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The role of fear of childbirth in pregnancy related anxiety in Iranian women: a qualitative research

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Abstract

Introduction: Anxiety disorders have severe complications for a mother and her developing baby. A few studies have focused on pregnancy related anxiety and its risk factors including fear of childbirth. Therefore, the current study aimed to explore components and dimensions of this kind of anxiety.

Methods: This qualitative study (conventional content analysis) was conducted with mothers who referred to health care centers from May to December, 2015. In order to collect data, purposive sampling and face-to-face semi-structured in-depth interviews were used. Data analysis was conducted using MAXQDA software.

Results: Twenty eight pregnant women from different social backgrounds, educational levels and ethnicities aged 18-41 years old participated in this study and after analysis, fear of childbirth was classified into four categories including the process of delivery (fear of pain, prolonged labor, loss of control, being left alone during delivery, fear of her own incompetency), time of delivery (fear of preterm labor, fear of unknown delivery time, fear of late arrival to hospital),delivery complications (fear of bleeding, fear of death, postpartum depression, delivery accidents, genitalia injuries and fetal health problems) and healthcare quality (hospital facilities, lack of trust in maternity staff and lack of trust in obstetricians).

Conclusions: The results suggest that supporting, reassuring and educating pregnant mothers and giving information about delivery room, labor and strategies for coping with fear of pain and childbirth are critical. Changes in maternity care policies are recommended to promote positive attitudes toward normal delivery.

Keywords: Fear, Childbirth, Pregnancy related anxiety, Normal delivery

1. Introduction

The majority of women become pregnant at least once during the journey of their lives and pregnancy has potentially important implications for them and their health, well-being and social role (1). Pregnancy is also a personal experience that elicits a wide range of responses from very positive to negative ones which is due to complexity of this process (2). Physical, emotional, psychological and social changes take place in a woman's personality, her life experiences and cultural expectations of society in which she lives (3). Owing to a large number of factors present during pregnancy, many women consider some aspects of pregnancy stressful to which they respond with anxiety (1). Unfortunately, anxiety disorders have some predictable complications for mothers and the developing fetus (4) including children's mood disorders (ADH) (5, 6), intensive cardiovascular diseases, preterm rupture of membrane, hypertension disorders (6),intrauterine growth retardation (IUGR) neonate's anemia, low birth weight, bacterial vaginitis, prolonged labor and postpartum depressive disorders (7). It's been demonstrated that changes in maternal hypothalamic-pituitary-adrenal (HPA) axis activity and in fetus over exposure to

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glucocorticoids are potential risk factors of these adverse outcomes (8). Several studies have been performed on the causes of anxiety in pregnancy among which we can refer to sociocultural issues, financial, healthcare, psychological and physical problems arising from pregnancy, parenting challenges, maternal and fetal well- being and fear of delivery, particularly vaginal delivery (9). Fear of childbirth (FOC) or what has been historically referred to as tokophobia, a phobic state where a woman avoids childbirth despite desperately wanting a baby (10). Some women avoid becoming pregnant, others opt for abortion (11). Fear of childbirth is also known as fear of vaginal delivery. Almost every pregnant woman is at least a little bit nervous about delivery, which is a normal reaction to an unknown situation (12). It is known to complicate the delivery process and demand cesarean-section and 6-10 percent of women experience an intense fear of labor and birth (10). FOC is actually considered a classic phobia. According to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), phobia is a type of anxiety disorder which is usually defined as a persistent fear of an object or situation from which the person strongly tries to keep away. Owing to anxiety, the mother has problems in concentrating on all her activities (13). Researchers have found numerous factors that lead to fear of childbirth, including low self-esteem, pre-existing mood disorders, lack of social support, history of pain sensitivity abuse, woman's personality and prior negative birth experience (14-16). It is clear that causes of fear of giving birth among parous women compared to nulliparous are not the same (14). With regard to his study, Stoll (17) stated that fear of childbirth among these non-pregnant adults is not based on previous direct experiences but results from vicarious birth experiences such as stories told by family and friends, school-based reproductive health education and media depictions of pregnancy and birth. Therefore, understanding the causes of childbirth fear is critical in any society, because it affects normal delivery process and the mothers' psychological state, particularly increasing anxiety (18). Another problem is that the majority of available resources concerning pregnancy anxiety and fear of childbirth are quantitative and are intended to test the methods that may reduce anxiety or fear level and its complications in pregnancy. However, the real provoking factors and dimensions have been neglected in most of them and no study has been conducted in Iran in this regard so far (19). Therefore this study was conducted to explore components and dimensions of pregnancy anxiety.

