Postnatal Sexual Concerns in Relation to Choice of Delivery Mode among Iranian Women: A Qualitative Content Analysis

Zahra Abbaspoor (PhD)1,2, Lida Moghaddam-Banaem (PhD)3*, Fazlollah Ahmadi (PhD)4, Anoshirvan Kazemnejad Lili (PhD)5

1 PhD in Reproductive Health, Department of Midwifery, Reproductive Health Improvement Research Centre, Jundishapur University of Medical Sciences, Ahvaz, Iran
2 Graduate, Department of Midwifery and Reproductive Health, School of Medical Sciences, Tarbiat Modares University, Tehran, Iran
3 Assistant Professor, PhD of Maternal & Child Health, Department of Midwifery and Reproductive Health, School of Medical Sciences, Tarbiat Modares University, Tehran, Iran
4 Professor in Nursing, Department of Nursing, School of Medical Sciences, Tarbiat Modares University, Tehran, Iran
5 Professor in Statistics, Department of Biostatistics, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran

INTRODUCTION

Rate of cesarean delivery has been on the rise in both developed and developing countries (1, 2). According to the World Health Organization (WHO), the average rate of cesarean section (CS) was estimated at 27% in 24 countries during 2007-2008 (3). In the United States and most developed countries, rate of CS increased from 4.5% in 1965 to 32% of the total childbirths in 2007 (4, 5). In China, CS has been reported to have the highest prevalence rate (46.2%), and in Australia, the rate of CS was estimated at 31% in 2007 (6-8).

According to the Integrated Monitoring and Evaluation System (IMES) survey conducted on women aged 10-49 years in Iran, the rate of CS was reported to be 40.4% (9), which is twice higher than the maximum rate of 10-15% for all deliveries as recommended by the WHO (10).

* Corresponding author: Lida Moghaddam-Banaem, Department of Midwifery and Reproductive Health, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran. Email: moghadamb@modares.ac.ir
According to statistics in Ahvaz city, Iran, rate of CS was 41.3% and 58.8% in public and private hospitals, respectively in 2010 (9).

CS on maternal request is the main cause of the rising rates of this mode of delivery in Iran and other countries (11). Several studies have evaluated the common reasons for the selection of CS by pregnant women (12-14); in this regard, controversies mainly revolve around the choice of elective CS in recent years (15, 16).

Although elective CS is not ethically justified (15), this view has been challenged lately, and choice of the patient regarding the mode of delivery has been further supported (17, 18). As much as 18% of all the CSs around the world are performed on the request of pregnant women (19). In Iran, CS accounts for 7-13.5% of all childbirths (20), and selection of a particular delivery mode has become a matter of debate due to the lack of knowledge on the risks and benefits of childbirth methods. Women mostly perceive the information about childbirth from different websites on the internet, and since they consider these sources reliable, they do not consult their midwives about the mode of delivery. This has been reported to be a common phenomenon among Swedish pregnant women (21).

One of the influential factors in the selection of CS by pregnant women is the fear and concern about sexual dysfunction after normal vaginal delivery (NVD) (22). Recent studies have confirmed the remarkable impact of childbirth on sexual function. Furthermore, some of these studies have assessed the relationship between CS and improvement of sexual life (23).

In a focused group study by Olsson et al. (2005), 27 Swedish women were enquired about their viewpoint toward the sexual life after childbirth. The authors concluded that postpartum women were mainly concerned about their body image, especially the vagina, which became loosened and deformed after delivery. Moreover, these women were anxious about the shape of their breasts to become smaller after weaning. Therefore, the researchers recommended professional counseling about the quality of sexual life after childbirth (24).

The fact that 7-24% of obstetricians and 4.4% of midwives prefer CS to NVD has strengthened the belief that CS could improve the sexual life after childbirth (25, 26). In several studies, fear of natural childbirth has been reported as the most common reason for selecting CS (27, 28); however, sexual dysfunction is considered the actual cause of this preference (25, 26, 29). Despite the paramount importance of postnatal sexual health, this issue is not often discussed during prenatal or postnatal care by medical researchers and clinicians (30). In the literature, conflicting results are available regarding the effect of NVD on the genital system and normal sexual function after childbirth. Correspondingly, NVD has been associated with impaired sexual function due to common perineal pain and dyspareunia caused by perineal trauma, episiotomy, or instrumental delivery. Furthermore, perineal pain has been reported to occur in 42% of women immediately after delivery (31).

