

Training Family Planning Providers via Mobile Phones in Urban Nigeria

Abstract

The Nigerian Urban Reproductive Health Program (NURHI) aims to increase contraceptive use in four urban areas of Nigeria. Under the task of improving service delivery, NURHI has designed an innovative intervention to deliver continuing education to family planning providers via videos on smartphones. This study reports on the findings from the pilot study and will eventually include the evaluation data from the full intervention. Pilot data were collected in June 2013. Most clinical providers do not own their own smartphones but are receptive to using smartphones in the workplace. The training delivered via smartphones was well received by the clinicians. Smartphones may be a viable vehicle for engaging family planning providers in continuing education and training – the reach of training via smartphones greatly exceeds the reach of in-person training events and may prove to be more effective in reducing service provision biases.

Introduction

Nigeria is yet to experience the demographic transition observed in many other countries. Nigerian women continue to average nearly six children over the course of their lifetime and the national population – already the largest in Africa – is expected to double within 25 years. This population growth will exacerbate the growing urbanization of the country, continue to strain national resources, and worsen the poor health conditions currently faced by much of the population, particularly the urban poor.

The high levels of fertility are a function of both low demand for and low use of contraceptive methods. Only 35 percent of married women in Nigeria have a stated need for family planning and less than half of these women are currently using a contraceptive method (2008 NDHS). Low levels of contraceptive use, even among those wanting to limit their family size, have been attributed to concerns about side effects, a belief that religion opposes contraception, gender norms that limit women's decision-making power within their household, perceptions that social norms link contraception with promiscuity, and inadequate access to high quality family planning services.

To address the problems associated with high fertility in Nigeria, the Bill and Melinda Gates Foundation has funded the JHU Center for Communication Programs to implement the Nigerian Urban Reproductive Health Initiative (NURHI), which aims to increase the use of contraceptives in four urban areas through investments in demand generation, service delivery, and advocacy.

As part of the Initiative, family planning providers are being trained in the clinical and non-clinical elements of family planning provision, including medical eligibility, interpersonal communication and counseling, and method-specific clinical skills. The training is followed up by supportive supervision. However, the skills learned in training are not fully used without consistent practice and reinforcement. In particular, NURHI staff have found that provider bias is difficult to change, and remains after training.

To address this, on-going learning opportunities are delivered via smartphone. The distance education modules reinforce the message that all women of reproductive age, regardless of demographics, have the option to use family planning and are entitled to receive family planning counseling and a method of their choice. The videos also reinforce the use of appropriate and supportive family planning counseling skills. Each learning module consists of video, text, and interactive quizzes to assess learning.

The primary aim of this research is to evaluate an in-service training for family planning providers in Nigeria. The training aims to increase provider skills and willingness to provide appropriate family planning methods based on client desires. The key research questions are as follows:

- 1) Is the training effective in decreasing provider bias based on age, parity, and marital status?
- 2) Is the training effective in improving provider knowledge about supportive client counseling?

Methods

Study participants include clinical family planning providers: nurses, midwives, nurse-midwives, and physicians, who are working in a NURHI supported facility and have participated in a previous in person NURHI training. Study participants also include government family planning coordinators as well as master trainers who have participated in prior training events. There were 20 clinical participants in the pilot study in Ibadan and Kaduna and there will be approximately 400 in the full intervention in Abuja, Ibadan, Ilorin, and Kaduna. All study participants will receive a smartphone in order to complete the training intervention.

At this time the pilot study is complete, and includes a participant profile study, mobile technology survey, and focus group discussion with the pilot study participants. These data were collected in June 2013.

The full study is ongoing at this time. The full study will employ a pre-post design. The data will be collected using a web-based tool delivered via smart phones and will be available by the end of 2013. Data analysis on the full study will be complete in time for the PAA meeting in May 2014.

