**Health Behavior Change Communication for Maternal Health** 

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**Abstract** 

Health behavior change related communication strategy encounters two major roadblocks—

the social and individual level blocks, and the other is resource scarcity. To increase behavior

that promotes health, particularly in the context of a developing country confronted by

poverty and illiteracy, is a major challenge. In this paper, we focus on the spread of adoption

of safe motherhood practices by expectant mothers in the villages of a district in Uttar

Pradesh. Under the JSSK, ASHA workers have spread a campaign for the adoption of safe

motherhood practices. We conducted focus group discussions with 36 expectant mothers and

10 ASHA workers. The ASHA workers have been the frontline communication channel for

the program. Our findings suggest that the campaign has incorporated certain essential

components of health behavior change model. Major innovations have been made in the

content and delivery of communication keeping in the contextual reality. The implications of

the research are discussed.

Keywords: ASHA, focus group, health behavior, JSSK, maternal health

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Changing health behavior in traditional societies particularly in developing countries is fraught with several disadvantages largely emanating from cultural beliefs, poverty, illiteracy, and strong gender discrimination. Within this context, it is interesting to note how efforts have been made to change the existing health behavior practices through health behavior change communication related to maternal and child health in a socio-economically backward state in India. Gender-based discrimination is very high in India, which is reflected in the Gender Gap Index. Overall, India ranks 108 among 149 countries included in the Gender Gap Report of 2018. More specifically, it ranks 147 out of 149 countries on women's health and survival indicator, just above Paraguay and Armenia. Its rank is below Sub-Saharan Africa (World Economic Forum, 2018). One of the major reasons might be the cultural beliefs about the physical and mental health of women, particularly about childbearing practices. It is also due to gender discrimination in terms of non-primacy of mothers' health in the overall survival-related ranking practiced at the household level. However, India has shown a marked improvement in reducing the maternal mortality rate (MMR) to 145 in 2017 from 374 in 2000. This achievement can be attributed to several factors like improving economic conditions, relatively higher literacy level, and improvement in infrastructural facilities for institutionalized childbirth. However, in this paper, we focus on the role of behavior change communication carried out both at a strategic level and at the operational level to bring about the changes.

In the context of public health, it is important to adopt a diversity of approaches to have a considerable impact. One of the major aims of public health is to organize community efforts towards the prevention of diseases and promotion of health in society through proper assessment of the state of affairs concerning health, development of relevant policy, and providing the services needed which is accessible to all (Schneider, 2016). The major objective of public health communication is to either change a particular behavior or

strengthen the existing behavior. One has to understand that a behavior is displayed under a particular context. Therefore, it is suggested that public health communication should be scientifically developed and disseminated strategically after critically evaluating the relevance, accuracy, accessibility and understandability of health information. (Bernhardt, 2004).

## **Behavior Change Communication (BCC) Models**

In the field of behavior change communication, there have been three dominant theoretical models. Perhaps, the oldest yet one renewed from time to time is the health belief model (Rosenstock, 1974), which essentially focuses on the cost-benefit analysis that individuals make while adopting a new set of health behavior. However, it did not include the cognitive evaluation of self. Thus, the social cognitive theory (Bandura, 1997), while accepting that individuals will make cost-benefit analysis before adopting a new behavior, proposed that the individual would additionally believe that she or he can organize resources to perform the required behavior under various circumstances. He called it the self-efficacy beliefs, which has established its dominant position in changing behavior (Bandura, 1997). Self-efficacy can be developed in individuals by creating a strong sense of mastery through experiences of successes. This can be built through demonstrating that others have done (modeling), particularly social models, verbal persuasion that remind the person that she or he has the required ability to succeed and thus energize the individual to action, and positive emotional arousal (Bandura, 1997). On the other hand, the theory of reasoned action states that both subjective norms (what other members important to the person think about the behavior) and the attitude towards the behavior will determine the intention to behave (Ajzen & Fishbein, 1980). Later, Fishbein and Yzer (2003) observed that there is a need to integrate the three theories, and they came up with the three determinants of behavior change—costbenefit analysis, perceived norms, and self-efficacy beliefs. This resulted in the integrative model of behavior change (Fishbein &Yzer, 2003).

