

Exploring factors behind pregnant women's quality of life in Iran: a qualitative studyFarideh Kazemi¹, Fatemeh Nahidi², Nourossadat Kariman³

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Type of article: Original**Abstract**

Background and objective: Pregnancy-related physiologic and psychosocial alterations can impact on the body and cause symptoms which may affect quality of life. Since qualitative studies can provide more in-depth understanding of quality of life and its determining factors, this study was conducted with the aim of exploring factors affecting pregnant women's quality of life.

Methods: A qualitative descriptive study with conventional content analysis approach was made using the conventional content analysis approach on a purposeful sample of sixteen pregnant Iranian women in Hamadan, Iran from May 2015 to December 2015. Sampling was continued until data saturation. Data were collected through in-depth semi-structured personal interviews, and were analyzed using the conventional content analysis approach.

Results: Data analysis resulted in three main categories, namely, the effects of pregnancy on different aspects of health (including psychological disorders, impaired interactions, disturbances in doing daily activities, disturbed body image, alterations in sexual relationships, physical disorders, and alterations in dietary habits and treatment regimens), pregnancy-related concerns (regarding the gender of the fetus, financial problems, childbirth, health, and the future), and coping with pregnancy (through strategies such as spirituality, positive attitude toward pregnancy, distraction and imagination, and support).

Conclusions: This study showed that different factors can affect pregnant women's quality of life. Nonetheless, prenatal care services are mainly focused on pregnancy-related physical problems, and other aspects of care are usually taken for granted. Consequently, healthcare professionals need to pay greater attention to pregnant women's quality of life and its contributing factors.

Keywords: Quality of life, Pregnant women, Qualitative study

1. Introduction

Due to recent population policies, the population growth rate in Iran has decreased from 2.6% in 1990 to 1.3% in 2013 (1). Concerns over decreased population growth rate resulted in the development of strategies to increase the rate. One of the strategies was encouragement of childbearing. This strategy necessitates developing plans for supporting women during their pregnancy and postnatal period (2). Although the main goal of prenatal care is to achieve desirable maternal and infantile outcomes, pregnant women's quality of life (QOL) should also be taken into account because it may be affected by pregnancy-related changes (3). One of the goals of prenatal care in developed

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countries is the prevention, diagnosis, and management of pregnancy-related problems and complications. Another goal is to help pregnant women psychologically cope with pregnancy. These goals denote that pregnant women's QOL and psychological well-being are in focus (2). Pregnancy is a certain condition which is neither the normal condition of a woman's body nor an illness (4). Pregnancy-related physiologic alterations can impact on the biochemistry and the anatomy of bodily organs and systems, and cause symptoms which may affect QOL. Besides physiologic alterations, pregnancy-related psychosocial alterations can also affect QOL (5). QOL is a multidimensional concept which includes physical, mental, emotional, and social functioning, and focuses on the effects of health status on QOL (6). It is an important outcome in assessing the burdens of illnesses (7). Consequently, when determining the burden of pregnancy-related complications and the effectiveness of treatments and preventive measures, QOL assessment should also be taken into account (8). Studies in different contexts showed that pregnancy is associated with significant alterations in QOL. For instance, nausea and vomiting (9), urinary incontinence (10), mental disorders (11, 12), skin changes (13), and pregnancy-induced sexual disorders (14) can significantly reduce QOL during pregnancy. On the other hand, QOL in pregnancy can affect women, fetuses, and infants' health as well as childbirth outcomes (15). Low QOL, particularly in the area of physical health, is associated with increased rate of low-birth-weight neonates (16). Numerous studies have been conducted in Iran into pregnant women's QOL (17). These studies showed that Iranian pregnant women's QOL is significantly lower than that of the general population of Iranian woman (18). Nonetheless, there is a paucity of detailed information about pregnancy-related alterations in women's physical, mental, and social functioning (5) because none of the previous studies in Iran were qualitative. Qualitative approaches are the most appropriate ones for exploring individuals' perceptions of a given phenomenon in a certain sociocultural context (19). Qualitative studies can provide more in-depth understanding of QOL and its determining factors, and can help develop more effective strategies to improve it (20). This study sought to explore factors behind pregnant women's QOL.

