looking at the results of the per protocol analysis, the proportion of women who reported discussing desired family size with their spouse in the past six months was 74.6 percent in the control group and 65.2 percent in the intervention group at pre-study. At post-study, the indicator remained practically unchanged, at 66.7 percent in the control group, but increased to 98.5 percent in the intervention group. The per protocol DID estimate is 41.2 percentage points, again indicating a significant positive effect of the intervention. Although the intention-to-treat estimate is much smaller (15.5 percentage points), it remains nonetheless significant.
4. ***Discussion of contraceptive methods with one's spouse*:** The per protocol analysis revealed that participant's discussion of contraceptives with their husband became more prevalent between pre-study and post-study in both the control (from 43.0 percent to 49.7 percent) and intervention (46.4 percent to 75.8 percent) groups. The DID estimate was marginally significant at 22.7 percentage points. In contrast, the estimate from the intention-to-treat analysis was not significant.
5. ***Rejection of the misconception that contraceptives can harm the womb*:** Results of the per protocol analysis showed increased rejection of this misconception among the intervention group between pre-study (50.6 percent) and post-study (78.8 percent). In contrast, among the control group, proportionally fewer women (43.9 percent) at post-study rejected the misconception than at pre-study (64.1 percent). The DID estimate stood large and significant at 48.5 percentage points. The intention-to-treat estimate was smaller at 22.7 percent points but still very significant.
6. ***Current use of any method of contraception*:** Although the *Beta Life* tool does not specifically aim to increase contraceptive use, the per protocol analysis showed a significant increase in the proportion of participants in the intervention group reporting using any contraceptive method between pre-study and post-study. Indeed, whereas use of contraception remained stagnant in the control group (43.2 percent at pre-study and 41.3 percent at post-study), the intervention group witnessed a huge increase from 31.0 percent to 76.7 percent. The per protocol DID estimate revealed that the intervention was associated with an increase of 47.6 percentage points in this indicator. The estimated effect using intention-to-treat analysis was much smaller (20 percentage points) but still significant.
7. ***Current use of modern contraceptive methods*:** Whereas use of modern contraceptive methods increased conspicuously in the intervention groups (from 28.8 percent at pre-study to 63.6 percent at post-study), in the control group, modern contraceptive prevalence remained at the

same level (32.7 percent) at both time points. The estimated DID was 34.8 percentage points using the per protocol approach and 14.8 percentage points using the intention-to-treat analysis.

SUMMARY AND RECOMMENDATIONS

SUMMARY

This report presents findings from a cluster-randomized control trial designed to assess the effects of a digital health tool among women of reproductive age in Kaduna city, Nigeria. The data revealed significant non-response and attrition rates in both the control and intervention groups. Overall, about 30 percent of the women initially recruited into the study failed to engage with the platform. The rate of non-initiation was considerably higher among the women recruited into the intervention group than for their peers recruited into the control group, perhaps due to the intensive nature of the intervention (i.e., listening to 17 calls). Among the women who started the study, attrition was considerable in both the intervention and control groups. Furthermore, not all who picked up specific program calls completely listened to the drama segment and fewer still chose to listen to the personal story or the sample dialogue segments.

In spite of the challenges related to participants' attrition, the women exposed to the tool had very positive opinions about it. The majority was of the view that the tool was very easy to use and most particularly liked the drama series and the chats and questions by the hosts. More important, the tool appeared to have positively influenced those who were exposed to it.

All the ideational and behavioral indicators assessed increased significantly in the intervention group while declining or remaining unchanged in the control group. Results of the per protocol DID analyses revealed that the tool led to an increase of 61.5 percentage points in perceived self-efficacy to discuss concerns about contraceptives with a provider, 43.3 percentage points in consideration for desired family size and 41.2 percentage points in spousal communication about family size. Similarly, the per protocol analysis showed that the tool also increased spousal communication about contraception by 22.7 percentage points, rejection of misconception about the effect of contraceptives on the womb by 48.5 percentage points and use of modern methods by 34.8 percentage points. Findings from the intention-to-treat analysis largely echo the positive results from the per protocol analysis, although, as expected, the effects were generally smaller. The significant results from the intention-to-treat analysis strengthens HC3's confidence in the claim that the tool has been effective in improving ideational characteristics related to contraception and in increasing contraceptive use.

RECOMMENDATIONS

In view of the findings of this study, the following recommendations are relevant:

- The positive results about the effects of the tool on relevant outcomes indicate that the tool may be made widely available to women of reproductive age in Nigeria. However, it should be noted that the tool requires numeracy skills and an appreciable level of comfort using the telephone keypad. The tool can be challenging for people with little or no education or those who are visually impaired. Unfortunately, the number of women in those categories is not negligible in some parts of Nigeria. These women are often the most in need of contraceptive information and services and most of them have personal mobile phones. Therefore, efforts to make the tool accessible to them are relevant. By eliminating the need for listeners' input during the calls, the tool may be made more accessible to these women.

- The results presented in this report were obtained among women who were exposed to a large portion of the content of the tool. As such, the results are probably not indicative of what can be expected from the average listener.
- The greatest challenge with this study was participants' attrition, which was higher than expected. Efforts to scale-up the tool should consider ways of minimizing attrition. For example, ways of considerably **reducing the number of program calls** should be explored. One option might be to reduce the number of drama episodes without loss of relevant content. Furthermore, implementers of future adaptations of the tool could consider ways to **reduce the length of each call**, such as by featuring only one category (e.g., drama, personal story or sample dialogue) instead of all three or offering all three and allowing participants to select which category they will listen to for all of the calls (e.g., all drama, personal story or sample dialogue).
- Steps should be taken to reduce the non-initiation rate. First, the delay between when the participants were recruited and the date that the calls began should be shortened to one day or less. Also, considering the complaint by some users that the beginning of the call made it sound like it was an automated call from a service or company. This feature could be removed or new users of the tool should be made well aware of the contents and the nature of the calls.
- To avoid potential attrition due to technical issues with the platform, intensive testing should be conducted prior to wide-scale use. Another option for reducing technical difficulties is to simplify the design of the platform. For example, knowing that most participants preferred receiving the calls in the evening and at a frequency of two to three calls per week, those options could be standardized for all participants to simplify the structure of the platform.

