


# “Who Wants to Go Repeatedly to the Hospital?” Perceptions and Experiences of Simplified Medical Abortion in Rajasthan, India

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Kirti Iyengar<sup>1,2</sup>, Marie Klingberg Allvin<sup>1,3</sup>, Sharad D. Iyengar<sup>2</sup>,  
Kristina Gemzell Danielsson<sup>1</sup>, and Birgitta Essén<sup>4</sup>

## Abstract

The aim of this study is to explore women's experiences and perceptions of home use of misoprostol and of the self-assessment of the outcome of early medical abortion in a low-resource setting in India. In-depth interviews were conducted with 20 women seeking early medical abortion, who administered misoprostol at home and assessed their own outcome of abortion using a low-sensitivity pregnancy test. With home use of misoprostol, women were able to avoid inconvenience of travel, child care, and housework, and maintain confidentiality. The use of a low-sensitivity pregnancy test alleviated women's anxieties about retained products. Majority said they would prefer medical abortion involving a single visit in future. This study provides nuanced understanding of how women manage a simplified medical abortion in the context of low literacy and limited communication facilities. Service delivery guidelines should be revised to allow women to have medical abortion with fewer visits.

## Keywords

self-care, abortion, reproduction, primary, health care, remote, rural, health care, access to, health care, India, low resource setting

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## Introduction

Despite the availability of safer methods of abortion over the last few decades, unsafe abortion continues to be an important cause of maternal mortality (Kassebaum et al., 2014). In countries where abortion is legal, medical abortion can improve access, as it is more amenable to be provided at primary health care facilities. In India, medical abortion was approved for use in 2002; however, its availability through legal abortion facilities is limited (Stillman, Jenifer, Singh, Moore, & Kalyanwala, 2014). In their attempt to obtain safe abortion services, women face multiple cultural, financial, and geographic barriers (Cohen, 2012). In addition, service delivery-related barriers (e.g., requirements for using specific contraceptives, unnecessary consent procedures, lack of privacy and confidentiality) also deter women from seeking safe abortion (Duggal & Ramachandran, 2004).

One important barrier for access to medical abortion is the requirement of multiple visits to the clinic (Berer, 2005). Earlier service guidelines required that women make three visits to the clinic for medical abortion—one for mifepristone,

another for misoprostol, and a third one for routine follow-up (International Planned Parenthood Federation, 2008; Ministry of Health and Family Welfare, 2010). However, women find it difficult to make multiple visits to the clinic for reasons including travel time, child care, cost of visit, and lack of confidentiality related to repeated absences from home. In recent years, evidence has emerged that the second clinic visit (for misoprostol) and the third clinic visit (for follow-up) after early medical abortion are not necessary (World Health Organization [WHO], 2014).

Home use of misoprostol can reduce the need to make a clinic visit lasting several hours for the administration of

<sup>1</sup>Karolinska University Hospital, Stockholm, Sweden

<sup>2</sup>Action Research and Training for Health, Udaipur, Rajasthan, India

<sup>3</sup>Dalarna University, Falun, Sweden

<sup>4</sup>Uppsala University, Sweden

## Corresponding Author:

Kirti Iyengar, Karolinska University Hospital, WHO Collaborating Centre, SE-17176 Stockholm, Sweden.  
Email: kirtiiyengar@gmail.com



misoprostol and expulsion of the pregnancy. Studies have suggested that home use of misoprostol is safe, effective, and acceptable and leads to higher satisfaction rates (K. Iyengar, Klingberg, et al., 2015; Ngo, Park, Shakur, & Free, 2011). The WHO has recommended that allowing women to use misoprostol at home is safe after early medical abortion with consideration that women understand when and how to use the misoprostol tablets (WHO, 2014). Most studies exploring women's perspectives on home use of misoprostol are from high-income countries. These studies have shown that the main reasons women value home misoprostol are autonomy, privacy, comfort of being at home, personal integrity, better emotional support from the family, and not having to encounter strangers (Cappiello, Merrell, & Rentschler, 2014; Elul, Pearlman, Sorhaindo, Simonds, & Westhoff, 2000; Kero, Wulff, & Lalos, 2009; Kopp-Kallner, Fiala, & Gemzell-Danielsson, 2012; Lie, Stephen, Robson, & May, 2008; Makenzius, Tyden, Darj, & Larsson, 2013).

Evidence has also emerged in recent years that a clinic follow-up visit is not medically necessary after early medical abortion using mifepristone and misoprostol (WHO, 2015). It has been reported that it is feasible and safe for women to assess their outcome of abortion, using a low-sensitivity urine pregnancy test, with or without a symptom checklist (K. Iyengar, Paul, et al., 2015; Michie & Cameron, 2014; Oppegaard et al., 2015). For self-assessment to be implemented in health systems, it would be important to understand the experiences and perceptions of women with self-assessment, how confidently can they interpret a low-sensitivity pregnancy test. However, no studies exist on women's views and experiences with self-assessment.

In low-resource settings, where large proportions of women reside in rural areas, without access to toilets at homes, have low levels of education, and lack ready access to communication and transport facilities, service providers and program managers are often concerned about women's ability to manage a home abortion. For policy makers to allow for the simplification of service delivery guidelines on medical abortion, they need greater information on how well do disadvantaged women (especially low-literacy rural women) manage their medical abortions without going to the clinic for a second visit for misoprostol and without a follow-up visit. They also need to understand the concerns, preferences, and experiences of women with home use of misoprostol and self-assessment.

The aim of this study is to explore women's experiences and perceptions of home use of misoprostol and of the self-assessment of the outcome of early medical abortion in a low-resource setting of Rajasthan, India.

