

# The Needs of Dutch Women During Decision-Making About Treatment for Miscarriage

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## Keywords

decision-making  
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## ABSTRACT

**Objective:** To explore the needs of women during decision-making about treatment for miscarriage.

**Design:** Descriptive qualitative design.

**Settings:** University and teaching hospitals in the Netherlands.

**Participants:** We selected a purposive sample of 16 women who needed treatment for miscarriage from an electronic patient file system. We ensured maximum variation by sampling in different hospitals and selecting women with different ages, numbers of children, miscarriage histories, treatment types, and educational levels.

**Methods:** We conducted face-to-face individual, semistructured interviews and used thematic analysis to identify, analyze, and describe themes.

**Results:** We identified one overarching theme, *Decision Based on Reason and Emotion*, and three related sub-themes: *Certainty, Information, and Support From Environment*.

**Conclusion:** Health care professionals should be aware of how women's decision-making is structured in the context of treatment choices for miscarriage, and discussion regarding treatment should address reason and emotion.

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Miscarriage, spontaneous abortion, or early pregnancy loss can be defined as a “nonviable, intrauterine pregnancy with either an empty gestational sac or a gestational sac containing an embryo or fetus without fetal heart activity within the first 12 6/7 weeks of gestation and occurs in 10% of all clinically established pregnancies” (*American College of Obstetricians and Gynecologists, 2018*, p. e197). A miscarriage can be an intense experience for a woman that can result in anxiety, depression, and/or post-traumatic stress disorder (*Farren et al., 2018; Shorter et al., 2019*).

Ultrasound examinations are commonly used during the first trimester of pregnancy to establish gestational age or pregnancy viability (*Shorter et al., 2019*). As a result of this examination, a miscarriage is often diagnosed before clinical signs or symptoms appear. Therefore, the diagnosis of miscarriage may be completely unexpected. Soon after the miscarriage is

diagnosed, women need to consider treatment options, including expectant management (waiting for the loss of pregnancy tissue without intervention), medical treatment (oral medication), or surgical treatment (vacuum aspiration or classical curettage; *Lemmers et al., 2019*). When there is no clinical indication for immediate intervention, women can choose one of these treatment options. There is no optimal treatment from a medical point of view, and women's values and personal preferences play an important role during their decision-making processes (*Schreiber et al., 2016*).

In a growing body of literature, researchers have recognized the importance of understanding the decision-making process of women during treatment for miscarriage (*Limbo et al., 2014; Olesen et al., 2015*). These researchers focused on women's experiences and found that diagnostic certainty and choosing the most appropriate treatment were essential. Furthermore, although

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## Women need support during decision-making about treatment for miscarriage.

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emotional thoughts and feelings often dominate the decision-making processes, they are rarely discussed with the health care professional.

Several models that are available to help women in the decision-making process have been described in the literature: the paternalistic model (the health care professional determines what to do), the informative model (the health care professional informs, and the patient decides), and the shared decision model (SDM; the health care professional and patient collaborate on the decision; Tucker Edmonds, 2014). The SDM can be defined as “an approach where clinicians and patients share the best available evidence when faced with the task of making decisions, and where patients are supported to consider options, to achieve informed preferences” (Elwyn et al., 2012, p. 1361).

The decision-making process in health care can be supported by interventions, such as decision aids, that are designed to help people make specific and deliberative choices among options (Stacey et al., 2017). These tools, such as option grids or Web-based interventions, need to be developed for women with miscarriage. However, more research on women’s experiences and decision-making during care for miscarriage is needed (van den Berg et al., 2018). Before developing or applying interventions, it is essential to investigate the needs of the target group (Bleijenberg et al., 2018). Therefore, we aimed to explore the needs of women during decision-making about treatment for miscarriage.

