Forman Journal of Social Sciences (2021) Volume 1
DOI: 10.32368/FJSS.20210101

Mothers-in-law as Key Influencers: Study on a Radio Drama Intervention to improve Maternal and Child Health in Pakistan

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ABSTRACT

Mothers-in-law play an integral role in promoting maternal and child health practices in rural Pakistan. This study discusses the design, implementation, and evaluation of a 25-episode radio drama featuring the mother-in-law as the primary influencer for maternal and child health practices. The radio drama was designed after an extensive pre-drama audience research comprising of 10 focus groups, and 14 in-depth interviews in Bagh and Mansehra. Post-drama evaluation comprised two focus groups in the target areas. The endline evaluation found that viewership of the drama improved communication between people of all age groups and social roles without offending their dignity, intelligence, and sense of tradition. Additionally, the findings showed that the audience demonstrated improvement in knowledge about danger signs for mother and child, as well as positive attitudes to seeking timely service from a trained healthcare provider. The study makes a contribution to existing health communication campaigns by introducing a culture-centric approach, through radio dramas, to influence mothers-in-law and consequently impact maternal and child health practices.

Keywords: mother-in-law, radio drama, entertainment education, maternal health, child health, Pakistan

INTRODUCTION

The maternal and child health (MCH) situation in Pakistan has shown little progress since the past decade. For instance, the maternal mortality rate has declined from 186 deaths per 100,000 live births in year 2019 compared with 276 deaths in year 2007 (Pakistan Report, 2020). This corresponds to an average annual rate of reduction of 3.1%. However, to achieve the 2030 sustainable development goal (SDGs) target of 70 per 100,000 live births, Pakistan needs a decline rate of 8.3% i.e., more than double the current efforts. The situation is similar for newborn mortality rate. Even though the newborn mortality rate has declined from 41 to 31 per 100,000 live births in the past decade, still significant efforts are required in improving the quality of neonatal interventions such as quality of care for mother and the newborn, and for sick newborn care.

An important step towards improving MCH has been through the doorstep community outreach services of the Lady Health Worker (LHW) program launched by the government. Even though the LHW programme has made significant strides in improving MCH, the statistics show a decline in the number of women who were visited by the LHW for family planning services between years 2012-13 (29%) to 2017-18 (19%). The women of age 30-34 years were most likely (24%) to have been visited by a LHW and discuss family planning, with low service provision for the other age brackets for reproductive years (15-49 years). Overall, the LHW programme also requires significant improvement to achieve the SDGs by reducing gaps in financing and technical supervision.

The MCH predicament in Pakistan is compounded by women resorting for home births and relying on unskilled birth attendants or *Dais*. Even though, Pakistan's health

infrastructure is expansive, only 15% of childbirths take place at public health centers (Bhutta et al., 2013). Main reasons for home-births comprise structural and socio-cultural issues such as lack of family permission, distant facilities, costly services, and inadequate quality-of-care (Shah et al., 2010). Another reason for preference of home-based deliveries is because institutional deliveries are considered Western practices (Moyer & Mustafa, 2013). Such a situation requires investment in media-based behaviour change interventions to influence public attitudes and behaviors towards health-facility based professional care, which is the focus of the current study.

Aim of study

This study presents the design, implementation, and evaluation of a radio program for MCH promotion in Pakistan. The radio drama was produced as part of a behavior change communication campaign for roughly 1.8 million residents in Bagh and Mansehra districts of northern Pakistan. The intervention contributes a novel way to engage with elders, especially mothers-in-law, to improve understanding about MCH, which are often too sensitive and challenging to openly discuss in rural households, especially in Pakistan. The study proceeds with providing a brief background about the radio program project that was developed and implemented by the Primary Healthcare Revitalization, Integration, and Decentralization in Earthquake-affected Areas (PRIDE) project. The project was implemented in the Bagh and Mansehra districts of KPK. Three steps pertaining to the project are described in this study:

1. The qualitative results of the audience research, which was conducted to gain feedback for content development for the radio program;
2. Content and character development for the radio drama design workshop; and
3. Assessment of the impact of the radio drama upon the listeners.

Ethics and permissions

The author has received permission from PRIDE project to use and interpret the data collected by them. Ethics approval has also been taken from Michigan State University, USA.

BACKGROUND

Nearly two million people were living in the mountainous regions (Munir et al., 2007) of Mansehra and Bagh districts in northern Pakistan when a 7.4 Richter scale earthquake struck in November 2005. The devastating earthquake, led to the implementation of the Primary Healthcare Revitalization, Integration, and Decentralization in Earthquake-affected Areas (PRIDE) project in the Bagh and Mansehra districts of KPK. PRIDE was a four-year project launched by the United States Agency for International Development (USAID) in August 2006.