In one study, Baksu (2007) evaluated 248 primiparous Turkish women in terms of the effects of mediolateral episiotomy and elective CS on the outcomes of postpartum sexual function (e.g., satisfaction and painful intercourse). According to the findings, other outcome measures were negatively affected in the mediolateral episiotomy group compared to the CS group at six months postpartum (32).

In comparison with NVD, one of the perceived benefits of CS is protecting the pelvic floor against mechanical damage and preserving sexual function. Therefore, it seems that women undergoing CS will be significantly less likely to report perineal pain since the risk of an episiotomy or assisted delivery is negated, and only a minority of women may report perineal pain after CS (31, 33, 34). However, in another study performed on 484 British primiparous women at six months postpartum, the resumption of sexual intercourse had no significant difference in women undergoing CS and NVD (35).

According to the findings of Brummen (2006), sexual satisfaction at one year after the first childbirth does not depend on the factors associated with pregnancy or parturition (36); however, the reported associations between CS and sexual dysfunction are inconsistent (33, 37). This study aimed to describe the experiences of Iranian women regarding postnatal sexual concerns in relation to choice of delivery mode among Iranian women.
Materials and Methods

This article was extracted from a PhD thesis in reproductive health, which was conducted in the form of a conventional qualitative content analysis (38). Required data were collected from three semi-public and public hospitals and two healthcare centers in Ahvaz city, located in the southern part of Iran. The population of this city consists of two distinct ethnicities of Fars and Arab. This study was performed during June-December 2012.

Participants

Using purposive sampling, 18 women (4 pregnant, 14 postnatal) who had selected their delivery mode were enrolled in this study. Participants who could provide accurate data about the phenomenon of interest were selected by the first researcher (39, 40). Inclusion criteria of the study were as follows: 1) age of 18 years or above; 2) experience of delivery mode selection; 3) pregnancy in the third trimester and 4) being in the first week of postpartum after CS or NVD at the time of data collection.

Exclusion criteria of the study were the presence of severe medical complications and inability to communicate in Persian language. In sampling, maximum variation was achieved through the selection of participants in terms of social and economic status, educational and employment status, and pregnancy or being in the postpartum period (38).

Data collection

In total, 20 unstructured interviews were conducted by the first author in a convenient setting for the participants in the hospitals and healthcare centers of Ahvaz city, Iran (one session for 16 and two sessions for two participants). Each interview lasted for approximately 30-60 minutes. For in-depth interviews, participants were asked probing questions in order to remove misunderstanding, as follows:

"Which factors influenced your decision about the selection of the delivery mode?"

"Did sexual attitudes affect your choice of the delivery mode?"

Verbatim transcription was used to record the data obtained from the interviews. In this study, data analysis and collection were performed concurrently, and the interviews continued until data saturation was achieved (41).

Data analysis

For data analysis, we used conventional qualitative content analysis based on the study by Graneheim & Lundman (2004). This approach is widely used to describe a phenomenon in its natural context (42). After the verbatim transcription of the interviews, the obtained data were reviewed several times to draw an overall understanding of the perspectives of women regarding the influential factors and motivations in selecting a particular mode of delivery. In addition, meaning units (e.g., words, sentences, and paragraphs) were identified, abstracted, and labeled using codes. Based on the similarities and differences, the meaning units were classified as categories and subcategories. Finally, the main themes or latent content of the text emerged from the data (38) (Table 1).

Trustworthiness

Credibility of the collected data was established through peer and member checking. Moreover, two expert supervisors and two reproductive health students verified the coding and categorization of the process. To verify that the researchers presented their real perceptions, seven interview drafts were returned to the participants for member checking. Quality of data was ensured through prolonged engagement and immersion in the data, as well as providing field notes by the researchers (40, 41).

