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Pregnant Women's Experiences of Sexual Activity During Pregnancy: A Qualitative Study

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Abstract

Background: Pregnancy is a sensitive time in women's lives, as they experience numerous physical, psychological, and behavioral changes that can affect their sexual and marital relations. Due to the significance of this topic, the present study aimed to examine pregnant women's experiences of sexual activity during pregnancy.

Methods: The participants in this qualitative content analysis study were 23 pregnant women who visited hospitals in Babolsar, Iran (2019-2020) and were selected using purposive sampling. Following in-depth interviews, a semi-structured questionnaire guide was used to collect qualitative data. Data were analyzed using the conventional content analysis method proposed by Graneheim and Lundman. The MAXQDA 10 software was utilized for qualitative data analysis.

Results: In the present study, pregnant women ranged in age from 19 to 35 years. The analysis of pregnant women's experiences of sexual activity during pregnancy led to the identification of four categories including sexual changes perceived during pregnancy, strategies for coping with sexual changes during pregnancy, sexual changes leading to the couple's development, and factors influencing sexual activity during pregnancy.

Conclusion: During pregnancy, women observe various sexual changes in themselves and their partners, influenced by gestational age, medical disorders, physical changes, psychological and emotional factors, and underlying factors. Accordingly, it is recommended that couples be educated on sexual health during pregnancy which emphasizes the need for further research in this area.

Keywords: Women, Sexual activity, Pregnancy, Qualitative research

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Introduction

Sexual health is an integral component of a woman's quality of life, health, and general well-being, and ignoring it causes severe and irreparable harm (1,2). Sexual health is affected by the interplay of various factors (3). Pregnancy is a complex biological factor influencing many facets of women's lives, including sexual function and activity (4).

Several studies have found a slight decline in female sexual function during the first and third trimesters of pregnancy and a variable pattern of sexual function during the second trimester. Many women experience a decrease in the number of sexual encounters, sexual desire, and sexual satisfaction as their pregnancy progresses, particularly during the third trimester (5). It was observed that 76%-79% of non-pregnant women enjoy sexual activity, while this rate decreases to 59% in the first trimester, 48-75% in the second trimester, and 40%-41% in the third trimester (6).

In a cross-sectional study on 589 healthy pregnant women, 94.2% reported decreased clitoral sensitivity, followed by a lack of libido in 92.6% and an orgasmic disorder in 81% (7). According to one study, libido was the most prevalent sexual dysfunction in women, whereas sexual dissatisfaction and inability to reach orgasm were the most prevalent sexual dysfunctions in men (8).

Some of these changes have been attributed to the quality of the couple's marriage, low self-esteem, negative self-image, unpleasant previous pregnancies and abortions, and mood instability during pregnancy (9). Physical discomfort, weakness, fear of harm to the fetus, painful intercourse, feeling unattractive due to pregnancy, stories and experiences of older women regarding pregnancy, inappropriate medical advice, and cultural beliefs are additional factors affecting the sexual function of women during pregnancy (10).

Numerous studies have been conducted on couples' attitudes toward sexual activity during pregnancy. For

instance, a study revealed that most pregnant women experienced decreased libido. In addition, all women avoided sexual contact for reasons including fetal health concerns, abortion, and abdominal pain and discomfort (11). In the third trimester of pregnancy, sexual dysfunction was greater than in the first and second trimesters, according to a study by Bayrami et al. Altered sex drive in women and sexual dissatisfaction and inability to reach orgasm in men were the most prevalent sexual dysfunctions during each pregnancy trimester (12). Chang et al reported that medical conditions, prior miscarriage experience, body image, gestational age, beliefs, abdominal enlargement, and urinary incontinence affected sexual function. They demonstrated physical, psychological, social, and cultural factors influence pregnant women's sexual function (13).

According to studies, most researchers focus on analyzing women's sexual activity and disregard their lived experiences. Therefore, there is limited information regarding women's perceptions of sexual functions and how sexual changes affect their mood, temperament, and relationships during pregnancy (14). Due to the prevalence of sexual disorders in society (15), the significance of the issue, and the lack of relevant research, this study aimed to examine Iranian women's experiences of sexual activity during pregnancy.