CONCLUSIONS AND LESSONS LEARNED

CONCLUSIONS

The *Beta Life* Smart Client digital health tool is a potentially effective device for promoting positive contraceptive attitudes and encouraging women to adopt a contraceptive method. The tool has the potential to contribute to increasing contraceptive prevalence and reducing unmet need for contraceptives in Nigeria. However, in its current format and in the approach of implementation, the tool needs to be modified to achieve its objectives. The limitations are connected with the number and length of program calls and its requirement for considerable numeracy skills in low-literate settings.

LESSONS LEARNED

The lessons learned from this study fall into two categories: tool development and implementation; and evaluation of effects.

Lessons learned concerning tool development and implementation:

- During the pretesting of the tool, participants expressed their interest in more content, but analysis of listening patterns during this study indicates that most participants did not listen to additional segments of the calls. This gap between expressed interest and actual listening patterns has important implications for the design of the calls. Program implementers of future adaptations of the tool could consider trimming down the content, eliminating segments or splitting up the segments into separate calls, so that the calls are not so long.
- While mobile phone penetration in developing countries has increased exponentially over the past few years, there are still many challenges with a mobile phone-based intervention due to the everyday challenges faced by many owners and users of mobile phones. In the follow up with study participants, some commonly reported issues included sharing a phone with others, a lack of electricity making it impossible to keep the phone charged, phones being lost or damaged, and switching phone numbers. All of these issues present different challenges due to the design of the platform and/or the design of the intervention. While these issues persist, it must be assumed that there will be some level of attrition.
- Another issue that arose during follow-ups with study participants was disapproval by the participants' husbands of their participation in the study, leading a few participants to stop listening. Although this was not a widespread problem, it does indicate the challenge of implementing a tool targeting women in locations where men make decisions for their wives; however, women in these locations are likely to be in greater need of the information included in this tool.
- Unanticipated problems with the IVR platform, especially with some features not functioning correctly (for example, flashing and SMS) took more time than expected to fix and might have contributed to the high level of attrition that was observed in this study. More intensive testing of all the features of the platform should be conducted prior to widespread intervention.

Lessons learned regarding the evaluation of the effects of the tool:

- Recruitment of participants into the study required specialized skills and a level of assiduity that are not typically needed for other types of surveys. The recruiters needed to understand that the study participants would be required to commit to receiving multiple program calls and stay in the program for up to three months. Moreover, recruitment required testing potential participants' numeracy skills and Hausa linguistic skills. Failure on the part of recruiters to completely apply recruitment guidelines might have contributed to the initial failure of some participants to engage with the platform and for the high level of dropout along the way.
- Merging data from the various program calls with data collected during recruitment was difficult at best. This problem was due to the fact that the participant's telephone number that was planned to be used as the unique identifier was not consistent across calls. This is probably due to the fact that in Nigeria, because of mobile phone network issues, most mobile phone users have two or more subscriber identity module (SIM) cards for their phone and thereby multiple numbers to call from. Moreover, the format used for recording the telephone number was not consistent between the data collected at recruitment and the data collected through the program calls. Harmonizing the formatting required considerable time and data manipulation skills. The result was that the research team was not able to match some cases across program calls. While it is impossible to avoid that some people will use different cellphones across calls, evaluation and program staff should work together to ensure that the same formatting style is used for essential data fields across multiple data sources. For example, including or excluding the country code in a telephone number makes a lot of difference for the ability to match data from various sources.
- In this study, due to the high attrition rate, the research team almost did not obtain a sufficient sample at the post-study survey to make inference. Evaluation of future adaptations of the tool should anticipate higher-than-usual attrition rates and recruit a larger sample size to accommodate.

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APPENDICES

APPENDIX A: RECRUITMENT FORMS

1. Recruitment Script
2. Oral Consent Script for Study Participants - Intervention Group
3. Oral Consent Script for Study Participants - Control Group
4. Sociodemographic Characteristics

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

RECRUITMENT SCRIPT

Good morning/afternoon/evening. My name is _____ and I am working on research aimed at testing some communication materials among young female adults in Kaduna. Thank you for agreeing to talk with me today.

Ina kwana/ina wuni. Suna na _____ kuma ina aiki ne acikin wani bincike wanda ake yinsa domin a gwada wasu abubuwan sadarwa atsakanin yanmata a Kaduna. Na gode dakika amince kiyi Magana dani a yau.

On behalf of the Johns Hopkins Center for Communication Programs and the Health Communication Capacity Collaborative (HC3), we are carrying out a study and we want to include young female adults from this community. The purpose of this study is to find out the opinion of users and non-users of FP in this community think about materials that we have developed. We plan to use this information to improve the communication materials that we are developing.

A madadin shirin sadarwa na cibiyar Johns Hopkins tare da ma'ikatar da ake kira HC3, muna gudanar da wani bincike ne kuma muna so mu hada da yanmata daga cikin wannan al'ummar. Manufar wannan binciken shine mu nemo ra'ayoyin masu amfani da tazaran haihuwa dama wadanda basa anfani dasu acikin wannan alummar mu fahimci tunaninsu akan wasu abubuwa da muka fito dasu. Munshirya cewa zamuyi amfani da wadannan bayanan domin mu inganta wadannan abubuwan sadarwan da muka kirkiro.