### Women's Reproductive Health

There has been a systematic relative neglect of women's reproductive health in many developing countries, because of strong gender bias and culturally transmitted values, compared to other health issues. This starts with the neglect of menstrual hygiene to antenatal and postnatal care of the mother. Maternal mortality is not like any other disease-related mortality. Motherhood is a normal human phenomenon and will continue to be so as long as the human race would like to exist on this earth. Thus, safe motherhood is imperative and closely related to gender-sensitive equality. Safe motherhood requires multifaceted interventions; this may not be limited to institutional delivery or well trained, well paid, and appropriately deployed staff (AbouZahr, 2003), but is also related to mobilizing the community and working hard to change beliefs and values of significant others in the community. Thus, in India, *Janani Suraksha Yojana* (JSY), later merged with *Janani Shishu Suraksha Karyakram* (JSSK), adopted the elements of behavior change communication and has met with a certain degree of success in some states.

One of the major obstacles in reducing the MMR has been the lack of adoption of safe motherhood practices. Safe motherhood comprises of a series of initiatives, practices, protocols and service delivery guidelines designed to ensure that women receive high-quality gynecological, family planning, prenatal, delivery and postpartum care, to achieve optimal health for the mother, fetus and infant during pregnancy, childbirth and postpartum. Unsafe motherhood results in maternal mortality or morbidity due to preventable pregnancy and childbirth-related causes. Safe motherhood decreases maternal and infant mortality and morbidity. Although most maternal and infant deaths can be prevented through safe motherhood practices, millions of women worldwide are affected by maternal mortality and

morbidity from preventable causes. Maternal mortality is an area of concern for the governments across the world and a series of interventions are being carried out for the reduction of the same. JSY is a safe motherhood intervention being implemented with the objectives of reducing maternal and neonatal mortality by promoting institutional delivery among poor pregnant women. It integrates cash assistance with delivery and post-delivery care and other provisions for safe motherhood. Within this program, an accredited social and health activist (ASHA), was identified as an effective link between the mainstream health care system and poor pregnant women for delivery of facilities and provisions under JSY. While there is much agreement that behavior change communication program is playing a critical role in promoting a multitude of government programs, little research has examined how these social marketing programs received the attention of the wider target audience in achieving its stated objectives of behavior change. Thus, the objective of the study was to understand the role of factors responsible for the adoption of safe motherhood practices among expectant mothers under JSY scheme. JSY provides increased access to skilled birth attendance, reduction in financial barriers for institutional delivery, emergency obstetric care, pre and postnatal care. By providing these facilities under JSY, it is expected that maternal deaths can be reduced among poor expectant mothers.

### **BCC Intervention through ASHA**

One of the key components of the National Rural Health Mission is to provide every village in the country with a trained female-community-health activist. The government has made efforts to identify such activists called ASHA from the village itself. They are being trained to work as an interface between the community and the public health system. The ASHA is envisaged to receive performance-based incentives for motivating women and children to receive services under the Reproductive and Child Health program. As such, they have a vital role to play in implementing the JSY scheme at the grassroots level. The frontline

community health workers ASHA are entrusted with the responsibility to stimulate demand for institutional delivery and adoption of safe motherhood and childcare. To incentivize institutional deliveries among poor pregnant women, JSY provides cash incentives to women for delivering baby in a public health facility or an accredited private hospital (Ministry of Health and Family Welfare, 2006). The cash incentives for institutional delivery among expectant mothers in Low Performing States (LPS) rural and urban areas are Rs. 1,400 and Rs. 1,000 respectively. The cash incentive is provided to all expectant women who opt for institutional delivery in LPS. High Performing States (HPS) would receive Rs. 700 and Rs. 600 for rural and urban areas respectively towards institutional delivery. The cash incentive for institutional deliveries in HPS would be provided only to women living in households below the poverty line. ASHA workers are responsible for generating awareness about health and availability of related services, counseling women on childbirth preparedness, safe motherhood practices and safe delivery utilizing institutional delivery system, and community mobilization for better access to health care system for women, ante and postnatal check-up; she is also required to accompany pregnant women and children requiring treatment/admission to the nearest pre-identified health facility, i.e., Primary Health Centre/Community Health Centre/First Referral Unit (PHC/CHC/FRU) and even provide primary health care for minor ailments.