The project was implemented by a consortium led by the International Rescue Committee (IRC) with Management Sciences for Health (MSH), and Johns Hopkins Program for International Education in Gynecology and Obstetrics (JHPIEGO) as partners. PRIDE project's objectives included: (i) strengthening the management capacities of district health authorities, (ii) improving access to quality primary healthcare services, (iii) increasing participation of communities in health service management, and (iv) enhancing household's level of knowledge and their care-seeking behaviors.

After the earthquake, PRIDE project's efforts have led to an improved infrastructure to the extent that the health facilities significantly improved from the pre-earthquake period. Still, the uptake of primary health care services was low because access to healthcare was a function of socio-cultural factors that go beyond the availability of and access to health services (Chan & Griffiths, 2009). The underlying

factors for low uptake of services needed a mass media communication campaign which aimed to positively transform audiences' beliefs, social norms, and motivations.

In lieu if this, PRIDE project initiated a behavior change communication campaign that comprised an interdisciplinary team including communication consultants, advertising agency staff, district health officials, community mobilization staff, health services staff, health systems staff, and monitoring and evaluation officers. The author of this study, served as the behavior change communication manager, working closely with the project director, to ensure the smooth execution of the campaign and also for communication with stakeholders for the entire duration of the project.

The behavior change communication campaign, consisted of a half-hour radio program that aired once a week, for a total of 25 weeks, on local FM radio channels in district Bagh and Mansehra from February 2010 to May 2010 during evening prime time hours. The radio program was named: *Rishton ki Wadian A'na kay Pahar* ("Battle between love and pride"; hereafter *Rishton*) and the genre was fictional narrative. The objectives of the *Rishton* radio program were multifaceted, and focused on: (i) promoting institutional delivery to enhance a dialogue about MCH in households, (ii) empowering LHWs, (iii) reducing health risks for mothers and children, (iv) promoting the efficacy of household members to seek healthcare information, and (v) improving retention of health messages.

Based on this radio program data was then gathered by PRIDE to understand the audience and community response. The data collected included: (i) a baseline survey (2006), (ii) audience research to gain feedback for content development of the radio program (2008), and (iii) a post-intervention qualitative evaluation (2010). The data was gathered by interviewing couples (women and their spouse), their mothers-in-law,

health officials, and community leaders. The following section presents the details of audience research and how it led to the creation of *Rishton* program for radio.

STEP ONE: AUDIENCE RESEARCH

The first step of the communication campaign was to conduct an in-depth assessment of the target audience. The aim was to identify the main influencer for MCH practices and then develop a radio program based on the findings. This included a qualitative audience research led by an internationally renowned private research firm in December 2008. The study comprised of 10 focus groups, and 14 in-depth interviews in Bagh and Mansehra.

Participants and Procedure

The selection criterion for the women participants included: (i) women of reproductive age, (18-35 years), (ii) women having minimum of one child but no more than two children, and (iii) women currently residing in rural and urban Bagh and Mansehra. As mentioned earlier, the husbands and mothers-in-laws of the women participants were also sampled. For the focus groups, a minimum of 10 people were invited, and on average, eight participated. The focus groups and interviews followed a semi-structured questionnaire format. An experienced moderator accompanied by a note-taker facilitated each interaction. The participants were informed about the nature of the research, and consent was taken before the interaction began. Each interaction lasted approximately 2-3 hours **(Table 1)**.

In addition, in-depth interviews were organized with medical staff of local BHUs and Nazims (religious leaders) of each district. Each respondent was explained the purpose of the research and a prior consent was taken. The focus groups and in-depth interviews were audio recorded and later transcribed. The audience research

including focus groups and in-depth interviews was completed in eight days starting from 17th September and terminating on 27th September 2010, and a total of 18 people from the field team were assigned to this project. The following section presents the main findings of the audience research specifically in the context of insights that resulted in formulating the creative strategy of the *Rishton* program.

Table 1:
Sampling for Audience Research

	Bagh		Manshera	
	FGDs (n=5)	Interviews (n=7)	FGDs (n=5)	Interviews (n=7)
Women	2		2	
Husbands	2		2	
Mothers-in-law	1		1	
Religious Leaders		2		2
Medical Staff		5		5

Findings from Audience Research

It is important to clarify the meaning of *Rishton ki Wadian A'na kay Pahar* ("Battle between love and pride"). The phrase, emerging from the audience research, basically depicts a complex mix of barriers that people face in accessing MCH services. The identification of these barriers led us to the realization that people of Bagh and Mansehra are experiencing a range of inner conflicts or doubts. This insight served as the central creative strategy of the radio drama and was later embedded in the script writing and character development process. The next section presents these conflicts and doubts experienced by our audience and then elaborate on the process through which the *Rishton* program addressed and resolved these conflicts.

Conflict I: Home-Based or Health Facility-Based Delivery.