I want to ask questions to determine whether or not we should invite you to participate in this study:

Ina so in yi maki wasu tambayoyi domin in tantance ko zamu gaiyaceki ki kasance acikin wannan binciken:

1. [Observe and record gender of respondent] – We are interested in females only.
[Aduba aga jinsin wanda ake tambaya]- Muna bukatar mata ne kawai

2. Can you communicate in Hausa? (I.e. read, write and speak)?
Yes ☐ - Recruit, No ☐ - Terminate.

Kina da kyakkyawar fahimtar Hausa? (wato kin iya: Karantawa, rubutawa, da bayani)?
E – ☐ *-zabeta a'a* ☐ *-acireta*

3. How old are you on your last birthday?
Less the 18 years ☐ - Terminate
Between 18 - 35yrs ☐ - Recruit appropriately for
Above 35 years ☐ --Terminate

Shekarunki nawa ne a ranar murnar haihuwanki na karshen da ya yawuce?
kasa da shekara 18 ☐ - *acireta*
tsakanin 18 – 35 ☐ - zabi wadannan
Sama da 35 ☐ -- *acireta*

4. Do you have a personal mobile phone or have easy access to one?

Yes ☐ No ☐ - Terminate

Kina da wayarki ta hannu ko kuma kina da wayar da kike iya yin anfani da ita?

E ☐ a'a ☐ *- acire ta*

5a. Have you ever used a contraceptive method to prevent pregnancy?

Yes ☐ No ☐ - Recruit

Ko kin taba yin anfani da wani tsarin hana daukan ciki?

E ☐ a'a ☐ *- zabeta*

5b. Are you or your husband/partner currently using a method to prevent pregnancy?

Yes ☐ No ☐ - Recruit

Shin ke ko mijinki/abokin zamanki ayanzu haka kuna anfani da wani tsari domin hana daukan ciki?

E ☐ a'a ☐ zabeta ta

6. Which method are you currently using?

Male Condom;
Female Condom;
Cycle Beads;
Breastfeeding;
Traditional Methods ☐ - Recruit

,

Any modern method not listed above ☐ - Terminate.

Wane tsarin kuke anfani dashi yanzu haka?

Kororon roba na maza
Kororon roba na mata
kirgan kwanaki
tsarin shayar da nono
tsarin gargajiya ☐ *- azabe ta*

duk wani tsari na zamani wanda ba'a lissafashi a sama ba ☐ *- acire ta*

ORAL CONSENT SCRIPT FOR STUDY PARTICIPANTS – INTERVENTION GROUP

Study Title:	**Evaluation of "Beta Life" an mHealth Tool to Inform, Empower, and Build Confidence among Family Planning Clients**
Principal Investigator:	**Stella Babalola**
IRB No.:	**7556**
PI Version/Date:	**v.2/November 26, 2016**

PURPOSE
You are invited to take part in a study. The purpose of this study is to evaluate the "Beta Life" mobile phone tool which talks about family planning. During the study you would use the mobile tool and we would like to ask you a few questions and ask about your experience using the mobile phone tool and you attitudes towards child spacing.

MANUFA
Ana gaiyatarki ki kasance cikin wani bincike. Manufar wannan binciken shine mu fahimci yadda tsarin "Beta Life" na wayar hannu wanda ke magana akan tazaran haihuwa ke gudana.a yayin wannan bincikenzaki yi anfani da wayar hannu kuma zamu so muyi maki wasu tambayoyi kadankuma mu tambayeki akanabinda kika fuskanta yayin anfani da na'urar wayar hannu da kuma halaiyarki game da tazaran haihuwa.

Your participation in this study will help us improve the tool so that it can be used by the general public.

Gudummawarki a cikin wannan binciken zai taimaka mana wajen inganta takardar tambayoyin saboda ayi amfani dashi ga alumma gaba daya

PROCEDURES
If you agree to participate in this study, we will obtain your nickname and telephone number, and register you to participate. During the study, you will participate in an interview before the intervention starts, receive a total of 17 automated intervention calls with child spacing content, and participate in an interview at the end of the intervention. All of these components will take place over the phone, so you do not need to travel anywhere. The interview before and after the intervention will take about 20 minutes each. Each of the 17 intervention call will last for between 5 and 10 minutes. In addition, I will ask you a few questions today to get to know you better.

YADDA ZA'A GUDANAR
Idan kika yadda ki kasance acikin wannan binciken, zamu karbi sunanki na inkiya da lambar wayarki sannan muyi maki rajista don kasancewa ashirin. Yayin binciken, za'a yi maki wasu tambayoyi kafin tsarin ya fara, za'a yi maki tsararrun kira na shawara sau 17 wadanda suke dauke da harkar tazaran haihuwa, kuma zaki kasance cikin wasu Karin tambayoyin a sanda tsarin yakawo karshe. Dukkanin wadannan bayanan zasu kasance ne ta hanyar waya, saboda haka ba sai kin yi tafiya zuwa ko ina ba. Tambayoyi yayin fara tsarin dana karshen tsarin kowanne zai dauki kamar minti 20. Kowanne cikin kiran waya sau 17 na shawara dinnan shi kuma zai dauki kamar minti 5 zuwa 10 ne. Kari kuma, zan tambayeki wasu yan tambayoyi yau domin mu kara saninki sosai.

We very much appreciate your input, but if you feel uncomfortable answering any questions you may refuse to answer questions at any time during the interview.

Muna matukar farin ciki da gudummawarki, amma idan kin samu wani rashin natsuwa wajen amsa wata tambaya kina iya kin amsawa a kowane lokaci yayin tambayoyin.

RISKS/DISCOMFORTS
When answering the questions you may feel that you are being asked to share information that is personal or sensitive, however the only people that will have access to your responses and personal information will be the study team. Your information and responses will never be linked to you or shared with anyone else and will be protected on a secure online platform or in secure digital files.