2. Material and Methods

2.1. Design and selection criteria

The current study was conducted with anxious mothers referring to healthcare centers in Tehran during 2015 using a qualitative approach (conventional content analysis). This method was selected to describe the experiences of subjects and to explain their emotional reactions (20). Researchers selected Iranian mothers from different ethnic, racial and socio-economic groups. Inclusion Criteria in this study were: having spouse and singleton pregnancy, mothers who had not experienced any kind of mood disorders in themselves or their blood relatives, lack of burdensome accidents during the past 6 months, lack of chronic diseases such as cardiac diseases, thyroid, diabetes and adrenal disease, their current pregnancy was not classified as high-risk gestation and those who preferred cesarean -section.

2.2. Data collection and interviewers

Data was collected through individual in-depth semi-structured interviews with 28 women who were selected using purposive sampling. In order to include the participants in the study, the Spielberger state-trait anxiety inventory was used and anxious mothers whose scores were in the range of 20-80 entered the study. The interviews were conducted in a quiet environment from May to December, 2015 and each lasted 20 to 45 minutes or 30 minutes on average. The interviews began with a general question: "How do you feel about childbirth?" and gradually progressed to specific negative experiences and fears about childbirth based on the interview guide. Each interview was digitally recorded. At the end of each interview, every participant was asked to express anything left untold.

2.3. Data analysis, reliability and validity

Data extraction process was a systematic procedure as follows. After each interview, the recorded information was carefully listened to within the shortest possible time and afterwards, the recorded interviews were transcribed verbatim and then data analysis was begun. The major content analysis step was selection of unit of analysis (21). In current research, the whole text of each interview was considered as the unit of analysis and then the semantic units present in each text were identified, extracted and compressed and then transformed to codes. Then, each group of codes with similar concept and meaning was summarized into a single code. It should be noted that in the coding process, both explicit and implicit contents were taken into account. Finally, the codes were categorized according to their common aspects and those categories conveying a common concept formed a single theme. In order to confirm the accuracy and reliability of findings of this research, we used credibility, dependability, confirmability and

transferability. In addition, for further verification of the extracted content, a number of interviews were coded and returned to the participants to identify the extent of achievement of the predetermined objectives through the participants' reviews. In the same way, dependability of findings was examined by coworkers' reviews (PhD students of reproductive health and clinical psychology) and the members of our research team. In order to ensure confirmability, the researcher attempted not to include her assumptions in the process of data collection and data analysis. Data transferability was accommodated through review of findings by 5 pregnant women who did not participate in the process of research. Regarding transferability of current research, we tried to provide a comprehensive description of the existing background and culture, participants' characteristics and their selection, data collection and analysis methods along with some examples from the participants' statements (22).

2.4. Ethical considerations

The study was approved by the ethics committee of Shahid Beheshti University of Medical Sciences, Iran (Ethics Approval number: SBMU.PHNM.1394.227). Participation in the study was voluntary and based on informed consent. The place and time of the interviews were selected by the mothers. Participants were informed that information collected was confidential and they were also informed of their right to withdraw from participation any time without prejudice.

3. Results

3.1. Sociodemographic characteristics and general findings

Twenty-eight women with a history of anxiety and fear of childbirth participated in the study. Other characteristics of the participants are presented in Table 1. After specification of concepts, basic codes were extracted from the interviews. The codes were reviewed, summarized, and classified according to similarities and appropriateness, and then, the primary categories were identified by revising and comparing the internal meaning of the classes. The primary categories were termed as either conceptual or abstract depending on their nature. According to mothers' perception, fear of childbirth originated from four categories (Table 2).

3.2. Childbirth process

This category was the first category in this research. It is clear that pregnant women consider childbirth to be a painful, prolonged and overwhelming experience which requires an excessive amount of power, energy, and support. They can unequivocally conclude that normal delivery is troublesome and they lack sufficient self-confidence to tackle it. For instance, a master student who was a 29 year old mother commented accordingly "from my standpoint, delivery means pain, fear and fear of pain." And an employee who was a 29 year old woman said "vaginal delivery could be very painful, and prolonged, so I prefer operational delivery. I have been thinking about this problem since the early days of my pregnancy but now I think that I am scared of delivery and tell myself I cannot have any control and tackle it, I do not have enough strength to do that, I may die during normal delivery and cannot pass through it." Another important problem from mothers' viewpoints was the need for support and avoidance of loneliness. A 28 year old female engineer who was pregnant believed that "loneliness during labor is very stressful." And she continued "I am always afraid that I will be on my own during my labor and at my delivery time that my mother or my husband will leave me alone. Fear of incompetency and the need for emergency cesarean section were among other problems related to normal delivery. A 22 year old housewife said "I ask myself that what will happen if I tolerate its severe pain and cannot give birth? Can I have normal delivery?

