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Disorders Affecting Quality of Life During Pregnancy: A Qualitative Study

Obstetrics and Gynaecology Section

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ABSTRACT

Introduction: Pregnancy is a special condition which results in unique physiological responses which is more than any other physiological event and it increase stress in women's body. Information about the changes experienced by pregnant women in physical, psychological, and social areas is limited, indicating that the quality of life and changeable areas in pregnant women require more attention.

Aim: This study was aimed to identify the disorders affecting the quality of life during pregnancy.

Materials and Methods: A qualitative study was performed with the conventional content analysis approach. Participants included 16 pregnant women who were recruited using purposive sampling and performed with maximum variety. The semi-structured in depth interview started face to face with the general question and was followed with specific questions. The interviews were conducted in Fatemieh Hospital in Hamadan, Iran. Data analysis and data collection were conducted concurrently and the interviews were continued until achieving data saturation.

Results: Five main categories emerged in this study including "psychological disorders of pregnancy", "disorders of activities", "body-image disorder", "disorders in sexual intercourse" and "physical disorders" that were analyzed revolves common around of disorders affecting quality of life.

Conclusion: Pregnancy can have undesirable effects on various aspects of women's lives in their point of view and lead to a decreased life quality. Therefore, it is essential in prenatal care. In addition to addressing the physical aspects of maternal health, other aspects are also evaluated, and in case of any disorder, the necessary consultation should be done.

Keywords: Maternal health, Psychological disorders, Qualitative research

INTRODUCTION

Pregnancy is a special condition which is neither a disease nor a normal body status [1]. During pregnancy, organic and hormonal variations change the physical performance and mental health in women. These variations might also change women's perception of quality of life [2]. Pregnancy results in unique physiological responses which is more than any other physiological event and it increase stress in women's body and ultimately lead to metabolic, hormonal, cardiovascular, respiratory and musculoskeletal adaptations [3]. The anatomical, physiological, and biochemical accommodations are significant during pregnancy, starting shortly after fertilization and continuing throughout pregnancy [4]. The majority of women experience complications such as nausea and vomiting, heartburn, backache, round ligament pain, frequent urination, varicose veins, constipation, leg cramps, and haemorrhoid during pregnancy, which could lead to decreased comfort and wellbeing. In contrast to the physical changes that are general, health beliefs, values, and expectations of families during pregnancy are culture bound. The psychological response of the mother during pregnancy moves from uncertainty and hesitation toward a sense of vulnerability and preparation for the baby's birth. The changes in the mother's body during pregnancy might cause a negative image of the body in her mind which affects the sexual response. These changes might be worrisome to some couples who do not talk about their feelings to each other [5]. Although the prenatal cares are aimed to achieve favourable maternal and neonatal outcomes, it should be specifically noted that the how a woman's life during pregnancy can be affected by the changes in this period [6]. In developed countries, in addition to prevention, diagnosis, and management of pregnancy complications and problems, predelivery and postdelivery (postpartum) cares in women also include more comprehensive purposes. It encourages the psychological adaptation of women with pregnancy and this suggest that the quality of life and psychological status of pregnant women are at the focal points [7]. Although the importance of pregnancy period has been recognized in recent years, conducting studies on the fields that affect the quality of life in women during pregnancy can be useful to adopt appropriate strategies to promote maternal health. Information about the changes experienced by pregnant women in physical, psychological, and social areas is limited, indicating that the quality of life and changeable areas in pregnant women require more attention [8]. Since access to qualitative information on cultural areas can be critical for effective therapeutic interventions [9] and due to the limited number of qualitative studies in this field, this study was conducted to identify the factors affecting the quality of life during pregnancy.

MATERIALS AND METHODS

This qualitative study started in May 2015 and ended in February 2016, was performed with the conventional content analysis approach. Participants included 16 pregnant women who were recruited using purposive sampling. The inclusion criteria included the cases with lack of chronic medical conditions and lack of complications during current pregnancy.

Sampling was carried out with maximum variation in terms of age, gestational age, parity, education, employment status, and social class.

There are no exact criteria for determining the sample size in qualitative studies. The sample size greatly depends on the purpose of the study, sampling technique, data quality, and quality of participants. In these studies, repetition of previous data or in other words "data saturation", is a sign of the adequacy of sample size. Data saturation can be achieved with relatively few participants, if the information has sufficient depth and adequate quality [10].