## Method

### Study Setting

This was an exploratory study in a primary care setting of south Rajasthan, India. The Rajasthan state is located in the

northwest of India, and has a population of about 68 million people, 70% of which is rural (Census, 2011). Women's poor status in Rajasthan is evident by the fact that only about half the women are literate, and majority get married before the age of 18 years (International Institute of Population Sciences [IIPS], 2010). Women have low autonomy in terms of mobility and decision making (IIPS, 2007). Only 25% households had access to a toilet facility in 2007–2008 (IIPS, 2010). The study was conducted among the women seeking services from primary care clinics (three rural and one urban) located in two southern districts of Rajasthan. These clinics are managed by a non-profit organization, called "Action Research & Training for Health," and provide a range of reproductive and child health services including delivery, contraception, and first-trimester abortion services. Majority of clients seeking services from these clinics are low-income rural women.

### Study Procedures

A sample of women who sought early medical abortion at primary care clinics (three rural, one urban) and assigned to home use of misoprostol and self-assessment for follow-up was approached for in-depth interviews. The study participants were drawn from 172 women participating in a trial, who were assigned to use misoprostol at home and to carry out self-assessment of the outcomes of their abortion (K. Iyengar, Paul, et al., 2015). It implied that instead of conventional three clinic visits for medical abortion (first for mifepristone, second for misoprostol use, and third for follow-up), these women were assigned to medical abortion involving a single visit. On the day of mifepristone, they were given four tablets of misoprostol and written instructions on how to use it at home. They were also instructed on danger signs and that they should immediately seek care from the clinic if they experienced any symptom.

The self-assessment approach meant that women did a low-sensitivity pregnancy test at home instead of returning for a routine follow-up visit. Women were provided with a low-sensitivity pregnancy test, which consisted of a card with two columns (Figure 1) and they were asked to do the urine test 10 to 15 days after mifepristone. In this test card, a positive test (two lines in each column) indicated the possibility of an ongoing pregnancy, hence an undesirable result. A negative test (none or one line in one of the column and two lines in another) indicated the completion of abortion and a desirable result. Research assistants instructed women to put two drops in each of the two pits provided on the card, wait for 10 minutes, and see the number of lines. Due to low-literacy levels, women were guided that four lines indicated a positive test, for which they should go back to the clinic, whereas one to three lines indicated a negative test, and they need not go back to the clinic unless they had some other concerns or questions. A pictorial instruction sheet (Figure 1) was also given to women.

Action Research & Training for Health (ARTH)  
**SAFUL Project**

**Women’s Home Self Assessment Checklist**

**How to perform the urine test at home, to check whether abortion has been completed**

Date of taking first pill at clinic \_\_\_\_\_

**Directions for carrying out a home urine test:**

**1. What we have given you:**

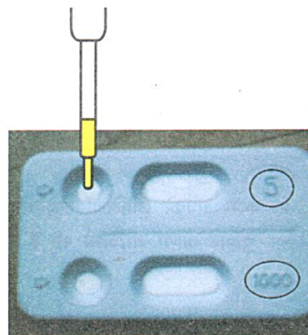
- A plastic cup
- A urine test card
- A dropper

**2. Perform the home urine test on \_\_\_\_\_ (date/day)**

**3. Perform the test 12 – 14 days after taking the first pill:**

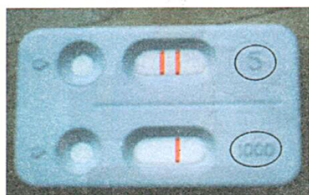
- Collect some urine in the plastic cup
- Dip the nozzle of the dropper into the cup containing urine and draw some urine
- Tear off the test kit wrapper and use the dropper to add 5 drops of the urine into the upper circle as shown

**Wait for 10-20 minutes**



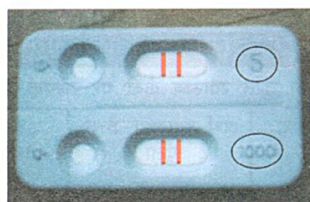
**Read the result:**

**1. If you see 2 or 3 red lines, it means that the medical abortion has been completed**



Abortion has been completed

**2. If you see 4 red lines, it means that the medical abortion has not been completed, and you must visit the clinic as early as possible for a check up**



Abortion has not been completed, go back to the clinic for a check up

**3. Even if 1 or more out of 4 lines are light in appearance, you should read it as 4 red lines, and go to the clinic for a check up**


(continued)

Figure 1. (continued)

**Do you have any of these problems?**


**If you suffer from any of the following problems,  
then do not wait for 12-13 days -- go immediately to the clinic**

**1. Do you have excessive bleeding?  
(more than 2-3 pads per hour)**




**Yes** **No**

**2. Have you had fever, more than 8 hrs after  
taking the pills**




**Yes** **No**

**3. Do you have severe abdominal pain?**



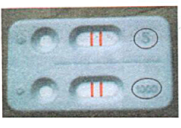
**Yes** **No**

**4. Are you feeling very weak?**



**Yes** **No**

**5. Did you see 4 red lines on performing the  
home urine test (14 days after taking first pill)?**



**Yes** **No**

**If the answer to any of the above is "Yes", then go to one of these clinics as early as possible:**

ARTH Health Centre - 1, xxxxx	ARTH Health Centre - 2, xxxxx	ARTH Health Centre - 3, xxxxx	ARTH Health Centre - 4, xxxxx	Sxxxxx Hospital, xxxxx	Dr. xxxx Nursing & Maternity home, xxxx
Mobile: xxxxxxxxxx	Mobile: xxxxxxxxxx	Mobile: xxxxxxxxxx	Mobile: xxxxxxxxxx	Phone: xxxxxxxxxx	Mobile: xxxxxxxxxx

This instruction sheet is for private circulation

**Figure 1.** Pictorial instruction sheet for self-assessment.

Note. The original version of the figure can be found at <http://journals.sagepub.com/doi/suppl/10.1177/2333393616683073>

To ensure diversity of respondents, women were purposively selected from different areas of residence (rural and urban), caste (reflects socio-economic groups), and education levels. Finally, although efforts were made to interview

a diverse group of women, in the end it also depended on which women appeared to be expressive and expressed an interest in participating in an interview when contacted on phone by the research assistant.