HADURA/RASHIN SAMUN NATSUWA
Yayin tambayoyin zaki iya jin kamar ana tambayarki cewa ki yi bayanai dasuke na sirri ne agareki ko kuma masu sosa rai, amma fa mutanen da zasu samu damar jin bayananki da amsoshinki sune kawai wadanda suke aiki acikin wannan binciken. Bayananki da amsoshinki baza'a taba jinginasu zuwa gareki ba ko kuma a yadasu zuwa wani ba hasali ma za'a karesu ta hanyoyi wadanda aka killacesu sosai.

In the very small chance that your information is revealed, we will notify you immediately and make every effort to ensure that your information and responses are protected.

Idan aka samu wani dalilin da bayananki suka fita, to zamu sanar dake nantake kuma muyi duk abinda zamu iya yi muga cewa bayananki da amsoshinki mun karesu.

If you do not wish to participate in this interview you do not have to.

Idan ba kya so a sanyaki amatsayin mai amsa tambayoyin kina iya fada mana.

BENEFITS
There is no direct benefit to you from participating in the interview, but feedback on the tool will hopefully benefit your community. The information collected will be used to improve programs and health services to help women in your community live healthier and happier lives.

ANFANI
Babu wani anfani na kai tsaye dazaki samu idan kin shiga cikin amsa tambayoyin, amma abinda aka samo daga tambayoyin muna fatan zasu amfani al'ummar da kike ciki. Bayanan da aka karba za'a yi amfani dasu ne wajen inganta shirye shirye da harkokin lafiyar mata na al'ummar da kike ciki domin su kara samun lafiya da jin dadin rayuwarsu.

PAYMENT
We appreciate your participation in this interview. After completing the study you will be given an airtime credit of 1000 Naira.

BIYAN KUDI
Muna farin cikin kasancewarki ciki wannan tambayoyin. Bayan angama binciken za'a baki katin waya na Naira 1000.

VOLUNTARY PARTICIPATION
You do not have to agree to be in this study, and you may change your mind at any time.

- Call the co-investigator, Mr. Akinsewa Akiode at 0803 716 2598 if you have questions or complaints about being in this study.
- If you have any questions about your rights as a research participant, or if you think you have not been treated fairly, you may call the Institutional Review Board of the Kaduna State Ministry of Health at: 0808 257 4637

SHIGA DOMIN SAKAI
Ba lallai sai kin amince ki kasance cikin wannan binkicen ba, kuma kina iya canza ra'ayinki a kowane lokaci.

- *Kira daya daga cikin shuwagaban binciken, Akinsewa Akiode a 0803 716 2598 idan kina da wata tambaya ko wani korafi akan wannan binciken.*
- *Idan kina da wata tambaya akan hakkinki na kasancewa acikin binciken, ko kuma idan kina tunanin cewa ba'a kula dake yadda ya kamata ba, kina iya kiran Hukumar Tabbatar da Haqqin Bincike na hukumar Lafiya ta Jihar Kaduna a: 0808 257 4637*

PERMISSION TO PROCEED
Do you agree to participate in the study?

YES → Administer the Socio-Demographic Questionnaire.

NO → Thank and note on follow-up sheet.

IZININ CI GABA
Kin amince ki kasance acikin wannan binciken?

E → *gudanar da tambayoyin sanin halaiya da iyali*

A'A → *yi mata godiya ka rubuta a littafin bibiya*

"I have read the consent form completely before the study participant and the study participant voluntarily agreed to participate in the study."

"Na karanta ka'idojin amincewa gaba daya ga wacce ake neman ta shiga binciken kuma ta amince bisa radin kanta don ta kasance cikin wannan binciken."

_____ _____ _____

Print name of Person Obtaining Consent Signature of Person Obtaining Consent Date

Sunan mai neman amincewa Sa hannun mai neman amincewa Kwanan wata

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

ORAL CONSENT SCRIPT FOR STUDY PARTICIPANTS – CONTROL GROUP

Study Title: **Evaluation of "Beta Life" an mHealth Tool to Inform, Empower, and Build Confidence among Family Planning Clients**

Principal Investigator: **Stella Babalola**

IRB No.: **7556**

PI Version/Date: **v.2/November 26, 2016**

PURPOSE
You are invited to take part in a study. The purpose of this study is to evaluate the "Beta Life" mobile phone tool which talks about family planning. During the study, we would ask you some questions about child spacing.

Your participation in this study will help us improve programs for increasing contraceptive use in this state.

MANUFA
Ana gaiyatarki ki kasance acikin wani bincike. Manufar wannan binciken shine mu tantance tsarin "Beta Life" ta wayar hannu wanda ke magana akan tazaran haihuwa. A yayin wannan binciken, zamu yi maki wasu tambayoyi akan tazaran haihuwa.

Gudummawarki a cikin wannan binciken zai taimaka mana wajen inganta shirye shiryenmu domin kara yawan anfani da hanyoyin tazaran haihuwa a wannan jihar.

PROCEDURES
If you agree to participate in this study, we will obtain your nickname and telephone number and register you to participate. During the study, you will participate in an interview in about a week and another in about three months. Each of these interviews will take place over the phone, so you do not need to travel anywhere. Each interview will take about 20 minutes each. In addition, I will ask you a few questions today to get to know you better.

We very much appreciate your input, but if you feel uncomfortable answering any questions you may refuse to answer questions at any time during the interview.

YADDA ZA'A GUDANAR
Idan kika yadda kikasance acikin wannan binciken, zamu karbi sunaki na inkiya da lambar wayarki sannan muyi maki rajista don kasancewa ashirin. Yayin binciken, za'a yi maki wasu tambayoyi bayan kamar sati daya sannan a kara yi maki wani bayan kamar wata uku. Kowanne daya daga cikin wadannan tambayoyin za'a yi maki sune ta waya, saboda haka bazaki yi tafiya zuwa ko ina ba. Kowanne daya daga tambayoyin zai dauki kamar minti 20. Kari kuma, zan tambayeki wasu yan tambayoyi yau domin mu kara saninki sosai.