Methods

The present study employed a conventional qualitative content analysis method. Qualitative content analysis is a research technique for the subjective interpretation of textual data through systematic classification, coding, compilation, and design of known patterns (16). According to the primary research question, which seeks to analyze pregnant women's experiences of sexual activity during pregnancy, this study employed a naturalistic philosophical perspective through qualitative methodology.

The present study was conducted at Shafa Hospital and Gharazi Clinic in Babolsar, Iran in 2019-2020. These centers are among the primary referral centers for pregnant women to receive periodic follow-up care; thus, they serve a diverse clientele in terms of age, culture, ethnicity, and socioeconomic status.

The study was conducted on pregnant women who visited the above-mentioned centers and were included in the study using purposive sampling. The inclusion criteria for the study were consent to participate, willingness and capability to express experiences and attitudes, and absence of medical restrictions on sexual activity during pregnancy. The exclusion criteria included the presence of a health condition during the study and refusal to participate.

Data on the participants' experiences of the phenomenon were collected using in-depth individual interviews and a semi-structured questionnaire. The interview questions included, "What are your thoughts on sexual activity while pregnant?", "What impact has pregnancy had on your sexual activity?", "Has your sexual activity altered since becoming pregnant?", and "How have you responded to these changes?" To obtain more detailed information and delve deeper into the participants' experiences, probing questions were asked based on the participants' responses during the interviews. Some instances of probing questions include, "Could you elaborate on this?", "Did you mean this?", and "Can you provide an example in this regard?" The interview was conducted by a research team member who had experience working at the center and had received the required training in conducting interviews and qualitative research.

In this study, the interviewer was one of the midwives working in the research environment and taking care of mothers visiting the clinic. The interviewer communicated with the mothers and invited them to participate in the study if they met the inclusion criteria. The researcher presented at the prenatal care clinic of the research environment after obtaining the necessary permissions. After visiting pregnant women, the doctor verbally explained the research methodology and objectives. If they agreed to participate, the time and location of the initial interview were determined. The interviews were conducted in a clinic room. Participants' privacy was respected in the interview room, and their peace of mind was guaranteed. The interview questions were asked, and the content of the interviews was recorded upon the participant's consent. The second interview was necessary in two instances due to ambiguities in the recorded conversations. Each interview lasted from 30 to 85 minutes.

The collected data were analyzed using qualitative content analysis and inductive analysis methods. To this end, immediately after the recording of each interview, the researcher transcribed the interview. The provided text was then read line-by-line to identify the most significant sentences and phrases, which were then underlined, and their essence was labeled (coding). The subcategories were formed by merging and categorizing the 561 similar codes. Subsequently, they were designated names that reflected the concepts they covered. The subcategories were compared to one another, and in cases of similarity, they were grouped to form the main categories. Finally, 4 main categories, 21 subcategories, and 125 codes were extracted. Sampling continued until data saturation i.e. to the point where no new categories or codes were extracted. Interviews were conducted with 23 pregnant women. After conducting 20 interviews, the researcher found no new codes. Nevertheless, three additional interviews were conducted. No new codes were extracted from the qualitative analysis of these additional interviews. The qualitative data were analyzed

using MAXQDA 10 software.

To ensure the credibility of the findings in this study, trained individuals collected the data, and the researcher closely monitored the interview process. Furthermore, the researcher attempted to capture the genuine opinions of the participants by asking probing questions. The allocation of sufficient time to collect and analyze data aided in deepening and making the data more realistic, contributing to the study's credibility. The following solution in this regard is "supplementary comments of observers". To obtain the approval of observers at various stages, the results of each data analysis stage, including codifying, classifying, and drawing diagrams were provided to professors of the field to seek their opinions. An alternative solution is "participant's revision" where the researcher returns the results to the participants during or after the study to ensure that the final findings accurately reflect what they said. In this study, the researcher accomplished this by providing in-depth and analytical descriptions, describing the study context, and giving a clear explanation of obstacles and limitations.

For transferability, the research environment, implementation methods, interview process, study population, and data interpretation methods were fully described so that the results could be compared to situations with similar characteristics.

To ensure confirmability, an effort was made to describe the participants' expressions in detail and analyze their voices to validate the research. In addition, all interview files and field notes were saved on a computer so that observers could review them.

In this study, strategies such as supplementary comments from colleagues, checking the coding to demonstrate agreement between concepts and themes, and achieving data and class saturation were employed to strengthen dependability. All stages of the research, particularly qualitative data analysis stages in all directions, were meticulously documented so that if another researcher wished to continue work in this area, they could easily rely on existing documents.