Generally speaking, all entertainment programs are based on some form of a conflict. Such as, conflict between people, conflict between opinions, conflict of interest, and often conflict with one's own self. Conflict fuels debate and may lead to change in

attitudes and behavior. The people of Bagh and Mansehra had their own set of conflicts. For example, a key conflict associated with mothers-in-law was that though they are considered a respected member of the household, they generally lacked knowledge about modern MCH methods. They appeared resistant to change because of their attachment to age old traditions. This made them the protectors of tradition within the family and often made them consider modern health centers unnecessary. It is the influence of mothers-in-law that encourage women to seek help from untrained midwives or *Dais*, local medics or *Hakeem*s, herbalist, faith healers or other informal health providers. The overall result is a conflict between traditional knowledge bearers (mothers-in-law) and modern health practitioners such as LHWs and other trained healthcare practitioners.

The audience research also discovered access and availability of a trained birth attendant as a key conflict. The results show that it became particularly challenging for a pregnant woman to reach a health facility as the time of child birth approached. Several reasons contributed to it, such as a difficult and mountainous terrain, which was further exacerbated by inadequate transportation services. As a result, people had no option but to walk to the nearest highway and then wait several hours for public transportation to reach a hospital, all of which was often also beyond their limited financial means.

The possibility of reaching a hospital is even lower at night time. Women were hesitant to leave their houses in this state of being pregnant. Government hospitals provided free services but did not provide the required care. For instance, doctors are not available after evening. The hospitals did not have labs, fully functional ultrasound facilities, and other basic services. Furthermore, poor and uncooperative attitude of the health center staff deterred people to seek services from these facilities.

Another important reason for low utilization of health services was the non-availability of female staff in the maternal care services. Due to religious and cultural reasons, women preferred to be seen by a female doctor. Additionally, male members of the household, such as the husband, father-in-law, or brother-in-law, only permitted women to visit health facilities if female staff was present. If the husband or male members of household are not at home, then women cannot visit the heath facility, and must wait for male family members to return or resort to self-treatment. Women also didn't have financial independence or income to call transport or consult a doctor in the absence of the male members. As a result, many women ended up delaying treatment or not receiving timely services.

The audience research found LHWs as a helpful resource; someone the community members could turn to, for pregnancy related matters. However, there was a perception that LHWs need more education and training to handle complex maternal health problems. Also, they were considered less experienced, due to their younger age, as opposed to a midwife or *Dai* who was many years older and more respected in the community. For these reasons, women in rural areas of Bagh and Mansehra mostly consulted a *Dai* for pregnancy and child birth related matters.

All of these factors further contributed in their intention to call a midwife or *Dai*, which in many cases was the only available option. *Dais* are available round the clock, costs less, have strong family ties, and are trusted members of the community. Based on these reasons, many families in Bagh and Mansehra relied on *Dais* for the MCH advice. There were incidents when a patient was rushed to the hospital in an emergency because the *Dai* could not handle the complications resulting in the death of mother or child. Such incidents were accepted as divine will.

Conflict II: Who makes the Decision on Mother and Child Health?

Another main conflict that emerged from audience research pertained to the decision-making authority about MCH. Generally, most matters were discussed and opined with the elders in the family who are obeyed as a sign of respect. The woman often does not have the authority to make decisions that affects her and her child's life. Husbands have the authority to take care of their family's health generally, but are not exclusive decision-makers related to maternal health issues.

Mother-in-law was identified as the most influential person in terms of decision making when it comes to pregnancy and childcare. She was considered experienced and respected because she has given birth to and raised children herself and is the elder of the household. The husband is the second person in line to make these decisions. It was found that mothers-in-law preferred home-based birth by *Dais* because she was easily accessible, charge minimal amounts, and is usually a family relative or a close friend. In this situation, most women were not allowed to make alternative decisions because of the preference of mothers-in-laws.

Overall, the results show that maternal and child health-related decision-making was a highly social process. Even if women opt to benefit from improved health services provided by the PRIDE project, they were restricted in their ability to seek timely and quality care for themselves and their children due to the social and economic barriers. Additionally, the leading influencers, such as mother-in-law, did not value new health services. Overall, mothers-in-law play a crucial role in determining access to health services especially when it comes to MCH and therefore required the most persuasion. Therefore, the project selected mothers-in-law as an important influencer for the behavior change communication intervention aimed at increasing awareness and improving attitudes and practice about pregnancy and childcare.

STEP TWO: RADIO DRAMA DESIGN WORKSHOP

The Storyline

The storyline and script of *Rishton* were produced during a three-day radio drama design workshop that was implemented as per the guidelines provided by the Johns Hopkins University Center for Communication Programs (DeFossard, 1998). The objective of the workshop was to reach agreement on the technical and creative aspects of the drama. The workshop participants included staff members from Bagh (*N*=5), Mansehra (*N*=5), head office in Islamabad (*N*=2), advertising agency (*N*=2), and the health communication consultant (*N*=1); representing an interdisciplinary mix of professionals from health services, health systems, community mobilization, and creative design.