A female research assistant contacted women on phone or at their homes, 4 to 6 weeks after their abortion, to ask whether they were willing to participate in an interview. A date, time, and place convenient for the informant were fixed to meet the woman.

In-depth interviews were conducted between August 2013 and March 2014 by the first author, a female obstetrician with experience of working in the area, and fluency in local languages. An in-depth interview guide was used. A local female field worker assisted in taking the notes and recording. However, the interviewer had not been providing services in the study clinics, and did not reveal her identity as a doctor. Each interview lasted between 45 and 60 minutes. Initially, the interviews were held in women's homes or outdoors on their farms. However, after the first five interviews, we realized that it was often difficult to continue an interview in a confidential manner at woman's home, because of interruptions from family members and neighbors. Hence, subsequent interviews were mostly held at the health centers, where women could talk freely. Those coming to the clinic were provided a travel reimbursement.

A total of 20 in-depth interviews were conducted—two additional interviews remained incomplete due to interruptions by family members. Probes were used at various points to gain a better understanding of issues. After every two to three interviews, we reviewed the data, and added new questions or modified questions, or added new probes. Sometimes the sampling strategy for future interviews was revised. After completing interviews with 20 women, the incremental new information was little; hence, we decided that we had met saturation (Morse & Niehaus, 2009).

### Data Analysis

Interviews were transcribed verbatim into local language (Mewari and Hindi dialect) shortly after they were conducted. The first author went through the transcripts and added any non-verbal communication to the transcripts. The content of completed interview transcriptions was reviewed with the research associate after each round of interviews. After multiple readings, the authors developed a list of codes that reflected important aspects of the data. The focus was on patterns and variations in the data. Subsequently, the main findings and illustrative quotes were translated in English. Repeated commonalities and differences across respondents were identified and used to generate a final report. A validity check included a full rereading of the interviews to check for contradictions or missing information.

### Ethical Issues

Written consent was sought from all women for interview and for tape recording. While conducting the interviews at women's homes, if a family member came to the house or women were called to help with some housework, the topic of conversation was immediately changed to maintain

**Table 1.** Characteristics of Study Participants.

Residence	
Rural	12
Urban	8
Marital status	
Currently married	20
Unmarried	0
Education	
Nil	8
Less than primary (1–5 years)	3
6–12 years	5
More than 12 years	4
Castes	
Scheduled caste/tribe <sup>a</sup>	10
Others	10
No. of living children	
Nil	0
1	7
2	10
3	3
Prior induced abortions	
None	11
Prior medical abortion	8
Prior surgical abortion	0
Not recorded	1
Type of family	
Joint	13
Nuclear	7
Availability of vehicle at home	
None	11
Two-wheeler	8
Four-wheeler	1

<sup>a</sup>Caste: Scheduled castes/tribes represent the historically disadvantaged communities, who have lower socio-economic status in the society.

confidentiality. On some occasions, if it appeared difficult to continue with the interview, it was discontinued. To ensure confidentiality, at least one woman who had not had a recent abortion and preferably had an infant was also approached in the same hamlet. This allowed camouflaging the visit, so that people did not suspect that the purpose of visit by the research assistant could be linked to abortion follow-up.

The study was approved by the Institutional Ethics Committee of Action Research & Training for Health (dated April 11, 2013).

### Participants

Twenty women participated in the study (Table 1). Two thirds were rural; all were currently married, with an average of two children. Ten women belonged to socio-economically underprivileged scheduled tribes or castes, and 10 to other castes. About two thirds lived in joint families, and the remaining in nuclear families. Eleven women did not have any mode of transport available at their homes, whereas nine had a vehicle (mostly two-wheeler). All women had used

misoprostol at home, and had carried out their self-assessment for the outcome of abortion. Two of these women had required surgical interventions for incomplete abortions.

## Results

We present women's perceptions and experiences for the three specific steps of the abortion process: first, deciding to use misoprostol at home; second, actually using misoprostol at home; and third, self-assessment of the outcome of abortion. In the end, we present women's views on the number of clinic visits needed for medical abortion.

### *The First Step: Deciding to Use Misoprostol at Home*

The most important reasons women preferred home use of misoprostol included inconvenience of travel, difficulties in completing housework, and making arrangements for child care if they had to go to the clinic for many hours. This is illustrated in statements of two women: "Because I have a small daughter and she can't live without me, and nobody was there (at home) to take care of her, that's why" (P20: urban, educated, mother of two), and "I have a young child . . . who will take care of him at home?"

Some women opted for home use because it provided them greater privacy, or they like the comfort of family being around:

Because . . . the family stays near you and . . . you remain comfortable at home. In the clinic, lots of patients come and go, so there is no privacy. . . . At home, we have privacy, we can sleep and sit as we wish, and can do other work side by side. (Urban, educated)

Lack of confidentiality related to repeated and long absences from home for a clinic visit was mentioned by some women who said, "I said why to go to the clinic daily. My in-laws will say that she is not staying at home. If I go to the hospital again and again, they will ask" (rural, illiterate, mother of two), and "Here (in the clinic), I have to stay for two three hours, and I did not inform my family members about this, what if they came to know about this?" (urban, educated).

