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FOCUS: GLOBAL HEALTH AND DEVELOPMENT

Pregnancy-Related Health Information-Seeking Behaviors Among Rural Pregnant Women in India: Validating the Wilson Model in the Indian Context

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Objectives: Understanding health information-seeking behaviors and barriers to care and access among pregnant women can potentially moderate the consistent negative associations between poverty, low levels of literacy, and negative maternal and child health outcomes in India. Our seminal study explores health information needs, health information-seeking behaviors, and perceived information support of low-income pregnant women in rural India. **Methods**: Using the Wilson Model of health information-seeking framework, we designed a culturally tailored guided interview to assess information-seeking behaviors and barriers to information seeking among pregnant women. We used a local informant and health care worker to recruit 14 expectant women for two focus group interviews lasting 45 minutes to an hour each. Thirteen other related individuals including husbands, mothers, mothers-in-law, and health care providers were also recruited by hospital counselors for in-depth interviews regarding their pregnant wives/daughters and daughters-in-law. Interviews were transcribed and analyzed by coding the data into thematic categories. **Results**: The data were coded manually and emerging themes included pregnancy-related knowledge and misconceptions and personal, societal, and structural barriers, as well as risk perceptions and self-efficacy. Lack of access to health care and pregnancy-related health information led participants to rely heavily on information and misconceptions about pregnancy gleaned from elder women, friends, and mothers-in-law and husbands. Doctors and para-medical staff were only consulted during complications. All women faced personal, societal, and structural level barriers, including feelings of shame and embarrassment, fear of repercussion for discussing their pregnancies with their doctors, and inadequate time with their doctors. **Conclusion**: Lack of access and adequate health care information were of primary concern to pregnant women and their families. **Policy Implications**: Our study can help inform policies and multi-sectoral approaches that are being taken by the Indian government to reduce maternal and child morbidity and burdens.

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†Abbreviations: NSSs, Indian National Sample Surveys; SRS, Sample Registration System; MMR, maternal mortality rate; CSSM, Child Survival and Safe Motherhood; IFA, iron-folic-acid tablets; MCH, maternal and child health.

Keywords: health information-seeking, Wilson model, pregnancy, pre-natal care

INTRODUCTION

High rates of maternal and infant mortality and morbidity are leading contributors of disease burdens in India [1]. Although improvement has been made in several key areas of public health (vaccinations, malaria) [2], reduction in maternal and child morbidity rates have yet to reach satisfactory levels. The Indian National Sample Surveys (NSSs†) and the Sample Registration System (SRS) estimate that that maternal mortality rate (MMR) declined from 1,300 deaths per 100,000 live births in 1957 to 301 deaths in 2003 [3,4]. However, according to some international organizations, these numbers are underestimated, and the true MMR is almost 1.5 times at about 450 deaths [5].

A number of factors affect maternal and child health (MCH) care in India. Insufficient coverage for priority interventions such as the Child Survival and Safe Motherhood (CSSM) program has led to barriers in utilization, access, and promotion of such interventions [6]. In addition, national survey data show a simultaneous rise in levels of anemia in pregnant mothers, antenatal visits by pregnant mothers, and health care providers dispensing iron-folic-acid tablets (IFA) to expectant mothers [6]. The concurrence of rise in preventive behaviors, coupled with negative health outcomes, underscores the inadequacies in antenatal care and the communication gap between provider and patient.

An inequity in maternal literacy status and wealth is another significant factor in MCH care disparities. Mothers from the lowest literacy/wealth quintile are generally located or originate from rural areas and are less likely than their counterparts to use basic health care [7]. Only 18 percent of mothers in this quintile seek prenatal care or have institutional deliveries compared to 86 percent of mothers with 12 or more years of education [8]. These differences extend to use of skilled care at delivery and use of postnatal care [9]. Only 19 percent of mothers in the lowest wealth/education quintile receive any postnatal care compared to the 79 percent of mothers in the highest wealth quintile reflecting the "inability of the public-health system to reach out to the poor and illiterate" [6]. Little data is available on whether these women do not seek prenatal care or simply do not have access to it.

Providing appropriate and timely ante- and postnatal care information to expectant mothers can potentially moderate these daunting disparities. Previous studies in developed countries have found that providing pregnancy-related information to low-income women is positively associated with birth weight [10], term [11], and survivability of the child [12]. In addition, women from low socio-economic backgrounds express the greatest desire for health information [13]. Seeking such information is associated with positive health behaviors such as compliance and adherence to regimens [14] and desired clinical outcomes [15]. In the United States, providing prenatal care and targeted pregnancy-related health information is associated with reduced mortality rates among infants with low birth weight and preterm births [10].