The team met for three days in PRIDE's head office in Islamabad. The brainstorming sessions and exercises resulted in setting up the main structure of *Rishton* that included key topics and messages for all episodes. The health messages and behavior change communication objectives for each episode is summarized in **Table 2** and presented in detail in **Appendix A.**

Table 2:

List of episodes and messages for the *Rishton* radio program

List of Episodes	Maternal and Child Health Messages
Episode 1-4:	Character intro and story build-up with few MCH messages
Episode 5-10:	Ante-natal care
Episode 11-13:	Labor and birth
Episode 14-17:	Immediately after birth mother and neonatal healthcare
Episode 18-25:	Post-natal care, Neo-natal care, and child health

Drama Characters and their Contribution to Resolving the Inner Conflicts

The findings from the audience research and message design workshop informed the creation of the main drama characters and their contribution to the behavior change

process. The main characters comprised of the mother-in-law, husband, woman, father-in-law, LHW, untrained traditional birth attendant or *Dai* and a comic character among several others. The drama characters were carefully designed to relate to both men and women of all age groups in the target community. A detailed psychographic profile of each character is presented in **Appendix B**. The next section briefly elaborates the role of the mother-in-law and a few other characters in context with the creative theme of inner conflicts.

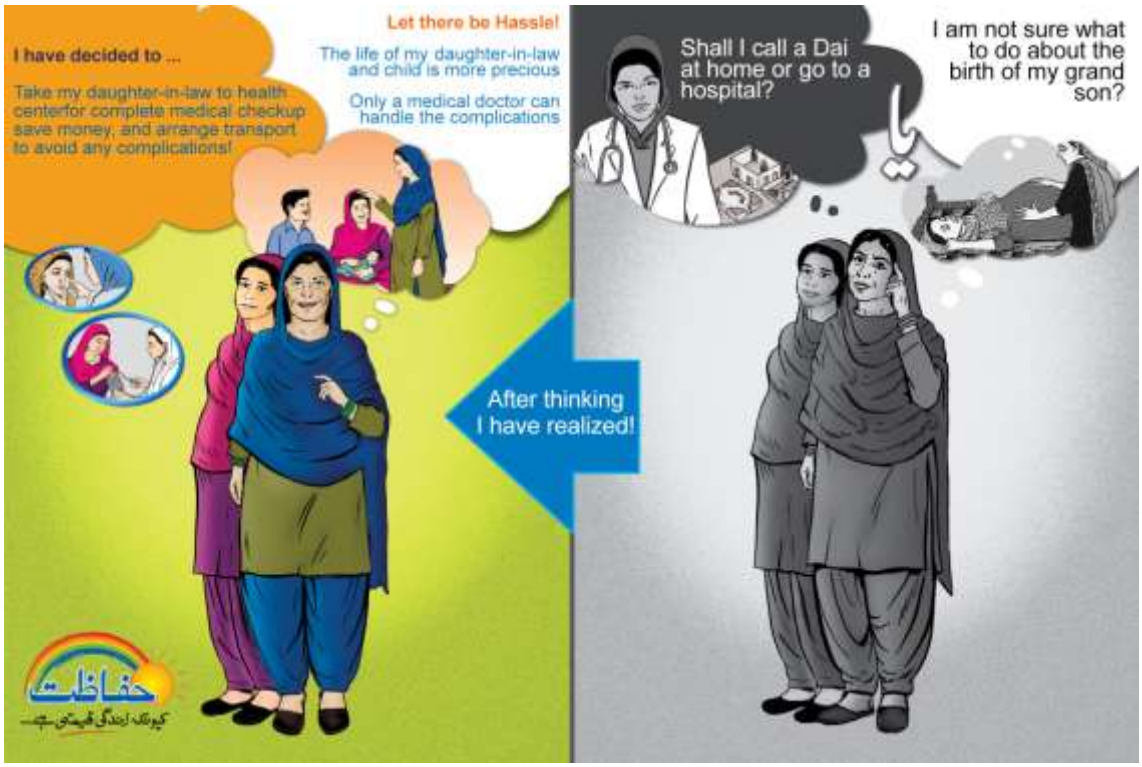

***Figure 1*:** Radio Drama Promotional Poster

The central character of the mother-in-law was developed to be similar to a typical mother-in-law in the target community. The mother-in-law character was named as *Amma Jee*, a term often used for mothers in Pakistan. She was lovable, though self-righteous and argumentative. She depicted a person that the audience could relate to and yet a character who is enigmatic and charismatic. The aim was to gain audience attention in addition to creating a sense of self-reflection and empathy. The character was designed to showcase dilemmas between traditional values, messages, and practices

in a non-threatening manner **(Figure 1)**. The *Rishton* radio drama built a story around *Amma Jee's* life, her inner struggles, and the resolution of conflicts between her immediate and extended family, and healthcare providers. These providers included a hardworking though discouraged LHW and an untrained traditional birth attendant or *Dai* who later had a change of heart about hospital-based childbirth and modern healthcare practices.