Ethical considerations

This study was approved by the Ethics Committee of Tarbiat Modares University of Tehran, Iran in 2012. Objectives of the study and ethical considerations were explained to all the participants. In addition, written informed consent was obtained from all the women prior to participation, and they were allowed to withdraw from the study at any time. Moreover, permission to conduct and audiotape the interviews was obtained from all the participants, and they were ensured of the anonymity and confidentiality of their information.
Results

Main results

Women enrolled in this study were within the age range of 22-33 years. With regard to the education status, 9 out of 18 participants had a BS degree (9 cases in the CS group, and none in the NVD group). In terms of the employment status, 9 participants were employed and 9

<table>
<thead>
<tr>
<th>Meaning Unit</th>
<th>Condensed Meaning Unit</th>
<th>Code</th>
<th>Subcategory</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Men want everything to be perfect, and after natural delivery, my vaginal opening became loose and stretched. I thought my husband would not be satisfied with our sexual relationship after *NVD and those with the experience of natural delivery told me that their husbands were not satisfied with their sexual relationship after childbirth.”</td>
<td>Importance of maintaining the appearance of genital system for spouse sexual satisfaction after NVD</td>
<td>Spouse sexual dissatisfaction of genitals appearance</td>
<td>Spouse</td>
<td>Dissatisfaction after NVD</td>
</tr>
<tr>
<td>“My husband told me that if he was not satisfied with our sexual relationship after natural delivery, he would be depressed. So, I decided not to choose NVD.”</td>
<td>Fear of losing spouse psychological health and sexual satisfaction after NVD</td>
<td>losing spouse health and sexual satisfaction</td>
<td>Meeting the sexual satisfaction of spouse</td>
<td></td>
</tr>
<tr>
<td>“My sister, my cousin, and many others chose CS for their second or third childbirth in order to prevent sexual problems after NVD.”</td>
<td>Dissatisfaction of spouse after NVD among relatives</td>
<td>Spouse sexual dissatisfaction in relatives</td>
<td>Preserved sexual satisfaction after **CS</td>
<td></td>
</tr>
<tr>
<td>“I have seen some women who had problems in their sexual intercourse after natural delivery. So, I was convinced to choose CS.”</td>
<td>Problems in resumption of sexual activity after NVD</td>
<td>Resumption of sexual activity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*NVD: Natural vaginal delivery; **CS: Cesarean section

The main theme emerged in this study was “decision-making influenced by socio-cultural beliefs”, and the content of interviews included two categories of “meeting the sexual satisfaction of the spouse” and "preserving the original shape of the genital organs". The category of “meeting the sexual satisfaction of the spouse” was classified into two subcategories of “sexual dissatisfaction of the spouse after NVD” and “preserved sexual satisfaction after CS.” The category of “preserving the original shape of the genital organs” was also classified into two subcategories of “necessity of cosmetic surgery after NVD” and “maintaining an intact genital system after CS.”

Main themes

The results of this study presented a comprehensive description of different socio-cultural beliefs affecting the decision of pregnant women regarding the mode of delivery. The participants believed the selection of delivery mode to be a complex and difficult decision mainly influenced by the socio-cultural attitudes of their spouse, family members, friends, and peers. The followings narratives explain each of the extracted categories of the study using the quotations of the participants.
1) Meeting the sexual satisfaction of the spouse

Dissatisfaction of the spouse after NVD

Some of the women in this study stated that postpartum sexual satisfaction of the spouse played a remarkable role in the selection of the delivery mode. Furthermore, the perception and experiences of family members or relatives regarding the sexual dissatisfaction of the spouse after NVD urged many of these women to select CS for childbirth. In this regard, one of our participants said: "Those women who had natural delivery said that their spouses were not satisfied with their sexual relationship after giving birth” (30 years old, gravida 2, para 1, selected CS).

In addition, one primiparous woman stated: “My sister, my cousin, and many others, who were going to have their second or third childbirth, chose CS in order to prevent sexual problems after natural delivery” (26 years old, gravida 1, para 1, post CS).

One of the postnatal women in this study stated: "My sister experienced natural delivery in her first pregnancy and CS in her subsequent pregnancy. In her first delivery, she had several sutures and her vaginal opening was so stretched that her husband was not satisfied with their sexual relationship at all” (27 years old, gravida 2, para 2, post CS).

Similarly, some of our participants claimed that their spouses were dissatisfied with the changes in the genital tract after NVD. Moreover, they stated that since their partners were concerned about sexual dissatisfaction after NVD, the women were forced to select CS for childbirth. In this regard, one of the participants said: "My husband told me that if he was not satisfied with our sexual relationship after NVD, he would be depressed. So, I decided not to choose natural delivery” (27 years old, gravida 1, para 1, post CS).