In spite of these benefits, most rural women in India face severe health information disparities [16,17].These women lack access to health information sources [16], lack the ability to act on given health care information [18], are disadvantaged in terms of access to emergency and obstetrical services [19], face longer distance to health services [20], have sub-standard and/negligible transportation [21], and face delayed decision making during pregnancy [20-24]. A majority of maternal deaths in India have direct obstetric causes [25], with low-income women having little to no knowledge of the types of pregnancy complications or where to go for complications [26,27]. Data for National Family Health Surveys estimate that only about 20 percent of rural Indian women are told by health care providers about prolonged labor as a sign of a pregnancy complication [13], and even fewer are told about convulsions (15 percent) and vaginal bleeding (16 percent) as signs of pregnancy complications during their antenatal visits [6,28].

There is a significant dearth of research regarding availability of timely and relevant

information in health care settings, information needs, and information-seeking behaviors among rural pregnant women in India. Understanding health information needs and health information-seeking behaviors among rural pregnant women in India can inform national policies and procedures among the rural health care agencies.

Health Information Seeking Among Women in India

Studies have yet to examine pregnancy-related health information seeking among women in India; however, some research on general health information seeking suggest that Indian women, especially in rural areas, experience severe challenges, including shame and embarrassment, in seeking health information regarding gynecological and reproductive health issues [28,29]. Such topics are regarded as taboo and discouraged in open discussions, leading most women to seek health advice from unqualified individuals such as their husbands and mothers-in-law [30,31]. Married women are dependent on their husbands and mothers-in-law for health care information [32], and treatment is sought only when family members deem the symptoms as important and strong enough to impede domestic work [28].

Pregnancy-Related Information Seeking Among Pregnant Women in Developed Countries

In developed nations, information needs of pregnant women include nutrition [33] and family planning [34], as well as fetal growth and development, medication, prenatal vitamins, coping with tiredness, stopping smoking, emotional stressors, stress management, post-partum care, infant care, and feeding [13,35,36]. Socioeconomic status, age, and locus of control are factors that consistently influence pregnant women's information-seeking behaviors [37]. Accurate and timely information exchange by health care providers during pregnancy is a successful, evidence-based tool that has been shown to facilitate women's decision-making processes regarding prenatal and postnatal care [38], care of their newborn infants [39], and better management of their pregnancy [40].

A number of studies have examined pregnancy-related health information-seeking behaviors [13,38-40] among expectant mothers. A steadily used framework to examine these information needs is Wilson's Information Seeking Model [41]. Wilson's model proposes that the need for information is a secondary need rising out of more basic physiological, cognitive, or affective needs, and the inquirer is likely to face various barriers in an effort to discover information that satisfies these needs. Previous research found that information needs and barriers were significant predictors of information seeking among pregnant women [38]. Barriers to information seeking among pregnant women in developed countries include distance, high cost, poor perception of the quality of care provided at health centers, and language barriers [42], as well as the husband's influence over health care decisions [43].

Study Purpose

Using guided interview questions that included information needs and barriers constructed from the Wilson Model framework, we examined pregnancy-related knowledge, pregnancy-related information needs, and barriers to information among rural Indian women. The current study was used to inform a larger survey that investigated prenatal care seeking among pregnant women at health centers in rural Delhi. The study addresses the following questions:

1. What are the pregnancy-related information needs of women living in village clusters of Delhi?
2. What information sources do women consult when they need pregnancy-related information?
3. What are the barriers to information regarding pregnancy and prenatal care?
4. What are the perceptions of women regarding pregnancy and prenatal care?

METHODS

Focus group discussions were conducted with 14 pregnant women. Thirteen

Table 1. Guided questions for interviews and group discussion.