The creation of *Amma Jee's* character facilitated communication with people of all age groups and social roles. The idea of *Amma Jee's* inner conflict, depicted through the creative use of an alter ego, allowed the audience to identify and resolve their own doubts and dilemmas. For example, a typical mother-in-law could have an alter ego of being the family protector and guardian of family values. Having an alter ego is generally a positive phenomenon because it allows people to express in such a way that they would not feel comfortable expressing with their own self. The *Rishton* drama highlighted and crystallized these inner conflicts in the minds of people and aimed to help them make appropriate and timely decisions for MCH. **Appendix C** provides an example of the conversation between *Amma Jee*, the *Dai* and the LHW worker as an example of the content of one of the drama episodes.

In addition to the mother-in-law character, the radio drama addressed a wide range of inner conflicts that existed in a typical household to communicate and reinforce the health messages. For instance, mothers realize the benefits of antenatal care, facility-based delivery, and postnatal care but did not want to go against the century-old traditional practices and beliefs. Husbands had the authority to take care of their family's health but did not feel responsible to act on their role. For them, the birth of a baby was a female matter, beyond their domain. Even if they wanted to be involved in the health matters of their wife and child, traditions and gender norms prohibited them.

These inner conflicts were not always apparent and often operated at a sub-conscious level. The goal of *Rishton* was to highlight these inner conflicts, and bring them up for dialogue to help them make decisions in favor of better health for their families.

Objective of radio drama communication

The main objective of *Rishton* was to increase knowledge at the community and household level about sensitive MCH issues. Additionally, the drama wanted to address the inner conflicts related to important health decisions and influence attitudes and behaviors of key decision makers. The goal was to achieve this in a manner which was nonthreatening, believable and informative for all members of the household and community notables. To summarize, the radio program intervention aimed to answer the following questions:

1. How did the listeners respond to the transformation of mother-in-law and Dai from traditional to modern maternal and child health-related practices?
2. How did the listeners respond to the role of characters such as LHW, and husband in influencing their attitude about MCH practices?
3. Was the radio drama believable and how did it influence community-level as well as household level dialogue among family members about MCH?

STEP THREE: ASSESSMENT OF THE RADIO DRAMA

Participants and Procedure

Though an independent quantitative assessment of the PRIDE project was conducted in 2010 (Zaman et al., 2013), this study aims to report the modest results of the qualitative assessment of the *Rishton* radio drama that was conducted by the behaviour change communication team after the drama ended in May 2010. Two focus group discussions were conducted in Bagh and Mansehra. The participants (n = 25) comprised both male

and female listeners. The participants were selected from a radio quiz competition that was conducted at the end of each episode. The quiz competition received an overwhelming response from listeners who participated by sending SMS text messages, emails, and handwritten letters. From this group, a list of twenty-five listeners were randomly selected and invited to participate in the focus groups. The session proceedings were recorded on paper and then transcribed by the author. The demographic information of participants was not collected. Informed consent was received from the participants. **Table 3** summarizes the main characters and their roles.

Table 3:
Main drama characters, their names and roles

Positive Characters		Neutral Characters			Negative Characters	
						
Azra Khala (Radio Host)	Dilshad (LHW)	Amma Jee (Mother-in-law)	Tahira (Daughter-in-law)	Muneer (Husband)	Parveen (Daughter of Dai)	Rozeena (Dai)

Findings from the Post-Intervention Assessment

Transformation of mother-in-law and Dai from traditional to modern beliefs

As mentioned earlier, the central character of *Rishton* was *Amma Jee*. Therefore, listeners' feedback on the role of mothers-in-law from a behavior change perspective was particularly important. As expected, the study participants indicated the recognition of a gradual shift in *Amma Jee*'s thoughts, attitude, and beliefs towards trained health staff as opposed to contacting a *Dai* for the health of daughter-in-law and for the child health. For example, a female listener from Mansehra said:

> Through this drama information was spread very nicely. The drama especially communicated with the elders about the importance of going to a health centre.

Other listeners also commented on the transformation of the characters *Amma Jee* and *Dai*:

> Both *Amma jee* and *Dai* had orthodox and traditional beliefs which was not right at all. But, *Amma Jee* used to understand quickly; whereas the *Dai* was more stubborn in her views (Female, Bagh).
>
> …Personally, I liked the Amma Jee character because she loves her family and children and when she was told about the health concerns in a nice way she was convinced (Male, Mansehra).
>
> … This drama has potential to change the consciousness of a lot of mothers-in-law like *Amma Jee* (Female, Mansehra).

Listeners acknowledged that the neglect of MCH is widespread in their community and tangible efforts must be done to address the issue. For example, a male listener from Mansehra acknowledged:

> In our rural areas the mothers-in-law do not take care of their daughters-in-law. They burden them with a lot of household work. From this drama we learned more about what is important and how they should be treated.