## Methods

### Design

We chose a descriptive qualitative design because the research aim did not suggest the need for a design with a special philosophical assumption (Percy et al., 2015). A descriptive qualitative design focuses on meanings, perceptions, interpretations, and views of participants wherein experiences of participants are described in detail (Moser & Korstjens, 2017; Percy et al., 2015). We reported our study based on the consolidated criteria for reporting qualitative research (Tong et al., 2007).

We conducted this study in accordance with the principles of the Declaration of Helsinki (World Medical Association, 2018). The Medical Research Ethics Committee of the University Medical Center Utrecht (UMCU) approved the study (protocol 18-806/C) and affirmed that it was not subject to the Medical Research Involving Human Subjects Act. The science committee of the Gelre Hospitals, Zutphen, also approved the study.

### Settings

We recruited participants from the early pregnancy unit of the UMCU, a 1,042-bed university hospital, and from a gynecology and obstetrics outpatient clinic of the Gelre Hospitals, Zutphen, a 487-bed teaching hospital in the Netherlands. In the UMCU, a specialized nurse and a gynecologist in an early pregnancy unit provided the care. In the Gelre Hospitals, Zutphen, a gynecologist provided the care.

### Participants

The target population consisted of women diagnosed with miscarriages who had to make treatment choices. Inclusion criteria were as follows: women diagnosed with miscarriages who were eligible for all three treatment options (expectant management, medical treatment, or surgical treatment) and were fluent in Dutch. We excluded women younger than 18 years (Ross et al., 2014) and those who needed immediate intervention because of their clinical statuses. We selected women through purposive sampling with maximum variation, meaning that we chose participants who could provide extensive information about the subject (Colorafi & Evans, 2016; Palinkas, 2014). We ensured maximum variation by sampling in different hospitals and selecting women with different ages, numbers of children, miscarriage histories, treatment types, and educational levels.

### Procedure

We used the electronic patient file system at the UMCU to identify eligible women for potential participation. We sent these women a letter asking for permission to call them. Interested women returned a reply card, and the last author (H.D.L.O.) called them to provide information on the study. If the women agreed, we sent them information and an informed consent form. One week after sending the study information, the first author (A.G.B.) called the women to confirm their participation and schedule an interview.

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Participants provided signed informed consent forms before the interview.

At the Gelre Hospitals, Zutphen, a gynecologist not involved in the research project asked women during a follow-up outpatient visit for permission to be contacted by a researcher. If a woman granted permission, the first author (A.G.B.) called her and provided information on the study. We sent women who expressed interest during the call written information and an informed consent form and scheduled an interview. We were not involved in the clinical care of participants.

We collected demographic information from the electronic patient file system and verified it with participants during interviews. These data included age, education level, number of children, miscarriage history, fertility treatment history, treatment option taken, and hospital. We used face-to-face, semistructured interviews to explore women's experiences about the process of decision-making in the treatment for miscarriage (Gill et al., 2008). We based the interview guide on the literature, and it consisted of topics and questions concerning the diagnosis and treatments for miscarriage as well as the participant's decision-making process regarding treatment, needs during this process, and opinion about and need for decision aids (see Table 1).

The first author (A.G.B.), a female nurse experienced in obstetrics and gynecology, conducted the interviews. The last author (H.D.L.O.) and the second author (A.H.), PhD researchers, supervised the first author (A.G.B.), a nursing science master's degree student. The first author (A.G.B.) underwent follow-up interview training. Her years of practice as a nurse in obstetrics and gynecology may have led to assumptions and preconceptions; therefore, reflexivity, an analysis of oneself as researcher (Cypress, 2017; Korstjens & Moser, 2018), was an important issue. After each interview, A.G.B. engaged in self-reflection and, if necessary, discussed outcomes with H.D.L.O. and A.H. The first author (A.G.B.) conducted three pilot interviews to evaluate the interview techniques with the last author (H.D.L.O.), and these interviews were included in the analysis. We conducted interviews until data saturation, the point at which new data and subsequent analysis did not yield new insights, was reached (Moser & Korstjens, 2018).