1. How do you seek information regarding your pregnancy in general?
2. What types of information do you seek regarding your pregnancy? What topics do you feel you need information or advice on?
3. Where do you seek this information? Who/What are your information sources?
4. Why do you seek information from these sources?
5. What are some barriers to seeking information regarding your pregnancy? What stops you/impedes you from seeking information actively? Do you feel confident that you can seek information regarding your pregnancy when you feel like it?
6. What situations/circumstances motivate/demotivate you to seek information regarding your pregnancy?
7. Is there anything you want to add to this interview? Do you have any further comments?

additional interviews were conducted with husbands, mothers-in-law, local physicians, and the paramedic staff. The primary author was the main interviewer and coder for the study. All participants were asked to sign or thumbprint on consent forms before the individual and group interviews. Participants were assured of the voluntary nature of the research procedure as well as confidentiality. Confidentiality was ensured at three levels: data collection, data analysis, and data dissemination. For example, participants could not be identified by name or other defining characteristics at any stage of the research process. We made a choice to share our research information with our participants and rendering them a voice in the process.

Procedures

Participants were recruited based on willingness of subjects to participate in focus group and interview sessions. Sample size was determined through data saturation, i.e., that no new themes, findings, concepts, or problems are evident in the data [44]. Based on Francis et al.'s criteria, an initial sample of 10 was deemed appropriate for the study [44]. Fourteen pregnant women participated in two focus group discussions. Additionally, three husbands, four birth mothers, two mothers-in-law, and four medical staff also took part in separate in-depth interviews regarding pregnancy information-seeking behaviors of the women related to them.

The two focus groups were conducted with women recruited from Pitampura and Nangloi village areas surrounding Delhi. A local washerman was recruited by the primary author for the first group discussion in Pitampura to negotiate our entry into the village and to invite women to the focus group by going door-to-door. Six women were recruited for the focus group using this method. The local washerman is a key individual in the village and has well-established credibility with the women. This is in accordance with local customs, where individuals such as grocers, small-business owners, mailmen, and washermen are information keepers and opinion leaders in the village. The second group discussion with eight women took place in the Nangloi village near a health facility where a health worker helped with participant recruitment. The health worker was part of the regional hospital in Nangloi and was a trusted member of the community.

Each discussion session lasted about 45 minutes to an hour and was conducted in Hindi using questions from the guided questions listed in Table 1. Participants were not compensated but were provided light refreshments. Ground rules and procedures were explained to participants. The purpose of the group discussion was also explained, along with assurances of confidentiality and privacy. Participants were apprised of the role of the interviewer as one who asked questions but remained neutral.

In addition to the group discussions, in-depth interviews were also conducted at a health facility in Nangloi. Thirteen in-depth interviews were conducted with three husbands, four mothers, two mothers-in-law, and four medical staff in order to understand their perspectives on the information-seeking process of these pregnant women. Each interview lasted about 20 to 30 minutes.

Barring two interviews with the physicians, all interviews were conducted in Hindi. Participants were not compensated for the interviews. The counseling staff at the health facility assisted in recruiting potential participants for interviews by handing out recruitment flyers to patients. Similar to the focus groups, ground rules and procedures were explained to each interviewee. The in-depth interviews were primarily held to understand perceptions of key individuals in lives of pregnant women in rural India.

Data were analyzed in the tradition of qualitative research. This included transcribing the notes from the group discussions and interview sessions, and coding the data using key words as a means of identifying common and discordant themes [45]. Coding and categorization were manually carried out by the first author.

Given the nature of the topic and protected status of the participants, the ethics board at FSU reviewed and approved the study (IRB protocol number IRB00000446).

RESULTS

Several themes emerged from the focus group discussions and the individual interviews. These themes included pregnancy-related information seeking on nutrition, complications, and sexual and family relations, as well as personal, societal, and structural barriers to information seeking. Our results indicated that expectant mothers are more likely to seek advice from their husbands, elder women in their families such as co-sisters (co-resident sister-in-law), mothers-in-law, and mothers, as well as neighbors and friends. Health care providers are generally consulted during complications such as bleeding or extreme pain. Most women trust their husbands regarding health care information irrespective of the husbands' expertise in health care or pregnancy.

Information Seeking: Nutrition

Advice on proper nutrition for normal vaginal delivery and a healthy child was a frequent occurrence in our focus group discussions. Due to their high need for nutritional information, women reported seeking and receiving advice from friends, neighbors, and family. However, this also left them open to accepting information derived mainly from various myths and misconceptions about nutrition that are commonly held throughout the country.

For example, our interviews document the common perception of certain foods as "hot-natured" and "cold-natured." Women were advised by their elders to avoid "hot-natured" food and to consume only "cold-natured" food during pregnancy. "Hot-natured" foods include spicy foods and foods that are thought to be "warming" to the body, such as papaya, eggs, and eggplant, and are typically thought to induce miscarriages or lead to a newborn not growing properly [46]. One woman observed,

> "During my entire pregnancy, I had questions about my safety and my child's. I am very scared about any harm to my child. I do not want to harm my child unintentionally. This is a dangerous period for me, and I just want to be safe. Ask my husband, I keep asking him. Am I eating right?"