One woman did not see any value in coming to the clinic:

What more is to be done (at the clinic), I have to do household work also, and I have a small boy with me . . . that's why I went back home, if (a) problem occurs, then. . . . I'll board a vehicle and can go there. (Rural, illiterate woman)

Some women also expressed that they would find it difficult to go to the clinic because there was no-one who could accompany them to the clinic.

On exploring on what anxieties women had before they administered misoprostol at home, we found that most

women had no concerns at all. Some women attributed this to prior experience with a medical abortion, or because they felt they could reach the clinic quickly if they needed to: "Since I had taken tablets (for abortion) earlier too, I was not worried" (P13: rural, illiterate), and "Someone should be there. I was a bit afraid, but my husband was home. He said that if anything happens, we will take you to a hospital in jeep" (rural, literate woman). This suggests husbands' involvement and willingness to mobilize resources for their wives.

One woman also mentioned that because the clinic staff had explained everything well, she was not worried: "I had no tension for that day as they (clinic staff) had explained everything very well" (urban, educated).

### *The Second Step: Taking the Pill and Waiting*

*Taking the pill and managing its symptoms alone.* All women took misoprostol in the morning hours—some took it in early morning hours, whereas others took it after finishing their household work. Subsequently, they started experiencing symptoms such as nausea and abdominal pain lasting for a few hours, followed by bleeding and expulsion of products. Majority of women perceived expulsion as an important event in the process. For example, the sequence of events as described by one woman was as follows:

(After I took the pills), the bleeding started after half an hour. I had no other problem—no nausea, no abdomen pain, no giddiness. . . . The day (I took pills), it was a little more bleeding. Pieces fell at 12 O' clock—pieces were just little. When the piece fell, I was there in my farm. (Rural, illiterate)

Some women described the size and color of the expelled products as well. Most women described the reduction of pain and bleeding after expelling the products:

I took the 4 pills by mouth at intervals of 5–5 minutes, then I lay on my bed for some time. On that day, after I took all the pills, initially I had nausea, and then severe pain in abdomen . . . the bleeding started at around 11:00–12:00 a.m. and continued for the whole day. The piece expelled soon after—it was about 2 inches in size. After this, the pain reduced, and by the next day, it was almost gone. (Periurban, educated)

*Mostly, a day like every day.* Majority of women continued with their daily household work as routine, for example, preparing food and taking care of children. The main change in women's routine was that they did not go for their work outside home, and instead stayed at home to rest. Some of the typical statements were as follows: "I had only weakness and nothing more. On that day, I did not go to Anganwadi for work. I thought that if bleeding started on the way, then what would I do?" (rural, educated, employed as Anganwadi worker); "My husband was at the construction site, I was at home and did all work, looked after the children. But I did

not go to construction site on that day” (rural, illiterate); and “On that day, I did not go to field . . . but prepared food and took care of my child” (rural, illiterate).

Some women did not change their routine at all, and continued with their household as well as outside work. One woman who was a hostel warden stated, “On that day also as usual, I had done all my routine work, . . . went for morning walk in the park. I am a hostel warden, and even went to take a round of hostels. I had no problem” (urban, educated).

Most of the women took extra rest on the day of misoprostol, mainly because of abdominal pain: “I did less work that day, because I had pain in my abdomen. My mother in-law did rest of the work” (urban, educated), and “I had not taken any medicines for stomach pain and rested for the entire day” (urban, educated).

*Support by husbands, but a secret from others.* For majority of women, only the husband was aware that his wife had taken pills for abortion, whereas other family members were not aware of it: “My mother-in-law went to some relative house, so she did not know about it. My husband knew about it, but was in some other city for his work” (rural, illiterate woman), and “My in-laws were at home when took pills but they did not know about this. Only my husband was aware” (urban, educated).

Majority of husbands provided some support to their wives on the day that their wives took misoprostol. Some had taken leave from their work, some came back earlier from work, whereas others dropped in home 2 to 3 times to inquire how the wife was doing. Many husbands helped their wives to do the household work, as illustrated by the following statements:

My husband was there at home. There was no one else. He was aware. When I had lot of nausea, he gave me a blanket. (Rural, illiterate)

My husband did all work in morning like cooking, preparing tiffin for children and cleaning the house. He had gone for work, but he told me to call him if I developed any problem, so that he could take me for the check up. (Urban, educated)

One woman expressed she feared that her mother-in-law would have quarreled if she knew about it:

Only my husband was home, he had taken leave that day. My mother-in-law and sister-in-law were not at home, they didn't know (that I have taken pills for abortion). If she knew, she would have quarreled . . . (Rural, literate)

In one case, the husband asked his mother to cook, to reduce his wife's work:

My mother-in-law went to field to cut fodder, only my husband was there. When the bleeding was heavy, I told him that I had weakness, so he told my mother-in-law to cook. I ate food and lay down. (Rural, illiterate)

When other family members were aware, they helped the woman with household work, or sent food. However, some women had to do all the work by themselves even though other family members were aware:

My mother-in-law was not at home, she was not aware. . . . My sister-in-law knew about it and said nothing. I was not feeling well, but even (sister-in-law) did not cook food. I had to cook food myself. (Rural illiterate)

*Making an extra visit to the clinic if needed.* Some women had to make an extra visit to the clinic, either because of symptoms such as severe nausea, or prolonged bleeding, or for not seeing the expulsion. One woman went to the clinic on a two-wheeler:

I took the tablets at 11:00 a.m., then I had strong feeling of nausea and vomiting. Around 12 O' clock, my bleeding started. Stomach pain was little. . . . Nausea was severe, so I thought if anything happens at night, (then I will be in trouble) . . . so I called my husband's nephew. At around 4:00 p.m., I went to the hospital on his motorcycle . . . the nurse gave me some tablet . . . I stayed there for about half an hour . . . then I returned. . . . Two lumps came out after about 2 hours, and then the bleeding reduced. (Rural, illiterate)

One urban woman who called the clinic for symptoms of severe abdominal pain and absence of bleeding was advised to come to the clinic. However, before the woman could leave for the clinic, the bleeding started, and hence the woman did not make a visit to the clinic.