## **Research Objectives**

This study was carried out to gain insight into JSY, its awareness among the target population, adoption of safe motherhood practices, and to generate items for various elements used in the main study. Qualitative data were gathered by means of FGDs with the end-users and village-level health workers ASHA and expectant mothers registered under JSY.

#### Method

## **Study Setting**

FGDs were conducted in Bhangel Village of Bisharkh block of Gautam Buddha Nagar district in Western Uttar Pradesh. This village is located seven kilometers from the district hospital. It has a mix demography, dominated by Yadavs, and is a densely populated village. The population of this village is 15,000. Twelve ASHA workers were actively working in the village. There were eight Anganwadi Kendra in the village.

# **Sample**

To gain insight into JSY, its awareness among the target population, and adoption of safe motherhood practices among JSY beneficiaries, FGDs were conducted with groups of expectant mothers and ASHA/Anganwadi workers. The sample consisted of expectant mothers in their second and third trimester of pregnancy. The rationale behind this sample selection was that the registration of the JSY beneficiary with the Anganwadi Kendra ideally begins with the confirmation of pregnancy. Discussion with ASHA workers revealed that most of the women in the rural area are shy about disclosing/confirming their pregnancy during the first trimester. Most of them register with the JSY scheme in their second trimester of pregnancy. Thus, expectant mothers in their second and third trimester of pregnancy were the ideal candidates for conducting this study. There was a total of 56 expectant mothers ranging from the first trimester to the third trimester of their pregnancy in this village at the time of the study. Thirty-six expectant mothers in their second and third trimester were divided into three groups with each group having twelve members. Each group was invited at the three different Anganwadi Kendra at a different schedule. Thus, to get insights into the supply-side dynamics of JSY, ASHA workers were selected for conducting FGD. Out of the

12 ASHA workers, 10 ASHA workers participated in the FGD, as two of them were not available in the village at the time of FGD being conducted.

The FGDs were used to gain insights about knowledge, attitude and behavior change about safe motherhood practices among expectant mothers. To understand the services provided under JSY, FGD with the first community-level health workers, i.e., ASHA was also conducted. As this was an exploratory study, FGD was found to be the most appropriate tool to capture the basic essence of the study. FGDs with the expectant mothers as well as ASHA workers were informal and targeted towards demand and supply-side deliverables.

Focus group discussions (FGD) were conducted in Bhangel village described above. Three FGDs were conducted with expectant mothers. Twelve expectant mothers participated in each FGD. Two FGDs were conducted with ASHA workers to know about supply-side deliverables. Five ASHA workers took part in each FGD. The study threw up important factors that are pertinent in carrying out safe motherhood practices and institutional delivery. The FGDs pointed out that though expectant mothers knew about ASHA workers and the JSY program, they had a very low level of awareness about safe motherhood practices which also included the importance of institutional delivery for the safety of the mother and the newborn child. We recorded the discussions and later we categorized the responses from the transcripts under different sub-categories following the broad variables suggested under the integrative behavior change model, proposed by Fishbein and Yzer (2003).

# Findings of the Study

ASHA plays a very important role in the JSY scheme. She is expected to disseminate information on JSY among the community members in general and to the pregnant women in particular, and motivate them for institutional delivery, accompany them to the hospital for delivery and stay with them at the institution. They were asked about the types of support they provided to assess the role they played in the facilitative implementation of the JSY

scheme at the grassroots level. The FGD with the ASHA workers started as an informal discussion. Later, it focused on services provided by them, and support from the district and local administration in the implementation of this scheme. ASHA workers were also asked about the type of help and support they provide to expectant mothers.