Muna matukar farin ciki da gudumawarki, amma idan kin samu wani rashin natsuwa wajen amsa wata tambaya kina iya kin amsawa a kowane lokaci yayin tambayoyin.

RISKS/DISCOMFORTS
When answering the questions you may feel that you are being asked to share information that is personal or sensitive, however the only people that will have access to your responses and personal information will be the study team. Your information and responses will never be linked to you or shared with anyone else and will be protected on a secure online platform or in secure digital files.

HADURA/RASHIN SAMUN NATSUWA
Yayin tambayoyin zaki iya jin kamar ana tambayarki cewa ki yi bayanai dasuke ne sirri ne agareki ko kuma masu sosa rai, amma fa mutanen da zasu samu damar jin bayananki da amsoshinki sune kawai wadanda suke aiki acikin wannan binciken. Bayananki da amsoshinki baza'a taba jinginasu zuwa gareki ba ko kuma a yadasu zuwa wani ba hasali ma za'a karesu ta hanyoyi wadanda aka killacesu sosai.

In the very small chance that your information is revealed, we will notify you immediately and make every effort to ensure that your information and responses are protected.

Idan aka samu wani dalilin da bayananki suka fita, to zamu sanar dake nantake kuma muyi duk abinda zamu iya yi muga cewa bayananki da amsoshinki mun karesu.

If you do not wish to participate in this interview you do not have to.

Idan ba kya so a sanyaki amatsayin mai amsa tambayoyin kina iya fada mana.

BENEFITS
There is no direct benefit to you from participating in the interview, but the answers you provide will hopefully benefit your community. The information collected will be used to improve programs and health services to help women in your community live healthier and happier lives.

ANFANI
Babu wani anfani na kai tsaye dazaki samu idan kin shiga cikin amsa tambayoyin, amma amsoshin da zaki bayar muna fatan zasu amfani al'ummar da kike ciki. Bayanan da aka karba za'a yi amfani dasu ne wajen inganta shirye shirye da harkokin lafiyar mata na al'ummar da kike ciki domin su kara samun lafiya da jin dadin rayuwarsu.

PAYMENT
We appreciate your participation in this interview. After completing the study you will be given an airtime credit of 500 Naira.

BIYAN KUDI
Muna farin cikin kasancewarki ciki wannan tambayoyin. Bayan angama binciken za'a baki katin waya na Naira 500.

VOLUNTARY PARTICIPATION
You do not have to agree to be in this study, and you may change your mind at any time.

- Call the co-investigator, Mr. Akinsewa Akiode at 0803 716 2598 if you have questions or complaints about being in this study.
- If you have any questions about your rights as a research participant, or if you think you have not been treated fairly, you may call the Institutional Review Board of the Kaduna State Ministry of Health at: 0808 257 4637

SHIGA DOMIN SAKAI
Ba lallai sai kin amince ki kasance cikin wannan binkicen ba, kuma kina iya canza ra'ayinki a kowane lokaci.

- *Kira daya daga cikin shuwagaban binciken, Akinsewa Akiode a 0803 716 2598 idan kina da wata tambaya ko wani korafi akan wannan binciken.*
- *Idan kina da wata tambaya akan hakkinki na kasancewa cikin binciken, ko kuma idan kina tunanin cewa ba'a kula dake yadda ya kamata ba, kina iya kiran Hukumar Tabbatar da Haqqin Bincike na hukumar Lafiya ta Jihar Kaduna a: 0808 257 4637*

PERMISSION TO PROCEED
Do you agree to participate in the study?

YES → Administer the Socio-Demographic Questionnaire.

NO → Thank and note on follow-up sheet.

IZININ CI GABA
Kin amince ki kasance acikin wannan binciken?

E → *gudanar da tambayoyin sanin halaiya da iyali*

A'A → *yi mata godiya ka rubuta a littafin bibiya*

"I have read the consent form completely before the study participant and the study participant voluntarily agreed to participate in the study."

"Na karanta ka'idojin amincewa gaba daya ga wacce ake neman ta shiga binciken kuma ta amince bisa radin kanta don ta kasance cikin wannan binciken."

_____	_____	_____
Print name of Person Obtaining Consent	Signature of Person Obtaining Consent	Date
Sunan mai neman amincewa	Sa hannun mai neman amincewa	kwanan wata

EVALUATION OF BETA LIFE TOOL IN KADUNA STATE

SOCIO-DEMOGRAPHIC CHARACTERISTICS

S/N	QUESTION	RESPONSES	SKIP TO
Thank you for agreeing to participate in this survey. As I mentioned in asking for your consent, we are going to ask you some background questions about yourself.			
1.	Name of LGA	.....	
2.	Name of Ward	_____	
3	What is the nickname that you would like us to call you during this study?	.....	
3a.	What is your main cell phone number?	.....	
3b.	Is there another cell phone number that we can use to contact you	YES ..... 1 N0 ..... 2➔	Q4
3c.	What is you this other cell phone number?	.....	
4.	How old are you?	AGE IN YEARS ..... /___/___/ DONT KNOW.....88	
5.	What is your marital status now: are you currently married or living with man as if married, widowed, divorced, or separated?	NEVER MARRIED .....0 MARRIED (civil, traditional, religious) .....1 LIVING TOGETHER .....2 SEPERATED .....3 DIVORCED.....4 WIDOWED 5	