Two women went to the health center as they noticed that their expulsion had not occurred. One of them had heavy bleeding, whereas the other one had less than normal bleeding. Both women underwent surgical uterine evacuation:

On 3rd day, I took these four pills at around 12 O' clock, but nothing happened to me. There was no problem . . . then bleeding started in the afternoon . . . it was same at it happens during periods. . . . However, the lump did not come out. Then I went to the clinic, and there they did the “cleaning” (evacuation). After that, the bleeding reduced . . . (Rural, illiterate woman)

The other woman had continued bleeding for 10 to 12 days, so she went to the clinic, where the doctor performed a uterine evacuation.

### *The Third Step: Assessing the Outcome of Abortion*

*Deciding whether abortion completed or not.* On exploring as to how women perceived whether their abortions were complete, we found that majority of them figured out about the completion of abortion through their symptoms such as seeing the expelled product or through the disappearance of pregnancy symptoms: “I knew because (after taking four

tablets), the bleeding started. When my pieces fell down, then I came to know that nothing is there” (rural, illiterate).

One thing is there—when anyone gets pregnant, then appetite is lost, you do not feel hungry, feel irritable, there is nausea. After taking the tablets, I was not feeling anything, I was eating timely, and there was no nausea . . . so it means that abortion was complete. (Rural, educated)

Some women were of the view that they did the test only because it was given to them, although they had understood even before using it that they had aborted fully. This is illustrated by the statements from two women: “There was no doubt . . . because all the symptoms like nausea . . . had disappeared and bleeding had also started, so there was no doubt. . . . I did the test only for satisfaction” (P19: urban, educated) and “On the day I took 4 tablets, bleeding started . . . and I came to know . . . there was no doubt. Madam gave me something for testing, . . . that why I did it” (rural, illiterate).

*Anxiety about retained products resolved by doing a test.* Although most women understood from their symptoms that they had aborted, they found it reassuring to do the test. Doubt about the completion of abortion and retained products appears to be a major concern among women, and a pregnancy test helped in allaying those anxieties. Common statements reflecting this were as follows: “Bleeding started, lump came out, but there is always danger in mind, who knows if the ‘work’ is complete or not. If the test is done, then (you can be sure)” (rural, literate woman), and “Need (to do the test) is there. If the test was not done, then we remain in doubt . . . if a lump remains inside, then a problem can arise inside the body” (urban, educated).

I had stomach pain, then the piece fell. It was that big (showing the size using fingers) . . . , so I got to know. . . . I did the test, and two lines came. . . . If I had not done the test, then I would have had some doubt whether the “work” was over or not. (Rural, illiterate)

Several women expressed a feeling of relief after doing the test. One woman who felt that her bleeding was same as a menstrual bleeding was concerned and said, “I was afraid that nothing has been done, bleeding was normal . . . as it happens every month. Then I did the test . . . , then I was sure that everything was right” (urban, educated).

One woman mentioned that she went to get an ultrasound done after her previous abortion, to rule out any retained products. However, this time too, she went to get a checkup done to clear her doubt:

Need is there (to do this test). Otherwise how would you know, you have to get an ultrasound done. Last time, I took the tablets in Mumbai. When my friends came to know about this, they scared me that if something is left inside, there would be trouble. . . . Then I went to a doctor, and she did the sonography . . . then my doubt was cleared. (Urban, educated)

However, there were few women who felt that the test was not of any use, as they already knew that their abortion was complete: “No, it is not necessary, since I already knew that my work (abortion) was complete. If you are not sure that something is left inside, then you can do the test” (urban, educated).

Women also expressed that doing the test was useful as it saved them a visit to the clinic: “. . . (If I had not been given the pregnancy test), then I would have come to the hospital. Sometimes a part can remain inside. Bleeding can start, but the fetus can remain inside” (rural, educated woman).

Although most women were concerned about retained products, one mentioned about continuing pregnancy, and that nothing can be done for it, if it is detected late:

Definitely (there are benefits of doing the pregnancy test). . . . (if it is a positive test, then), you can go to the hospital in fewer days . . . if pregnancy continues even after taking tablets and you go after a long time, then nothing can be done. (Rural, educated)

*Ease of interpretation of the pregnancy test.* Most of the women were able to do the pregnancy test easily and interpret the results. They were quite clear about how to interpret the positive and negative pregnancy test. Some of the typical statements were as follows:

I did the test after two Mondays passed, three lines came, then (I understood) that my abortion is done. (Rural, literate woman)

The clinic staff gave me the pregnancy test and asked me to do it after 15 days. (They told me that), like in this picture, if there are 4 lines, . . . your “work” is not done . . . , and if one or two lines are there, it means the abortion is complete. (Rural, educated)

Some women had doubt about the test and they phoned up the clinic to confirm: “I have done urine test . . . three lines came, one more line was light in color, so I phoned up the clinic” (P4: periurban, educated). Some women waited for the clinic assistant to come and do the test: “She gave me this test. . . . She had said that if you are not able to do the test, then I will come and do it. But when she came, I told her to do the test” (rural, illiterate woman).

Most women did their test alone, and did not have to ask anyone: “Whatever they taught me, I did. I looked (at the pictures) . . . and understood. I didn’t feel the need to ask anyone” (P2: rural illiterate) and “It was easy to do the test after looking at this sheet” (urban, educated).