Results

The study included 23 pregnant women aged 19 to 35 years. Table 1 shows the sociodemographic characteristics of the participants.

According to Table 2, pregnant women's experiences of sexual activity during pregnancy were classified into four main categories and 21 subcategories. The main categories included *sexual changes perceived during pregnancy*, *strategies for coping with sexual changes during pregnancy*, *sexual changes leading to the couple's development*, and *factors influencing sexual activity during pregnancy*.

Sexual changes perceived during pregnancy

Perceived sexual changes during pregnancy were classified into seven subcategories including *the couples' sexual dissatisfaction*, *increased female libido*, *no changes in sexual activity*, *decreased female sexual orgasm*, *decreased sexual activity among couples*, *decreased female libido*, and *decreased male libido*.

The couples' sexual dissatisfaction

Women expressed dissatisfaction with pressured sexual activity, alternative sex methods, and unpleasant sexual changes during pregnancy. The woman's discomfort was caused by the partner's complaint about the current situation and their anger, and they desired to return to a pre-pregnancy state. "*Before pregnancy, sexual activity was significantly easier and more frequent. But during pregnancy, the frequency of satisfaction decreases*" (Participant 5).

Increased female libido

One of the perceived sexual changes during pregnancy was a periodic increase in libido, such as the increase in libido in some pregnant women following the cessation of nausea and vomiting. "*The libido was lower during the early stages of pregnancy, but it has since improved*" (Participant 9).

No changes in sexual activity

Some pregnant women expressed satisfaction with their sexual activity and stated that they continued to engage in sexual activity throughout their pregnancy without change. *"Not more, not less'; It remains the same and is satisfactory*" (Participant 13).

Decreased female sexual orgasm

During pregnancy, women experience fewer orgasms and less sexual pleasure, which is perceived as a change in their sexuality. "*I did not experience any orgasm*" (Participant 15).

Decreased sexual activity among couples

Some pregnant women reported that their intercourse intervals lengthened during their pregnancy and that they had reduced intercourse throughout their pregnancy. Furthermore, the duration of interactions was shorter. "*It is lower, I have no desire, and it only lasts briefly*" (Participant 19).

Decreased female libido

Pregnant women reported experiencing decreased sexual desire, lack of sexual libido, and aversion to sexual activity. "*I had no desire to do it*" (Participant 11).

Decreased male libido

In addition to the sexual changes experienced by pregnant women, the sexual desire of the husband was also affected during this time. Several reasons were cited for this shift,

Table 1. The participants' sociodemographic characteristics

Participant code	Age	Job	Education level	Partner's age	Partner's job	Partner's education level	Gestational age (wk)
1	35	Homemaker	Elementary school	35	Laborer	Elementary school	28
2	31	Homemaker	Master's degree	31	Employee	Master's degree	27
3	19	Homemaker	High school diploma	30	Baker	Associate degree	40
4	26	Employee	Master's degree	27	Self-employed	Bachelor's student	22
5	29	Homemaker	Bachelor's degree	31	Barber	High school diploma	26
6	35	Self-employed	Bachelor's degree	37	Graphist	Bachelor's degree	37
7	32	Employee	Bachelor's degree	39	Self-employed	Bachelor's degree	30
8	30	Homemaker	High school diploma	36	Self-employed	High school diploma	39
9	29	Homemaker	high school diploma	34	Employee	High school diploma	28
10	33	Homemaker	High school diploma	40	Employee	Bachelor's degree	31
11	28	Homemaker	Elementary school	39	Laborer	Elementary school	38
12	22	Employee	Bachelor's degree	30	Employee	Bachelor's degree	29
13	33	Homemaker	High school diploma	42	Self-employed	Associate degree	34
14	24	Employee	Bachelor's degree	30	Employee	Bachelor's degree	32
15	32	Homemaker	High school diploma	37	Self-employed	High school diploma	34
16	26	Homemaker	High school diploma	34	Self-employed	High school diploma	28
17	26	Employee	High school diploma	35	Employee	Master's degree	28
18	29	Employee	Bachelor's degree	37	Self-employed	High school diploma	31
19	31	Homemaker	High school diploma	41	Employee	Bachelor's degree	32
20	23	Employee	Bachelor's degree	31	Employee	Bachelor's degree	26
21	34	Homemaker	Elementary school	44	Truck driver	Elementary school	28
22	29	Homemaker	Elementary school	31	Self-employed	High school diploma	30
23	31	Homemaker	High school diploma	36	Employee	Bachelor's degree	31

including decreased female attractiveness, fear of harm to mother and fetus, observance of female conditions, diminished intimacy, a history of abortion in women, and male dissatisfaction with belly enlargement. "*He has lost interest, and fears that the membranes may rupture for instance*" (Participant 21).

