FACILITATING CHANGE: ASSESSING THE USE OF ICT BASED TOOL 'MOBILE KUNJI' IN PROMOTING REPRODUCTIVE AND CHILD HEALTH

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Abstract: Promoting health is a primary requisite for sustainable development and is the mandate for both central and state governments. To support mother and child health Bihar government supported an ICT based tool 'mobile kunji' in collaboration with an international organization- BBC Media Action. It aims at reducing IMR and MMR by enhancing knowledge base of ASHA workers. To assess the effectiveness of this tool both ASHA workers and beneficiary women source with culturally sensitive messages in local dialect. The research study recommends effective usage of mobile kunji for better understanding of Reproductive child health issues among community health workers and beneficiaries with a larger aim to improve maternal and child health indicators.

Keywords: ICTs for health, Behavior Change Communication (BCC), Reproductive and Child health (RCH), Mother and Child health (MCH), mhealth

Introduction: ASHA are community based women volunteers, who have paved a way for a major shift in health provisioning by working on changing the health seekers behavior at the community level. ASHAs are trained to connect the two ends of the health system that is health seekers and the providers. Their position has been designed to facilitate access to health services, mobilize communities to realize health rights and access entitlements and provide community level care for a number of health priorities. These include counseling on improved health practices and prevention of illness and complications, and appropriate curative care or referrals for pregnant women, newborn and the young children. Under the NRHM programme, also envisaged a support and training structure for the ASHA to enable them to perform these roles.

The ASHA workers form the backbone of the health delivery system and therefore their capacity to deliver quality services needs to be enhanced through training in the health issues and their ability to communicate effectively. In the context of maternal and child health, communication can encourage people to seek ante-natal care from a skilled health worker, delay pregnancy to a healthy age and ensure a healthy interval between child births. According to WHO (2004), Information Communication and Technologies (ICTs) can be of immense value to prevent, diagnose and treat illness and disease. They can be an instrument for continuing education to inform and train the health professionals in advances in knowledge; in providing information to the health workers at the grassroots to support their roles and responsibilities. ICTs can also enhance delivery of health services through data management and can increase the transparency and efficiency of governance within the health sector.

Mobile phones are now regarded as one of the fastest growing technologies in history. Mobile telephony has provided a fresh set of opportunities to improve health outcomes. Mobile phones are present even in the poorest parts of the country. They not only enable connectivity in case of emergencies but are also a great method of information dissemination. *Mobile kunji* and *mobile academy* have been developed by BBC Worlds Service Trust's BBC Media Action with funding from the Bill & Melinda Gates Foundation as part of the 'Ananya' programme in Bihar, with an aim to help the government of Bihar to meet its goal of reducing mortality rates for mothers, newborns, infants and children under five by as much as 40% by 2015..In May 2010, the Government of Bihar and the Bill & Melinda Gates Foundation signed a memorandum of co-operation to develop, test and scale up innovative solutions to improve RCH. The present priority of the state is to improve maternal and neonatal health care behavior, therefore in collaboration with Bihar government, Pathfinder and BBC Media Action this mHealth initiative was launched in few selected districts of Bihar.

Bihar reported poor statistics for reproductive and child health care as only 34 percent of women in Bihar had three or more antenatal check-ups, with record worsening in urban areas and no improvement in rural areas between National Family Health Survey (NFHS) 2 & 3. During the same period, institutional deliveries rose from 15 percent to 23 percent. Immunization coverage increased from 12 percent to 33 percent and infant mortality fell from 78 to 62 per 1000 live births between NHFS2 (1998-99) and NHFS3 (2005-06).