3.3. Childbirth time

Childbirth time along with its concerns and fears was another main category in this study. A pregnant woman always asks herself "what time would my delivery be? Do I get to hospital on time? What happens if preterm labor treats me?" We see such doubt in their stories about childbirth time. A 32 year old housewife said in this regard "I am afraid of preterm labor because I have experienced that before, when I was admitted to hospital. I am afraid that it may happen again, and may the health of the child I am carrying will be at risk. Fear of unknown delivery time was another notable problem in this study so that some mothers had engaged their minds with it. A faculty member, a 39 year old woman told us, "The time of vaginal delivery is not clear. It may take place at any time, night or morning, you don't know the exact time, or who will be there to help you". Fear of late arrival to hospital was another anxiety-provoking factor for pregnant mothers so much so, that they mentioned it repeatedly in their interviews. A 28 year old woman who was an engineer sadly stated, "I am permanently anxious and ask myself what will happen if I don't arrive at hospital on time? What may occur if arrive late and my amniotic sac ruptures, or my husband is not at home, or he arrives late. No one will be at home to take me to hospital."

Table 1. Sociodemographic characteristics of participants

no.	Gestational age (week)	Age (year)	Education	Occupation	Years of marriage	Number of pregnancy
1	24	24	Midwifery student	Student	3	1
2	18	35	High School	Housewife	2	4
3	36	25	High School diploma	Housewife	8	1
4	16	24	Nursing student	Student	10	1
5	22	24	Bachelor degree	Housewife	5	1
6	35	22	High school	Housewife	14	2
7	6	24	High School diploma	Housewife	5	1
8	34	32	Bachelor degree	Housewife	18	1
9	26	39	PhD	Lecturer	22	1
10	8	35	Bachelor degree	Employee	15	2
11	16	23	Bachelor degree	Translator	4	1
12	38	28	Master degree	Employee	4	2
13	28	27	Bachelor degree	Teacher	7	1
14	9	29	Master degree	Engineer	9	1
15	23	32	Master degree	Employee	10	2
16	26	22	High School diploma	Worker	4	1
17	38	19	High school	Housewife	1	1
18	33	24	Primary school	Housewife	3	4
19	20	25	High school	Housewife	5	1
20	26	23	High School diploma	Housewife	2	2
21	38	26	High School diploma	Housewife	14	1
22	33	20	Bachelor degree	Employee	5	2
23	20	22	Primary school	Housewife	4	2
24	26	37	High School diploma	Housewife	10	4
25	20	25	Illiterate	Housewife	4	1
26	18	41	Primary school	Housewife	25	5
27	36	24	Bachelor degree	Teacher	5	2
28	30	30	High School diploma	Housewife	10	2

Table 2. Main categories and sub- categories of the theme "Fear of childbirth"

Categories	Sub-categories
Process of delivery	Fear of pain
	Prolonged labor
	Loss of control
	Being left alone during delivery
	Fear of own incompetency
Time of delivery	Fear of preterm labor
	Fear of unambiguous delivery time
	Fear of arriving late to hospital
Delivery complications	Fear of bleeding
	Fear of death
	Postpartum depression
	Genitalia injuries
	Fetus health problems
	Delivery accidents
Health care quality	Hospital facilities
	Lack of trust to maternity staff
	Lack of trust to obstetricians

3.4. Childbirth complications

The third category in this study was about possible severe consequences of normal delivery. Mothers are always anxious about neonate's injuries and their well-being after childbirth. So they may keep thinking about delivery