Strategies for coping with sexual changes during pregnancy

Couples employ the following strategies to cope with the sexual changes brought on by pregnancy: *emotional support from the spouse*, *the woman's attention to her husband's sexual needs*, *use of information resources*, *being considerate during intercourse*, *fulfilling sexual needs with alternative methods*, *sexual desire control*, and *learning from previous experiences*.

Emotional support from the spouse

Emotional support from the partner, which can improve the husband-wife relationship, is a means of coping with sexual changes during pregnancy. Pregnant women mention expressing love to their spouse and the psychological support of their partner in this context. Some participants mentioned affection and support as alternatives to sexual activity. *"He understood me and acknowledged that I was aware of the difficulty, thereby making an effort to calm me down"* (Participant 17).

The woman's attention to her husband's sexual needs

Another way to manage sexual changes during pregnancy is to focus on the husband's sexual needs. In this regard, pregnant women employ the following strategies: having sex despite a lack of sexual desire, initiating sex themselves, and reassuring their husbands that sexual activity is harmless. Participants emphasized that satisfying the husband's needs resulted in the wife's contentment and reassurance. "*At times, I lacked desire, but I hid it and allowed him to act*" (Participant 23).

Use of information resources

Women sought information from medical professionals, physicians, midwives, healthcare providers, cyberspace, friends, and books. "*We also conducted an Internet search, and I was reading the book The Righteous Child*" (Participant 8).

Being considerate during intercourse

The women believed there would be no risk to the fetus if their husbands considered their conditions during sexual activity. Consideration entails reducing the intensity of

Table 2. Pregnant women's experiences of sexual activity during pregnancy

Main Categories	Subcategories
Sexual changes perceived during pregnancy	Couples' sexual dissatisfaction
	Increased female libido
	No changes in sexual activity
	Decreased female sexual orgasm
	Decreased sexual activity among couples
	Decreased female libido
	Decreased male libido
Strategies for coping with sexual changes during pregnancy	Emotional support from the spouse
	The woman's attention to her husband's sexual needs
	Use of information resources
	Being considerate during intercourse
	Fulfilling sexual needs with alternative methods
	Sexual desire control
	Learning from previous experiences
Sexual changes leading to the couple's development	Increased understanding of and empathy for the spouse
	Increased patience and forgiveness
	Understanding the importance of sex and its role in life
Factors influencing sexual activity during pregnancy	Gestational age
	Medical disorders
	Physiological changes
	Individual factors

intercourse, engaging in it more slowly, and assuming the correct lateral position. "*My husband knew that sleeping excessively on one's back is unhealthy*" (Participant 4).

Fulfilling sexual needs with alternative methods

An additional strategy for coping with sexual changes during pregnancy is to fulfill sexual needs through alternative means, such as anal intercourse, masturbation, touch, and orgasm without intercourse. "*I assisted him in reaching orgasm by rubbing and touching him*" (Participant 4).

Sexual desire control

Pregnant women reported that, due to the difficulties and limitations of pregnancy and the desire for a successful pregnancy, they attempted to ignore their sexual desires and needs, not demand intercourse, and distance themselves from their husbands. "*We neglected it to care for the fetus*" (Participant 15).

Learning from previous experiences

As a woman's number of pregnancies increased, the couples' confidence in having sex during pregnancy also increased, and concerns about the risk to the mother and fetus decreased. "*Now that we have more information, it has improved, and we have more sex than before*" (Participant 9).

Sexual changes leading to the couple's development

According to the women who participated in the study, sexual limitations during pregnancy were factors of development and maturity in couples due to *increased understanding of and empathy for the spouse*, increased patience and forgiveness, and *understanding the importance of sex and its role in life*.