## Analysis

We analyzed demographic characteristics with IBM SPSS Statistics, version 25. We used the MAXQDA 12 Standard program for data processing. The first author (A.G.B.) audiotaped and transcribed the interviews verbatim. The last author (H.D.L.O.) checked the accuracy of the transcripts. We deleted the audiotapes after transcribing. We stored and secured data within the protected UMCU network drives. We used thematic analysis to identify, analyze, and describe themes. This method is based on the rich description of data, focusing on themes that characterize participants' narratives (Braun & Clarke, 2006). Thematic analysis consists of six phases: "familiarizing yourself with your data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report" (Braun & Clarke, 2006, p. 87). We followed an inductive analysis strategy to ensure that general statements were based on specific experiences (Braun & Clarke, 2006). We used the constant comparative method, an iterative approach between sampling, data collection, and analysis, to increase the relevancy of the findings (Fram, 2013).

The first (A.G.B.) and last authors (H.D.L.O.) independently analyzed all data and discussed the data with the second author (A.H.) until they reached agreement. The research team had a meeting after every three interviews and discussed the developing codebook and themes. The third (S.V.) and fourth authors (W.J.M.), experienced gynecologists in early pregnancy loss, reviewed and checked the final manuscript.

To ensure trustworthiness, we used Lincoln and Guba's (1986) criteria of credibility, transferability, dependability, and confirmability. Credibility refers to the confidence that the results reflect the truth and are really based on the statements of the participants (Cypress, 2017; Korstjens & Moser, 2018; Lincoln & Guba, 1986). We used triangulation and tenacious observation of the data to increase the credibility (Cypress, 2017; Korstjens & Moser, 2018; Lincoln & Guba, 1986). Moreover, at the end of each interview, the first author (A.G.B.) performed a member check by summarizing the interview with the participant. Transferability refers to the possibility of transferring the results to other settings (Cypress, 2017; Korstjens & Moser, 2018; Lincoln & Guba, 1986). We used detailed descriptions of the participants and the research process, with

**Table 1: Overview of Interview Guide**

Topic	Main Question (Dutch)	Main Question (English)
Introduction	U hebt kort geleden een miskraam gehad, hoe voelt u zich nu?	You recently had a miscarriage. How are you feeling now?
Diagnosis of miscarriage	Kunt u mij vertellen over het moment dat de miskraam werd vastgesteld?	Can you tell me about the moment when the miscarriage was diagnosed?
Follow-up period	Hoe was de vervolgperiode en hoe heeft u deze periode ervaren?	How was the follow-up period, and how did you experience this period?
Treatments for miscarriage	Kunt u mij vertellen over de behandeling die u hebt gehad?	Can you tell me about the treatment you received?
	Als u nu terug kijkt, zou u dezelfde behandeling dan weer willen?	Looking back, do you think you would have chosen the same treatment?
	Hoe heeft u de verkregen informatie in het ziekenhuis ervaren na het vaststellen van de miskraam?	How did you experience the information obtained in the hospital after the miscarriage was diagnosed?
	Bent u zelf nog op zoek gegaan naar informatie over miskraam en behandeling?	Did you search for information about miscarriage and treatment yourself?
Participants' decision-making process	Kunt u mij vertellen hoe u het besluit voor een behandeling genomen hebt?	Can you tell me how you made the treatment decision?
	Hoe heeft u het besluitvormingsproces voor een behandeling ervaren?	How did you experience the decision-making process for treatment?
	In welke mate hebt u uw ideeën of gedachten die meespeelden in het besluitvormingsproces besproken met de professional?	To what extent have you discussed your ideas or thoughts with the professional?
	Wat waren voor u de belangrijkste voorwaarden om de beslissing te kunnen nemen?	What were the most important conditions for you to be able to make this decision?
Participants' needs during the decision-making process	Wat was voor u belangrijk om de beslissing te kunnen nemen?	What was important to you in order to make the decision?
	Wat of wie heeft u geholpen of had u kunnen helpen bij het kiezen van een behandeling?	What or who helped you (or could have helped you) to choose a treatment?
Opinion about and need for decision aids	Hoe neemt u in het algemeen een belangrijke beslissing?	How do you make an important decision in general?
	Heeft u ooit keuze hulpmiddelen gebruikt bij het nemen van belangrijke beslissingen?	Have you ever used decision aids to help you make important decisions?
	Wat hebt u gewaardeerd in het besluitvormingsproces?	What did you appreciate in the decision-making process?
	Wat hebt u gemist in dit proces?	What did you miss in this process?
	Wat is volgens u de beste zorg om vrouwen te helpen tijdens het besluitvormingsproces?	What do you think is the best care to help women during the decision-making process?