Mothers and husbands of pregnant women also confirmed answering queries regarding their pregnant daughters'/wives' concerns regarding nutrition intake for normal delivery. One mother stated,

> "My daughter often asks me what to eat for a normal delivery. I am scared to have any kind of operation done on my stomach. I tell her beta [child], eat ghee [clarified butter] during the last few months."

In some parts of India, the intake of "ghee" or clarified butter is thought to ensure an easy delivery process and a safe birth [47].

Another husband reported,

> "My wife tells me, I feel really weak. I want to eat acha [good]

> food. Is this dal [lentils] good for me? I tell her, dal is good for the baby."

Another woman wished to receive information regarding foods that would help her have a fair complexioned baby. She noted,

> "I am not drinking tea these days. I asked my mother what to eat for a gora bacchha [fair baby], she told me to stop drinking your chai [spiced tea]."

An interesting subtext emerging from this discussion was the sole focus of the family toward the unborn child's current and post-delivery health with little or no mention of the mother's health. The mother's health seemed to be of a concern only regarding a safe delivery.

Information Seeking: Pregnancy Complications

Women reported being highly concerned about delivering babies without any birth defects or complications, and information regarding complications and the level of delivery pain was highly sought after. Women generally sought information about the level of pain involved during the birth process from their mothers, mothers-in-law, or women who have ever been pregnant in the community. One mother-in-law reported,

> "She keeps asking me how much pain will I go through? I told her, everything will be all right, but she still keeps asking me."

While most women sought information regarding pregnancy complications, communication gaps between women and their doctors regarding the topic tended to be a recurring theme in the interviews with both the medical staff, and the expecting mothers expressed frustration at gaps in communication. As one nurse said,

> "Even after consulting with the gynecologist, the patient will come out and ask me: Sister, What can I do for having a good baby?"

Inherent biases among the medical staff regarding low-income women also seemed to play a role in fueling communication discrepancies between women and their providers, since the medical staff, though women, were illiterate, they were curt in their responses. In addition, due to the volume of patients seen by the rural doctors, they were mostly unable to provide in-depth information beyond the basic materials on blood pressure, iron, and folic acid tablet consumption and tackling general complications like fever and swelling. Thus, pregnant women felt that they were not respected by the staff, given adequate time with the doctor, or given time to process the paltry information provided. Similarly, nurses and medical staff were frustrated at the volume and literacy levels of the women. Most of the pregnant women echoed one participant's complaint:

> "We are poor, so everyone uses bad language with us. They shout at us."

Likewise, a nurse at the facility stated,

> "Madam, there are so many patients, and most of them don't understand what we say. We repeat it many times. But OK, that's my job. So I will do it, even if I don't like it, you know!"

Information Seeking: Sexual and Familial Relationships

Negotiating marital and sexual relationships was another significant area of health information seeking among pregnant women. Especially in Indian rural communities, husbands generally retain most, if not all, the sexual decision-making power in their marriage [48]. Our participants, therefore, sought advice from their mothers, friends, and other women in the village regarding ways to negotiate and navigate their sexual relationships and their husbands' sexual needs. A number

of participants were advised by their mothers to refuse their husbands' sexual advances by citing concern regarding the safety of the child. Others turned to their friends to see how their friends dealt with their husbands. One participant stated,

> "My husband doesn't listen to me. But my friend is very clever. I ask her how to negotiate my relationship with my aadmi [husband]. She teaches me how to handle such situations."

Doctors and nurses also reported this as a significant area of information seeking from their pregnant patients. The lack of power in their relationships was a concern, compelling enough to overcome barriers of embarrassment that the participants often felt in discussing such issues with their health care providers.

Negotiating familial relationships, especially with their mothers-in-law was an area of paramount concern among the women, and a majority reported having to do all the household chores without any help from other members in their family. One expecting mother in the focus group noted:

> "We are really tired of doing work. But who do we talk to about it? Sometimes we ask our aadmi [husband], and he tells me to do aaram [take rest]. I come to these kothis [households] to work so I can earn some money but I end up straining myself. I am scared of lifting heavy things."