The sampling was objective based and performed with maximum variety. Finally, 16 in depth interviews were conducted with 16 pregnant women. After adjusting the necessary arrangements for the interviews, a room was provided to the researcher at Fatemieh Hospital where all the interviews were conducted in solitude in order to observe the participant's privacy. To conduct the study, the pregnant women who met the inclusion criteria were consulted to arrange the time and location of the interview (if they did not desire to attend Fatemieh hospital) in case they were willing to participate in the study. The semi-structured in depth interview started face to face with the general question "How is your quality of life since you have become pregnant?", and continued with these questions "What are the negative effects of pregnancy on your quality of life that make you worried?" and "When is the quality of life of a pregnant woman favourable?" During the interviews, the researcher asked for further explanation of the studied concepts based on the responses. All the interviews were performed by the researcher and continued until achieving data saturation. Moreover, the interviews lasted between 31 and 125 minutes, depending on the convenience of each participant.

Data analysis was conducted using conventional content analysis based on the steps proposed by Granheim UH and Lundman B [11]. In the first step, all the interview recordings were transcribed verbatim using Microsoft Word 2013 and read several times to achieve an overall conception. In case of any ambiguous point, the participants were asked over the phone to explain about it. Then, the semantic units were specified in the text. In the next step, the semantic units were summarized as primary codes; then, these codes were sorted and classified in categories and subcategories based on their similarities and differences. Finally, the themes were extracted with regard to the concepts hidden within the text. Data analysis was conducted using MAXQDA ver.10. In order to examine the accuracy of the data in this study, four criteria introduced by Denzin NK and Lincoln YS, including credibility, dependability, confirmability, and transferability were used [12]. In order to increase the acceptability of the data, the following methods were used: 1) long-term investigation on the studied subject: spending enough time on data collection and continuous involvement of the researcher in the data; 2) Member check: the interview transcripts associated with the extracted codes were given to, two of the participants to ensure the consistency of the findings with the experiences of the participants; 3) Peer debriefing: the interview transcripts, codes, and categories extracted from the interviews were examined by two reproductive health experts and the agreement was concluded; 4) A combination of the data collection methods such as in depth individual interview and field notes was used. In choosing the participants, the maximum possible diversity was included; 5) to increase the acceptability of the researcher, the researcher participated in a qualitative content analysis workshop. Prior to the study, the researcher had an appropriate interaction with pregnant women as one of the personnel of the obstetrics and gynecology wards; therefore, using his own experience, he could obtain the trust of participants and collect and investigate the real, in depth, and comprehensive data. To increase the data stability, the following methods were used: 1) In addition to the members of the research team, a few interviews were coded independently by two reproductive health experts in order to specify the contradictions while coding the data and the provided suggestions were applied in the next interviews; 2) In order to increase the approvability and conformability of the present study, putting aside the presuppositions and ideas, the researcher accurately documented all the research steps, including data collection, analysis, and formation of the variables using the code-recode method so that the external auditor could examine the research steps and the given codes. In this regard, a few interview transcripts associated with the categories and sub-categories were given to two reproductive health experts who were familiar with the qualitative analysis, and their agreement on the procedure of formation of the sub-categories and categories was investigated. Furthermore, in order to promote the transmissibility of the data, the enriched, accurate, and step by step descriptions were used and all the research steps were transcribed to pave the way for others to follow up the path. Moreover, attempts were made to select the proper samples with maximum variety.

Ethical Considerations

This study is part of a qualitative study on the quality of life in pregnant women, development and psychometry of instrument was that approved by Ethics Committee of Shahid Beheshti University of Medical Sciences, Tehran, Iran, in 2015. Before starting the study, permission was obtained from Shahid Beheshti University of Medical Sciences. All the participants were informed about the purpose of the study and the right to stop continuing their cooperation. Also, permission was obtained from all the participants in the study to record sound and they were assured that their information will be kept confidential; finally, the informed consent form was completed by them. At the end of each interview, a gift was presented to each participant for appreciating her participation.

RESULTS

In this study, 16 pregnant women aging 23-39-year-old and with the gestational age of 9-39 weeks were interviewed. Most of the participants were graduate and housewives. Half of the participants were primigravida. Eleven of the participants were in the third trimester of their pregnancy [Table/Fig-1].

	Number (%)
Age, years	
≤ 25	4 (25.0)
25-30	6 (37.5)
> 30	6 (37.5)
Educational status	
Graduate	10 (62.5)
Diploma	4 (25.0)
Pre-Diploma	2 (12.5)
Job	
Employed	6 (37.5)
Housewife	10 (62.5)
Number of pregnancies	
1	8 (50.0)
2	6 (37.5)
≥3	2 (12.5)
Gestational age	
First trimester	2 (12.5)
Second trimester	3 (18.7)
Third trimester	11 (68.8)

[Table/Fig-1]: Demographic information the participants in the qualitative study.