Some women mentioned that instructions by clinic assistants helped in making them understand the process:

Didi made me understand, . . . (she asked me to) collect urine sample and pour 5–5 drops in each hole and wait. . . . I told her that I am getting confused . . . she explained again. . . . Then I understood. (Rural, educated)



Although majority did the test when they were alone, few women were accompanied by their husbands: “My husband was with me when I did the test. That time my mother-in-law was not at home. If she was home, I would not have done the test” (rural, literate). In one case, other family members were aware that she had undergone an abortion, and that she was doing the test. They were curious and wanted to see how the pregnancy test is done, so the woman showed it to them.

Most of the women had kept the pregnancy test card hidden from other family members in a trunk or cupboard: “Initially for 3 days, I was in my mother’s home, and there I kept it (the test card) in the trunk. Then I came to my in-laws home, and kept it in a cupboard” (urban, educated).

### *Utility of the Instruction Sheet*

Most women had looked at the pictorial instruction sheet, commonly immediately before or after doing the pregnancy test. Most women found it useful to look at the pictures while doing the pregnancy test: “I saw them on the day of doing the test—before doing the test. There is benefit” (rural, illiterate), and “I did the test after reading (the papers) only. I kept reading from this and continued to do the test” (urban, educated).

Almost all educated women had read the instruction sheet. However, some women did not see the pictorial instruction sheet, either because they were busy or they thought they would not understand as they were illiterate: Papers were given to me, I have not opened them. I am illiterate, I don’t understand, what to do by opening. They are kept as it is (rural, illiterate).

Some women mentioned that they had understood the instructions given, and hence did not think it was necessary to look at the instruction sheet:

. . . I have not read it again, because “didi” had explained to me. I did not feel the need to look at them (since) I knew that if 4 lines come, I would have to go back to hospital. (Urban, educated)

The side of the instruction sheet (Figure 1) with pictures on the pregnancy test was found to be most useful by women. Most women, even illiterate women, were clearly able to explain the pictures related to instructions of doing the pregnancy test: “This paper is for the test, how the test is to be done. This photo is for urine test, it asks to put in five drops here . . .” (rural, educated woman).

The pictures related to danger signs were understood better by educated women, whereas illiterate women could not correctly identify some pictures of danger signs. Most women also said that it was useful to have phone numbers of clinics on the instruction sheet.

### *Women Reflect on the Experience of Single Visit for Abortion*

After the first few interviews, we explored women’s views on an abortion with single visit—with home use of misoprostol and self-assessment at home.

Most women stated they would prefer to use misoprostol at home, and assessing the outcome of abortion at home is useful as it saves them an additional visit to the clinic. One woman even mentioned that she does not see much added benefit in clinic: “. . . as there one has to go (to the clinic) by bus. What else can be done there, if taken at home, then it’s good” (rural, illiterate woman).

Women stated many difficulties related to making clinic visits such as work at home and need to take permission to make visits:

It’s good to visit once only, because during 3 visits if anyone has work at home or if someone’s mother-in-law does not allow her to go outside, husband can also say what’s the need of going again and again, you should go only once, that is why it’s better to go once only . . . (Urban, educated)

It becomes difficult sometimes to go to the hospital, so if there is something through which we can know the situation at home, then it is . . . better. One time visit is enough I think. It is definitely useful to women who live far away . . . for them coming again and again is not convenient. (Urban, educated)

One woman compared her experience with previous abortion when she had gone for a follow-up visit: “Who wants to repeatedly visit the hospital? It’s ok to come once only. Last time, I had gone to the clinic for follow-up, this time it is better” (urban, educated).

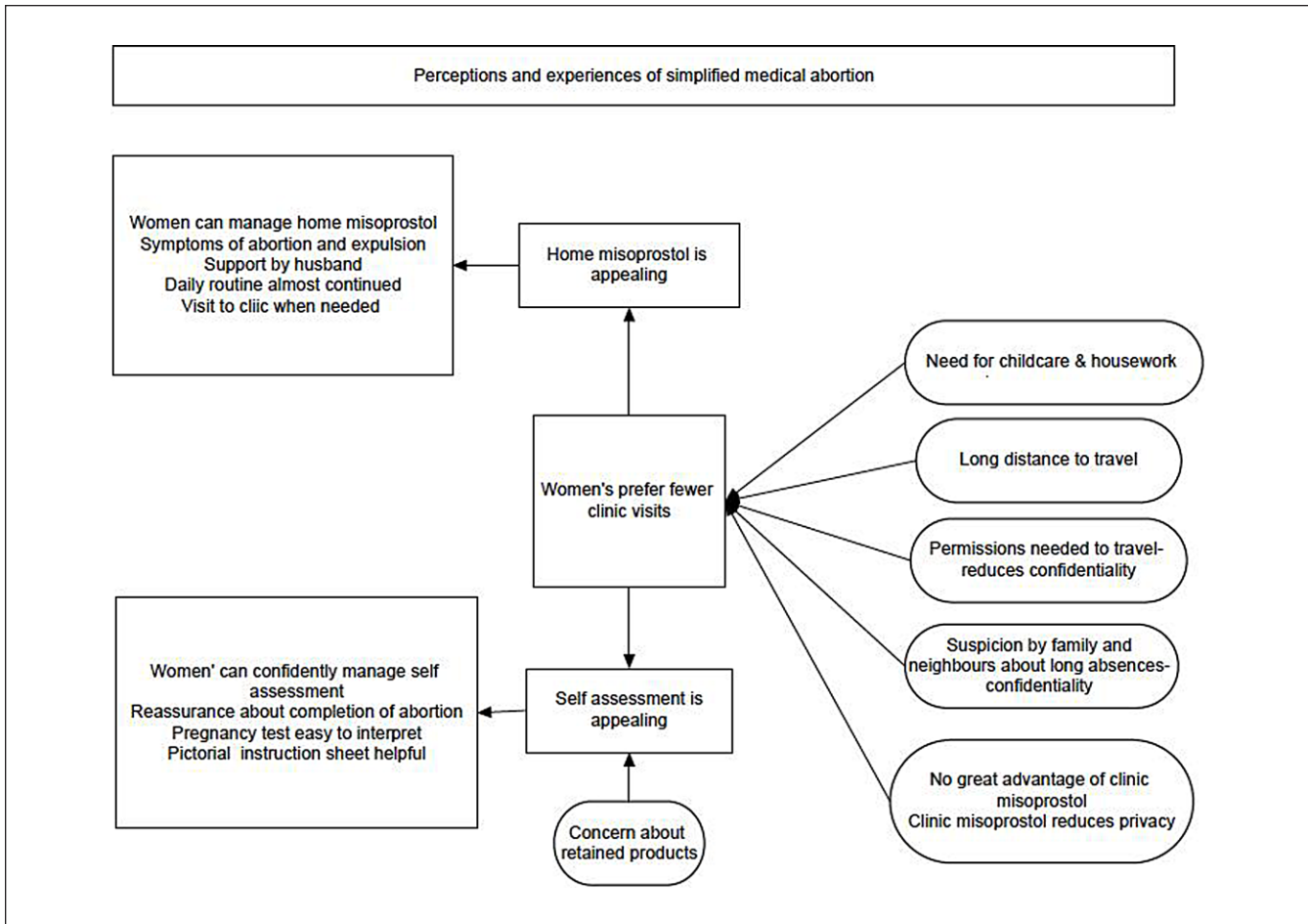
Some women stated that either option is good and it depends on a woman’s circumstances, for example, if she lives too far from the clinic or there is too much work at home, then home use is better: “For me, both are ok. If your home is far, then you can take it at home” (urban, educated). Some said they would go by the advice of the providers: “(I) can take it anywhere . . . at home or in the hospital as well, it’s all the same. I have no problem (if they call me to the clinic) for this” (rural literate).