FGD with the expectant mothers initiated with the informal introduction of both the parties. The discussion centered on the number of children they have, whether it was their first pregnancy, family support, and existing safe motherhood practices in the village. Later, participants were asked specific questions related to awareness/knowledge about the various facilities under JSY and their attitude towards safe motherhood practices. Then they were asked a question about first and second antenatal check-ups, Tetanus Toxoid vaccination, intake of folic acid supplements, and other aspects of safe motherhood practices. ASHA played a crucial role in generating awareness about safe motherhood practices among expectant mothers. The high level of awareness has led to a positive attitude towards safe motherhood among these women residing in the villages. Most of the respondents agreed upon the rise in institutional deliveries after implementation of JSY in their villages.

#### **Cost-benefit Analysis**

In the adoption of any new behavior, there are two types of costs that the incumbent has to bear. One, the costs associated with leaving the existing behavior (i.e., psychological, physical, and financial), and the cost associated with adopting a new behavior. Similarly, they would weigh the benefits that would accrue to them by adopting the new behavior. Only when the benefits outweigh the costs, individuals will accept the new behavior. In the case of rural Uttar Pradesh, for ASHA workers, the client was not only the expectant mother but the mother-in-law as well. Because in most households in rural areas the mother-in-law regulated the process. ASHA workers provided the medicines, generated awareness, and also motivated both the expectant mothers and their mothers-in-law. This would reduce the cost of access.

Similarly, through financial incentives institutional childbirth was increased. To increase the nutrition intake of the mother, they would advise, though not technically correct, the mother-in-law to provide milk to the daughter-in-law regularly if they wanted to have a fair-skinned grandson. Similarly, they would utilize similar cultural factors to motivate both the mother and the mother-in-law to adhere to nutritional requirements. For example, they will urge mothers to take iron tablets regularly so that they get healthy children. The red color of the tablets was used a sign of strength and it was reinforced through stories. Thus, adherence to nutritional requirements and safe practices was increased by ASHA workers by knitting stories around each of the practices. As already discussed, the mother-in-law usually has a huge control on the food intake and work pattern of the expectant mother and at the same time, would put relatively less value on the health of the mother compared to the unborn child. Hence, ASHA workers would weave all the stories around safe motherhood practices, focusing on the health and physique of the unborn child rather than that of the mother.

Thus, the benefits of certain safe motherhood practices outweighed the costs. ASHA workers would invite all expectant mothers, and occasionally for discussion in a group, they would also convince the mother-in-law to allow their daughters-in-law to come to the meetings for the benefit of their future grandsons (Note: they would never use granddaughter and exploit the known cultural weakness—the preference for a son over daughter). Whenever the mother-in-law and expectant mothers will visit Anganwadi Kendra, the ASHA worker would ask, "How should your grandchildren be? Do you want them to be fair as milk, red like tomato, or chubby?" If the mother-in-law said that she needed a very fair, healthy and chubby baby, then the ASHA worker would point to the diet chart. As one can see in the picture, all the foods related to protein and calcium were white. The white region in the chart consisted of diets including milk, egg, cottage cheese, curd, coconuts. The red region in the chart consisted of food items that were red in color and rich in iron and proteins such as red

meat, fish, tomato, kidney seeds, grains, beetroots, fruits in red color such as berries, almonds, apple, and so on. Food items for chubby babies were pulses, banana, grains, sprouts, and such.

In these meetings, they would discuss different safe motherhood practices. The expectant mothers enjoyed the process as that would give them some free time away from the strict gaze of their mothers-in-law while they could socialize with other women of their agegroup within the village. These meetings were rather informal social interactions. Many expectant mothers would looked forward to such meetings. Visiting the Anganwadi Kendra provided insight into the use of various persuasive techniques by ASHA/ANM workers. It is known that JSY provides ration to the expectant and lactating mothers along with folic acid supplements. To encourage expectant mothers to adopt a balanced diet, diet charts were available at the Anganwadi Kendra. ASHA workers used these charts to educate expectant mothers as well as their mothers-in-law about a balanced diet to have a healthy child and better maternal health. The diet chart attached below is self-explanatory, yet ASHA workers used innovative ways to communicate about the various foods to be taken during pregnancy for a healthy mother and child. ASHA workers conducted a similar discussion with the expectant mothers too. There was the benefit of using this locally designed verbal communication. Most of the grandmothers and expectant mothers agreed that the use of this analogy had provided them with a clear picture of a balanced diet during pregnancy and delivery.