Five categories emerged in this study including psychological disorders of pregnancy, disorders of activities, body-image disorder, disorders in sexual intercourse and physical disorders that were analyzed and revolves around disorders affecting quality of life.

Psychological Disorders of Pregnancy

Some participants stated that pregnancy had negative psychological effects on their lives. Poor memory, to be bored and negative thoughts was issues that some of them were referred to. Also, sleep disorder such as increased tendency to sleep, lack of sleep continuity, light sleep for no reason, and insomnia had been occurred in many of participants. Many of the participants stated that they became impatient during pregnancy and thus showed more sensitive and instant reactions to the behaviors of their spouses and relatives.

Disorders of Activities

The research findings on this field included disorders of job, ordinary life, and recreational activities. The results showed that the employed pregnant women expressed some problems caused by the interference of pregnancy with employment including negative emotions associated with the health of the foetus and loss of interest in working. Some of the participants also stated that the daily activities and household tasks had become too difficult for them to perform. The leisure activities were also among those cases that were reduced due to reduction in recreational activities, not doing favourite activities.

Body-Image Disorder

The findings of the present study confirmed that some of the pregnant women suffered from body-image disorder caused by pregnancy, leading to their decreased self-esteem. Discomfort of becoming fat, inability to have the desired coverage, and ashamed of appearance in pregnancy led to negative feelings to obesity. Unpleasant skin changes including acne, chloasma or melisma, and stria were among the cases mentioned by them and some of the participants had feeling of being ugly due to this body changes.

Disorders in Sexual Intercourse

The findings of this research showed that pregnancy negatively affected sexual functions in many participants. Many of the participants stated that the frequency of sexual intercourse were decreased between them due to physical pain, fear of harm to the foetus during sex, limitations in having various positions of sex and some of them stated they never had sex during pregnancy. Some of the pregnant women said shortening sex and replacement foreplay with sex had a negative impact on their quality of sex. The desire to have sex was from items that had been affected by the pregnancy; some participants were hatred of sex and in others desire to sexual intercourse was decreased due to physical conditions. In addition to what was mentioned, in some of the participants, the decrease in the number of sexual intercourses led to negative feelings such as negative impact on woman morale and negative impact on trust to spouse.

Physical Disorders

Pregnant women stated that they suffer from unpleasant physical changes during pregnancy such as restrictive physical problems as well as genitourinary and gastrointestinal disorders. Further, the physical problems caused by pregnancy can have negative effects on their lives. Nausea was one of the most common problems among the pregnant women which made the participants suffer. They mentioned several factors as the cause of their nausea. Some of the participants talked also about the negative effects of nausea on their daily life [Table/Fig-2].