One woman who used misoprostol at home stressed that it is better to come to the hospital for misoprostol:

It would have been better if I had come here. If I take it at home and something happens, then nothing can be done. . . . If it is taken in the clinic, then everything can be watched, whether abortion is complete or not . . . it is better . . . (Rural literate woman)

### **Discussion**

This study provides nuanced understanding of women’s experiences and perceptions of home use of misoprostol and



**Figure 2.** How women perceive simplified medical abortion.

of the self-assessment of the outcome of early medical abortion in a low-resource setting of Rajasthan, India. It showed that women could confidently manage their abortions at home, despite low levels of literacy and limited communication facilities. Most women had no concerns at all about using misoprostol at home, despite absence of vehicles and a personal phone. The study also showed that although women had a sense of completion of abortion through their symptoms, they found it reassuring to do the pregnancy test. The ability of women to confidently manage their abortions at home could be because they were enabled and equipped to manage their abortions at home. The low-sensitivity pregnancy test was simple to use and was explained well in simple language, along with a pictorial instruction sheet (Paul et al., 2014).

Studies from Nepal and India showed that given a choice, 90% and 88% women opted for home use of misoprostol (Bracken, 2010; Karki et al., 2009). Women valued the home use of misoprostol for many reasons—most importantly, repeated clinic visits were associated with the disruption of housework and child care (Figure 2), which are the first concerns for married women in this context. The other reasons

were related to the inconvenience of travel, lack of confidentiality, and a perceived lack of privacy at hospital, during a prolonged hospital stay for misoprostol. Previous studies from high-income countries have also shown that autonomy, privacy, personal integrity, comfort of being at home, and better emotional support from family were major reasons for women who preferred home misoprostol (Cappiello et al., 2014; Elul et al., 2000; Kero et al., 2009; Kopp-Kallner et al., 2012; Makenzius et al., 2013). A study from urban Mozambique has also reported that women preferred home expulsion for reasons related to privacy and control, and also for reasons such as cleaner bathrooms and clothes at home (Mitchell, Kwizera, Usta, & Gebreselassie, 2010). A review of qualitative studies on women's experiences of home-based medical abortion has concluded that women appreciate familiar surroundings, privacy, and not having to encounter strangers (Lie et al., 2008). However, in our study, the disruption of housework and lack of confidentiality associated with clinic visit were identified to be most important reasons for avoiding a clinic visit.

In our study, in most cases, no family members other than husband were aware that the woman was undergoing an

abortion, and that husbands provided considerable support to their wives during the medical abortion process. Similar to our finding, other studies have also reported that women undergo abortions at home, often in secret with others around, but unaware of the situation (Elul et al., 2000; Lie et al., 2008; Mitchell et al., 2010). Other studies from India have also reported that husbands support their wives in medical abortion in decision making (Paul et al., 2015), as well as in procuring the drugs (Gordon, Boler, Burgin, & Brett, 2010). Studies from men in abortion clinics have shown that almost all men desired to stay with their wives or partners during the abortion process and in being involved in family planning counseling sessions (Shostak, 2008). These findings suggest that involving men in information and counseling would be a useful strategy, especially when women seeking abortion are accompanied by their husbands.

There were several women in our study who were reasonably sure even without doing the low-sensitivity pregnancy test that they had completed their abortions, by relying on disappearance of pregnancy symptoms and expulsion of products. This represents women's trust in themselves and using common knowledge. Despite this, most women had the over-riding concern related to retained products of conception after the abortion. Hence low-sensitivity pregnancy test provided the confirmation or reassurance of the completion of abortion, and helped to alleviate anxieties. Clinic visit after abortion is associated with higher chances to undergo a surgical procedure (Gomperts et al., 2012); hence, providing women a home-based method to confirm the outcome of abortion is likely to have several advantages—not only will it reduce the need to make a clinic visit, but it will also alleviate their anxieties about completion, and reduce the rate of unnecessary surgical intervention.