## **Perceived Norms**

Perceived norms are usually the standards of behavior that we think that others expect of us in a social context. Not adhering to a particular norm would attract punishment. However, this depends on the extent to which the norm is followed within a given context and how strong the norm is. Stronger the norm, stronger is the retaliation if there is a

deviation from it. We found that women exhibited tension when they were told by ASHA workers that they will have to go to the hospital for childbirth. The response was, "How can I even suggest this to my mother-in-law? She will not permit it." Then she would say that her mother-in-law would say that she had given birth to three healthy sons without ever going to the hospital. The mere suggestion that institutional delivery is better was brushed aside by expectant mothers for fear of breaking the norm. ASHA workers used two instruments; first, they used the financial incentive to lure the mother-in-law to agree to institutional delivery and second that she, the ASHA worker, would accompany the pregnant lady and would be all along with her throughout the process. During the FGDs, one expectant mother said, "One can think of institutional delivery because of financial incentives provided by the government under JSY." (Sunita Devi, expectant mother from Bhangel). The mother-in-law's objection, in reality, did not emanate from any strong personal conviction rather they were more worried about what others would think of them. Their major worry was that their neighbors would think that they are shirking the responsibility of being a good mother-in-law by sending their daughter-in-law for institutional delivery. However, this anxiety was reduced when they realized that many others from the neighborhood had agreed to go for institutional delivery.

### **Facilitating Conditions and Development of Self-efficacy**

Most of the respondents of the FGD agreed to the fact that the facilitating conditions available locally under JSY had contributed largely to the adoption of safe motherhood practices. These facilitating conditions included "the availability of community-level health workers from the local community, vaccination facility in the village, arrangement of transport facility for delivery, ASHA workers accompanying expectant mothers for institutional delivery, antenatal check-ups counselling by ASHA workers, availability of folic acid supplements and other provisions under JSY. Most of the facilities were available at the

Anganwadi Kendra. We go to the city hospital only in case of an emergency." (*Bhanwari Devi, Bhangel*).

#### The Motivation of ASHA Workers

Performance incentives to the service providers (ASHA) seemed to motivate them to put their maximum efforts in reaching out to the beneficiaries registered under JSY for institutional delivery. The socioeconomic conditions of the beneficiaries might have been preventing them from accessing safe motherhood facilities and services previously. Since expectant mothers are paid for institutional delivery under JSY, the burden of going for institutional delivery may have been eased. "The financial incentive to ASHA workers per institutional delivery is one among the motivating factors for promoting institutional delivery."(*Poonam Yadav, ASHA worker, Bhangel*).

### **Conclusion**

Discussion with the respondents revealed that most of the ASHA workers acted as opinion leaders and change agents for safe motherhood practices among villagers. Their roles ranged from generating awareness about safe motherhood practices, and informing about various provisions under JSY among expectant mothers to at times convincing family members of the expectant mothers to adopt safe motherhood practices. The findings from the FGDs suggest that JSY is playing a very crucial role in the adoption of safe motherhood practices among expectant mothers in rural areas. Community health workers' roles are also commendable in delivering the services among the beneficiaries. At the time of the study, most of the respondents were in the second and third trimester of pregnancy, and it was difficult to capture all aspects of behavior change in respect of safe motherhood practices.

The study is very limited in nature and in no way is an evaluation of JSSK. However, we tried to understand the process of behavior change communication as it is applied to a

particular setting. We also found that there is an implicit use of behavior change communication theories in the field. However, the techniques and processes are quite different and may not adhere to the framework of social change or feministic notion of control of one's own body. ASHA workers were not fighting the social system or deeply rooted stereotypes that the social system has produced and reinforced over the years; rather, they were leveraging the same dysfunctional social values to further the cause of maternal and child health. Our contribution to the literature is about highlighting this very aspect of behavior change communication. Changing social norms may take a long time; for immediate improvement in the present condition one may leverage the existing social values, irrespective of how dysfunctional they may be.

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