Preserved sexual satisfaction after CS

Influenced by the information received from their closed ones, some of our participants believed that women who undergo CS tend to have better sexual functioning afterwards due to the intact genital system compared to those who have NVD. In this regard, one of the postnatal women said: "I have seen some women who had problems in their sexual relations after natural delivery, and they had to perform vaginal reconstruction and cosmetic surgeries to enhance their sexual function. So, I decided to choose CS to avoid this issue” (34 years old, gravida 1, para 1, post CS). In addition, another participant stated: “My husband told me that if I had natural childbirth, he would not enjoy sex anymore, and this encouraged me to choose CS” (27 years old, gravida 1, para 1, post CS).

On the other hand, a few of our participants believed that NVD is a natural process intended by God for human reproduction. In this regard, one of the women said: "Natural delivery causes fewer complications compared to CS and has many health benefits for women. NVD is not associated with sexual problems since it is a natural process intended by God, who always provides the best for human” (27 years old, gravida 2, para 1, selected NVD).

2) Preserving the original shape of genital organs

Necessity of cosmetic surgery after NVD

According to some of our participants, the changes in the genital tract following NVD are unpleasant and need to be avoided. They believed that with NVD, they had to perform vaginal reconstruction and cosmetic surgeries in order to restore the original shape of the genital organ. Moreover, some of the participants stated that they were forced by their spouses to choose CS in order to preserve their sexual function. In this regard, one of the women said: “I believed that due to the widening of the vaginal opening, my husband could not enjoy our sexual intercourse. I thought if I chose natural delivery, I would certainly have to do vaginal reconstruction; so, I selected CS instead” (34 years old, gravida 1, para 1, post CS).

On the same note, another participant stated: “Most men are opposed to natural delivery due to the changes in the shape of the vagina and sutures caused by episiotomy” (26 years old, gravida 1, para 1, post CS). Moreover, one of the post CS women claimed: "I am totally in favor of CS because my body remains intact and I would not need to look for a specialist surgeon for vaginal reconstruction. By selecting CS, I would also be able to keep my husband satisfied with our sexual relationship” (34 years old, gravida 1, para 1, post CS).
On the other hand, a few of our participants were in favor of NVD considering all its associated benefits as a natural process for childbirth. In this regard, one of the postnatal women said: “Vaginal delivery is a natural process, and repairing of the genitalia afterwards will occur naturally as well. Although the vagina may not return to its original shape, we should consider that by gaining something, one has to lose another thing” (22 years old, gravida 1, para 1, post NVD).

**Maintaining an intact genital system after CS**

According to our findings, many women were convinced to select CS believing that they would have to do vaginal reconstruction or cosmetic surgeries after NVD. In this regard, one of the pregnant women stated: “Natural delivery leads to changes in the shape of the genitalia, and I would have to undergo reconstructive cosmetic surgery” (26 years old, gravida 1, para 0, selected CS). Furthermore, another participant said: “Many women have told me that natural delivery will damage the genitalia and make the vagina look ugly, whereas in CS, the shape of the genitalia remains intact” (26 years old, gravida 1, para 0, post CS).

**Discussion**

According to the results of the present study, the main influential factors in the selection of the delivery mode among pregnant women were the concern about postnatal sexual problems and sexual dissatisfaction of the spouse after NVD. In a study conducted on Nigerian women, Oboro et al. (2002) reported sexual health problems to be noticeably common after vaginal delivery (43). Accordingly, the most common sexual health problems were perineal pain, dyspareunia, and delayed resumption of sexual intercourse (44). Furthermore, the findings of McDonald (2013) indicated that most women who underwent NVD on their first childbirth could not resume vaginal intercourse until later than six weeks postpartum, and women who had operative NVD, CS, perineal tear or episiotomy appeared to have more delayed intercourse (45).

In Iran, quantitative studies in this regard have implied that the most significant cause of high CS rates is the fear of childbirth among pregnant women (14, 46, 47). However, the results of the present study indicated that postnatal sexual concerns for women were essentially involved in the selection of CS. This difference could be due to some other factors affecting the choice of delivery mode among Iranian women, including the shame to discuss sexual issues and fear of losing a deep emotional relationship with the partner due to sexual dissatisfaction (47).