Bihar is one of the Empowered Action Group (EAG) states of the 18 under NRHM and has poorest Reproductive and Child Health indicators. ASHA workers are the front runners in delivering RCH services to the women at the grassroots. They need to address the information needs and improve health seeking behavior of the women. ICT *mobile kunji*

provides an aid to ASHAs in delivering hundreds of life-saving messages without reams of paper or expensive hardware by using ICT mobile academy. Pathfinder' rolled out training programs for thousands of ASHA workers and AWWs. The initiative is designed to expand and refresh their knowledge of ten life-saving health behaviors. They can dial a short code to access the Interactive Voice Response (IVR) course on their mobile phones and a printed deck of cards on a ring. The *kunji c*ards have been designed to look like a mobile phone, with illustration, supporting arguments and key messages about maternal and child health. The services are focused on the 1000 day window of opportunity between pregnancy and the child's first 24 months, with key interventions including family planning, antenatal and postnatal care, and diagnosis of and routine immunization against deadly infectious diseases. In conjunction with *mobile kunji*, Mobile Academy works to revise ASHSs knowledge of nine maternal and child health behaviours and to enhance their interpersonal communication skills. Mobile Academy is designed to be very inexpensive. ASHA can access the 190-minute course via a mobile short code just by getting registered once. They can then complete the standardized course at their convenience. Digital bookmarking technology enables them to return to where they left off.

With an objective to assess this strategy of building capacity of the ASHAs though ICT based *mobile kunji, a study was planned.* The researchers contacted BBC Media Action team at Delhi. Meeting with the team members working on this project in Delhi and Bihar helped to understand the functioning of the *mobile kunji* and its key health messages and working out the logistics of the research process. The study *aimed at examining the usefulness of* training received by ASHAs and gain insight into the beneficiary women with respect to its appropriateness and ability to generate awareness about the RCH issues. Fatuha district of Bihar was selected for a study. A sample of thirty ASHA workers and thirty community women from three villages i.e. Mojipur, Dalanpur and Jethali were selected. Semi structured interview schedule and Focus Group Discussions were conducted with the ASHAs and community women.

Major Findings: The finding of the study can be discussed under two major themes; knowledge level of ASHA workers and their perspective and Community women's perspective regarding mobile *kunji* as a product and its use in the area of ante – natal, post – natal and new born care and family planning.

Knowledge and Perception of ASHAs

***Mobile kunji* training and its use:** ASHA workers received a formal training for three days on the use of *mobile kunji* to improve their interpersonal communication skills about RCH issues, which were conducted by skilled trainers of BBC Media Action, Bihar and Pathfinder International, Bihar. ASHA workers found the training session to be useful in helping them acquire the skill of using *mobile kunji* through hands on training. Information provided was appropriate for counseling pregnant women and lactating mothers. Around 70% of the ASHA workers reported that they use *mobile kunji* every time they visited the community. Rest 30% used *mobile kunji* only when they wanted to supplement some information or used it as a reference source for the information they gave. With the use of *mobile kunji*, they believed that they were taken much more seriously by the women in community than before. About the community response, ASHAs expressed that women took interest, gathered around the phone speakers and would request them to play the content again and again.

For the study, three aspects of Antenatal care were defined in terms of antenatal visits, institutional delivery and intake if IFA tablets. Most of the ASHA workers were well informed content wise and provided services related to safe motherhood and its different aspects. They informed pregnant women about early registration of pregnancy, cash assistance to be availed by going for institutional delivery, preventing Iron/and Vitamin deficiency and vaccination of mother and child. The other major service that ASHAs provided, included identification and information about functional Government/ Private health center, monthly medical health camps and to take nutrition supplement from Aaganwadi. ASHA workers engaged with pregnant women on a regular basis and informed them about the importance of consuming IFA tablets. They revealed that the major reason for low compliance of consumption of IFA tablet among the community women was their sheer ignorance and concerns about side effects (like vomiting and nausea). In their understanding the main purpose of postnatal visits was to make women aware about three things, that is the important requirement of nutritious and balanced diet rich in iron, calcium, vitamins and proteins, nutritional supplements which can be availed from Aaganwadi Centre and the third about the importance of breast-feeding/ complementary feeding. All the ASHA workers had an accurate knowledge about breastfeeding and related issues and they focused on informing mothers about significance of colostrum feeding, exclusive breastfeeding for six months, and continuing breastfeeding in special conditions like diarrhea. ASHA workers had factual information about various contraceptive methods. They promoted family planning methods and based on family size, suggested permanent or temporary methods.