6.	How many children of your own do you have?	NUMBER.....[__|__] NO CHILDREN 87	
7.	What is the highest school level you attended?	NO SCHOOL ..... 1 PRIMARY SCHOOL ..... 2 SECONDARY SCHOOL ..... 3 HIGHER ..... 4 OTHER (specify) 6	
8.	What is your religion?	CATHOLIC ..... 1 PROTESTANT/OTHER CHRISTIAN ..... 2 MUSLIM..... 3 NO RELIGION ..... 4 OTHER ..... 9 (SPECIFY)	

APPENDIX B: PRE-STUDY SURVEY

Pre-Intervention Survey for Intervention and Control Groups

Q1. First, if you are a:

a. Woman, PRESS 1
b. Man, PRESS 2 [end call]

Q2. If you are:

a. 17 years old or younger, PRESS 1. [End Call]
b. between 18 to 24 years, PRESS 2.
c. between 25 to 35 years, PRESS 3.
d. 36 years or older, PRESS 4. [End Call]

Q3. Are you, or your partner, currently doing anything or using any method to delay or avoid pregnancy?

a. If Yes, PRESS 1 (Go to Q1a, FP User)
b. If you have previously but are not currently doing anything or using any method to delay or avoid pregnancy, PRESS 2 (Go to Q2b, Non-FP User)
c. If you have never done anything or used any method to delay or avoid pregnancy, PRESS 3 (Go to Q2b, Non-FP User)

FP User	Non-FP User
Q0a Which method are you currently using? a. If Male Condom, PRESS 1 b. If Female Condom, PRESS 2 c. If Cycle Beads, PRESS 3 d. If Breastfeeding, PRESS 4 e. If Traditional Method, PRESS 5 f. If a modern method not yet mentioned, PRESS 6 [End Call]	
Q1a. Are you satisfied with the family planning method you are currently using? a. If Yes, PRESS 1 b. If No, PRESS 2 c. If you are not sure, PRESS 3	

Q2a. Before you started using your family planning method, did you go to see a family planning nurse? a. If Yes, PRESS 1 (Go to Q3a) b. If No, PRESS 2 (Go to Q3b) c. If you are not sure, PRESS 3 (Go to Q3b)	**Q2b.** If you decided to start using a family planning method, would you go see a family planning nurse? a. If Yes, PRESS 1 b. If No, PRESS 2 c. If you are not sure, PRESS 3
Q3a. (VISITED A FP NURSE) Before your visit to see a family planning nurse, did you think about how many children you wanted? a. If Yes, PRESS 1 b. If No, PRESS 2 c. If you are not sure, PRESS 3	**Q3b.** Have you thought about how many children you wanted? a. If Yes, PRESS 1 b. If No, PRESS 2 c. If you are not sure, PRESS 3
Q4a. (VISITED A FP NURSE) Did your husband or partner support your decision to visit a nurse for family planning counseling? a. If Yes, PRESS 1 b. If No, PRESS 2 c. If you are not sure, PRESS 3 d. If you are not in a relationship, PRESS 4	**Q4b.** If you decided to visit a nurse for family planning counseling, would your husband or partner support your decision to visit? a. If Yes, PRESS 1 b. If No, PRESS 2 c. If you are not sure, PRESS 3 d. If you are not in a relationship, PRESS 4
Q5a. (VISITED A FP NURSE) During your visit with a family planning nurse, did you feel free to discuss your concerns? a. If Yes, PRESS 1 b. If No, PRESS 2 c. If you are not sure, PRESS 3	**Q5b. (NEVER VISITED A FP NURSE)** If you decided to visit a family planning nurse, during your visit, do you think you would feel free to discuss your concerns? a. If Yes, PRESS 1 b. If No, PRESS 2 c. If you are not sure, PRESS 3
Q6a. (VISITED A FP NURSE) During your visit with a family planning nurse, how confident did you feel discussing your preferences concerns with the nurse? a. If Very confident, PRESS 1 b. If Somewhat confident, PRESS 2 c. If Not at all confident, PRESS 3 d. If you are not sure, PRESS 4	**Q6b. (NEVER VISITED A FP NURSE)** If you decided to visit a family planning nurse, during your visit, how confident would you feel discussing your preferences with the nurse? a. If Very confident, PRESS 1 b. If Somewhat confident, PRESS 2 c. If Not at all confident, PRESS 3 d. If you are not sure, PRESS 4

Q7. (ALL RESPONDENTS)

In the past 6 months, have you talked with your husband or partner about how many children you would like to have?

a. If Yes, PRESS 1
b. If No, PRESS 2
c. If you are not sure, PRESS 3
d. Not in a relationship, PRESS 4

Q8. (ALL RESPONDENTS)

In the past 6 months, have you talked with your husband or partner about what family planning method you would like to use?

a. If Yes, PRESS 1
b. If No, PRESS 2
c. If you are not sure, PRESS 3
d. If you are not in a relationship, PRESS 4

Q9a. (FP USER)

Does your husband or partner support your use of a family planning method?

a. If Yes, PRESS 1
b. If No, PRESS 2
c. If you are not sure, PRESS 3
d. If you are not in a relationship, PRESS 4

Q9b. (NON-FP USER)

If you decided to start using a family planning method, would your husband or partner support your use of a family planning method?

a. If Yes, PRESS 1
b. If No, PRESS 2
c. If you are not sure, PRESS 3
d. If you are not in a relationship, PRESS 4

Q10a. (FP USER)

In the past 6 months have you talked to any family members or friends about your family planning method?

a. If Yes, PRESS 1
b. If No, PRESS 2
c. If you are not sure, PRESS 3

Q10b. (NON-FP USER)

If you decided to start using a family planning method, would you talk to any family members or friends about your family planning method?

a. If Yes, PRESS 1
b. If No, PRESS 2
c. If you are not sure, PRESS 3

Q11.