During the script development and drama execution process, it was very important to keep the drama close to reality. This was achieved through the in-depth audience research and was acknowledged by listeners:

> The role of mother-in-law and *Dai* were very close to the reality. The whole drama was based on real-life scenarios just like it happens in our village. People did not know many issues discussed in the drama and because of this ignorance we have suffered a lot. We used to talk about the drama after each episode. It was indeed full of important lessons. I think the key message of this drama has been to persuade people to visit the health facility

> for mother and child health issues instead of relying on home-based remedies (Female, Bagh).

The results also show signs of involvement, and engagement from listeners. A female listener from Mansehra talks about how the drama kept all members of the family deeply engaged with the story:

> Our whole family used to wait for this drama. Before its start, we used to finish the housework and turn on the radio. Everybody enjoyed listening to it. After the drama we used to continue discussing the story and the characters. From this drama we have learned more lessons than what we ever knew about mother and child health (Female, Bagh).

Participants shared improvements in their knowledge and efficacy to act on the health messages:

> I learned from the drama that pregnant women should have at least 4 antenatal visits, receive vaccination, and should choose health facility-based delivery (Female, Bagh)
>
> … I learned the importance of health facility-based delivery, exclusive breastfeeding and about family planning (Female, Bagh).
>
> … I think this drama was 90% successful. We should plan for the maternal and child health matters so as to avoid any trouble at the time of child birth. This drama was helpful because many people still don't believe in seeking services from health facilities and trained providers (Male, Mansehra).

Role of lady health worker, and husband in influencing maternal and child health

In addition to the mother-in-law, several other drama characters contributed to the behavior change process. Foremost among them was a hardworking LHW who makes door-to-door visits to educate people about health services. The drama showed a constant battle between LHW and *Dai* as they argue with each other about the importance of trained health staff versus traditional practices for antenatal checkup,

health facility-based delivery, and child health. For example, a female listener from Bagh talked about the problems associated with birth preparedness and how the lady health worker addressed these issues:

> My favorite character is *Dilshaad* [LHW]. In this area, people used to have a low opinion about LHWs; people said they did not do enough work. In the drama, however, *Dilshaad* is a caring and hard-working LHW. She is a good person. My sister-in-law is training to be a LHW and I think she will be just like *Dilshaad.* Our village is in a very rural, remote area. It takes a very long time to reach the nearest hospital, as the roads are so bad. Taxis are expensive and hard to come by. They charge about PKR 3,000 (USD 30) to go to the nearest hospital. Often women have to be carried on a bed and sometimes they suffer severely before even reaching the hospital. I like this radio program because it's the first source of information I have ever heard about women to prepare for birth by saving money (Female, Bagh).
>
> … The guidance given by LHW was the soul of the drama (Female, Bagh).

A female listener further alluded to the conflict between traditional versus modern practices in the context of drama characters:

> … I disliked how the *Dai* misled Amma Jee. The *Dai* didn't want Tahira's (daughter-in-law) delivery to happen at the health facility. Instead, she insisted for home-based birth. But every time *Muneer* (husband) interfered and sorted out the misperceptions. I think the drama was very close to reality because, in many families, child birth happens at home, resulting in either the woman or the child losing their life. In many cases both end up with serious health concerns after home-based deliveries or even death.

These sentiments were shared by male listeners which is important because when it comes to reproductive health, often women do not have access to information or agency to control health matters. Men are important decision-makers for providing finances and

arranging transport to reach health facility for medical checkups and delivery. A male listener from Bagh expressed his views:

> LHW played a marvelous role. She continued to guide the community and increase awareness on mother and child health, despite the fact that she was ignored and hurt by many. She explained the health matters in a very nice and affectionate manner. She also used to follow up with people on the progress and help them out.

The listeners looked up to the LHW as a role model who possessed both knowledge and moral character to help the community:

> I loved the character of *Dilshad* (LHW). Even though *Dai* falsely accused her of theft but she did not complain. Instead, she helped the *Dai's* daughter during her pregnancy. She also did not remind the *Dai* of the false blame that was put on her earlier. This shows the high character of *Dilshad* (Female, Bagh).

Another important character of the *Rishton* was husband (*Muneer*). The findings showed that male listeners closely associated with this character and were able to rethink about the traditional beliefs and stereotypes through this lens. For example, a male listener from Bagh expressed his opinion about the importance of male involvement in MCH issues:

> My favorite character is *Muneer* (husband). He is the main hero. He is very caring towards his wife, and he gave importance to her opinions. In my opinion, the main message of the drama is that 'life is precious.'

Another male listener from Bagh talked about the health consequences they have faced due to lack of knowledge about MCH issues:

> This drama was close to reality because in our villages *Dais* are rigid and firm in their traditional beliefs. They follow their ego that often results in poor health outcomes for the mothers (Male, Bagh).

> … This drama successfully spread information in society about a topic that is difficult to talk about in a direct way. So that the listener could understand solutions. The story was a home-based story; same as it happens in reality (Male, Bagh).