Community Women's Perspective : All the women agreed that the information heard on the ASHA's phone was clear, relevant and it helped them to understand the issues in an interesting manner. This **new concept** generated interest and curiosity to know more. The **element of surprise was** Dr. Anita's voice. The women appreciated that a doctor who speaks their language was on phone to clarify their doubts. The use of local language (Bhojpuri) seems to have added greater value. The use of *mobile kunji* was not only limited to women in the community but helped ASHAs to persuade other family members like mother in laws and the husbands which was earlier difficult. The audio messages which were designed in an empathetic yet authoritative manner followed by rhyming couplets promoting health was a great catch within the community.

Few misconceptions were noticed among the community women related to pregnancy and lactation period. As far as institutional deliveries were concerned women were skeptical about issues like non- availability of reliable transport, family customs and socio economic condition hindered this process. Women were aware about the tablets however they were not clear about its purpose. They felt that the iron tablets were required by 'week' women. Some mentioned that the tablets helped to /purify blood. Most of the women consumed tablets only during pregnancy. According to them, ASHA workers made around three to four antenatal visits at the time of their pregnancy. About 57% of women respondents said that ASHA made about three (3) postnatal visits. They also reported that pregnant/lactating women did not receive nutritional supplements from the Aganwadi center due to shortage. Family planning methods such as natural methods (withdrawal), safe period method, use of condoms (Nirodh) and birth control pills seemed to be preferred methods of family planning. Around 80% of the community women were familiar with natural ways of preventing pregnancies. They also believed that, a woman has to be aware of her fertility, should keep a track on their menstrual cycle. Around 63% of the community members said that chances of conceiving a baby are high in women during the fertile period i.e. (days 8-19 of the menstrual cycle). Majority of the community women agreed to the fact that ASHAs do promote safe motherhood, though some ASHAs may have been reinforcing some aspects more than the others. When community women were asked about the post natal visits made by ASHA, almost 56.67% of them said that ASHA made about 1-2 visits after delivery. 63.33% of the ASHA workers reported making 3-4 visits post-delivery, to enquire about the mother & new born child's health. During these visits, counseling about exclusive breastfeeding, contraceptive needs and new born child care was done.

Challenges Faced: Almost all the major mobile operators in Bihar provided the services at discounted rates but a few ASHAs were not able to access this service on their phone. Though very few, but some ASHAs did not have personal handsets

Due to poor network, ASHAs were not able to save all the chapters of the academy course. In Fatuha district, out of 125 ASHA workers, only 25 ASHA workers had completed their audio training course of nine (9) chapters. The entire content could be accessed at a cost of Rs 200, which had to be borne by the health workers themselves and therefore, the ASHAs were unable to complete mobile academy course.

To maintain the momentum of using *mobile kunji*, its usefulness needs to be spread to other districts of the state for which some of the requirements are to be met like a constant regulatory mechanism to be followed to understand and resolve complications faced by ASHA workers in using *mobile kunji*. Formulation of monitoring mechanism is required to analyze the topics and the duration for which ASHA workers use *mobile kunji* along with ensuring the financial viability of the initiative in future after the cessation of support by the donors.

Conclusion: Time and again innovations have proved that communication is critical to saving lives. Better access to information can arouse demand for basic health services and help tackle negative social norms related to health. mhealth promises a lot of scope for improvement and extension. Research have shown that when application of mhealth is combined with other levels of communication like interpersonal, mass media and community based activities the results will be swift and widespread. In the case of *mobile kunji*, combination of simple technology and easy adaptation seems to be promising. The positive response of frontline health workers and the audiences is a reflection of a successful idea implemented with synergy of several organizations. However there is a need to consistently explore and expand such initiatives with active feedback mechanism in place to strengthen the initiative and to complement existing health programmes in the county with an objective to reduce IMR and MMR and achieving MDGs.

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