substantiation of the choices, to achieve a high level of transferability (Cypress, 2017; Korstjens & Moser, 2018; Lincoln & Guba, 1986).

Dependability and confirmability refer to whether the research process is consistent and correct (Cypress, 2017; Korstjens & Moser, 2018; Lincoln & Guba, 1986). We described the research process and the results extensively so that others can confirm the research process and results (Cypress, 2017; Korstjens & Moser, 2018; Lincoln & Guba, 1986). The first researcher (A.G.B.) used a logbook to write memos after each interview and during the whole research process.

## Results

In the UMCU, based on the electronic patient file, we invited 51 women to participate; of these, 38 did not respond to the initial invitation, one cancelled because of family circumstances, and 12 participated in the study. In the Gelre Hospitals, Zutphen, we invited nine women; six responded, and four decided to participate. Two women refused participation because of emotional factors. In total, 16 women participated. We achieved saturation after 13 interviews but collected three more interviews to confirm saturation. We conducted the interviews from February to May 2019 at locations chosen by the participants: 14 at the participant's home and 2 at the hospitals. We interviewed participants within 13 weeks of the diagnosis of miscarriage. Interviews had a mean duration of 53 minutes (range, 34–63 minutes).

The ages of participants ranged from 28 to 41 years (mean, 35.8; *SD*, 4.1). Most participants ( $n = 13$ ) had higher professional or academic educational levels, and eight had no children. Five participants had one miscarriage, three participants had two miscarriages, and four participants had histories of fertility treatment. Eight participants (50%) opted for expectant management, seven (43.75%) preferred medical treatment, and one (6.25%) chose immediate curettage. Table 2 shows the participants' demographic characteristics.

We identified one overarching theme, *Decision Based on Reason and Emotion*, and three related subthemes: *Certainty*, *Information*, and *Support From Environment*. The overarching theme showed how participants used the two different but inseparably linked aspects of reason and emotion in the decision-making process. The three underlying subthemes represented the

### Participants balanced reason and emotion during the decision-making process regarding treatment for miscarriage.

most important needs in the decision-making process, and each contained components related to reason and emotion. Participants could make good treatment decisions only if they had rational and emotional certainty about the diagnosis. In addition, participants needed emotional information about the treatment options. Through reasoning, participants knew that they had to make their own choices, but they needed social support because environmental factors influenced the treatment decisions.

#### *Certainty*

In the first subtheme of *Certainty*, participants said that certainty was important in the decision-making process. Participants rationally knew that they had miscarried because the diagnosis was established by ultrasonography, but it was hard to believe because of several emotional factors. For instance, participants were uncertain about the choice of treatment because, very often, there were no physical signs of a miscarriage: "I know the pregnancy is not ok; they told me. . . . Yes, I still feel pregnant. I feel no signs that things have gone wrong; maybe they are wrong" (Participant 5). Another participant said,

At first, I didn't want to believe, so then I went to another room in which an ultrasound technician looked specifically . . . and yes, unfortunately, this confirmed the bad news. So that was a real shock, yes . . . disbelief . . . this cannot be. I tried to remain calm, not panic, immediately, but then after the second observation, yes, then you have to accept that it is true. (Participant 4)

Participants spoke about their bodies "fooling them" and were sometimes unsure about the diagnosis because of persisting symptoms of pregnancy. The diagnosis of miscarriage did not match signs from their bodies:

Very uncertain that . . . there might be a heartbeat. . . . You cannot really trust your body because all these hormones are still there. Not that much had changed, and just that day I had been feeling nauseous. I just felt very bad, as if my body was fooling me. (Participant 5).