risks. This finding was explored in our study as well as other works conducted by other researchers. Fear of bleeding and fatality were among such consequences. A 24 year old housewife with a prior history of postpartum bleeding said, “I experienced severe bleeding in my last delivery and my chest was painful. I am afraid it may happen again. I think about “what will happen if I go to hospital and never come back?” I keep thinking about this constantly. Mood changes and postpartum depression were other areas of fear. A 22 year old housewife during her 36th week of pregnancy, whose relatives had experienced this disorder said “I am afraid of changes in my mood after delivery, and afraid of getting depressed, because I have seen some of my relatives that had post-partum depression and preferred to be alone.” Possible delivery accidents and injuries, particularly genitalia injuries, were frequently noted by mothers in this study. A 35 year old housewife who was overweight said "I am afraid that terrible accidents could take place during my labor. Unfavorable stories that have happened to others have affected me. I have seen some people who have experienced vaginal delivery and have had genitalia prolapse and vaginal dilatation. Then, I ask myself “what can I do if these problems happen to me? Because of these problems, cesarean is better. I have heard some women saying that they have had many problems in their sexual functions. They said that normal delivery was not satisfactory.” Fetal health problems and fear of its injuries during labor was considered as one of the most important and perhaps first-ranking of fears from the standpoint of some mothers. A 29 year old pregnant woman stated "Sometimes, I think that they cannot deliver my baby by normal delivery without any problems, so what will happen if my baby is hurt during delivery.”

3.5. Healthcare quality

The fourth category in this study was dissatisfaction with healthcare services and inadequate facilities and equipment in public hospitals during labor and delivery. A 22 year old housewife who preferred to go to a private hospital because of her bad experience in her last pregnancy said, "In my previous delivery, I went to a public hospital and tolerated bad circumstances, so in this pregnancy I don’t want my previous experience be repeated." Many participants were anxious and dissatisfied with the staff skills, behavior and responsiveness, and believed that healthcare providers did not respect their dignity and rights when receiving care. The situation was even worse in medical educational hospitals. As a result, lack of trust in maternity staff was notable. A 35 year old housewife stated, "in my last delivery in a public hospital, the staff were not specialists and their relationship with clients was not satisfactory. Lack of trust in obstetricians was reported repeatedly by the participants. Fear of making mistakes in their diagnosis and procedure was seen. Another important question in the minds of mothers was, would they come to visit her on time? or is she adept enough? A 28 year old employee in her first pregnancy and without any prior experience said, “It is very important to select a good doctor because sometimes doctors are not committed or professional. I have heard that in public hospitals you don’t have any choice and any doctor may attend, so I am really anxious."

4. Discussion

It is believed that the information about experiences of mothers in their pregnancy and how it affects their psychological health is not enough or acceptable. So, it is important to explore local evidence regarding women’s psychological problems in pregnancy. With respect to the findings of our research, it is clear that a mothers’ anxiety arises from a sense of uncertainty about the forthcoming process of pregnancy and delivery h and they are not sure if they will go through the process of giving birth without any complications (23). This uncertainty may originate from the risks associated with pregnancy care, support and childbirth process management. Therefore, fear of childbirth was focused on four categories in our study: Fear of delivery process, delivery time and delivery complications and healthcare related fear. Rouhe (13) categorized fear of childbirth into fear of pain, social background, prior negative childbirth experience, history of abuse and violence, horror stories, personality, social support and mental health problems.

4.1. Fear of childbirth process

It was the first extracted category in our study to which had been referred to in many studies (24, 30). Nilsson (24) in her paper titled “lived experience of childbirth in women with severe fear of childbirth” found that in nulliparous cases, women feel uncertain of their ability to bear and give birth to a child and in multiparous cases, they described their experiences of suffering in relation to the care they received during childbirth. This mainly concerned pain and negative experiences with staff. Salari (25) in her paper as “stressful factors in pregnancy” showed that fear of pain, being left alone during delivery, feeling of incompetency and need for emergency caesarean were the most important factors of a stressful pregnancy. Theresa, (12) in his study, demonstrated that fear of childbirth was observed among 16 % (27/169) of women with poor social support, 33 % (24/73) of women with combined anxiety and depression, and 28 % (20/72) of women with a previous negative overall birth experience which were all

followed by poor social support. Also, giving birth for the first time and a high educational level were associated with fear of childbirth. Faisal (26) believed that labor pain and fear of one's own incompetency (65%) were some of the important factors of fear of childbirth. Findings of Abbaspoor (27), Khorsandi (28), Sjorgen (29) and Szeverenyi (30) were also consistent with our findings. Accordingly, we can concluded that fear of delivery process is mainly dependent on fear of pain , thinking about inability to give birth and request for emergency cesarean –section. Otherwise, in all cases, mothers had low self-confidence for normal delivery. Obviously, development of painless delivery methods in all maternity wards and hospitals, and acquainting women with their potential for normal delivery play critical roles in controlling fear and anxiety in pregnant women.