Categories	Sub-categories	Example of Quotations
Psychological disorders of pregnancy	Negative psychological effects,	"My memory has been so much weakened. Today, I forgot to bring my birth certificate and left my stuff in Mrs …'s room; it has really affected my memory" (p 16). "It is very common to feel depressed, even temporarily; it cannot be called depression, boredom… or faintness" (p 13).
	Irritability	"The night before last night I got angry for no reason, I got angry for what my husband said. I was feeling so irritable. I was never like that before. I think he should take double care of me" (p 15). "I do not take offense of others' statements and opinions, but during pregnancy, I had become very sensitive, and even had problems with my sisters. I could be upset so easily" (p 3).
	Sleep disorder	"I'm always sleepy and feel I need to sleep for a long time" (p 1). "It is too hard for me to turn from one side to the other while sleeping, which has caused my sleep to be very light and reduced its quality. For example, out of 8-9 hours of sleep, only 5 hours might be comfortable" (p 13). "Since the first night, I have the urge to go to the bathroom two or three times every night" (p 2).
Disorders of activities	The negative impact on employment	"Two days ago when I went to the doctor's office, I saw other pregnant women with 32 weeks of pregnancy whose bellies were twice as mine. I was saying to myself that they had stayed at home and had no activity so their babies were so big and healthy. I was thinking that I was oppressing my baby and putting pressure on myself for unnecessary things like going to work" (p 5).
	Disruption of the normal activities of life	"It was formerly easy to go to bazaar for doing purchases, but now it is so difficult" (p 9), "I cannot do everyday tasks like before; It's too hard for me to stand up and sit down" (p 10).
	Impairment of leisure activities	"I used to hold art classes, but after I got pregnant, I canceled all my classes as they made me so tired physically and I felt physical infirmity In these classes; I loved my courses so much" (p 5). "It's about a year that I haven't travelled anywhere. Once we were traveling, I had severe back pain, I felt so tired and weak, and conditions were very bad" (p 3).
Body-image disorder	Feelings associated with obesity	"I've got fat. I hate myself" (p 8). "Walking reveals that you're pregnant. It is a bad feeling that you think all the people are looking at you. It is not a desirable feeling for me" (p 7).
	Unpleasant skin changes	"My body is cracked, I'm so sad" (p 8). "The worst change was the pregnancy mask which occurred to me, of course not on my face, but on my groin and armpit, it was so severe that it grieved me. I still feel grieved whenever I stand in front of the mirror and say oh my God, if they would ever turn normal?" (p 13). "I never go out because of my appearance. I have become very puffy and ugly" (p 11), "I think I have become so much uglier" (p 16).
Disorders in sexual intercourse	Reduce the frequency of sex	"I had great pain in my hips and vagina, so the number of sexual intercourses was decreased" (p 8). "Sexual intercourses are decreased. You are always stressed that some problems might happen to the baby" (p 9). "I went to the doctor for a severe pain in my abdomen, and he said it was better for me to avoid sexual intercourse, so we avoid it as was recommended by the doctor" (p 12).
	Reduce the quality of sex	"Previously, we used some drugs, delay spray, or condom to prolong the intercourse duration, but now we don't use them, meaning that the intercourse should be short. I mean that after penetration, the sexual intercourse should be over very soon" (p 4).
	Reduce the desire to sex	"I don't like that at all. I feel sick of it whenever I think I had sex before" (p 16) "Absolutely, it decreases because even the physical conditions of the body change. I myself feel less desired to have sex when I'm in such conditions. When the womb becomes larger, the desire is decreased" (p 6).
	Feelings associated with changing sex	"The sexual intercourse is very influential on freshness. When the sexual intercourse with your husband is Ok, it serves as a narcotic drug that refreshes you, tunes you up. Perhaps 50% of the lassitude is rooted in this problem because you are not well satisfied" (p 5), "When he refused to have sex, I had a bad feeling and thought that maybe he didn't like me anymore, or he hated my body figure" (p 8).
Physical disorders	Unpleasant physical changes	"I get tired so soon, even by an easy household task, and I like to rest …., A short walk is also very hard for me right now. I can't walk for a long time and I start gasping" (p 6) "The vaginal discharge was increased, and the external genitalia was itching, the doctor didn't let me use any kinds of drugs, I was bothered a little, especially when I left home to go somewhere" (p 15) "I never knew what the heartburn was, but now I'm so much involved" (p 13) "The pills that I use acidify my stomach; last night I just sat down for an hour and I couldn't even lie down. The burning is really awful at nights and increases as you lie down" (p 9).
	Annoying nausea	"When I step into the house, my nausea starts again" (p 6), "Smell of the foods bothered me. For example, one night we had fish for dinner, but I got sick as soon as I inhaled its fish" (p 5). "I was not feeling well at all, I couldn't eat anything" (p 10) "I can't cook well because of nausea, I just can't" (p 14).

[Table/Fig-2]: Findings from the qualitative study on pregnant women.
P : participant

DISCUSSION

The study showed that several disorders can affect the lives of women during pregnancy. These disorders which arise as a result of pregnancy can lead to changes in various aspects of their health. According to the results of this study, one of the disorders caused by pregnancy is psychological disorders. In fact, the pregnancy and postpartum periods are widely considered as the periods of increased vulnerability to the psychological disorders [13]. In the present study, many of the pregnant women complained about the sleep disorders during pregnancy which were similar to the results of the studies in this area. During the first trimester of pregnancy, the total duration of sleep, daytime sleepiness, insomnia, and nocturnal awakenings increase and, in general, the quality of sleep decreases. In the third trimester, the sleep disorders become worse and the most common reasons for these disorders include frequent urination, backache, fetal movements, and physical discomforts. The obtained results are similar to the ones in the previous studies [14,15]. Hall WA et al., reported that there are positive relationships between fear of delivery, fatigue, insomnia, and anxiety [16]. Sleep disorder is one of the factors affecting the quality of life during pregnancy and lead to reduce it [15,17,18].

Many of the participants in this study reported that they have become irritable during pregnancy and react to their spouses and family quickly. Irritability and petulancy are the outstanding signs in the spectrum of mood disorders in women, which can be seen in the premenstrual, prenatal, and menopause mood disorders [19]. Irritability, aggressive behavior, and less social interaction among the individuals suffering from sleep deprivation are significantly higher than those among the others [17].