**Table 2: Demographic Characteristics of Participants (N = 16)**

Participant	Age, years	Children, <i>n</i>	Previous Miscarriage, <i>n</i>	Fertility Treatment History	Treatment	Hospital	Education Level <sup>a</sup>
1	31	0	0	Yes	E/M/S	U	High
2	36	0	1	No	E/M	U	High
3	32	0	1	Yes	E/M	U	Middle
4	41	0	0	No	E	U	High
5	35	0	0	No	M/S	U	High
6	37	1	2	No	E/M	U	High
7	38	1	1	No	M	T	High
8	38	0	2	Yes	M	U	Middle
9	41	0	0	Yes	E	U	High
10	31	1	0	No	M/S	U	High
11	39	1	2	No	M	U	High
12	28	0	1	No	M	U	High
13	40	1	1	No	S	T	High
14	31	1	0	No	M	U	High
15	35	1	0	No	E/S	T	Middle
16	40	2	0	No	E	T	High

Note. E = expectant; M = medical; S = surgical; T = teaching hospital; U = university hospital.

<sup>a</sup>Low indicates elementary education, *medium* indicates high school or middle-level applied education, and *high* indicates higher professional or academic education.

Participants started to doubt the diagnosis of miscarriage and immediately felt unsure about the treatment they had to choose. Most participants considered a second ultrasonogram to be important for confirmation, and they suspected

that the diagnosis was incorrect and that the embryo was still alive:

I think yes, it is possible. Of course, you sometimes read stories that the growth



stopped for a week, but you also know that it does not. . . . There must always be something to see. Yes, they should check it again. (Participant 12)

Overall, participants needed rational and emotional certainty before they could choose a treatment option. Although the miscarriage was confirmed, and they saw it for themselves on the ultrasonogram (making it a rational, established fact), most participants doubted the diagnosis and wanted more certainty. The concern about a wrong diagnosis often played an emotional part in the decision-making process. The rational fact of the ultrasonogram alone was not enough to make them let go of the embryo.

### *Information*

In the second subtheme of *Information*, participants said that information was important in the decision-making process. Participants received verbal and written information after the diagnosis, such as informational sheets or booklets. This information contained mainly rational data, such as treatment options. Participants were also in need of emotional information, and all of them confirmed that they searched for additional information, especially emotional information, on the Internet. They wanted information such as experiences from other women who suffered miscarriages and searched for it on online forums:

The experience of other women, that's what I think is the most honest answer. What you can find, I mean in theory things can look one way, but in practice it always works out differently. That's just, so I have more practical information than theoretical . . . really just from women who have experienced it and can answer questions from each other, like oh yes, it went like this for me or it went like this. Then I look it up, and think, oh yes, this happens to all of them, it's normal. . . . Such a paper probably contains one experience and that's it . . . or it will be written more from the doctors' point of view and not from the point of view of women themselves. (Participant 15)

Participants revealed that they knew little about the physical and emotional experience of miscarriage. By talking to other women, they sought confirmation and control:

You are looking to see the choice other people made in this case and how did it go

. . . not because it is the same for you . . . but so . . . that you know a little bit about what may happen because you simply have no idea. Not that it influences your choice but maybe it helps you manage your expectations. . . . You just want to have control . . . just hear a few stories about, well, what happened in your case . . . how was it or did it make you feel ill. (Participant 10)

Some of the participants indicated that they did not find an Internet site where rational and emotional information could be found. Reliable information was often difficult to find. The needs of participants regarding information varied individually: "If I had had the percentages, a few stories . . . it would have helped me a lot. You can only really . . . make your own choice when you feel that you actually have the knowledge . . ." (Participant 14).