2. Material and Methods

2.1. Design

This was a qualitative descriptive study in which the conventional content analysis approach was used to collect and analyze the data. This study was conducted from May 2015 to December 2015. Qualitative content analysis is one of the few available qualitative methods for analyzing data and interpreting their meaning (21), and is defined as a research method for the conceptual interpretation of the content of textual data through the process of systematic categorization of coding and Identifying categories or patterns (22).

2.2. Study population

All pregnant women who referred to healthcare centers located in Hamedan, Iran constituted the study population. The reason for selecting health care centers was the variety of pregnant women in these centers.

2.3. Setting and participants

Pregnant women of any gestational age who referred to healthcare centers located in Hamedan, Iran, were included if they had no history of chronic health conditions or pregnancy-related complications. Sampling was done purposefully and with maximum variation respecting women's gestational age, number of pregnancies, educational and employment status, and social class. Sampling was continued until data saturation.

2.4. Data gathering

Data were collected through face-to-face in-depth semi-structured interviews. Main interview questions were: "What crosses your mind when you hear the word QOL?" "How has your QOL been since you fell pregnant?" "What negative effects has pregnancy had on your QOL?" "Which negative effects of pregnancy on your QOL have worried you?" "When is a pregnant woman's QOL considered good?" During interviews, searching questions were also asked in order to further clarify participants' views. As none of the healthcare centers had an appropriate room for doing interviews, all interviews were done in a private room located in Fatemieh hospital, Hamedan, Iran. For data collection, the first author initially referred to the healthcare centers and identified eligible women. Then, she explained the study to them and invited them to the study. Thereafter, if they agreed to participate, the time and place of the interview were identified. All interviews were done by the first author and were recorded using an MP3 recorder. The researcher worked as a midwife in the hospital, and this led to the gaining of participatory trust. The length of the interviews ranged from 30 to 120 minutes, depending on the participants' preferences.

2.5. Data analysis

The data were analyzed concurrently with data collection using MAXQDA 10 through the Graneheim and Lundman approach to conventional qualitative content analysis (23). The steps of the approach were as follows. First, after doing each interview, its content was typed word by word and perused frequently in order to obtain a broad

understanding about it. Any ambiguity was clarified through telephone contact with the intended interviewee. Second, the whole interview transcript was divided into meaning units. Then, meaning units were condensed and written in the interview transcript. Third, condensed meaning units were abstracted and coded. Fourth, codes were grouped according to their similarities and differences. Fifth, main categories were extracted based on the latent content in the text and through grouping sub-categories.

2.6. Trustworthiness

Credibility of the findings was ensured via both peer checking and member checking. In peer checking, two reproductive health specialists assessed and confirmed the congruence between the raw data and the generated codes and sub-categories. For the purpose of member checking, interview transcripts and corresponding generated codes were provided to two participants in order to ensure the congruence between their experiences and our findings. Moreover, adequate amount of time was devoted to data collection, and the first author had a prolonged engagement with the study subject matter. Dependability was also upheld via peer checking as mentioned above. Moreover, confirmability was established through documenting all steps of the study (including data collection and data analysis) so much so that external auditors can appraise the process of the study and the generated codes. For this, the text of several interviews with categories and sub-categories was given to two experts and their agreement was reviewed. Finally, transferability was enhanced through the thick description of the findings as well as maximum variation sampling.

2.7. Ethical considerations

With the code of SBMU2.REC.1394.52, the Ethics Committee of Shahid Beheshti University of Medical Sciences, Tehran, Iran, approved this study. Before commencing the study, formal permissions for attending the study settings were secured from Shahid Beheshti and Hamedan Universities of Medical Sciences, Tehran and Hamedan, Iran. All participants were informed about the aim of the study and the absolute right to withdraw from it. In addition, their permission was secured for recording their voices during interviews and they were ensured about the confidential handling of their data. Finally, they signed the informed consent form of the study. At the end of each interview, the interviewee was given a gift in order to acknowledge her participation.

3. Results

3.1. Demographic characteristics of the participants

A total of sixteen 23 to 39-year-old pregnant women with a gestational age of 9–39 weeks were interviewed. Most women held bachelor's degree and were housewives. Half of them were primigravida and most of them (eleven) were in the third trimester of their pregnancy. Only seven women were participating in pregnancy and childbirth classes (Table 1).