Many of the participants in the present study expressed that they cannot do their daily activities as before pregnancy due to the problems caused by pregnancy. Indeed, many of the physical problems caused by pregnancy associated with emotional reactions could limit pregnant women's activities and reduce their quality of life during this period [20]. Pregnancy in employed women, in addition to affecting their daily activities, also affected their job activities due to reasons such as difficulty of waking up early in the morning for going to work, worries about the health of the foetus caused by working pressure, inability to meet their needs, and disinterest in work. The pain during pregnancy could have considerably negative effects on daily performance, ability to work, sleep, and ordinary activities [21]. Even during a normal pregnancy period, women experience minor changes which influence their ability to play their ordinary roles and reduce their quality of life [6]. Some of studies showed that pregnancy could lead to the performance limitation caused by the physical problems and can have a significant effect on the daily lives of pregnant women [22,23].

In the present research, some of the participating pregnant women complained about the skin changes and obesity caused by the pregnancy and had feeling of becoming ugly, which negatively affected their lives. Pregnancy is a remarkable exception, during which rapid and significant physiological changes occur in a fairly short period of 40 weeks that can affect a woman's image of her own body. This issue has been discussed in some studies [24,25] and the results confirm the findings of the present study. Weight gain and changes in the body shape are expected during pregnancy; however, an increasing number of women are worried about weight gaining and changes in the body shape during pregnancy and exposed to the risk of negative body image [24,25]. In the present study also, the mask of pregnancy and striae caused by pregnancy were the factors which led to the concerns in women. The pregnancy striae are the physiological skin change experienced by many pregnant women [26]. Hyperpigmentation is the most common skin change during pregnancy [4] that can affect the quality of life [27]. According to the findings of this study, many women experience disorders, some of which stem from culture of the society. When the cultural context in a society emphasizes the apparent attractiveness of women, concerns about body image gradually emerge in women, which leads to feeling of dissatisfaction with their appearance in pregnancy. In addition, women in the Islamic society must have appropriate cover and do not expose your body bumps; perhaps, this is one reason to feel ashamed of obesity in these women.

In the present study, reduction of the frequency and quality of sexual intercourse, and desire to it had been occurred in many of the pregnant women due to fear of damaging the foetus and unpleasant physical conditions. However, sexual disorder caused some concerns regarding the relationship with the husband. The results of the studies conducted on this field are in agreement with those of the present study. This study found that sexual desire and frequency decreased in pregnancy [28,29]. Culture and religion also have an impact on sexual relations; because sexuality is a private matter and may be due to cultural and religious constraints of our society, people are not able to talk to experts on the matter. This issue leads to receiving the information from the incorrect sources and causes a negative attitude to sex in pregnancy, from which many sexual problems in pregnancy arise. Decrease in the quality and frequency of sexual intercourse as well as intensity of sexual desire has also been shown in other studies [30-32]. Some studies concluded that the sexual performance during pregnancy could be effective in the quality of life in this period [33,34].

In the present investigation, most of the women stated that the physical problems such as difficulty to change position, pain, and fatigue have imposed limitations on them; moreover, some women complained about the genitourinary problems such as frequent urination, and increased vaginal discharge and itching. The results were in agreement with those of other studies. Many of the minor diseases occurring during pregnancy, although not life-threatening, deeply influence pregnant women's lives and families due to their high prevalence [23]. In addition to the mentioned disorders, the most common problems noted by the women were nausea and vomiting and, with lower prevalence, heartburn and stomach ache. Results of the studies conducted on this field are also consistent with the results of this study [23,35]. The results of all these studies show that the physical disorders caused by pregnancy are among the major problems experienced during pregnancy and could have negative effects on the lives of pregnant women.

LIMITATION

This study had some limitations; like other qualitative studies our results cannot be generalized. In addition, this study was conducted in an urban area and may not be representative of the general population. In this study, we used the views of pregnant women who were willing to participate in the study that may be different from the views of those who did not wish to participate.

CONCLUSION

Results of this study showed that pregnancy can have undesirable effects on various aspects of women's lives in their point of view and lead to a decreased life quality. Since the quality of life may be affected by many factors, it is essential in prenatal care that in addition to addressing the physical aspects of maternal health, other aspects should be also evaluated and; in case of any disorder, the necessary consultation should be done. By providing these services, the health of each expecting mother and her baby is optimized as the objective of the prenatal care.

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