None of the participants used a decision aid; most were not familiar with decision aids and had not used them in other contexts. Participants considered the possible use of a decision aid differently: "Then it would give me some information from the professional side, a bit of insight, but my emotions of course do not fully match up with this, and of course you can't measure that with a few questions" (Participant 6).

In summary, despite the fact that participants were provided with information from health care professionals, this did not meet all their needs during the decision-making process. Therefore, they searched for more information and focused primarily on additional emotional information.

### *Support From Environment*

In the third subtheme, *Support From Environment*, participants noted that, despite the rational acknowledgement that they should make decisions themselves, their decisions were influenced by emotional factors from the environment. Support from partners, family, and health care professionals was important:

You know, of course . . . um . . . you actually know what you want, or what your choice actually is, but nevertheless, sometimes you think, is it really the right choice? And then um, you still verify with people who are important to you and who are close to you. (Participant 12)

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**Health care professionals should be aware of the roles of reason and emotion during decision-making about treatment for miscarriage when providing information about treatment choices.**

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Very often, emotional environmental factors, such as work, holidays, or other important life events, influenced participants' decisions, and they often chose medical treatment instead of expectant management because they were uncertain about the duration of the waiting time. Most participants wanted to end the pregnancy as soon as possible: "The reason I chose those pills was because it was faster than just waiting and seeing. . . . That was actually my motive, as I wanted it to end as soon as possible" (Participant 1).

Participants knew that they had to make their own decisions regarding treatment and emphasized this as important: "It is my body." However, they also revealed that the support from the environment, such as from their partners, was important: "Yes, we talked about it together. He told me how it felt for him, what he would like, but he also said it is important to do what you want, it's your body" (Participant 9).

Participants also mentioned the important need for emotional support from health care professionals, including attitude, personal contact, and involvement. Participants said that it was important to discuss emotions and thoughts. Some indicated that the health care professionals' understanding and confirmation of their choices were essential and made them feel that their decisions were the right ones:

For me, the most important thing was that I could express my feelings and that a professional could say, from his or her expertise, well, that seems like a good idea to me. That made me feel I made the right choice because my emotions said this and they actually agreed, as it were. They had no urgent reasons for choosing something else, which made it a bit more peaceful for me to think, okay, this is the right choice. Nothing has been forced on me, but I also didn't have the feeling that I was going against something that was the advice of a professional. (Participant 6)

In summary, participants knew rationally that they had to make treatment decisions by themselves. The environment often played an important role in

the decision-making process, and they needed the support of partners and health care professionals.

## Discussion

In this qualitative study, we explored the needs of women during decision-making about treatment for miscarriage. We identified one overarching theme, *Decision Based on Reason and Emotion*, and three related subthemes: *Certainty*, *Information*, and *Support From Environment*. The overarching theme shows that participants constantly balanced reason and emotion during the decision-making process about treatment for miscarriage. We found no comparable themes in previous research about miscarriage experiences, but findings in the literature on decision-making in general support these findings. In their review of theories and evidence of emotion and decision-making, Lerner et al. (2015) found that reason and emotion were important drivers of the decision-making process.

We identified three related subthemes of *Decision Based on Reason and Emotion*. The subtheme *Certainty* turned out to be an important need for participants. Even if a miscarriage was established and certain, most participants doubted the diagnosis and wanted more certainty. This is in line with results of a qualitative study of 23 women in which Limbo et al. (2014) examined what women do after the diagnosis of miscarriage. These researchers identified a comparable theme, *Being Sure*, that confirmed the importance of certainty about the diagnosis. Previous research findings and our findings highlight the importance of certainty and of discussing women's needs with health care professionals to address their uncertainty. Having a second ultrasound examination, more time, or an additional outpatient visit can be helpful. Emotions such as uncertainty about the diagnosis affect the decision-making process; therefore, it is important for health care professionals to recognize and pay attention to these emotions and the need for an absolute confirmation of the miscarriage.