Increased understanding of and empathy for the spouse

As the pregnancy outcome and maternal and fetal health are a priority for the couple, the husband attempts to understand his wife's conditions, endure hardships and limitations, and alleviate her suffering with compassion and understanding. "*I believe my husband pays me more attention now that I am pregnant for the first time*" (Participant 4).

Increased patience and forgiveness

To prevent harm to the mother and fetus, the husband attempts to ignore his wants and needs with patience, forgiveness, and sacrifice, refrain from discussing his fears and concerns, maintain silence, and refrain from complaining about the current circumstances, bad temper, and obstinance. "*My husband places his hands on my stomach and exclaims, 'WOW, the baby is moving a lot; what is happening with the baby?' He understands the circumstance well*" (Participant 19).

Understanding the importance of sex and its role in life

Another favored and positive effect of pregnancy is realizing the significance of sex and its role in life. Pregnant women believed that maintaining sex contributed to strengthening the family, love, and closeness of couples and preventing infidelity, physical and psychological harm to men, and divorce. "*Well, if he is unsatisfied, you know men, they can be attracted to other women*" (Participant 20).

Factors influencing sexual activity during pregnancy

According to the findings, *gestational age*, *medical disorders*, *physiological changes*, and *individual factors* all influence sexual activity during pregnancy.

Gestational age

The frequency of orgasm, sexual satisfaction, and intercourse increases as the gestational age increases and the mother gains experience and confidence in the pregnancy process and the safety of the sexual activity. On the other hand, at the higher gestational age (third trimester), physical limitations and the husband's fear of harm to the mother and fetus increase, which can be a factor in the couple's sexual dysfunction. "*At first, we had normal sexual activity, but then it decreased*" (Participant 15).

Medical disorders

Medical disorders during pregnancy, such as nausea and gastrointestinal disorders, the threat of abortion, the threat of preterm delivery, genital infection, placenta previa, low back pain, dyspareunia, abdominal pain, and uterine contractions, can prevent couples from engaging in regular sexual activity. "*I endured six months of pain, and I bled following sexual activity. My infection lasted several days. I was not intimate again for another seven to eight months*" (Participant 14).

Physiological changes

During pregnancy, anorexia, weakness and lethargy, insomnia, olfactory sensitivity, fatigue, vaginal dryness, breast pain, abdominal enlargement, and a sense of the fetus' presence and perception can negatively impact sexual activity. "*Early in my pregnancy, I had a stomachache and food cravings that prevented me from having sex for up to four months; I was ill*" (Participant 10).

Individual factors

Lack of privacy, couple's age, previous experiences, history of child death, history of infertility, low sexual desire, husband's occupation, the couple's attitudes toward the continuation of sexual intercourse during pregnancy, increased nervous irritability in pregnancy, disgust with the husband, mental distress, adverse life events (death of family members), personal and work problems, husband's economic and occupational problems, and fears and worries (fear of harm to the unborn child) were some of the influential individual factors. "*We were some distance apart. My mother-in-law was ill for a period of time. We were at their residence. Then, both my brother and mother-in-law passed away. We did not have any sexual desire*" (Participant 13). "*Due to the loss of our first child, we treated our second child with great care. We were afraid of sexual activity*" (Participant 11).

Discussion

In this study, women's experiences of sexual activity during pregnancy were explained by four categories including *sexual changes perceived during pregnancy*, *strategies for coping with sexual changes during pregnancy*, *sexual changes leading to the couple's development*, and *factors influencing sexual activity during pregnancy*.

Consistent with the findings of other studies, the results of the present study revealed distinct patterns of change in sexual desire, sexual activity, and orgasm in men and women during pregnancy (4,5,10). According to a study conducted in Tabriz by Bayrami et al, sexual dysfunction was more prevalent in the third trimester of pregnancy than in the first and second ones. Sexual dysfunction was the most prevalent sexual disorder in women, while sexual dissatisfaction and inability to achieve orgasm were the most prevalent sexual disorders in men (12).

Notably, cases of increased sexual desire or no change were also observed in the present study. Some pregnant women occasionally experience an increase in libido due to hormonal changes. Furthermore, some pregnant women have a greater desire for intimacy after giving birth. Some pregnant women were content with their sexual activity during pregnancy and desired to continue being sexually active (12).