Educated urban women were able to understand the instruction sheets much better than illiterate women. We found that even illiterate women valued having the pictorial instruction sheet, largely for its value for pictures of doing the pregnancy test and contact numbers of clinics. However, the pictures related to danger signs were not understood consistently, which is similar to the findings of another study in India that reported that the comprehension of pictures by non-literate populations is different as compared with educated persons (Murthy, Kagal, & Chatterjee, 2000).

Although no data are available on the proportion of women buying medical abortion from the chemists, there has been a rapid increase in sales of medical abortion pills in India, much higher than reported abortions (Gordon et al., 2010), and there are concerns regarding its indiscriminate use (Das, 2012). Hence, it is likely that women who procure it from chemists, take both tablets (Mifepristone and Misoprostol) at home without any contact with formal health system. As pharmacists lack accurate knowledge on dosage and side effects (Ganatra, Manning, & Prasad, 2005), it would be crucial that the health system offers women a simplified medical abortion with a single clinic visit, so that

women receive proper care and counseling instead of an uncontrolled home abortion.

Allowing women to perform some tasks at home and thereby reducing the number of visits is even more crucial for rural women. Women living in rural areas have heavy work burdens; a lack of anonymity and hence long absences from home, especially travel to a distant clinic, raise suspicion not only on part of family members but also among neighbors. Hence, being “seen” continuing with their routine work itself is a measure of confidentiality, and for desiring fewer clinic visits. Furthermore, home misoprostol and self-assessment provided women a greater control of their lives. Although program managers might be more willing to allow fewer clinic visits for medical abortion to urban educated women, our study shows that this is as or more critical for rural women, and that women perceive that fewer visits are more critical to women living far from clinics.

### *Implications for Clinical Practice*

To have a system that allows women to do more tasks on their own, rather than repeatedly calling them to the clinic, would have implications for the health system. On one hand, clinic staff would have to spend lesser time on caring for women coming for clinic use of misoprostol and for follow-up. On the other hand, they will have to spend a few extra minutes on counseling and instructing women on how to use misoprostol at home, and how to conduct and interpret their pregnancy tests. In our study, even illiterate women were able to remember the instructions and conduct the test well. We suggest that given the low rates of literacy, the staff needs to provide clear instructions in simple language, and ensure that women have understood what they are meant to do. Furthermore, the persons providing instructions regarding self-assessment can be non-clinical staff of clinics, like in our study. Providers from primary-level facilities, including both public and private sectors, will have to be trained in communication skills and how to provide instructions to women on self-managed abortion.

### *Strengths and Limitations*

This is the first study from a low-resource setting that presents the voices of vulnerable disadvantaged women, on the issue of self-managed abortion, with regard to their ability to manage home use of misoprostol and self-assessment. The findings of our study would help alleviate concerns of program managers about allowing women to take greater control over their abortion process, by simplifying service delivery guidelines for medical abortion. The other strength of our study is that there was almost no loss in translation, as the data collection was carried out by the first author who was fluent with local dialects as well as English. We used an iterative process, by reviewing the data frequently, and modifying the interview guide or sampling strategy as needed

(Morse, Barrett, Mayan, Olson, & Spiers, 2002). One limitation of our study was that some rural women were not very expressive, and gave brief responses at places. We attribute this to many years of illiteracy and upbringing in a society wherein the act of women expressing opinions or criticizing the establishment is viewed negatively.

## Conclusion

The findings of this study confirm that women living in low-resource settings can confidently use misoprostol at home, with avoidance of disruption of their routines and greater confidentiality. The addition of self-assessment further enables self-management of abortion, alleviates anxiety, and provides reassurance of completion. Our findings can contribute to developing health programs that are responsive to women's needs and allow women greater control over their abortion process. An abortion with fewer clinic visits would have tremendous appeal for women, and will provide them greater control over their lives.

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### Author Biographies

**Kirti Iyengar**, MD, PhD, a founder member of Action Research & Training for Health (ARTH), has coordinated its sexual and reproductive health programmes. She has served as Adjunct professor at Duke University, and currently works with UNFPA, India. She has been involved with research and program support on sexual and reproductive health and task shifting in India.

**Marie Klingberg Allvin** is a midwife, professor and pro vice-chancellor at Dalarna University as well as a researcher at the Department of Women's and Children's Health at Karolinska Institutet in Stockholm, Sweden. She has research experience within sexual and reproductive health in India as well as in other African and Asian countries.

**Sharad D. Iyengar**, MD, DNB, is a founder and chief executive of for Action Research and Training for Health (ARTH), India. He has been involved in research and practice in reproductive health, neonatal & child health and primary care systems. He serves as Adjunct Professor with Duke University.

**Kristina Gemzell Danielsson** is Professor and Chair of Obstetrics and Gynaecology at Karolinska Institutet, Stockholm, Sweden. She is an Honorary Clinical Professor at Hong Kong University and a member of the International Committee for contraceptive research (ICCR), Population Council, past president of the European Society for Contraception and Reproductive Health, and FIAPAC, and member of the WHO, RHR scientific and technical advisory group.

**Birgitta Essén**, MD, PhD, is Professor in International Maternal and Reproductive Health at the Faculty of Medicine, Uppsala University, Sweden. She is a Senior Consultant in Obstetrics and Gynaecology at the University Hospital of Uppsala. Her research is concerned with sexual and reproductive health in a globalised world.