Results

Pilot Study Participant Profile

A total of 22 family planning providers participated in the pilot study in Ibadan and Kaduna. All were female, most were married (91%) and Christian (86%). The ages ranged from 29 to 60 with the average being 45. The average parity was 3.1, ranging from 1 to 5. The majority were nurse-midwives (81%). There were three trainer/coordinators (14%) and one was a physician (5%). Most worked at primary health centers (62%) or public hospitals (33%) and one worked at a private hospital (5%). The average number of years worked since initial training was 21 years, ranging from 3 to 31 years. Participants had attended, on average, 4 NURHI sponsored trainings.

Pilot Study Mobile Phone Survey

Pilot participants were also asked to complete a mobile phone survey. Only 15% of participants indicated that they owned a smartphone. In response to the statement, "Using a smartphone will make my work easier," 95% of the respondents agreed or strongly agreed. The same percentage of respondents agreed or strongly agreed with the following statements: "Smartphones will be used more often in the future by health care providers," and, "I want to learn more about how to use a smartphone," and, "Having a smartphone will improve my access to important information for my work." In response to the statement, "What is the level of need for continuous education and training in your profession?" 80% of the respondents indicated the need was high or very high.

The end of the survey on mobile phone communication asked the respondents to share their thoughts on how mobile phone technology will affect their operations. The following are examples of the responses:

Mobile phones will make work easier, faster, and more interesting.

Smart phones will greatly improve provision of health services in the health sector.

Pilot Focus Group Discussion

Participants in the focus group discussions were generally very positive about the content in the distance learning modules. They found the videos powerful as they were realistic – the videos made them reflect upon their own actions as family planning providers and how they could be acting similarly to those in the videos and having the same negative effect on family planning clients, as this family planning provider says:

Sometimes when we think we have offered services we have not offered anything...like the first message: you think you have given the client pills but after she leaves she throws them away. She may not use any other method in the future. That means you are contributing to her situation.

Findings from the pilot experience, including the two data collection activities and focus group discussions, were used to improve the intervention prior to full implementation. Examples of adjustments made to the intervention based on the findings from the pilot study include:

- 1.) Participants found it difficult to use the phones at first – a basic introduction to the features of the phone was included in the full implementation
 - a. It was apparent that instructions on how and when to charge the phone – as well as when to use the phone, were needed as issues with battery longevity arose

- 2.) Posttest questions were moved to the end of the videos as opposed to appearing mid-video and disrupting the flow of the interaction between provider and client
- 3.) The order of videos was shifted: the unsupportive provider video always shows prior to the video of the supportive provider

Discussion

The NURHI distance learning initiative focuses on providing family planning providers with on-going learning and support to overcome biases to family planning access due to age, parity, and marital status and reinforce medical eligibility criteria. The pilot study participants were incredibly receptive to the intervention – they were excited to use the smartphones and followed through on all tasks requested. The feedback from the pilot participants was utilized to improve the intervention prior to full roll-out with the approximately 400 study participants. Data collection on the full program participants is ongoing at this time and will be available prior to the conference.

Pilot participants were eager to participate in the smartphone training despite the fact that few of them had experience owning a smartphone, were older, and had been working for an average of 21 years prior to the training.

The participants were also keen to learn more about how to use smartphones – as they felt that smartphones would be an aspect of their work in the future and would make their work easier overall.

The use of videos to deliver messages to the participants was well-received and appeared to have an effect on the participants – as they commented on how they were entertained by the videos while identifying with the providers in the videos, opening their eyes to the potential effects of their negative and positive actions and words on clients.

Overall, the pilot experience demonstrated that the smartphone training intervention for family planning providers, regardless of their smartphone experience, age, and duration working, would be well-received and may be a more effective means of addressing provider biases than has been used in the past with in-person training. Additionally, it both complements and reinforces the IPCC training NURHI does in the health facilities, increasing the number of times providers are exposed to these messages, especially since they can watch the videos over and over again.

Additional Analysis Planned

The data from the approximately 400 full study participants, about 100 in each of the four cities, are being collected at this time. The data on the full study participants will be available soon – these data will be analyzed and incorporated into this study. Of particular interest is the evaluation data, comparing individual scores between the pretest and posttest, which will identify whether the smartphone platform for continuing education with family planning providers, that is well-received platform for training thus far, is also effective in increasing knowledge and identifying service provision biases.