How strongly do you agree with the following statement: Contraceptives do not harm a woman's womb?

a. If Strongly Agree, PRESS 1
b. If Somewhat Agree, PRESS 2
c. If Somewhat Disagree, PRESS 3
d. If Strongly Disagree, PRESS 4
e. If you do not know, PRESS 5

APPENDIX C: QUESTIONS AND QUIZZES IN TOOL

Post-Listening Questions

Call 2

Do you think it is hard for husbands and wives to talk with each other about child spacing?

a. If you think yes, press 1.
b. If you think no, press 2.

Call 3

Do *you* think couples should talk about planning spacing their children?

a. If yes, press 1.
b. If no, press 2.
c. If you aren't sure, press 3.

Call 4

Do you think men should accompany their wives to the clinic for child spacing?

a. If yes, press 1.
b. If no, press 2.
c. If you aren't sure, press 3.

Call 5

Do you know of a clinic near you that offers child spacing methods?

a. If you do know of a clinic, press 1.
b. If you do not know of a clinic, press 2.

Call 6

Do you think Laila should learn about family planning methods before visiting a health care provider?

a. If you think yes, press 1.
b. If you think no, press 2.
c. If you aren't sure, press 3.

Are you or your partner currently using a family planning method?

a. If yes, press 1.
b. If no, press 2.
c. If you aren't sure, press 3.

Call 7

Do Laila and Musa need to think about questions to ask before visiting a health care provider?

a. If you think yes, press 1.
b. If you think no, press 2.

Call 8

In the past month, have you talked with your partner about family planning?

a. If you think yes, press 1.
b. If you think no, press 2.

In the past month, have you though about what contraceptive method might be good for you?

a. If you think yes, press 1.
b. If you think no, press 2.

In the past month, have you thought about visiting a nurse for child spacing?

a. If you think yes, press 1.
b. If you think no, press 2.

In the past month, have you thought about the questions or concerns you would ask a family planning nurse?

a. If you think yes, press 1.
b. If you think no, press 2.

Call 9

When you visit a health care provider, do you think it is important to talk about your feelings and concerns?

a. If yes, press 1 now.
b. If no, press 2 now.

Call 10

Does a woman need her husband's permission to get a family planning method?

a. If you think yes, press 1.
b. If you think no, press 2.
c. If you aren't sure, press 3.

Call 11

Do you feel confident to ask questions when talking with a nurse?

a. If yes, press 1 now.
b. If no, press 2 now.

Call 12

Would a smart client TALK about her feelings and concerns with a nurse or other health care provider?

a. If you think yes, press 1.
b. If you think no, press 2.

Would a smart client still TALK about her needs and preferences for a family planning method with a nurse or other health care provider, even if the provider seems to prefer another method?

a. If you think yes, press 1.
b. If you think no, press 2.

Would a smart client SHARE questions with a nurse?

a. If you think yes, press 1.
b. If you think no, press 2.

Have you visited a nurse or pharmacist since you started listening to our stories?

a. If yes, press 1.
b. If no, press 2.

Call 13

Do side effects of family planning methods usually go away after a few months?

a. If you think yes, press 1.
b. If you think no, press 2.

Call 14

Do you think what you have learned so far about being a "smart" family planning client would be useful to a friend or family member?

a. If you think yes, press 1.
b. If you think no, press 2.

Call 15

Do you think it is important for a woman who has problems with her family planning method to talk with a nurse or other health care provider?

a. If you think yes, press 1.
b. If you think no, press 2.

Call 16

Do you think it is important for couples to talk about the number of children they plan to have?

a. If you think yes, press 1.
b. If you think no, press 2.

Call 17

Q1. Would a smart client TALK with a nurse or other health care provider if she is unhappy with her family planning method?

a. If you think yes, press 1.
b. If you think no, press 2.

Q2. Would a smart client SHARE what she knows with friends?

a. If you think yes, press 1.
b. If you think no, press 2.

Q3. Are you or your partner currently using a family planning method?

a. If yes, press 1. (GO TO Q4)

b. If no, press 2. (GO TO Q5)

Q4. How confident do you feel about talking with a nurse or other health care provider if you have any problems with the method you are using?

a. If you feel very confident, press 1.

b. If you feel somewhat confident, press 2.

c. If you do not feel confident, press 3.

Q6. How confident do you feel about talking with a nurse or other health care provider about getting the family planning method you want?

a. If you feel very confident, press 1.

b. If you feel somewhat confident, press 2.

c. If you do not feel confident, press 3.

Q7. How confident do you feel about talking with your husband or partner about getting a child spacing method?

a. If they helped a lot, press 1.

b. If they helped a little, press 2.

c. If they did not help, press 3.

Post-Call Questions

[Questions added to the end of Calls 4, 9, 13]

Q1. Which of the following best describes how you feel about the whole call that you just heard?

a. I learned something new, PRESS 1
b. It applies to my life, PRESS 2
c. Both – I learned something new and it applies to my life, PRESS 3
d. Neither - I did not learn something new and it does not apply to my life, PRESS 4

Q2. What part of the call did you like best?

a. The drama, PRESS 1
b. The chats and question by the hosts, PRESS 2
c. The personal story, PRESS 3
d. The sample dialogue, PRESS 4

Q3. Was there anything in the call that you found confusing or not realistic?

a. If Yes, PRESS 1
b. If No, PRESS 2

Q4. Which of the following best describes how you feel about the length of the call?

a. It was too short, PRESS 1
b. It was too long, PRESS 2
c. It was just right, PRESS 3

Q5: Which of the following best describes your experience using the tool?

a. It was very easy to use and I could easily navigate through to listen to all of the parts I wanted to hear, PRESS 1
b. It was somewhat easy to use; I had some difficulties navigating through and listening to all of the parts I wanted to hear, PRESS 2
c. It was not easy to use; I had many difficulties navigating through and listening to all of the parts I wanted to hear, PRESS 3