4.2. Time of childbirth

This was the second category in this study. Although EDC is estimated in the majority of pregnancies, a great deal of deliveries don't occur at a certain time and sometimes, preterm labor happens. Another problem is that delivery may take place at night, in the evening or on holidays. Therefore, the exact time of delivery is not clear for mothers. Consequently, in our study pregnant women were concerned about this problem. This finding was consistent with that of Salari (25) regarding pregnancy stressors. She pointed out that preterm labor and fear of late arrival to hospital are among prominent factors that concern mothers about normal delivery. Sereshti (31) in her study concluded that lack of access to a physician or to suitable healthcare on holidays were concerns about prenatal services for pregnant mothers. As a result, it is clear that in many cases fear of delivery time is due to uncertainty about receiving care or services at any time and lack of support and assistance whenever necessary. It seems that reassuring pregnant women in this field is necessary and we should point out that a husband's help and involvement has a unique role in decreasing a mothers' anxiety.

4.3. Childbirth complications

The third category in this study was concern with delivery and its unpredictable consequences, which was classified into five subcategories including: fear of bleeding, fear of death, postpartum depression, delivery accidents, genitalia injuries and fetal health problems. In fact, delivery is a unique physiological experience during the women's journey of life, however, sometimes adverse consequences are inevitable that can be seen in the stories told by women. Injury to the mother or her neonate and complications after vaginal delivery such as vaginal prolapse, urinary incontinence and sexual dysfunction were the main findings in the studies conducted by others (23, 25, 28). Khorsandi (29) in his study wrote that fear of inflicting injuries on the neonate and causing defects in the baby were the most important factors for selective cesarean demand. Szeverenyi (31) reconfirmed it and expressed "definite assurance of maternal and child health is one of the most important pillars of labor and delivery, and if the mother cannot ensure sufficient trust and confidence in this field, the outbreak of fear and anxiety for her would be inevitable.

4.4. Healthcare quality

It is clear that how mothers feel about safe delivery, and their well-being completely depends on the gynecologist, staff and the environment of the hospital. We can see pregnant women's respective concerns in their statements. Fasial (26) believed that anxiety about the delivery was related to lack of trust in the obstetrical staff (73%), maternity ward staff's relationship with mothers and the level of hospital. In Salari's (25) study, fear of hospital facilities and staff and their contact was notable. Khorsandi (29) in her study, found that fear of hospital environment, healthcare quality, injection and loneliness were the main factors of childbirth fears. Sjorgen (30) believed that mothers do not have enough trust in maternity staff and their interventions. Sereshi (31) found mothers' perception of quality of healthcare services in their study. She stated that many participants were dissatisfied with the care provided in the hospital during pregnancy and afterwards for the following reasons: being left alone, not being referred to centers with better equipment, no follow-up visit, and lack of appropriate action in emergency cases. She continued 'lack of understanding of the mother's situation and poor communication of the treatment team at the obstetrics and gynecology departments worsened the mothers' problems and intensified their distress. So it is clear that maternity staff should be re-educated on observance of medical ethics and professional rules in their practices, and change their attitudes and behavior towards clients to reduce pregnant women's fear and anxiety all over the world. Generally, as fear of childbirth includes negative attitudes toward labor and increases the risk of prolonged labor, the need for pain relievers (16), dystocia, PTSD (11), postpartum depression, mother and neonate bonding problems and request for selective CS (29), early assessment of mothers, particularly their fears and concerns, is necessary .

4.5. Strengths and limitations of this study

4.5.1. Strengths of the study:

Of the strengths of current research we can refer to its uniqueness in terms of its methodology and subject matter that will dramatically help to clarify dimensions of pregnancy fear and anxiety in Iranian women from different ethnic groups.

4.5.2. Limitations of the study:

Among the limitations of this study we can refer to lack of participation of mothers with high risk pregnancies that may keep dimensions of fear and anxiety from being manifest in all pregnancies.

5. Conclusions

The findings of this study highlighted that the main causes of maternal anxiety about childbirth are due to fear of damage to mother and baby and lack of trust to the quality of maternity care and staff commitment. Consequently, concerning the results of this study, it is necessary to revise prenatal care services in order to develop prenatal education, support and coping strategies, and to enhance women's knowledge and confidence about childbirth to reduce their pregnancy anxiety and fear of childbirth. Reorganizing and equipping obstetrics wards with proper facilities and equipment, especially in public and training hospitals, providing better services on holidays, evaluating and changing maternity care policies and staff's attitude toward clients is recommended. Finally, more research in this area is proposed.

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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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