Although postpartum sexual problems are highly prevalent during the first three months after childbirth (range: 22-86%) (33), the results obtained by Barrett et al. (2005) showed no significant difference in the sexual function of women with CS and NVD (35). Moreover, they claimed that apart from vaginal delivery, postpartum sexual activity could be affected by several other factors, such as breastfeeding (48), discordance of sexual desire with the partner, inadequate sleep and free time (24), and postpartum pain (49). In another one of their studies, Barrett et al. (2000) suggested that psychological, physical, and socio-cultural parameters were among the most important influential factors in the sexual health of both parents (50). However, the reported associations between CS and sexual dysfunction are inconsistent (33, 37).

According to the results of the current study, pregnant women were inclined toward CS in order to prevent the stretching and dilating of the vaginal opening after NVD, maintain the sexual satisfaction of their spouse, and avoid future genital reconstruction surgery. This finding is in line with the results obtained by Olsson et al. (2005), which indicated that postnatal women were mostly concerned about their body image and shape of their vagina to become loose and deformed. Therefore, it was concluded that professional counseling on sexual life after childbirth was required for these women during pregnancy (24).

In the present study, the participants preferred CS in order to prevent postnatal sexual dysfunction and dissatisfaction, which is consistent with the results of previous studies in this regard. For instance, in one research, Brumen et al. (2006) investigated the predictive factors for sexual function at one year postpartum and stated that lack of sexual activity in early
pregnancy was the prognostic factor for sexual dissatisfaction after delivery. Therefore, they concluded that satisfaction with sexual relationship was dependent on the factors associated with pregnancy and parturition (36).

In a systematic review, the associations between CS and sexual dysfunction were reported to be inconsistent, and postpartum sexuality was found to be greatly influenced by both pregnancy and the transition to parenthood (51). This difference could be due to the fact that in perinatal visits, Iranian women are not adequately educated by healthcare providers with regard to the advantages of NVD, complications of CS, and influential factors in postpartum sexual function.

According to the study by Leeman (2012), lack of counseling may represent the poor knowledge of healthcare providers regarding the influential factors in postpartum sexual changes (30). Moreover, the findings of Barrett et al. (2000) indicated that only 18% of postpartum women in a teaching hospital in London had been informed on the changes associated with postpartum sexual function (50). In general, for many women, the primary influential factors in the resumption of satisfactory postpartum sexual activity relate not only to the healing of the perineal trauma, vaginal dryness due to lactation or postpartum depression caused by treatments, but they also depend on the amount of rest, spare time, and physical space for sexual intimacy (51). Therefore, it appears that satisfaction with sexual activity during the postnatal period is associated with many other factors besides the mode of delivery.

**Strengths and limitations**

To the best of our knowledge, this was the first qualitative study to explore postnatal sexual concerns and influential factors in the selection of delivery mode among Iranian women. One of the strengths of this research was the study design and methods of data collection and analysis, which were described as thoroughly as possible to enable researchers to generalize the findings to other contexts. One of the limitations of this study was that we mainly focused on the experiences of pregnant and postnatal women who selected CS, and postpartum sexual problems were not investigated specifically.

**Conclusion**

According to the results of this study, sexual attitudes and beliefs in the Iranian society play a pivotal role in the selection of CS over NVD by pregnant women. Common beliefs regarding the effects of NVD on postnatal sexual dissatisfaction among couples indirectly influence the increasing rate of CS in Iran. Therefore, it is recommended that the knowledge of couples be improved about the influential factors in postpartum sexual function and satisfaction through related educational programs. Furthermore, pregnant women need to be trained on the short-term and long-term complications of CS, especially in the absence of medical indications. On the same note, it is suggested that physiologic vaginal delivery be implemented in order to prevent perineal injury in antenatal visits.

**Acknowledgements**

Hereby, we extend our gratitude to the Vice Chancellor of Research at the Faculty of Medical Sciences of Tarbiat Modares University for the financial support of this study. We would also like to thank all the participants for their cooperation in this research project.

**Conflicts of interest**

None declared.

**References**

trainee obstetricians preferences for


Sexual Concerns Regarding Delivery Mode Selection

Abbaspoor Z et al.