Another important subtheme was *Information*. Although participants were provided with various forms of information, this did not fulfill their needs during the decision-making process. Consequently, they searched for more information, including emotional information from those with similar experiences, most often through Web sites or online support groups. These findings match



those of a systematic review about women and their spouses who faced early pregnancy problems (van den Berg et al., 2018). These researchers found that women liked to receive additional information, such as the degree of pain or the amount of blood loss to expect, and lists of support groups.

Participants expressed different opinions about the possible use of decision aids, which implied uncertainty regarding their usefulness. This finding contrasts to those of a systematic review in which Stacey et al. (2017) reported positive results for patients using decision aids. An explanation for these contrasting results might be the unfamiliarity of the participants in our study with such aids, because there is a lack of decision aids for women facing miscarriage in the Netherlands. Our findings suggest that available information for these women is inadequate.

We found that *Support From Environment* was another important subtheme, although participants emphasized that they themselves had to make treatment decisions. Here, the emotional support from health care professionals, particularly their understanding and confirmation of the participant's choice, played an important role. This is in line with a review of evidence concerning women's preferences of management in early pregnancy failure in which the authors mentioned the importance of support from health care professionals (Wallace et al., 2010).

We propose that the needs and emotions of women during decision-making about treatment for miscarriage could be addressed through a model based on SDM. An optimal relationship between the health care professional and the patient is an important keystone of SDM that ensures the sharing of information to help patients deliberate and talk about their preferences and opinions (Elwyn et al., 2012). Moreover, SDM is important in preference-sensitive decisions (Hoffmann et al., 2014) because it increases contentment with care (Kunneman et al., 2016), knowledge and certainty in decisions, patient participation (Elwyn et al., 2012), and health outcomes (Stiggelbout et al., 2012). Although there is an increasing demand for SDM from different stakeholders, it has not been used extensively in clinical practice (Stiggelbout et al., 2015).

### Limitations

Our study has limitations, particularly regarding the generalizability of the results. Although the

themes were consistent regardless of participants' hospital, age, education level, number of children, miscarriage history, and treatment type, the population was small and selective. More research with participants of different demographic profiles would be valuable. For instance, the study did not include women diagnosed and counseled by midwives, women with less education, or younger women.

### Implications

Health care professionals should be aware of the roles that reason and emotion play during women's decision-making processes for treatment after the diagnosis of miscarriage. By discussing these needs during the decision-making process—for instance, offering an extra ultrasound examination to confirm the diagnosis—health care professionals contribute to women's well-being. Researchers should also explore the experiences and needs of health care professionals to support women in the decision-making process and shared decision-making regarding treatment for women diagnosed with miscarriage. In addition, health care professionals and researchers in hospitals should develop a reliable Internet site with diverse information and links regarding the rational and emotional information needed by women during their decision-making regarding treatment for miscarriage. This would help women find the accurate and comprehensive information they need during an emotional time. This endeavor would require the involvement of all stakeholders, including women and their partners.

### Conclusion

Women experiencing a miscarriage must make decisions regarding different treatment options. Our findings underscore the importance for health care professionals to be aware of the significance of reason and emotion during the decision-making process. The results of our study indicate that applying shared decision-making could be an important keystone in helping women during their decision-making process. Future research should focus on developing interventions to facilitate shared decision-making within this population. Before developing interventions, more research is needed concerning the experiences and needs of health care professionals to support women in their decision-making process.

## CONFLICT OF INTEREST

The authors report no conflicts of interest or relevant financial relationships.

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