APPENDIX D: POST-STUDY SURVEY

Post-Intervention Survey for Intervention and Control Groups

Q3. Are you, or your partner, currently doing anything or using any method to delay or avoid pregnancy?

d. If Yes, PRESS 1 (Go to Q1a, FP User)
e. If you are not currently doing anything or using any method to delay or avoid pregnancy, PRESS 2 (Go to Q2b, Non-FP User)

FP User	Non-FP User
Q0a Which method are you currently using? Please tell me the name or describe the method.	
Q1a. Are you satisfied with the family planning method you are currently using? d. If Yes, PRESS 1 e. If No, PRESS 2 f. If you are not sure, PRESS 3	
Q2a. Before you started using your family planning method, did you go to see a family planning nurse? d. If Yes, PRESS 1 (Go to Q3a) e. If No, PRESS 2 (Go to Q3b) f. If you are not sure, PRESS 3 (Go to Q3b)	**Q2b.** If you decided to start using a family planning method, would you go see a family planning nurse? d. If Yes, PRESS 1 e. If No, PRESS 2 f. If you are not sure, PRESS 3
Q3a. (VISITED A FP NURSE) Before your visit to see a family planning nurse, did you think about how many children you wanted? d. If Yes, PRESS 1 e. If No, PRESS 2 f. If you are not sure, PRESS 3	**Q3b.** Have you thought about how many children you wanted? d. If Yes, PRESS 1 e. If No, PRESS 2 f. If you are not sure, PRESS 3

Q4a. (VISITED A FP NURSE) Did your husband or partner support your decision to visit a nurse for family planning counseling? e. If Yes, PRESS 1 f. If No, PRESS 2 g. If you are not sure, PRESS 3 h. If you are not in a relationship, PRESS 4	**Q4b.** If you decided to visit a nurse for family planning counseling, would your husband or partner support your decision? e. If Yes, PRESS 1 f. If No, PRESS 2 g. If you are not sure, PRESS 3 h. If you are not in a relationship, PRESS 4
Q5a. (VISITED A FP NURSE) During your visit with a family planning nurse, did you feel free to discuss your concerns? d. If Yes, PRESS 1 e. If No, PRESS 2 f. If you are not sure, PRESS 3	**Q5b.** If you decided to visit a family planning nurse, during your visit, do you think you would feel free to discuss your concerns? d. If Yes, PRESS 1 e. If No, PRESS 2 f. If you are not sure, PRESS 3
Q6a. (VISITED A FP NURSE) During your visit with a family planning nurse, how confident did you feel discussing your preferences concerns with the nurse? e. If Very confident, PRESS 1 f. If Somewhat confident, PRESS 2 g. If Not at all confident, PRESS 3 h. If you are not sure, PRESS 4	**Q6b. (NEVER VISITED A FP NURSE)** If you decided to visit a family planning nurse, during your visit, how confident would you feel discussing your preferences with the nurse? e. If Very confident, PRESS 1 f. If Somewhat confident, PRESS 2 g. If Not at all confident, PRESS 3 h. If you are not sure, PRESS 4
Q7. (ALL RESPONDENTS) In the past 6 months, have you talked with your husband or partner about how many children you would like to have? e. If Yes, PRESS 1 f. If No, PRESS 2 g. If you are not sure, PRESS 3 h. Not in a relationship, PRESS 4	
Q8. (ALL RESPONDENTS) In the past 6 months, have you talked with your husband or partner about what family planning method you would like to use? e. If Yes, PRESS 1 f. If No, PRESS 2 g. If you are not sure, PRESS 3 h. If you are not in a relationship, PRESS 4	

Q9a. (FP USER)	**Q9b. (NON-FP USER)**
Does your husband or partner support your use of a family planning method? e. If Yes, PRESS 1 f. If No, PRESS 2 g. If you are not sure, PRESS 3 h. If you are not in a relationship, PRESS 4	If you decided to start using a family planning method, would your husband or partner support you? e. If Yes, PRESS 1 f. If No, PRESS 2 g. If you are not sure, PRESS 3 h. If you are not in a relationship, PRESS 4
Q10a. (FP USER)	**Q10b. (NON-FP USER)**
In the past 6 months have you talked to any family members or friends about your family planning method? d. If Yes, PRESS 1 e. If No, PRESS 2 f. If you are not sure, PRESS 3	If you decided to start using a family planning method, would you talk to any family members or friends about your family planning method? d. If Yes, PRESS 1 e. If No, PRESS 2 f. If you are not sure, PRESS 3
Q11. How strongly do you agree with the following statement: Contraceptives do not harm a woman's womb? f. If Strongly Agree, PRESS 1 g. If Somewhat Agree, PRESS 2 h. If Somewhat Disagree, PRESS 3 i. If Strongly Disagree, PRESS 4 j. If you do not know, PRESS 5	

For Intervention Group Only

Q12. Which of the following statements best describes your experience with *Beta Life*?

a. It was very easy to use and I could easily navigate through to listen to all of the segments I wanted to hear, PRESS 1
b. It was somewhat easy to use; I had some difficulties navigating through and listening to all of the segments I wanted to hear, PRESS 2
c. It was not easy to use; I had many difficulties navigating through and listening to all of the segments I wanted to hear, PRESS 3

Q13. Which of the following statements best describes your feeling about the content you heard?

a. I liked how the story ended, PRESS 1
b. I liked the other parts like the personal story, sample dialogue and host chats, PRESS 2
c. Both - I liked how the story ended and liked the other parts, PRESS 3
d. Neither - I did not like how the story ended and I did not like the other parts, PRESS 4

Q14. Across all of the calls, which part did you like best?

a. The drama, PRESS 1
b. The chats and questions by the hosts, PRESS 2
c. The personal stories, PRESS 3
d. The sample dialogues, PRESS 4