Table 1. Personal characteristics of the participants

Characteristics		n (%)
Age (year) [29.69±5.03]*	≤ 25	4 (25.0)
	25–30	6 (37.5)
	> 30	6 (37.5)
Educational status	Bachelor's degree	10 (62.5)
	High school diploma	4 (25.0)
	Middle school diploma	2 (12.5)
Employment status	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 [29.19±9.09 week]*	First trimester	2 (12.5)
	Second trimester	3 (18.7)
	Third trimester	11 (68.8)
Participation in pregnancy classes	Yes	7 (43.8)
	No	9 (56.2)

*mean± SD

3.2. Main categories

Analysis of the data resulted in the 172 main codes, 16 sub-categories and three main categories namely “the effects of pregnancy on different aspects of health”, “pregnancy-related concerns”, and “coping with pregnancy” (Table 2).

Table 2. The main categories and sub-categories of the study

Main categories	Sub-categories
The effects of pregnancy on different aspects of health	Psychological disorders
	Impaired interactions
	Disturbances in doing daily activities
	Disturbed body image
	Alterations in sexual relationships
	Physical disorders
	Alterations in dietary habits and treatment regimens
Pregnancy-related concerns	The gender of the fetus
	Financial problems
	Childbirth-related concerns
	Health-related concerns
	Concerns over the future
Coping with pregnancy	Spirituality
	Positive attitude towards pregnancy
	Distraction and imagination
	Support

3.2.1. The effects of pregnancy on different aspects of health

“The effects of pregnancy on different aspects of health” main category refers to pregnancy-induced alterations in different aspects of a pregnant woman’s health. Alterations which are perceived positively can enhance QOL. Contrarily, negatively perceived alterations in health are associated with low QOL. Most participants noted that pregnancy had affected different aspects of their lives and health. This main category included the following seven sub-categories: psychological disorders, impaired interactions, disturbances in doing daily activities, disturbed body image, alterations in sexual relationships, physical disorders, and alterations in dietary habits and treatment regimens. These sub-categories are explained in what follows.

3.2.1.1. Psychological disorders

Most participants had experienced psychological disorders such as sleep problems and irritability. They attributed their sleep problems to factors such as delivery-related stress, the need for assuming a certain sleeping position, urinary frequency, gastrointestinal problems, physical pain, difficulty in falling asleep, and having a light sleep. Moreover, they mostly expressed that during their pregnancy, they had become oversensitive and irritable and strongly reacted to their husbands and significant others’ behaviors. A 39-year-old woman with gestational age of 21 weeks said: “The night before last night, I got unreasonably angry about my husband’s sayings. I feel that I’ve become more irritable and think that he should take more care of me”

3.2.1.2. Impaired interactions

Pregnancy had affected participants’ interactions with their husbands and significant others. Some of them noted that it positively affected their interactions with their husbands and promoted their intimacy. However, some other participants had lost their will at establishing social interactions and going to parties due to pregnancy-related problems and disorders such as fatigue, malaise, nausea, and other physical problems. A 29-year-old woman who is 37 weeks pregnant, said: “I don’t like to host or attend parties”

3.2.1.3. Disturbances in doing daily activities

Most participants noted significant impairments in doing household, recreational, and other daily activities due to their pregnancy-related impatience, fatigue, nausea, pain, and physical problems. Some of them had reduced their physical activities such as walking or mountain climbing while some others had given up their art classes or avoided trips. Employed participants also had problems such as disinterest in work, a feeling of cruelty towards their fetuses, and a feeling of heavy workload. A 34-year-old woman with gestational age of 29 weeks said: “I’m no longer able to do my daily activities like before. Standing up and sitting are very difficult to me”

3.2.1.4. Disturbed body image

Some participants were dissatisfied with alterations in their physical appearance, chiefly weight gain. They were desperately worried about their ability to lose weight after childbirth. Some of them noted that they could not dress appropriately and favorably like before due to bulges in their body. Moreover, because of weight gain and abdominal enlargement, some of them felt ashamed to be in front of eyes. Pregnancy-induced skin changes such as melasma, skin rashes, and striae were other causes for the participants’ dissatisfaction. Because of these changes and problems, some of them had lost their self-confidence and felt old and ugly. Thus, they avoided looking at

themselves in the mirror. A 28-year-old woman in 38 weeks pregnancy, said: “I have become fat. I hate myself. My body has tracked. I’m very sad”