The women faced opposition from their families, especially their mothers-in-law if they refused to do household chores. One mother-in-law stated when asked if her daughter-in-law goes to the hospital,

> "If my bahu [daughter-in-law] wants to come to the hospital she can come. ... She needs to finish ghar ka kaam [household chores]. If she finishes she should come."

The interviews and focus group discussion also revealed a number of barriers for expectant mothers that impede their health information seeking and access to accurate pregnancy-related information. These barriers were coded as personal, societal, and structural barriers.

Barriers to Information Seeking: Personal

Women's personal barriers were related to psychological factors such as a) feeling shy or scared to ask questions; b) feeling embarrassed to discuss pregnancy-related material with their close family members; and c) feeling embarrassed to discuss their pregnancies with their health care providers, which affected their ability to obtain the necessary health information. One participant noted:

> "At our house, we do not discuss these things. My mother-in-law is very distant … if I ask my husband, he will shout at me … I am scared of talking a lot at this house."

A mother accompanying her daughter further noted,

> "My daughter is very shy. She does not talk to anybody. Stays within herself. That is why I am here with her today. Even if she is in pain, she keeps it inside her."

Barriers to Information Seeking: Societal

Societal barriers such as familial pressure, child care, and negotiation of household responsibilities emerged as a recurrent theme in conversations with our participants.

While most women had significant information needs and questions on how their chores and daily activities would affect the fetus, they also felt pressured to continue their daily chores regardless of psychological or physical health. Participants reported devoting a major chunk of their energy toward household and child care duties, which left them with little time for themselves.

Family members expected them to first finish household duties and then devote their time to other activities. Women in the focus groups echoed each other:

> “Do we have time for ourselves/We do house-work. We have to do seva [service] for our in-laws. Some of us have children, and we have to keep an eye on them. If I start taking care of myself, my mother-in-law will tell me you are not a good mother.”

Comparable to previous studies [18,49-51], presence of a mother-in-law was a significant deterrent in seeking care and health information. Most participants reported that their mothers-in-law micro-manage their daily activities and leave them with very little time to devote to their health care needs. Additionally, women reported being uncomfortable to discuss their pregnancy-related issues with their doctors when accompanied by their mothers-in-law and feared repercussions if they made statements that were considered disagreeable by their mothers-in-law. One woman said,

> “My mother-in-law insists on coming with me to the hospital. Once I told the doctor that I get really tired after doing house-work. All I wanted to know if I could get some taakat ki dawai [energy pills]. When we returned, my mother-in-law verbally abused me for insulting her family in front of the doctor. Now I am scared of going to the doctor and discussing my problems.”

In addition, husbands also preferred their wives to speak with their mothers-in-law before making a trip to the hospital. Most women were taken to the hospital by their husbands only if the mothers-in-law perceived a need for the trip. One husband stated,

> “My mother is also a woman and she knows pregnancy best … why do we need to go to the doctor for advice when my mother knows everything?”

Barriers to Information Seeking: Structural

Finally, inadequacies in quality of care in public hospitals emerged as a key structural barrier to prenatal care and access to health care information. Structural barriers included long wait times to secure appointments and inadequate quality of communication with the health care staff. Women unanimously reported,

> “Jaake kya faayda [What’s the use of going to the hospital]? No one treats us properly.”

One woman stated that on one of her hospital visits, she waited in line from 9 a.m. to 1 p.m. The doctor provided a cursory examination before recommending an ultrasound that took a few more hours. The participant reported feeling extremely stressed and frustrated. Doctors also noted similar barriers in their interviews. One doctor noted,

> “The flaw in our system is that we are not able to provide counseling to our pre-natal patients. If we can somehow incorporate that in our dealings, we can help them [the pregnant women].”

Risk Perceptions and Self-Efficacy

Although we did not ask targeted questions about risk perceptions and self-efficacy, the constructs emerged serendipitously. A majority women in the focus groups viewed pregnancy both as a normal life event and a risky life event. Women viewed pregnancy risks primarily in terms of likelihood of having a Cesarean section and wanted information on ways to avoid it. The safety of the unborn baby was of paramount concern to the women and their family members and was occasionally a cause of friction between family members. As one mother noted,

> “I have brought my daughter home for her delivery. She is not happy

> living with her saas [mother-in-law] … so much work there … What if complications arise? ... we do not want unthinkable consequences for the baby because of other people. ... I will help her."