Promoting dialogue among community and household members

MCH was a sensitive issue to discuss at household and community level in Bagh and Mansehra. Thus, it was important for the drama to generate positive dialogue among the listeners. To achieve this, a comic character; *Suleman Rahi*, was introduced based on a famous film character in Pakistan. The humor added by the *Suleman Rahi* kept the listeners engaged and reduced information overload. A female listener from Bagh said:

> I liked the comic character of *Suleman Rahi* because he makes everybody laugh even under tense situations.

Several participants talked about their engagement with the *Rishton* drama and how it enabled them to start a dialogue with elders in their family:

> The drama also helped me understand how to persuade our elders and how to communicate with them (Female, Bagh).
>
> … I think talking about reproductive health is a sensitive and complicated matter which was nicely dealt with through radio drama (Male, Mansehra).

A male listener from Mansehra talked about the importance of using the radio medium and how it helped him start a conversation with family members:

> The radio drama was beneficial because a lot of girls and women, both literate and not literate, could listen to it from their homes. I think every character of this drama was full of lessons and advice. The drama helped me understand how to persuade our elders and how to communicate with them.
>
> … Although it was mostly audio, but from the drama I could imagine that all of this is happening in my own family (Female, Bagh).

…We really liked the name of the drama because it used very nice and appropriate words (Female, Bagh).

… The broadcast of drama on radio medium was very helpful. Because then a lot of girls and women could listen to it from the privacy of their homes (Female, Bagh).

…It is the first time we have heard a drama like this on radio (Female, Mansehra).

…I think this drama should be broadcasted on TV as well (Male, Mansehra)

DISCUSSION

The purpose of this study was to present the design, implementation and evaluation of a radio drama to promote the role of mothers-in-law for MCH in rural Pakistan. The intervention, a radio drama, was developed based on an in-depth audience research that directed all creative aspects of drama production, including message design, scriptwriting, and post-production. The central theme of the *Rishton* drama was the insight that people live with inner conflicts that influence their decision making about MCH. The *Rishton* drama introduced unique challenges at every stage of the MCH continuum. For example, during the pregnancy and delivery phase the challenges were cost of delivery, lack of doctor and services, distance from health facility, and whether to select Dai or a trained healthcare provider for the birth of child. After the birth of baby, the episodes introduced new challenges such as knowledge about postpartum care, neonatal care and child vaccination and family planning.

To address these conflicts, a lovable, though self-righteous but argumentative mother-in-law character, *Amma Jee*, was created that showcased dilemmas of traditional values. The radio content messages promoted practices in a non-threatening, non-dogmatic manner. The use of this character allowed the campaign to communicate with people of all age groups and both genders without offending their dignity, intelligence or sense of tradition. The idea of *Amma Jee's* inner conflict, depicted through the

creative use of an alter ego enabled us to communicate with target audience, and identify and resolve their doubts and dilemmas about maternal and child related health.

There is an established history of producing entertainment-education programs to promote MCH and family planning. Few notable examples from Pakistan include TV drama *Aahat, Nijat, BOL, Sammi, Mujey Jeenay Dou*, and *Angoori*. These dramas prominently showed the character of mother-in-law as key influencers for positive cultural change. The current study contributes in two ways. First, the drama portrayed the mother-in-law as the main character who went through a change of heart about health facility-based deliveries. Second, it was the first time an audio drama was developed and successfully broadcasted in North Pakistan.

A key factor in the success of *Rishton* intervention was its relevance to the local culture. We find support for this approach from other scholarship on international health communication. For example, Dutta and Basnyat (2008) examined entertainment-education radio dramas from a cultural point-of-view and provided a theoretical framework for participatory communication projects. The authors argued that such an approach enabled listeners to be an active participant in the meaning-making process of messages broadcasted from the drama. These meanings are socially constructed as the media interventions open opportunities for dialogue about the lived experiences of the listeners. *Rishton* also promoted dialogue between household members, as well as community members. The dialogue helped to prepare families for pregnancies as soon as they are aware of conception and to identify an appropriate health facility, save money, and arrange transport for the time when they needed to go for the delivery. The study also highlighted the important role of LHWs in educating the mothers and mothers-in-law about pregnancy and related complications and encouraging them to prepare for delivery at a health facility. However, the recent research shows that the

LHW program is facing several constraints such as resource gaps in financing and technical supervision (Pakistan Report, 2020).

Our study results are also supported by international research that emphasized the effectiveness of including mothers-in-law for MCH decision-making. Studies from Pakistan and Bangladesh show that the inclusion of mother-in-law into health promotion significantly increases the uptake of health services (Mumtaz, & Salway, 2007; Chowdhury et al., 2003; Shaikh et al., 2008). Similarly, in Nepal, the mother-in-law holds a prominent position when it comes to maternal and child health-related decisions (Masvie, 2006). Mother-in-law also appeared as a significant influencer in Botswana and Zambia for HIV-related health information seeking to prevent mother to child transmission of the disease (Nyblade, & Field, 2000).