3.2.1.5. Alterations in sexual relationships

Most participants had experienced alterations in their sexual relationships during their pregnancy. These alterations included reduced number of sexual activities, reduced quality of sexual relationship, and decreased libido. They attributed these sexual problems to factors such as fear over damaging the fetus, suffering from physical problems and pain, and feeling ashamed of having sex in the presence of the fetus. A 29-year-old woman who is 37 weeks pregnant, said: “I don’t like sexual relationship. I also feel disgusted when thinking about my past sexual relationship”

3.2.1.6. Physical disorders

Pregnancy-related physical problems were among the most common complaints of the participants. Problems such as physical pains, fatigue, and difficulties in sitting, standing up, and walking had reduced their ability to fulfill their personal needs and thus, they were dependent on others for doing most of their activities. Besides, some of them were suffering from gastrointestinal problems such as constipation, heart burn, stomach pain, and nausea. The commonest gastrointestinal problem experienced by the participants was nausea which happened due to different reasons such as entering their houses, eating certain types of foods, or smelling different types of odors. Genitourinary problems, chiefly urinary frequency, were also among factors which had led to dissatisfaction for some participants. A 23-year-old woman who is 36 weeks pregnant, said: “Pregnancy causes some physical limitations, which make a pregnant woman dependent on others in doing activities that she previously did independently”

3.2.1.7. Alterations in dietary habits and treatment regimens

Some participants avoided using medications and some food stuffs (such as sugar, salt, sausage, kielbasa, and canned and fried foods) due to their probable negative effects on the fetus’s health. Such avoidance had caused them some difficulties. A 28-year-old woman in 38 weeks pregnancy, said: “When you’re sick, you need to avoid taking medications and tolerate the afflicting illness in order not to affect the fetus’s health”

3.2.2. Pregnancy-related concerns

Pregnancy-related concerns can worry pregnant women and negatively affect their QOL. The participants dealt with different concerns which were grouped into five sub-categories namely the gender of the fetus, financial status, childbirth-related concerns, health-related concerns, and concerns over the future.

3.2.2.1. The gender of the fetus

One of the main concerns of the participants was the gender of the fetus. The gender was important for the women due to its importance for their husbands and significant others and also due to the women’s own personal preferences over having children from both genders. Before identifying fetal gender, the participants had fear over having a female fetus and being reprimanded by others. When the gender of the fetus was determined to be against their preferences, they felt unhappy and even attempted to cover it up. One of the main reasons behind such negative feelings was the fact that when the fetus’s gender did not fit significant others’ preferences, they would place mothers under pressure to have further pregnancies. A 29-year-old woman who is 37 weeks pregnant, said: “At the time of the sonogram for determining fetal gender, I had to stress that my nausea worsened. After the sonogram and for several days, I didn’t like to tell anybody that I had the sonogram. I wanted to pretend that I was not unhappy”

3.2.2.2. Financial problems

According to most participants, pregnancy- and childbirth-related costs imposed heavy financial burden on their families and thus, they were worried about how to cover the costs. These costs pertained to laboratory tests, medications, foods, childbirth in a private hospital, and childrearing. A 30-year-old woman with gestational age of 32 weeks said: “Each time, I pay 100,000 Tomans (about \$25) for my medications. Screening tests cost me 180,000 Tomans (about \$45). A pregnant woman should not have such concerns”

3.2.2.3. Childbirth-related concerns

One of the main concerns of the participants was their fear over how to deal with delivery-related symptoms and the process of normal vaginal delivery due to reasons such as delivery pains, damage to the fetus, rumors about delivery, perceived inability to have a normal vaginal delivery, isolation from family, lack of mental preparedness for delivery, vaginal examination, sutures, and unpleasant experiences. Moreover, some participants were dissatisfied with the fact that they could not determine the type of delivery (i.e. normal vaginal or cesarean section) and pointed to their fear over the complications of normal delivery such as postnatal sexual problems and uterus or bladder prolapse. They were also worried about which hospital to refer for having delivery due to rumors about some hospitals, unpleasant past experiences of hospitalization in some hospitals, and lack of knowledge about the quality of hospital care services. A 29-year-old woman with gestational age of 27 weeks said: “I’m always preoccupied with

this matter that what will happen if I am unable to cooperate at that moment. I have fear over sutures and the associated discomfort. I don't like them to suture me. I don't like to experience discomfort"