Women were also eager to seek information about the health of their newborns and perceived post-delivery risks in terms of likelihood of complications in the babies after giving birth. They often spoke of "kamzori" or poor health of the child. Women's perceptions of child health were shaped by the experiences faced by other women in their communities. Women who had direct experience or contact with someone who had a difficult childbirth were more likely to seek information and visit their care providers. One woman declared,

> "When we hear someone going through so much, we think it is important to go to the doctor for checkups. I try to keep myself healthy and got to the hospital for advice."

Again, the emerging subtext from this theme focused on risk of complication for the child, but risks regarding the mother's health were largely ignored.

Furthermore, many women did not feel confident in seeking information and most reported little faith in their own ability to seek out the answers to their pregnancy-related questions. One woman stated,

> "I have no faith in myself. My parents didn't send me to school. I don't do anything myself."

DISCUSSION AND FUTURE RESEARCH

This study contributes to health information-seeking literature by exploring pregnancy-related information seeking needs, barriers, risk perceptions and self-efficacy among rural women in India. We used information needs and barriers constructs from the Wilson Model to guide our interview questions and explore the cultural appropriateness of the model for an extended quantitative questionnaire. The information needs and barriers constructs seemed culturally anchored and were used in the larger, mixed methods study.

The focus group discussions suggest that while pregnancy itself was generally viewed as a normal life course event, many women still perceived it significant enough to merit attention in terms of seeking accurate health information. Our results indicate that rural Indian pregnant women have high levels of unmet information needs on various topics, and providing accurate health information needs to be included in the national debate about maternal and child care. For example, misconceptions and myths about food currently drive the nutrition information knowledge gained by pregnant women. A concerted effort needs to be made to provide women with proper nutritional education. Women also tend to consult their husbands, co-sisters, mothers, and mothers-in-law instead of health care providers for a variety of reasons ranging from a lack of power to a lack of access to a provider to severe communication gaps with their medical staff. Receiving dubious information from individuals who are not health care experts can exacerbate any complications or issues that expectant mothers were hoping to avoid by seeking the information. Multi-sectoral approaches that provide women with tools to help negotiate power structures might increase ante- and post-natal visits to health systems and facilitate self-efficacy skills among low-income women.

Communication dysfunction among the women and the hospital medical staff was a further source of concern and frustration for both the patient and the provider. Our results suggest that training medical staff on how to talk with women who have low levels of literacy might further improve the dysfunction that is currently faced by both women and staff. Basic health promotional content at hospital sites may not provide sufficient information considering the educational and

literacy levels of the women. Since the amount of time provided to pregnant women during visits are far from adequate, group counseling and short televised skits on pregnancy in waiting areas of hospitals or pharmacies might be helpful in providing information to women and can empower women to seek additional during sessions with their doctors. This strategy has been successfully used in previous studies [36].

In addition to personal and societal barriers, structural problems within hospital systems were significant sources of barriers to receiving prenatal health care information and ante-natal care. Barriers related to the perception of quality of care were a strong deterrent to seeking information from medical facilities. Women disliked some of the hospital facilities due to encountering situations such as undergoing verbal abuse by the medical staff.

Although an extensive network of public health delivery system is in place in India, poor quality of care such as overcrowding, lack of confidentiality, lack of empathy, poor staff behavior, long waiting times, distance from home, and lack of proper discussion and counseling from health care providers are significant factors as to why women and their families lose trust in the public health delivery systems. This line of reasoning resonates with prior research done in resource-limited regions [24,52].

Ante-natal care needs to be part of a larger and integrated strategy that should aim at protecting and improving the condition of the most vulnerable members of the society: mothers and newborns.

LIMITATIONS

Caution should be used while generalizing interpretations of our study findings. Our findings relate to a subset of women who reside in villages around Delhi. They were recruited via a convenience sampling method. Given the enormous pressure on women to avoid voicing their opinions, our sample may have been biased toward women who were already primed to discuss their needs and barriers.

Despite these limitations, this study makes some important contributions in health information-seeking literature and provides a cultural context for further studies among rural women in India. The study further situates needs and barriers faced by Indian pregnant women from low-resource settings within the literature. A positive and accidental effect of the study was an illustration of a “research as empowerment” approach, in which the respondents expressed having an enriching experience by gaining knowledge, as well as absorbing what others had to say. Our interviews acted as a platform for the women to voice their opinions and frustrations with fearing repercussions, and many seemed surprised and overwhelmed to find that their views were being taken into serious consideration.

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