In Senegal, mother-in-law involvement led to improved nutrition for the mother and child (Aubel et al., 2004). Further, the mother-in-law's interventions positively influenced breastfeeding practices as evidenced by health programs in Malawi (Kerr et al., 2008) and Tanzania (Leshabari et al., 2006). Researchers have also studied the role of the mother-in-law in the context of family communication, with a positive social and health effect for daughter-in-law (Rittenour, 2012). Similarly, in Pakistan, mother-in-law is considered experienced because she has raised children herself and is a respected elder of the household (Lee et al., 1995).

Overall, the results show positive trends in increasing knowledge and improving attitude and behaviour towards recommended MCH practices. The evaluation found evidence of one-on-one interactions between family members about issues which are generally difficult and sensitive to discuss openly. Results also show evidence for community-level engagement such as recognizing the role of LHWs and the value of

trained healthcare providers. To sum up, *Rishton* was effective in building social and psychological capital in the community and in improving knowledge about MCH.

Limitations of study

The study followed a non-probabilistic sampling method and the sample could be skewed towards participants who are enthusiastic about the *Rishton* program, thereby lacking generalizability. Similarly, the results are specific to Bagh and Mansehra communities, and may not hold true for other regions with different cultural beliefs and practices. This limitation can be addressed through modifications in drama script according to region and cultural differences. The qualitative evaluation of the radio drama is limited because of a small number of participants. A more systematic and longitudinal evaluation was needed to assess the long-term impact of *Rishton* to determine which messages were most effective in influencing attitude and behavioral intentions to seek health information and services.

It is also hard to infer from data if the radio drama influenced any policy-level change. While acknowledging these limitations, the study serves as a pilot for future programs to promote the involvement of community elders, specifically mothers-in-law, for health communication in Pakistan. Existing health communication projects in Pakistan could benefit from this resource by implementing *Rishton* again in a new geographic region.

CONCLUSION AND IMPLICATIONS

Did the PRIDE project have a long-term impact? That is a difficult question to answer because the project officially ended in 2010 thus measurement of impact in the long-run was not possible. Also, due to the nature of field-based research and implementation of the drama, it is hard to separate the impact of *Rishton* from other health education

services provided by the PRIDE project. Still, this study makes a modest contribution to inform researchers and practitioners as a starting point to replicate the process of creating an entertainment-education drama for other audiences and locations.

The MCH-related constraints are not unique to Pakistan and are generally observed across South Asia and in other regions such as Latin America and Africa. To that end, this study offers a significant step forward for international scholars and practitioners to explore the role of mothers-in-law from the lens of utilizing entertainment-education to reach masses especially in remote and rural communities. It is hoped that this work will inform researchers and practitioners dealing with social and structural challenges and offer family members alternative solutions to be ready and prepared for MCH needs. This approach can also be used to persuade and increase involvement from stakeholders such as religious leaders and community notables. These factors make this study uniquely relevant to a broad group of international and interdisciplinary scholars and practitioners in MCH practice. This study is relevant to an interdisciplinary audience and serves as a pilot to replicate radio-based interventions for MCH in a developing country context with emphasis on mothers-in-law as the primary influencer.

For future researchers in this area, stakeholders, and policy-makers, it is integral that efforts are made to re-launch the radio drama on social media sites such as Facebook or YouTube, because new media and communication technologies provide a whole range of opportunities to reach diverse population, such as women, children, husbands, mothers-in-law, and other stakeholders in ways which was not possible before. Additionally, the cost and effort of introducing the *Rishton* radio drama on Facebook, Instagram and YouTube is estimated to be lesser as compared with advertising on traditional AM/FM radio channels. Moreover, the monitoring evaluation

mechanism provided by Facebook Insights and other ways of measuring audience interactions and engagement on social media – likes, comments, shares – will provide more in-depth information about audiences' reaction to the messages and possible outcomes.

Conflict of Interest Statement
There is no conflict of interest to declare. It is important to report however that the author served as the behavior change communication manager of the project for the entire duration from 2008 to 2010; and managed the creative design, implementation, and evaluation of the intervention.

Funding
This study has not received funding.

Ethics and permissions
The author has acquired written approval from PRIDE, as well as the funding organization for the PRIDE project, to use their data to prepare this manuscript. Ethics approval has also been taken from Michigan State University, USA.

Data sharing and availability statement
Data is available from the corresponding author based on request.

Author Contributions Statement
The author developed this manuscript alone.

Acknowledgements
I would like to acknowledge Howard and Delafield International for designing and implementing the creative strategy. I would also like to acknowledge Spectrum Communications advertising agency for an outstanding job in producing the radio drama and other communication deliverables of the project. Additionally, I would like to acknowledge consortium partners headed by the International Rescue Committee (IRC), with major partners including Management Sciences for Health (MSH) and JHPIEGO, an affiliate of Johns Hopkins University.

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