3.2.2.4. Health-related concerns

The participants were deeply worried about the fetus's health condition, movements, healthy growth and development, and congenital defects. In addition, some of them were worried about their own health and the risk for developing pregnancy-related complications such as spotting, bleeding, hypertension, gestational diabetes mellitus, and weight gain. A 23-year-old woman who is 36 weeks pregnant, said: "Each month has its unique concerns. Now, I'm worried about the movements of my fetus"

3.2.2.5. Concerns over the future

The participants were also worried about their childrearing and parenting abilities. A 28-year-old woman in 38 weeks pregnancy, said: "Can I be a good mother? Sometimes I think that I'm not mature and competent enough to rear a child"

3.2.3. Coping with pregnancy

In order to overcome pregnancy-related problems and concerns and regain calmness, the participants used different strategies. These strategies included spirituality, positive attitude towards pregnancy, distraction and imagination, and support.

3.2.3.1. Spirituality

Most participants performed religious rituals such as saying prayers, blessing, and reading the Holy Quran in order to ease their concerns. They believed that everything is God's will and thus, they attempted to gain calm through blessing and relying on God. A 34-year-old woman with gestational age of 24 weeks said: "I gain peace of mind through saying a prayer or reading a verse from the Quran. It greatly improves my morale and gives me good feelings"

3.2.3.2. Positive attitude towards pregnancy

One of the factors which facilitated coping with pregnancy was to adopt a positive attitude toward it. Most participants referred to the necessity of planned pregnancy and considered it as a significant factor behind calmness during pregnancy. Some of them talked about the gaiety of sensing fetus's movements, listening to its heart beat, and palpating its limbs. Some others considered pregnancy as a miracle and had feelings of pride and self-worth. They also noted that pregnancy had strengthened their lives and boosted their hope for life. A 30-year-old woman with gestational age of 32 weeks said: "When the baby moves, the mother becomes very happy and forgets all her sorrow and grief. It has considerable effects"

3.2.3.3. Distraction and imagination

Some participants noted that doing recreational activities such as travelling, going to the park, walking, and pursuing interests alleviated their stress. Some others attempted to alleviate their pregnancy- and delivery-related stress through self-control strategies such as considering delivery pain as temporary and delivery as a normal process as well as daydreaming about motherhood. A 27-year-old woman with gestational age of 30 weeks said: "I talk with myself and calm myself. I tell myself that delivery is an event which has existed since the beginning of history and will exist to its end"

3.2.3.4. Support

All participants referred to their husbands' adequate understanding of pregnancy and greater attention and support by them during pregnancy as major factors contributing to their stress reduction. Besides husbands, other family members, particularly pregnant women's mothers, played significant roles in reducing their stress through providing them with emotional support and saying calming things to them. Some of them also expressed their satisfaction with healthcare services provided by their physicians and midwives and considered their attentiveness and competence as factors behind their calmness. Government support and community-based programs (such as the presence of a familiar midwife in the delivery room, pregnancy classes, and the possibility for painless delivery) also facilitated their coping with pregnancy. A 25-year-old woman who is 39 weeks pregnant, said: "Only my husband's sayings can affect me. He even said that he'll be with me during the delivery though I know it is impossible. I calm down when I see that he actively supports me and says such things to me"