Women who participated in the present study cited emotional support from the husband, the woman's attention to her husband's sexual needs, the use of information resources, being considerate during intercourse, satisfying sexual needs with the aid of alternative methods, sexual desire control, and learning from previous experiences as coping mechanisms for sexual changes during pregnancy. A comparable study found that all pregnant women had a greater sense of belonging to their husbands and required more emotional attention (17). Consequently, the results of this study are consistent with those of our study. Although physiological changes in pregnancy affect sexual activity, it is possible to achieve satisfaction and peace by increasing mutual understanding and respect for one's partner and strengthening emotional bonds.

The present study concluded that emotional support for the partner is one way to deal with sexual changes during pregnancy, which can improve the marital relationship. Pregnant women mentioned expressing love and providing psychological support as their strategies. Some mentioned support and love as an alternative to sexual activity.

Consistent with the present study's findings, pregnant women in other countries obtain information about sexual activity from books, training courses, other pregnant mothers, doctors, friends, and the internet (18-20). Other studies have not discussed sexual desire control or the use of prior personal experiences as coping mechanisms for sexual changes during pregnancy. These findings are relevant to the religious and cultural contexts of Iran.

The results of analyzing the pregnant women's experiences in the current study showed sexual changes during pregnancy led to the development of couples in three aspects including increased understanding of and empathy for the partner, increased patience and forgiveness, and understanding the significance of sex and its role in life. Other studies examined issues such as the continuation of sexual activity during pregnancy to ensure fidelity and gain the husband's trust (21-23). However, no study examined such psychosocial evolutionary changes as increased understanding of and empathy for the spouse and increased patience and forgiveness. These findings are relevant to the religious and cultural context of Iran.

In the present study, sexual activity during pregnancy was affected by gestational age, medical disorders, physiological changes, and individual factors. Chang et al. conducted a study to examine the overall sexual function and female sexual function, as well as their determinants during the three trimesters of pregnancy. The results revealed that sexual function, sexual activity, and overall satisfaction were significantly lower in the third trimester compared to the first and second trimesters. In this study, the following factors contributed to a decline in sexual function in women: discomfort and infertility experiences, body image, and history of spontaneous abortion (first trimester); full-time employment, medical conditions, previous abortion experience, and body image (second trimester); and gestational age, beliefs, body image, abdominal enlargement, and urinary incontinence (third trimester). This study showed that physical, psychological, social, and cultural factors affect women's sexual function throughout pregnancy (13). Other studies have also identified these variables as influential factors. Gestational age, husband's age, mental status, pre-pregnancy sexual activity, sensitivity to touch, the degree of attractiveness perceived by pregnant women and their sexual partner, fear of an unfavorable outcome (abortion, preterm delivery, vaginal bleeding, infection), fatigue and anxiety, and couple intimacy are all associated with the likelihood of an unfavorable pregnancy outcome (5,24-27). Physical and mental conditions and social and cultural characteristics likely influence sexual activity during pregnancy.

The unwillingness of Iranian women to discuss sexual issues stemming from the country's cultural structure was a limitation of the present study. The limited research sample and lack of generalizability of the findings were further limitations. One of the strengths of this study was its specialized focus on sexual issues from the perspective of pregnant women.

Conclusion

According to the findings of this study, gestational age, medical disorders, physical changes, and psychological and demographic factors influence the sexual changes experienced by women and their husbands during pregnancy. Adapting to sexual changes during pregnancy requires emotional support from the husband, attention to the husband's sexual needs, use of information resources, being considerate during intercourse, satisfaction of sexual needs through alternative methods, sexual desire control, and use of prior experiences. Due to sexual changes during pregnancy and the efforts to adapt to them, couples develop in three aspects including increased understanding of and empathy for the spouse, increased patience and forgiveness, and understanding the significance of sex and its role in life. The findings of the current study can help researchers in medicine and psychology as well as policymakers and healthcare providers educate and help couples during pregnancy. Further research in this area is required to expand health knowledge.

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Authors' Contribution

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Competing Interests

None to declare.

Ethical Approval

This study was approved by the ethics committee of the Qom University of Medical Sciences under the code ID IR.MUQ.REC.1397.199. The participants were informed of the research objectives and methodology, and they were assured that the interview transcripts would be kept anonymous and their personal information would be kept confidential. In addition, participants' informed consent was obtained for enrollment in the study and interview recording. The participants were assured that they could withdraw from the study at any time.

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