4. Discussion

This was the first qualitative study in Iran into pregnant women's QOL. The findings showed that factors affecting quality of life in pregnant women are classified into three main categories that include "the effects of pregnancy on different aspects of health", "pregnancy-related concerns", and "coping with pregnancy". These categories are discussed in this section. Findings revealed that pregnancy has different effects on different aspects of pregnant women's health and lives. Pregnancy had affected the participants' QOL through causing psychological disorders, impaired interactions, disturbances in doing daily activities, disturbed body image, alterations in sexual

relationships, physical disorders, and alterations in dietary habits and treatment regimens. The participants were dissatisfied with pregnancy-related psychological disorders such as sleep problems and irritability. Pregnancy and postnatal period are considered as the periods with increased risk for psychological disorders (24). For instance, sleep problems are a common complaint among pregnant women (25), and have been reported to negatively affect their QOL (11, 25). Irritability is a major symptom of mood disorders which happens before the monthly menstrual cycle as well as during the perinatal and post-menopausal periods (26). Due to pregnancy-related problems, most participants were unable to perform their daily activities as efficiently as before. Employed participants were unable not only to perform their daily activities, but also to do their job-related activities. Pregnancy-related physical and emotional problems can limit pregnant women's activities and affect their QOL (27). Even a normal pregnancy is associated with changes in women's health which can alter their ability to perform their roles and can undermine their QOL (3). Agampodi et al. (2013) also noted that even minor pregnancy-related alterations can significantly affect pregnant women's QOL (28). Some of our participants had disturbed body image and thus low QOL due to pregnancy-related weight gain and skin changes such as striae and melasma. Disturbed body image is common in pregnancy (29). Most women are emotionally affected by pregnancy-related changes in their bodies (5). For instance, striae, a physiologic change in the skin, can reduce pregnant women's dermatology-specific QOL (13). Pregnancy-associated skin hyperpigmentation can also negatively affect QOL (30, 31). Another finding of the present study was sexual problems such as reduced number of sexual activities, reduced quality of sexual relationship, and decreased libido. Previous studies also reported the same findings (32-34). Sexual problems during pregnancy can reduce pregnant women's QOL through affecting their self-confidence and interpersonal relationships (35, 36). Moreover, childbearing has been reported to adversely affect marital relationships and satisfaction (37). Study findings also revealed pregnancy-associated physical disorders as a major problem experienced by pregnant women. Previous studies also showed that nausea and vomiting, urinary frequency, heart burn, and stomach pain were among the commonest pregnancy-associated physical problems (28, 37, 38). Physical problems are very common in pregnancy and are mainly caused by normal physiologic changes induced by pregnancy. Moreover, reduced physical functioning during pregnancy can reduce familial, social, and professional functioning (39). The participants experienced many concerns. One of their main concerns was related to the fetus's gender due to its importance for their husbands and significant others. Previous studies also showed that in some African countries, women are reprimanded for giving birth to female babies so much so that it may even result in marital conflicts or men's second marriage (37, 40). Consequently, a female baby may be a potential risk factor for developing postnatal anxiety (40, 41). Most concerns over fetal gender are attributed to the sociocultural context of those societies which have preference over a certain gender, usually the male one. However, God says in the Holy Quran, "He bestows female upon whom He wills and bestows male upon whom He wills. Or bestows both males and females and He renders barren whom He wills" (42). Although the study was made in an Islamic context in which people consider themselves as Quran followers, sociocultural issues are still much more important than religious beliefs for some people in the context. Another main concern of the participants was the financial burden of pregnancy and delivery. Some participants noted that due to the great importance of maternal and fetal health, most pregnancy-related services cannot be overlooked and thus, their costs impose heavy financial burden on families. Other studies also reported financial problems as major concerns among pregnant women (43-45) so much so that low income is considered as a major factor behind pregnant women's low QOL (3).

Another finding of the study was childbirth-related concerns due to different reasons. In line with our findings, previous studies also reported that major factors behind childbirth-related concerns were delivery pains, inability to have a normal delivery, fear of the unknown, negative experience of delivery, and fear over episiotomy, intra-delivery death, vaginal examination, the use of forceps or vacuum and subsequent sexual problems, and the risk of damage to mother and fetus (46-48). As a common problem, delivery-related fear can prolong the process of delivery, necessitate instrumental vaginal delivery or emergency cesarean section, and turn delivery into a negative experience. Moreover, it may increase the tendency for undergoing elective cesarean section (49). Some participants were also concerned about the route of delivery in that although some of them had no tendency toward undergoing cesarean section (due to its complications), others were doubtful about the best route of delivery and were dissatisfied with the fact that in Iran, pregnant women cannot voluntarily choose the type of their delivery. It seems that underrating cesarean section and performing it freely and electively without any real indication are the main reasons for unreasonable fear over normal vaginal delivery and greater tendency toward cesarean section in Iran. Effective client and public education can change pregnant women's attitudes towards normal vaginal delivery and allay their fears over it. Study findings also showed that one of the participants' concerns was related to the fetus's health. Concern over baby's health is among the most important concerns of pregnant women (45) and is mainly due to the perceived fear over probable abnormal results of prenatal screening tests (50, 51). Other participants were

worried about complicated pregnancy, fetal death, and their own health. Previous studies also reported the same finding (43, 45, 52). Women participating in another qualitative study were also constantly worried about developing complications that might result in fetal or maternal death (37). One of the factors that facilitated the participants' coping with pregnancy-related problems and concerns was spirituality. Most previous studies also reported spirituality as pregnant women's first strategy to cope with pregnancy-related problems (37, 53). Some studies showed that in order to have a sense of protection and a safe delivery, women generally attempt to relate to God (53) and pray for a safe delivery because they believe that their fates depend on God's will (37). Another study showed that religious and spiritual beliefs and rituals were effective in alleviating pregnant women's stress, boosting their self-confidence, and reducing the likelihood of their engagement in high-risk behaviors (54). In fact, spiritual beliefs and values are a primary coping mechanism for people who deal with the emotional aspects of illnesses and stressful life events (55). Our findings also showed that adopting positive attitude towards pregnancy was effective in coping with pregnancy-related concerns. The results of a qualitative study also showed that planned pregnancy brings pregnant women happiness. The results of a study in Gambia showed that producing at least one child was one of the goals of marriage and thus, most women in that study were happy at falling pregnant. Some of them also reported pregnancy as a protective factor against marital breakdown (37). Most participants used distraction and imagination strategies (such as doing recreational activities) to cope with their pregnancies. Physical activities such as walking, aerobic exercises, and relaxation can improve pregnant women's general health (56). Furthermore, relaxation is effective in alleviating pregnant women's anxiety, depression, and pregnancy-related concerns (57). Most participants were satisfied with their husbands and families' support and attentiveness, and considered them as a source of calmness. Abbaszadeh et al. (2009) also illustrated the positive correlation between pregnant women's QOL and their husbands' support (18). Our participants also valued support and services provided by government and communities. Lack of social support is a risk factor which can negatively affect pregnant women's well-being (58), while strong social support is associated with better QOL and health status (59). Shishegar et al. (2013) also reported the significant correlation between social support and QOL (60). Another factor behind our participants' calmness and stress relief was their ability to participate in pregnancy classes and to be with their midwives. In line with our findings, Kizilirmak and Baser (2016) also reported that providing information to pregnant women about how to deal with delivery pain and preparing them for delivery, significantly alleviated pregnant women's fear over delivery (61). It should be noted that many studies have examined the problems and concerns of pregnancy, but the number of studies that reviewed the relationship between quality of life and these problems is very low. Also, there is no qualitative study on the quality of life during pregnancy. It seems that in order to better understand the issues affecting the quality of life during pregnancy, it is necessary to carry out several qualitative studies in different places and then to confirm these findings with quantitative studies.

5. Limitations

This study was made in an urban area and hence, its sample might not have been representative of pregnant Iranian women in general. Moreover, we only included those women in the study who agreed to participate. Women who disagreed might have had different experiences.

6. Conclusions

The findings of this study showed that pregnancy alters some aspects of pregnant women's health and thus, causes them some levels of dissatisfaction. Moreover, depending on their personal, familial, and cultural conditions, pregnant women experience different concerns which cause them considerable worry. On the other hand, another factor affecting their QOL is their ability to cope with pregnancy. Pregnant women usually use different strategies to cope with pregnancy-related alterations in their health and conditions. Although QOL improvement is among the most important goals of prenatal care, pregnancy-related care services are mainly focused on pregnancy-related physical problems, and other aspects of health are usually taken for granted. Healthcare professionals need to have adequate information and understanding about factors affecting pregnant women's QOL.

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Conflict of Interest:

There is no conflict of interest to be declared.

Authors' contributions:

All authors contributed to this project and article equally. All authors read and approved the final manuscript.

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